



**BRAVEHEART®**  
22-DAY FLYING TOURBILLON  
6 TIMES PATENTED  
FULLY INTEGRATED CONVERTIBLE CASE  
[WWW.BOVET.COM](http://WWW.BOVET.COM)

**BOVET**  
1822

*The Legend*



*by David Chang*

## Dear Connoisseur of Fine Watchmaking



The book that I have the honor of prefacing is probably the most exhaustive work ever written on the extraordinary historical heritage of our Maison. Far more than just a meticulous catalog of the various artistic styles and crafts we have harnessed, or the numerous technical innovations that have punctuated two centuries of history, this book reveals the unmistakable passion that drives those who have defined the finest haute horlogerie since 1822.

As you leaf through this book, you will discover how our Maison became a point of reference for fine watchmaking, not just in terms of decorative arts and technical features, but also for its philosophy focused on a long-term vision and a constant quest for perfection.

It is therefore not surprising that it includes the names of the most illustrious watchmakers, artists and cabinetiers, who combined their talents to embellish one of the finest pages of watchmaking history, as illustrated by today's most superb private and public collections.

As testimony to our past and a true participant in the history of art, this unparalleled heritage constitutes the greatest source of inspiration for our future. Since every Maison has a soul and the values of fine watchmaking remain the same, we continue to perpetuate the incomparable expertise of our craftsmen from generation to generation.

As such, since acquiring BOVET in 2001, the same energy generated by this passion encouraged me, in 2006, to simultaneously purchase the DIMIER 1738 movement and dial Manufactures, as well as the Château de Motiers, which belonged to the Bovet family between the 19th and 20th centuries.

Under Bovet,  
hand-engraving,  
enameling and miniature  
painting reached an  
unrivalled degree of  
refinement

Thanks to these acquisitions, BOVET 1822 was able to produce the components required for both its timepieces and movements in-house, in all their complexity, for the first time in its history. This includes the artistic and decorative crafts, as well as the production of traditional balance springs, which fewer than 10 brands are able to manufacture today. Far more than a simple integration or verticalization strategy, these acquisitions meant that I could offer our craftsmen a world without limits that oscillates between their talent and excellence. They also represent another concept, which is all too often forgotten today and yet is central to true haute horlogerie: time. The time required to reach and push back the limits of perfection, and the time needed to produce flawless finishes.

Upholding the same values, it is in this environment that we have combined our passion for fine watchmaking for two centuries to produce the noblest expressions of time. David Chang has managed to capture this passion perfectly in this book, with a meticulousness and rigor that is in perfect harmony with the soul of our Maison.

*Château de Môtiers, Monday, January 9, 2015.*

Pascal Raffy



Owner of BOVET 1822  
& DIMIER 1738



# Contents

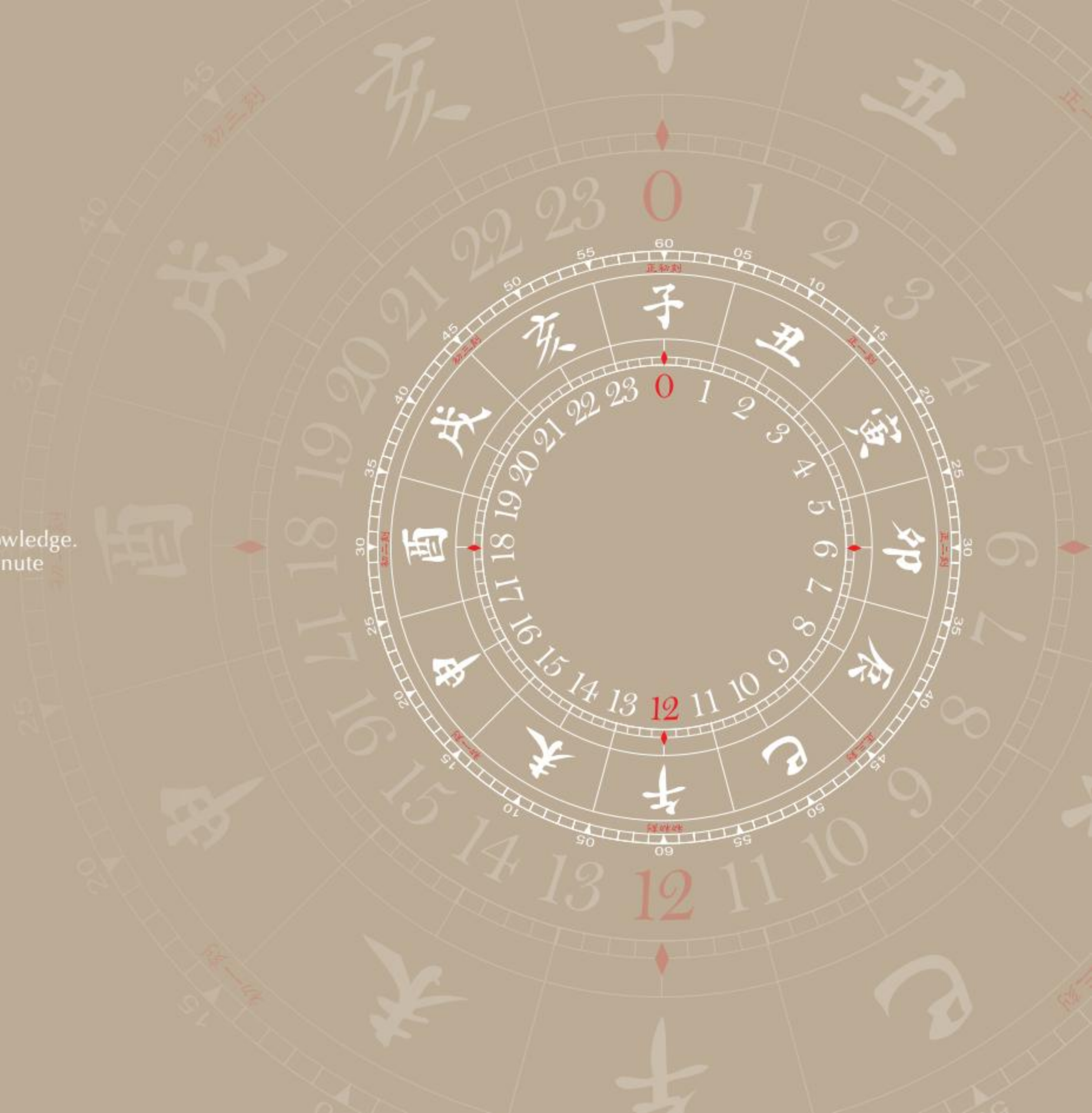
	<b>Establishment of the Bovet dynasty</b>
8	<i>Journey from the West : watch and clock trade In China during the Early Qing dynasty</i>
12	<i>English clocks – the first in China</i>
17	<i>Guangzhou – a mecca for horologist</i>
20	<i>The rise of traditional Chinese-style watches</i>
22	<i>The beginnings of the Bovet dynasty</i>
	<b>The new favorite of China's Imperial family</b>
32	<i>The Bovet family in China: the golden age</i>
35	<i>Bovet in China: the second generation</i>
38	<i>The Bovet brothers return home</i>
40	<i>Bovet's specially-tailored Chinese market watches, and the Bovet China hallmarks</i>
46	<i>Elegance for the East: Bovet refines its Chinese market watches</i>
48	<i>New blood at Bovet</i>
	<b>The King of the Chinese market watch</b>
52	<i>Turbulent times at home and abroad</i>
57	<i>From Guangzhou to Shanghai</i>
59	<i>The Hantali Clock Company, and Bovet watches</i>
62	<i>The fate of the family business</i>
64	<i>Characteristics of Bovet's Chinese market watches</i>
	<b>The secret of movement, case and enamel</b>
70	<i>A variety of movements</i>
72	<i>Basic structure and select materials</i>
74	<i>Innovative decoration</i>
76	<i>Simple and complex shapes</i>
80	<i>The many types of escapements</i>
83	<i>Case details</i>
88	<i>Dial design</i>
91	<i>The charm of enamel</i>
92	<i>The origin of enamel art centers</i>
94	<i>The development of enamel watches</i>
98	<i>The art of enamel watches</i>
102	<i>The gem of enamel watches – the China watch</i>
106	<i>Bovet enamel watches</i>
	<b>Bovet pocket watches</b>
116	<i>The imperial art of watchmaking</i>
126	<i>Pascal Raffy's private antique Bovet collection</i>

1814–1822

Establishment of the Bovet Dynasty

These clever objects originating in the West bring knowledge.  
The wheels inside turn continuously, and every minute  
the hand advances.

*Emperor Kangxi*



# Establishment of the Bovet Dynasty

## Journey from the West: the watch and clock trade in China during the Early Qing Dynasty

Clocks and watches were brought into China through various means in the centuries preceding the modern era—some were offered in prized tribute or as gifts from Western nations, but the principal source was trade. And yet, there was much more to the Chinese watch market than the mere importation of timepieces. As the Chinese watch market evolved—an evolution which took place over a period, not of weeks or months or even years, but of centuries—timepieces came to reflect the influence of Chinese tastes, needs and preferences. The design of watch movements, the type of escapements used and the decoration were all tailored to appeal to Chinese buyers. Almost as soon as regular trade by sea was established between Europe and China, clocks and watches became coveted and highly-treasured imports—and the passionate interest of Chinese connoisseurs inspired horologists, craftsmen, and artists half a world away to make some of the most extraordinary mechanical and decorative objects the world has ever seen.

In his 1902 work *Historic Macao*, Carlos Augusto Montalto de Jesus relates how Portuguese merchants brought English-made clocks to Guangzhou (so-called Canton) to trade during the late Ming Dynasty (1368–1644.) In 1685, the 24<sup>th</sup> year of the reign of the Kangxi Emperor (the second Emperor of the Qing Dynasty) customs houses were established in Guangdong, Fujian, Zhejiang, and Jiangnan, to oversee trade. The Guangdong (Guangzhou) customs house recruited 13 powerful businesses—known as the “13 Factories”—to represent foreign merchants (the actual number would vary in later years but they were always known collectively as the 13 Factories).

Whenever foreign traders wished to buy or sell goods, they had to go through the Factories—and equally, if they wished to pay taxes, give gifts, or petition the government, the 13 Factories were essential intermediaries. The British began trading in Guangzhou in 1689, and after the East India Company was established in 1715, clocks and watches began to be imported almost immediately.

Right from the very beginning, demand in China and from the Imperial Court was enormous. Governor-General Yang Lin mentioned in a 1716 address that the English ships had brought “self-sounding bells” and other goods such as watches and chiming clocks. (“Self-sounding bell” is from *zimingzhong*, the term coined in China for chiming clocks.)



Emperor Kangxi (reigned 1662–1722)



Emperor Yongzheng (reigned 1723–1735)

These prized luxuries procured through trade from the late 17<sup>th</sup> to the mid-18<sup>th</sup> century were the prerogative of the Imperial Court, government officials, and wealthy merchants—the elite of Chinese society, who were the most deeply steeped in traditional Chinese culture. French clockmaker Valentin Charlier, who arrived in China in 1738 and had been in the Emperor’s service, described in a letter dated 1736 (the first year of the Qianlong Emperor’s reign) how “...the Imperial Palace is full of European clocks, various types and sizes of watches, and carillons, all made by the best craftsmen in Paris and London. There are over 4,000, and I have cleaned or repaired most of them.” Think of it—already in the early 18<sup>th</sup> century, the Imperial collection comprised over 4,000 watches and clocks of every description—and this, at a time when watches and clocks were still extraordinarily rare and expensive even in Europe.

During the Qianlong period trade in clocks and watches began to increase, partly because of the Emperor’s personal fondness for them; he purchased them directly from the customs houses. In 1749 the Emperor ordered the Governor-General of Guangdong and Guangxi to ensure that certain items—among them, clocks and watches—were of the best foreign make, saying they had “. . . in the past imported clocks, watches, and lacquerware that were foreign-made and Chinese-made, but that in the future all clocks and watches, gold and silver silks and satins, and fine carpets, must be foreign-made.” In 1757 a government decree was issued, making Guangdong the center of trade for all clocks and watches. Guangdong Customs House was responsible for collecting taxes and managing foreign merchants through local Factories and the Emperor continued to urge the Customs House officials to spare no expense in obtaining the very finest clocks, watches, and other luxuries from abroad, with an avidity shared by many of his contemporaries and subjects. So great was the Emperor’s interest in magnificent European timepieces that he specifically instructed that was no limit to how much he was willing to pay for them.

“When buying clocks, watches, and splendid foreign gold treasures for display,” he commanded, “silk cloths of gold and silver thread, or any sort of novelty, money ought never to be a consideration.”





Emperor Qianlong (reigned 1736–1795)

Officials and the wealthy also craved the best imported clocks and watches and bought them both for their own use, and to present as treasured gifts to the Emperor. Historian Zhao Lian (1776–1833), author of a widely read history of the Qing Dynasty, wrote about his contemporaries' tastes: "Today, self-sounding bells (chiming timepieces) made by Westerners are so remarkable that in Guangdong scholars and officials are rushing to buy them and place them in their homes as if they were toys." Gifts to the Imperial court could be very lavish—in 1778 Hai Cun, son of Guangdong Customs House supervisor De Kui, gave a total of 105 decorative objects—including "self-sounding bells"—to the Qianlong Emperor. When his diplomatic mission docked in 1739, George Macartney reported that several Chinese officials boarded ship to enquire whether there were any clocks or watches for sale on board, and when they learned that none were to be had, "they appeared disappointed and quickly left."

Contemporary records repeatedly mention the avid desire for these intriguing mechanisms among China's wealthy and aristocratic circles.

One example from history shows the preeminence of clocks and watches for Chinese connoisseurs and how they strove to outdo each other in the scope of their collections. Records tell us that in 1795 when merchant Shi Qiongguan went bankrupt, a full 15% of his assets—worth 222,650 taels, an enormous fortune in itself—was tied up in his collection of clocks, watches, and telescopes. So highly valued were clocks and watches that it wasn't long before they came to represent almost a form of currency in themselves. It was said of these Western goods that, "aside from being objects owned by indulgent collectors they were viewed in business as a type of special fund for bribes because many of them were eventually presented to officials and their staff as gifts." (H. B. Morse, *The Chronicles of the East India Company Trading to China*).

Portuguese historian José Maria Braga (1897–1988) once pointed out that every year, the Qianlong Emperor ordered between 30,000 and 60,000 taels-worth of clocks and watches—by the mid-18<sup>th</sup> century, the East India Company was exporting at least 20,000 British pounds-worth of clocks from London to Guangdong every year. As increasing numbers of clocks flooded into China, more descriptions of them began appearing in Chinese literature. In 1751, Yin Guangren and Zhang Rulin wrote in *Monograph of Macao*, "St. Paul's (a Jesuit college in Macao) has a (clock with a) dial with 12 *chen* (two-hour segments of the day) —open it up and wait until the hands of the clock advance, a toad will move and indicate the hour. There are several types of self-sounding bells: desk clocks and wall clocks. The small ones are round, like a silver ingot, and they all chime on time. They begin with one chime early in the morning, and twelve chimes at noon; then they begin again with one chime until they reach twelve again. Those with a melody are called musical clocks. If you want to know the time when it is not chiming, then pull the string, and it will sound; this is called a repeater. The small ones are also repeaters. Watches can be small like the Sundial."



1. Image of a woman twirling beads and watching cats: A beautiful woman is sitting in front of a round window, leaning gently on a table. One hand is gracefully twirling prayer beads as she contentedly watches two kittens at play. The image in this painting is very small and a complex scene is depicted through only half a window. However because the painter has used perspective, as in Western paintings, objects in the foreground, middle ground and background are neatly arranged and the artist has given the space a sense of depth and beauty. Next to the window the self-sounding bells are chiming, in the foreground the kittens are playing and time is passing imperceptibly.



2. Image of a woman holding a watch next to some chrysanthemums: A beautiful woman is holding a watch in her hand as she sits next to a table. On the table is a vase of chrysanthemums, indicating that it must be around August. The elegant chrysanthemums are among the favorite autumn flowers and symbolize loyalty and longevity. Because of their simple, graceful, natural beauty they are often used to adorn a woman's hair or to decorate a room. On the wall in the background hangs a Ming dynasty verse from Dong Qichang. Not far in the background there is a Western astronomical instrument, which, along with the watch in the woman's hand, indicates that Western objects were already becoming popular at court.

With demand continuing to grow, Western merchants became aware by the end of the 18<sup>th</sup> century just how lucrative it could be to trade in watches and clocks. Now, even officers from foreign ships began to bring clocks, watches, and music boxes to China. For instance, in 1783 Captain John Wordsworth brought over a pair of watches that could tell the time and play music. In the year 1791, the Guangdong Customs House imported 1,025 different self-sounding bells, watches that told time according to the traditional Chinese way of reckoning hours, and snuffboxes with inlaid clocks; in 1793, after the order came from the Qianlong Emperor to buy clocks, watches, and other mechanical novelties, the Customs House spent 100,000 silver taels.

1766 saw the publication of an important text, the *Illustrated Regulations for Ceremonial Paraphernalia of the Qing Dynasty*—an enormous compendium detailing protocols for court dress and ceremonial regalia. This work contains the first known illustrations in a Chinese text of self-sounding bells, and also mentions watches that tell time in the traditional Chinese fashion: “The present dynasty produces traditional Chinese-style watches and pays money for them, they are round... and inside are many gears; they all function like self-sounding bells but are smaller.” This shows that the Chinese had special names for clocks and watches quite early in the history of their importation to China.

With the trade in timepieces continuing unabated, the size and splendor of the Imperial and other collections increased and clocks and watches began to find their way not only into historical accounts, but into works of art as well. For instance, self-sounding bells and traditional Chinese-style watches appeared in court paintings; the most famous of which was completed sometime prior to 1732, which is known as “The Twelve Beauties of Emperor Yongzheng.” This artwork was commissioned by the Emperor to decorate a screen in his private study at the Summer Palace; two of its 12 panels feature self-sounding bells and a traditional Chinese-style watch.

## English clocks – the first in China

In the year 1773, French missionary—Michel Benoist—described in a letter two clocks that decorated the throne room of the Imperial Palace—and their rich appearance and prominent placement left no doubt as to the pride the Emperor took in them.

“The throne,” wrote Benoist, “is richly decorated with a variety of ornamentation, the majority of which was produced in Europe. Of all the decorative objects in the hall, what left the biggest impression on me were two medium sized clocks. The gold- and silverplated stands looked like intertwining branches of a tree. One clock’s stand had an elephant whose long trunk moved, and on the other side of the branches was a dragon. All of these decorations were made to look so real and lifelike that they gave the impression of living animals.”

The majority of clocks imported during this era were English, and there were many such timepieces in the Qing Imperial palace. Two factors were responsible for this: firstly, English watch and clockmakers were among the best in the world, and they worked very hard to cultivate foreign markets for their timepieces. Secondly, the British East India Company had a near-monopoly on trade in Guangdong. All of this helped to make English horologists sell their wares to affluent Chinese clients—and the frequency of trade enabled them to better understand Chinese preferences, especially the commercially critical tastes of the Imperial Family. Already a symbiotic relationship was developing, with the predilections of the Chinese market firing the imagination of European watch and clockmakers—and this trend was accelerated by the growing trade in imported timepieces.



*Various clocks housed in the Forbidden City, in Beijing*



James Cox's clock, described in *The Gentleman's Magazine* (Metropolitan Museum of Art Collection)

In the mid-18<sup>th</sup> century Swiss-made clocks and watches began to enter the Chinese market

When the British sent George Macartney to China in 1793 to ask the Qianlong Emperor to ease trade restrictions and allow a permanent British Embassy in Beijing, Macartney found many clocks by James Cox (1723-1791) at the Chengde Mountain Resort (whose name literally means "Mountain Villa For Avoiding The Heat") and other Imperial palaces and residences. George Leonard Staunton, secretary to Macartney, and his son George Thomas made similar observations. How did Cox become so favored at the Imperial court?

In December of 1766, the English *Gentleman's Magazine* published a description of two clocks that the East India Company had presented to the Chinese Emperor. Both are sculpted in the form of a young Chinese boy pushing a woman and a dog in a chariot. In her right hand the woman holds a small bird, with its wings spread, and in her left hand is a tube crowned with a small round box decorated with diamonds. The wheels of the chariot form the base of this fanciful and delightfully elaborate clock, and they actually turn. One of the two clocks is now in the collection of New York's Metropolitan Museum of Art. This sort of complex, intricately detailed and decorated mechanism appealed immensely to the tastes of the Emperor, his courtiers and officials, bringing them endless pleasure and earning Cox a brilliant reputation. Macartney himself contributed to the watch trade with China directly while traveling on the HMS *Hindustan* by selling 15 pairs of watches to the captain, William Mackintosh, for 2,399 British pounds; Mackintosh planned to re-sell the watches on his return to Guangdong.

But though English makers like Cox dominated the trade during this period, Swiss-made clocks and watches began to enter the Chinese market from the mid-18<sup>th</sup> century on.

Charles de Constant de Rebecque was a Swiss traveler and merchant whose trips to the Far East earned him the sobriquet *Le Chinois*, and whose letters are preserved in the *Bibliothèque de Genève*. In 1779 he visited China, returning again in 1783 and 1789. He spent most of his time selling clocks and watches in Macao and Guangzhou, where he stayed until 1793. After several extended periods in China, he was able to get a feeling for the preferences of his Chinese clients; in a letter dated January 19, 1784, he said that certain watches could not be sold because they were not part of an exact matching set (there being a strong preference for matched pairs of watches among Chinese clients). He also said he believed one or two sets should not exceed 15,000-20,000 francs in price.



Charles de Constant de Rebecque (1762-1835)





*Glass painting of the Thirteen Factories in Canton (late 18<sup>th</sup>-early 19<sup>th</sup> century, Huang Qing Chang Private Collection)*

At this time the center of clock making was slowly beginning to shift from England to France and Switzerland. By the late 18<sup>th</sup> century, lower labor costs abroad meant England was importing clocks from Switzerland and Holland that competed with high quality but expensive domestically-produced clocks. To make matters worse, the French Revolution had brought clock exports to continental Europe to a halt. As the Swiss and French clock and watch industries developed, England lost its advantage and the English style of watchmaking, which favored relatively thick, robustly made watches, began losing ground to the lighter, flatter, more fashionable—and less expensive—watches made in Switzerland and France.

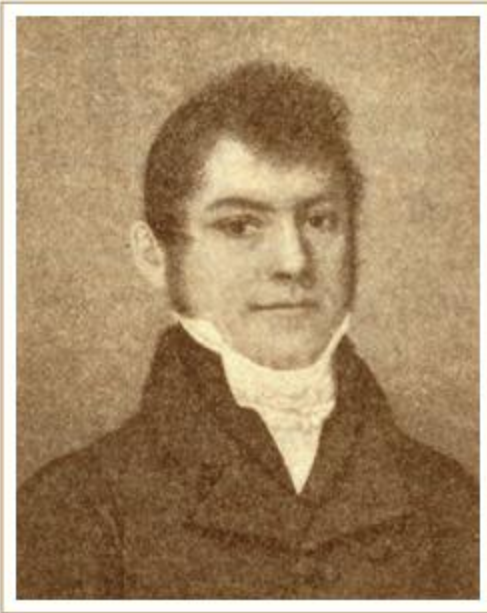
## Guangzhou – a mecca for horologist

James Cox's son Henry was drawn to Guangzhou in 1781 because of the city's unique role in the clock and watch trade. Two years later he set up a company, James Cox & Son, to sell the clocks, watches and decorative objects such as automatons that were so popular among his Chinese clients. A few years later, in 1787, Cox established a new company with Daniel Beale, naming it Cox and Beale. The company's name would change over the years as new associates were added.

By 1825, following the arrival and departure of several watchmakers, the company had become Magniac & Co (named for two French brothers—Charles and Daniel—who joined the company in the very early 1800s). By the time the firm began to wind down—the Magniac family had left China entirely by 1830—it had employed a number of European clockmakers, including the Swiss Charles-Henry Petitpierre, who had been a member of Macartney's diplomatic mission.



*Emperor Jiaqing (reigned 1796–1820)*



Edouard Bovet (1797-1849)

He was not alone. One of the watchmakers to work in the Magniac family business was none other than Edouard Bovet. "This is in fact the first mention of the name Bovet in the annals of European watchmaking in China." Bovet stayed with the Magniacs until 1822, when he and his brothers began their own family business.

While the Qianlong period represented a golden age for the watch trade in China, things would change during the Jiaqing period (1796-1820). This was a direct result of the Emperor Jiaqing's professed dislike for Western goods, especially luxury goods—perhaps an understandable reaction to the prodigious enthusiasm of the previous era. In the eleventh month of the fourth year of his reign, he said, "I never value novelties and don't care for fun but am naturally humble and modest. Cloth made from millet is provided to people by the earth, and all people must have it. As for clocks, they are only used to tell the time and common people do not have them, but do they need them to know when to rise in the morning and rest at night? There have been birds that chirp by themselves and other things, but they are useless."

In February 1815, the 20<sup>th</sup> year of Emperor Jiaqing's reign, Charles Magniac wrote a letter to his father lamenting the change, and saying, "Now there is no hope of selling clocks the normal way. We have already decided to sell the first three sets of clocks for 3,000 British pounds each, to be paid over two years with a monthly interest rate of 1 per cent, to Mai Jinting, Pan Changyao, and Jing Guan. We can be certain that these businessmen are laying out this money on buying them just to do us a favor, because for half the price... they could buy Chinese clocks." Things improved slightly after 1824, however, when the breakup of the East India Company's trading monopoly gave a general boost to business. Private companies began to establish themselves in Guangzhou, with the Bovet brothers' firm ranking among the most important. It was during these years that Switzerland and France gradually began to import clocks and watches into China. In the late 1830s, the increase in opium trafficking led to tense relations between China and England, which had a damaging effect on watch imports and trade in general.



Gilded heart-shaped dual time zone belt buckle watch, made by James Cox ca. 1770 (photo provided by Chen Mang)

After the 1842 Treaty of Nanking that signalled the end of the First Opium War, commercial activities resumed to some extent. Over 50 Europeans from the Swiss, French and German clock and watch industries subsequently arrived to settle in Shanghai, Tianjin, and Hong Kong, effectively weakening the role of Guangdong (Guangzhou) in trade.



Music box and clock with a chirping bird marking the chimes, made by the Rochat brothers ca. 1810

## The rise of traditional chinese-style watches

Following the spread of self-sounding bells during the Qianlong period, watches that told the time the traditional Chinese way (using a system of double hours) also began to enter the lives of the Chinese elite. In his novel *Notes on Western Qing*, Shen Chu (1729–1799) wrote, “Many officials, before going to court, put on a watch to keep track of the time. Before Chief Grand Councilor Yu Wenxiang eats dinner he has to write a memorial to the throne, and he must put his watch next to the inkstone, and look at it while he writes, wondering if he’ll be late.” This shows how important these traditional Chinese-style watches were for officials. Sometimes they were fastened to belts and worn as belt buckles. These portable timepieces flourished in a variety of forms throughout the 19<sup>th</sup> century and their construction adopted the Chinese method of reckoning the hours—just one indication of how clocks and watches continued to be tailored to Chinese tastes.

Clocks became increasingly common among the Chinese in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries. Whether for use by the Imperial family or high-level officials, clocks were everywhere. Decorative clocks such as music box clocks, automaton clocks and pocket watches were the height of fashion, and clockmakers such as William Ilbery (ca.1760–1839), Pierre Jaquet Droz (1721–1790), Philippe Samuel Meylan (1772–1845), Henry-Daniel Capt (1773–1841), Isaac Daniel Piguet (1775–1841) and brothers François Elisée Rochat (1771–1836), Frédéric Rochat (1774–1848) and Samuel Henri Rochat (1777–1854) made highly artistic, small-scale clocks and watches for the Chinese market.

Inspired by the success of Cox and Jaquet Droz, London-based watch and clockmaker Ilbery began to make pocket watches specifically for the Chinese market.



Pocket watch made by Ilbery for the Chinese market in 1815 (private collection)

Ilbery also drew inspiration from the Lépine movement developed by French clockmaker Jean Antoine Lépine (1720–1814), and not only did he use a free-standing barrel, he also fitted his watches with gilded, engraved movements, which became known as the “Chinese caliber”. As a result, the pocket watches he sold to the Chinese market set a new standard and he became known as the father of the China watch by all those who succeeded him. Ilbery’s works were characterized by their opulent decoration, especially when the cases were adorned with miniature enamel paintings of various subjects. He often worked with renowned Geneva enamellers, such as the celebrated Jean-Abraham Lissignol (1749–1819), Jean-François-Victor Dupont (1785–1863) and Jean Louis Richter (1766–1841).

Among the watches that found their way to the Chinese court, there is a pair of mirror-image enamel painted pocket watches of great historical as well as artistic value.

The polychrome enamel painting on the caseback of the two pocket watches are called *Affection & Innocence*, and they were painted in the early 19<sup>th</sup> century by the famous enameler Jean-Abraham Lissignol after the work of well-known Italian sculptor Francesco Bartolozzi (1727–1815). To this day they remain one of the most splendid pairs of mirror-image painted enamel pocket watches in the world. The watch cases were made by the famous 19<sup>th</sup>-century brothers Louis-David-Benjamin Oltramare (1781–1851) and Jean-Hugues Oltramare (1786–unknown). The case edges are encircled with pearls, and the serial numbers are 9703 and 9704. The unique movement is tri-colored, with blued-steel, mirrored steel and gilding, and the watches are quarter repeaters.

These pocket watches of rare beauty were made in 1815 and 1816 (the 21<sup>st</sup> year of Jiaqing’s reign) and were presented as a gift to Emperor Jiaqing in the name of King George III of England. Not only are they of great historical value, they are also still in beautiful condition. Their original presentation box is made of Moroccan goatskin, its lining stamped with the coat of arms of King George III of the House of Hanover. The watches also have a gold, enamel painted key for winding.

Among all of these notable Chinese watches and names of famous watchmakers, Edouard Bovet is of particular note as successor to the father of the China watch. Not only did he travel around the world to China, but the watches he produced for China set a new standard. The clock company he set up with his brothers became the most successful Swiss watch company in China at the time, and the family made its fortune there while creating a watch dynasty.



A pair of matching watches with mirror-image paintings presented to Emperor Jiaqing in the name of King George III of England (private collection)



## The beginnings of the Bovet dynasty

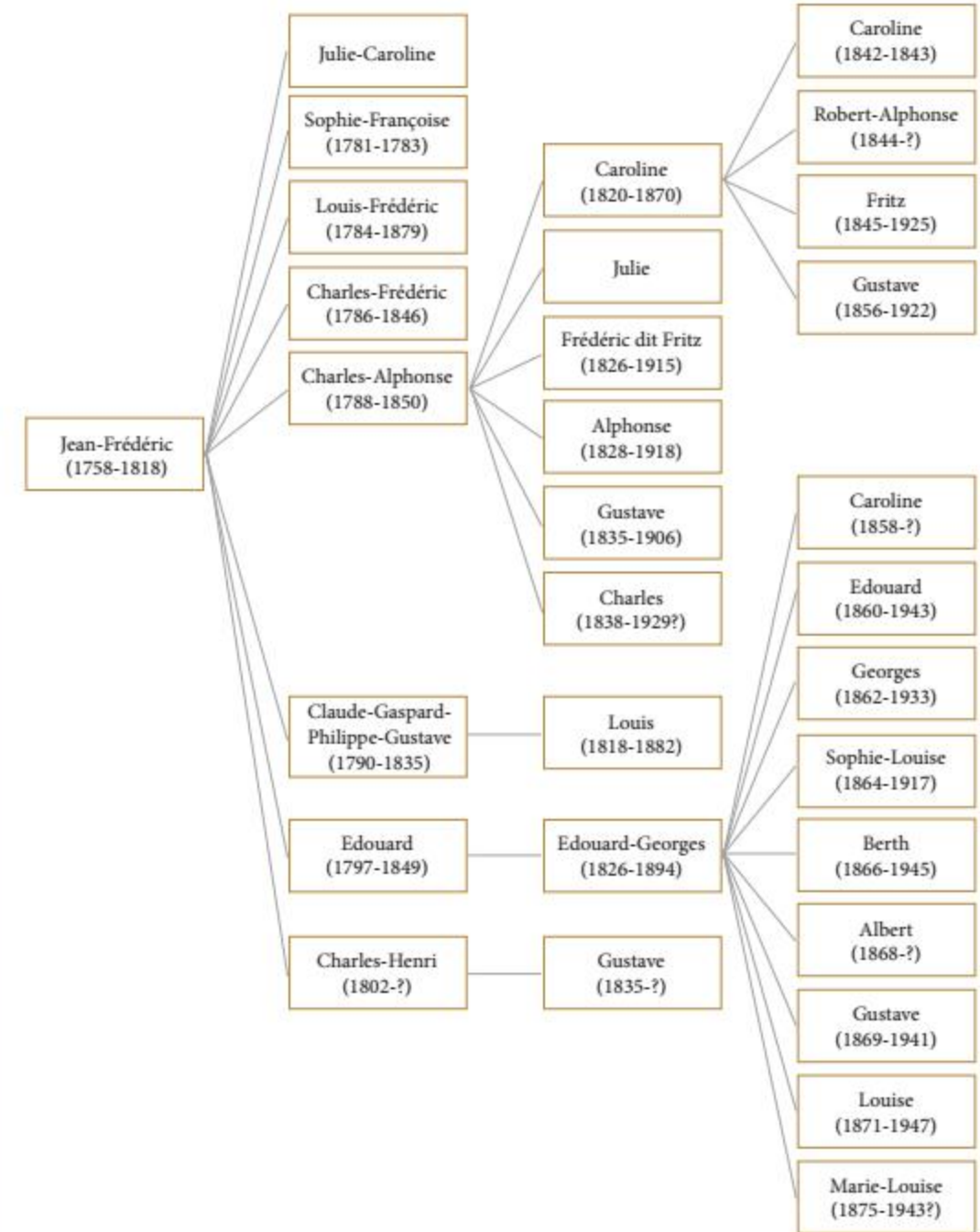
The Bovet family—whose name was to become synonymous not only with Chinese-style watches, but with watches in China in general—originally hailed from Fleurier, a small town in the western Swiss district of Val-de-Travers. Like many mountain villages, Fleurier is set in remote natural surroundings and it enjoys a long tradition of watchmaking that can be traced back to the middle of the 18<sup>th</sup> century. Records from 1730 (the 8<sup>th</sup> year of Yongzheng’s reign) show that David-Jean-Jacques-Henri Vaucher (1712–1786) was believed to be the first watchmaker in Fleurier, but by 1750 (the 15<sup>th</sup> year of Qianlong’s reign) the town had 15 clockmakers. Despite its relative remoteness, the enterprise of its inhabitants would make Fleurier watchmaking world-famous, and the name of Bovet one known across the globe.

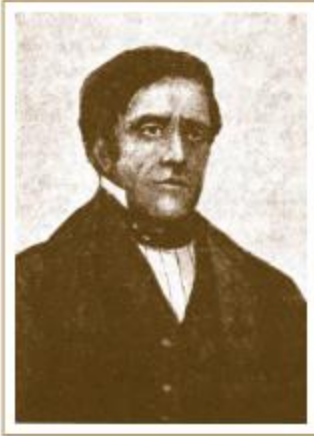
Napoleon’s trade protection policy, allied with instability in Europe, constrained the growth of Fleurier’s clock-making industry to some extent. Many clockmakers turned to other sectors or left their homes to develop new markets abroad. Among those who left were Charles-Henri Vaucher (1760–1865) and the Bovet brothers, who went to London because at the time it was a major hub for the import and export of clocks. William Ilbery, who produced pocket watches specifically for the Chinese market, was also in London and had already had contact with Fleurier watchmakers, as they made the movements for him that he used in watches for the Chinese market. Ilbery’s success inspired the Bovet brothers, who had also realized the enormous potential of the Chinese market. Between them, they opened the way for an endless flow of Fleurier watches to be sent into China.

Records show that Edouard Bovet’s father, Jean-Frédéric Bovet (1758–1818) was a clockmaker. His mother, Julie Yersin, gave birth to eight children, two girls and six boys. Edouard was described as “a chubby little fellow, by nature very active.” Growing up in a watchmaker’s family in Fleurier influenced the children, most of whom went on to study watchmaking. It was a craft that offered a stable career and a good living, but it’s unlikely that any of the Bovet family could have imagined how their art would eventually connect their family so directly to China, giving rise to a rich and unique facet of Swiss history.



Fleurier in 1810





Charles-Alphonse Bovet (1788-1850)



Julie Yersin

In 1815 (the 20<sup>th</sup> year of Jiaqing's reign) clockmakers Edouard and his brothers Charles-Frédéric Bovet (1786-1846) and Charles-Alphonse Bovet (1788-1850) were all in London, having left home due to the economic and political climate there. We know that in the early 19<sup>th</sup> century, Switzerland was severely affected by how closed off the Continent was, and the its clock industry was in danger. As we will see later, Edouard and his brothers were liberals who strongly opposed the Prussian government's rule over Fleurier (Fleurier is located in the Canton of Neuchâtel, and at the time Neuchâtel was under the control of King Frederic William III of Prussia). The three brothers sought work in London not only because the English capital was an important clock-making center at the time, but also because the political climate was quite stable. The situation was very different in France, for example, which was suffering in the aftermath of the Revolution and where the atmosphere was still quite turbulent; the situation would not improve until Napoleon left power.

In 1818 (the 23<sup>rd</sup> year of Jiaqing's reign), Edouard Bovet was sent to Guangzhou, China, by his employers Magniac & Co. He set off from Deal, England, on April 21<sup>st</sup> on board the East India Company ship the *Orwell*, many of whose crew members had received military training. The steamship went first to the Canary Islands off Africa, stopping at the largest island, Tenerife. From there, it rounded the Cape of Good Hope and headed eastward. The entire journey took four months from beginning to end. Edouard wrote about the voyage in his journal, describing it as a long and difficult trip.



Pocket watch made by Bovet London ca. 1835



Pocket watch made by Bovet Fleurier ca. 1835-1840  
(Museum of Art and History collection)

Throughout his journal, Edouard constantly compared everything he saw on the boat to what he knew at home. During the voyage he saw birds as small as sparrows but with red wings and blue tails, which he described as “Swiss grasshoppers.” To pass the time, he drank with the lively officers, taught the other passengers French and gave the officers fencing lessons. They sailed along the Indonesian coast before arriving in China, affording Edouard a far-off glimpse of the island Java, and he wrote about the cliffs with fascination. After passing Macao, on August 16, 1818 he arrived in Guangzhou. He was hugely impressed by the number of boats he saw on the Pearl River, which was so big he was sure that parts of it were even wider than the Thames in London. The spectacular sights sparked great curiosity in the 21-year old Edouard. Many years later, scenes of Chinese boats on the Pearl River were painted in enamel on a number of Bovet watches, and these were always among Edouard’s favorites.

However once on land, Edouard’s first moments in the Great Qing Empire did not leave him with a very good impression—he found himself disappointed by the areas that foreigners were allowed to visit. The area known as the Factories (during the Qing Dynasty they were called the Foreign Factories) had been built in 1748 (the 13 year of Qianlong’s reign). It was located on the north shore of the Pearl River, outside of the city, and was full of workshops. Despite the name, there weren’t actually any factories—it was a place for trading. The buildings were mostly European in style and it was a very picturesque area until 1856 (the 6<sup>th</sup> year of Xianfeng’s reign) when they were destroyed (Mélanie Didier, *The Thirteen Factories of Canton: A Story of Trade between Two Worlds*).



*Image of Chinese boats, from the memoirs of John Barrow, a member of Macartney’s diplomatic mission. Published in London in 1804 (private collection)*



*China watch produced circa 1840 with painted enamel depicting a scene from Huangpu Port in Canton (image provided by Antiquorum)*

Edouard found the area chaotic and thought it smelled unpleasant. He was astonished by the narrow streets, some of which were so constricted that it was difficult for people to pass each other. Even the widest street, China Road, measured no more than six meters across. Edouard did not like dense crowds. He also wrote about how Chinese people would always come and talk to him, always very polite, and inquire how he was doing. Even the first time he’d meet people, they’d speak to him as if they knew him. He also visited a ceramics factory and saw how the Chinese packaged tea, which turned his stomach.

He suspected that if English women saw how the workers walked on the tea leaves with their dirty feet, they would certainly never drink that tea. Little did he realize this was common practice. Of course, by that time tea was already in high demand in the West, and several members of the Bovet family were soon to become major players in this trade as well.

Aside from a few unfortunate incidents, we don't know much of Edouard's life in China. We do know that he was once attacked by three Parsis for having locked a passageway at the Dutch factory (the Parsis were Zoroastrians, originally from Persia, who migrated to the Indian subcontinent a millennium ago). He tried to prevent one of them from breaking the lock and threatened them with a sword but was disarmed by the other two. While calling for help, Edouard managed to escape and when the police alarm sounded, a Dutch captain came out and began hitting one of the Parsis with an umbrella. The other two turned on the captain to protect their friend and beat him with sticks so severely that he died a few days later from the injuries he had sustained. In another instance, Edouard got into an altercation with his Chinese cook over food. The cook had stubbornly prepared food that was too salty. In order to teach him a lesson, Edouard poured an entire container of salt into the food and forced the cook to eat it—clearly, his adaptation to Chinese culture was not without difficulties.

Edouard worked for Magniac & Co from April 1818 to May 1822, when he saw the opportunity to start his own business. He was at the center of the clock trade and Guangzhou was the only Chinese port city where foreign products could enter the country. Many clocks had already been imported into Guangzhou during Qianlong's reign, so there was already a good base for the clock and watch trade. Edouard's own experiences in China had shown him that there were great opportunities there for clockmakers. On May 1, 1822, together with his brothers Charles-Frédéric and Charles-Alphonse in London, and Claude-Gaspard-Philippe-Gustave (1790-1835) in Fleurier, Edouard established a company that would remain in the Great Qing Empire for nearly a century and would be unequalled in China.

On May 1, 1822, the Bovet brothers founded a company that would remain in the Great Qing Empire for nearly a century



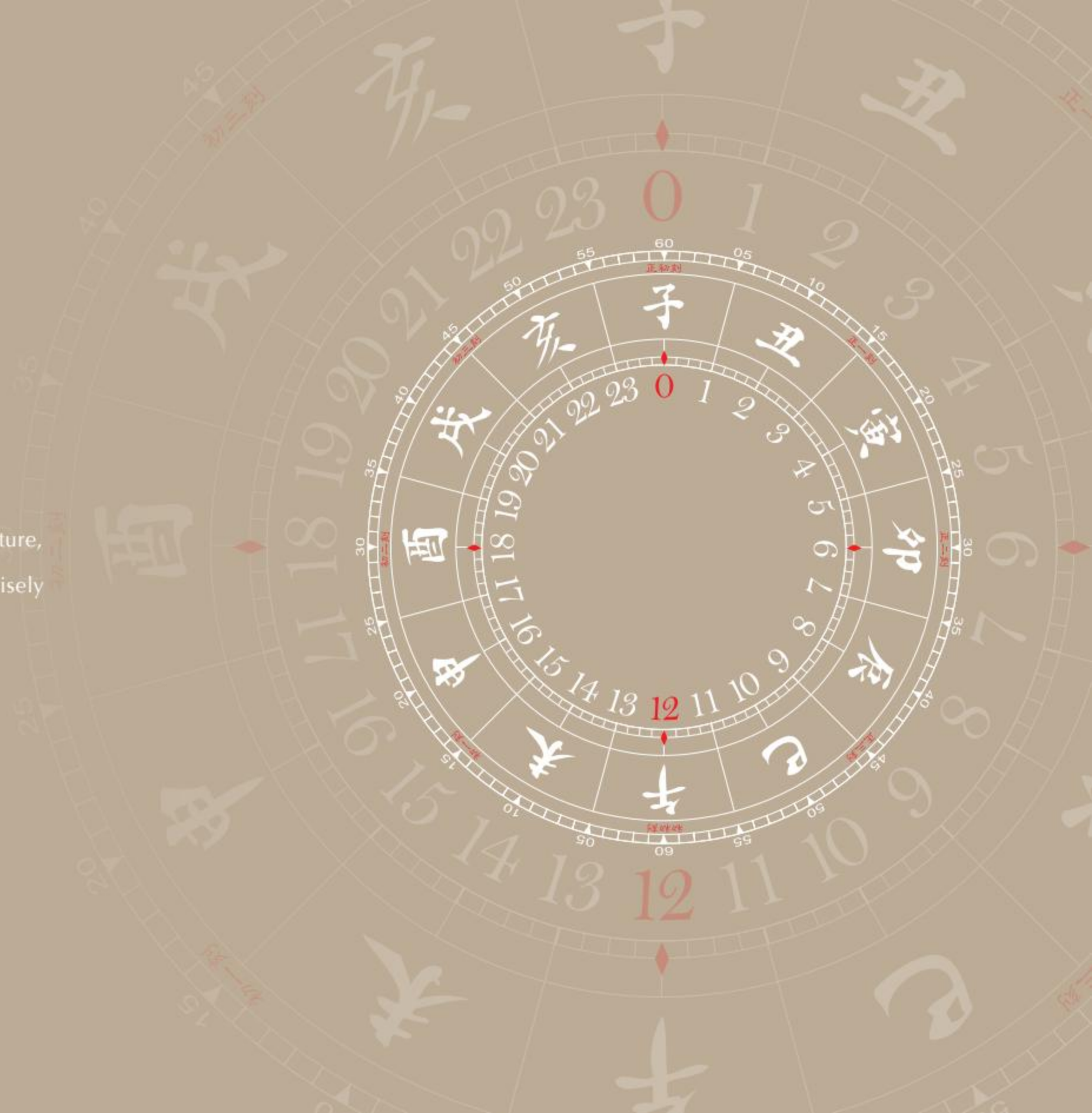
*The Factories located along the shores of the Pearl River*

1822-1842

The new favorite of China's Imperial family

Ingeniously made corresponding to the laws of nature,  
including both yin and yang.  
The gears turn in the dark, the hands point to precisely  
the correct time of day.

*Emperor Yongzheng*





## The Bovet family in China: the golden age

The original contract between the Bovet brothers is dated May 1, 1822. The contract stated that, as of 1820, all profit and loss from Swiss and English products would be evenly split. Pieces manufactured in Switzerland and London were sent to Edouard and recorded in the company's ledger. With the framework for their cooperation established, Edouard was on the front line selling their products to the market in Guangzhou, while Charles-Frédéric and Charles-Alphonse were responsible for production and transit in London, from their shop located at 31 Gerrard Street. Back in Fleurier, Claude-Gaspard-Philippe-Gustave naturally provided the main production force. Every year, watches were loaded on various ships leaving from England, and between the end of March and the end of July they would be sent to China.

This contract was established during the reign of Daoguang, during the Great Qing Empire. A dispatch to the Throne from 1829 (the 9<sup>th</sup> year of Daoguang's reign) requested the Emperor to ban foreign traders from selling goods prohibited by Qing law and thus diverting official funds abroad. It stated "every year foreign merchants bring in novel goods, to show off, such as musical instruments, self-sounding birds, organs and others too many to name." There was a constant flow of these intriguing novelties being brought into China from the West. In *Chongming Man Lu* Cai Hengzi stated, "During the Daoguang period, before the Self-Strengthening Movement (a period of administrative reform in China that arose in the late 19<sup>th</sup> century in nationalistic response to a number of military and diplomatic defeats) no place was without its foreign lace and foreign buttons. Many items were for decoration and made people look dignified, with a foreign air. Clocks and watches came from foreigners, and were better than those in China." There was a very marked taste for foreign products at the time, with novelty clocks and watches among the most sought-after objects.

According to information provided by researchers for the period 1820 and 1828, Bovet trade records between London and Guangzhou show that from 1820 to 1822, there were fewer watches sold than in the following nine years. So we can presume that in the early period phase of their business, Edouard and his brothers were still working for other companies. The records also show that sales increased rapidly from 456 pieces in 1823 to reach 820 by 1828, a significant rise in just five years.

A total of 3,817 watches were sold to China during those eight years, while 312 were sold in London—meaning that London represented only 8% of their market. The first batch of merchandise sent to China was made up of watches priced at over 20 British pounds apiece. As time went on, lower-priced watches costing under 10 pounds and even inexpensive watches (priced around four pounds each) also began to be exported to China. Expensive watches continued to be sold but they were made to order—particularly for the Chinese Imperial family—so these items had more rarity value.

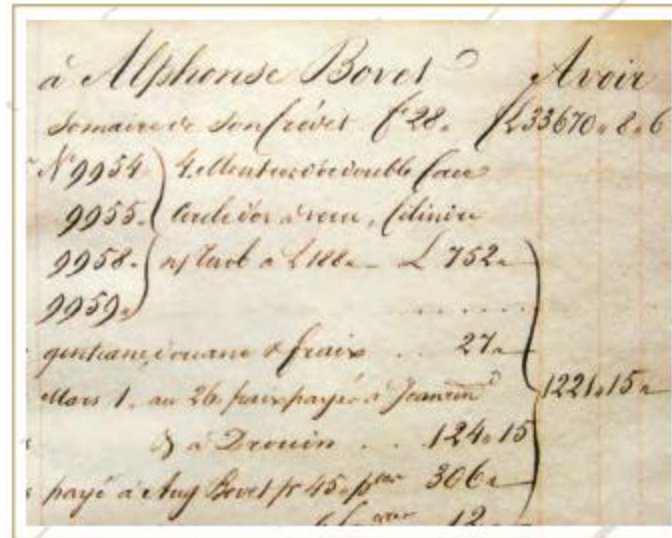
Edouard was on the front line selling their products to the market in Guangzhou

From their earliest handmade productions up until 1823 (the 3<sup>rd</sup> year of Daoguang's reign) when they established their company in China, the Bovet brothers were building a true family enterprise, amassing large sums of capital and creating their own timepiece empire. From 1820 to 1828 they generated a huge amount of revenue, totaling as much as 6,351 British pounds (approximately equal to 30,000 silver dollars. At the time all trade in Guangzhou had to be carried on in British pounds, although the currency of trade was the Spanish dollar, called the silver dollar; one British pound was equivalent to 4.5-5.5 silver dollars). In addition to their trade in clocks and watches, the Bovets also dealt in small numbers of other products such as British silver astronomical clocks, music boxes that played Chinese music, Neuchatel wall clocks, and tortoiseshell snuff bottles.

Bovet's music boxes were unique in playing Chinese songs and this made a strong impression on John Barrow, who had been in the Macartney delegation and subsequently published his memoirs in London. In 1804 (the 9<sup>th</sup> year of Jiaqing's reign) he wrote down the notes of Chinese folk song "Mo Li Hua" ("Jasmine Flower", a hugely popular tune during the 19<sup>th</sup> century) and translated the text into English. He even tried to use Romanized spelling to record the original words of the song in the local Guangzhou dialect.



Emperor Daoguang (reigned 1820-1850)



Excerpt from a Bovet trade list



Charles-Henri Bovet (1802-unknown)

In 1824 Edouard's younger brother Charles-Henri Bovet (1802-unknown) joined the family business. On May 11, 1824, he left London for Liverpool where he boarded the American steamship James Cooper. Unlike Edouard's voyage, Charles-Henri's route to China took him via the United States. He arrived in New York on June 26 after 46 days at sea and stayed there for three weeks. Then on July 14 he set out for Boston, hoping to find a large ship bound for China. Having reached the port, however, he opted to buy a passage on a 397-ton steamship called the *Liverpool Packet* rather than spend 500 British pounds to take a larger boat. (At that time there were several ships bearing that name. The "packet ship" was originally used to describe ships carrying mail packets, and eventually came to mean any ship on a regularly scheduled trade route.) He carried 42 watches with him on the trip in order to save transportation costs. The ship had a crew of only 14, including the captain, two soldiers and one steward; Charles-Henri was the only passenger on board.

By this time, Edouard Bovet had already been living in China for six years but this was Charles-Henri's first time the country and everything was new, so he had much to learn.

He was very curious about his new surroundings and found that his brother had become much more serious than before. He was also surprised to discover his brother always jabbering away in a language he didn't understand—a type of pidgin English that had evolved among foreign businessmen out of a mixture of English and Chinese to become the common language for trade.

Though it is believed Charles-Henri came to Guangzhou for the first time in 1825, *The Chronicles of the East India Company Trading to China* state that both Edouard and Charles-Henri's names appeared in the "Complete Census of non-Portuguese Foreign Adult males living in Guangzhou and Macao" and they were both listed as clockmakers. Charles-Henri and his brother spent six years together (1824–1830) in China, where they were responsible for managing the family business—receiving packages of clocks and watches from Charles-Frédéric and Charles-Alphonse in London, and repairing those clocks and watches that had been damaged in shipping before finally selling their products to Chinese merchants.

While the Bovet brothers were in China expanding their business, the next generation of the family was being born there as well 1826 saw the birth in Macao of Edouard's son Edouard-Georges Bovet (1826-1894) on August 25, although sadly his Chinese mother died in childbirth. Four years later, in 1830 (the 10<sup>th</sup> year of Daoguang's reign), Edouard left China and returned to Fleurier, which he hadn't seen for 12 years. He was the first member of the Bovet family to leave China, and he would never return. Though he was only 33 at the time of his departure, as the first Swiss clockmaker to live in China for a long period he had become a prominent representative of his nation's clock-making industry, introducing Bovet watches to Chinese merchants, officials and even Emperors.

## Bovet in China: the second generation

In 1835, Charles-Henri Bovet's English wife Margaret gave birth to a son, Gustave Bovet (1835-unknown) in Macao, and on September 14 of the following year, his nephew Louis Bovet (1818–1882) arrived in China. One might think that Charles-Henri, who had been managing the business alone for the past five years since his older brother had returned home, would be cheered by these events.

Yet a series of sad events caused a cloud of darkness to descend on the life of this otherwise contented clockmaker. His wife was exhausted following the birth of their son and her health deteriorated, until, in January 1837 Charles-Henri began to make plans to take his family back to Switzerland. He never imagined that on the sixth day of that same month his wife would succumb to her illness. She was buried in the English cemetery in Macao.

This tragedy was not unlike what his brother Edouard had experienced ten years earlier, but this time the tragedy was his own and Charles-Henri suffered very much from it. Following his wife's death he decided to leave China, departing two years later on November 18, 1838, after living there for a total of 14 years—two more than his brother Edouard. He was the youngest of the brothers to play a part in establishing Bovet in China and had sold Bovet watches in Guangzhou, first with Edouard, then with Louis. If it can be said that Edouard Bovet built the foundation for the Bovet business in Guangzhou, then Charles-Henri was essential in making Bovet a household name among China's horologically inclined elite.



Louis Bovet (1818-1882)



*The Canton Factories in 1815*

After his uncles Edouard and Charles-Henri left China, Louis Bovet, who had come to Guangzhou at the age of 18, now had to begin running the business in China on his own. On November 1, 1838, just after his 20<sup>th</sup> birthday, Louis was accepted as a partner—the second generation of Bovets had formally entered the family business.

Louis had been born in Fleurier just before his uncle Edouard arrived in Guangzhou, and the boy spent all his youth in the Swiss village. He was Claude-Gaspard-Philippe-Gustave's son, and like his father and uncles before him, he too had been apprenticed to a clockmaker. He was a cultured, curious, self-confident young man, who believed himself worldly and well suited for business, but unlike his friends he hadn't had the opportunity to receive further education. He had mastered the English language, however, perhaps having learned it from his uncles in London. On May 24, 1836, he set off from England for China.

His goal in traveling to China, as he divulged to pastor Louis Courvoisier back home, was to go to this country that "doesn't bring people joy and offers almost no form of amusement" and "earn enough so that he would have everything he needed for an entire lifetime here." From these words, we can see that this young man had clear objectives, and that his thirst for success was the driving force that brought him to China. Louis was a true heir to the spirit of Edouard Bovet, and he was driven by the idea that by turning the family business into something enormously prosperous, that he will be able to realize his own true worth.

At the time, foreign businessmen lived in the so-called Factories, renting them from the Chinese merchants that owned them. Among the 13 factories (Danish factory, Spanish factory, French factory, Chungua hong, American factory, Paoushun factory, Imperial factory, Swedish factory, Old English factory, Chow-Chow factory, New English factory, Dutch factory and Creek factory), nine were named after countries and the French, Dutch, American and English flags were flown in front of the factory complexes. Each factory was divided into four or five buildings that had two rooms downstairs and two rooms upstairs. Rents were extremely high, reaching as much as 600 to 1,600 silver dollars (120–320 British pounds). Tenants also had to pay additional sums for servants and meals—and even more if they wanted good food.



*Chinese porcelain box depicting a scene of the factories in Canton (Val-de-Travers History & Crafts Museum Collection)*

The Bovet business was located on the second floor of the Dutch factory. (In the book *Ling nan sui bi*, Ma Guangqi talks about Guangzhou's red-haired factory clockmakers, saying, "such pale, large people are good at making clocks. There is a young man who came to Macao at 13 and he has already been here 17 years." The Dutch were colloquially called the red-hairs, and this historical record verifies that the Bovet business had indeed been in the Dutch factory). The foreigners had nowhere to exercise or relax and the only opportunity for outdoor activity during the day was to walk around the open area in front of the building, which was also a meeting place for the foreign merchants. Louis' letters afford us a glimpse into his views of the Chinese.

He believed they were the world's most hardworking people but that they were also very "cunning." Unfortunately he was suspicious of the citizens of his adopted country—perhaps a reaction to his own status as a foreigner—and wrote that all except for maybe one in a thousand Chinese were "very cunning", "deceitful" and "untrustworthy people" who were inclined to "speak poorly of each other and of Europeans." At the same time, Louis also wrote that Chinese were all "good people, not at all malicious." In his opinion, Chinese people's only fault was that they "like too much to benefit themselves at the expense of others," but he added that this flaw also existed among other people elsewhere. Louis found that the Chinese, with their small eyes, appeared "insincere and crafty" and thus when doing business with Chinese people you had to be careful and remain guarded. You also needed to "question what they said." For example, when they extolled the virtues of a particular type of tea to a foreigner, he could be sure that the tea wasn't as good as they said it was. Unless the potential buyer was knowledgeable about tea, they were well advised to call on someone for help to make sure they were getting a good product at a fair price (though with the benefit of hindsight, it's fair to say that the principle of *caveat emptor* applies not just in China, but anywhere!)

Alongside these impressions of the Chinese, Louis also discovered that he enjoyed Chinese food as much as European food, so he may have found the cultural adaptation easier than it was for his uncle Edouard. Foreign merchants imported high quality wine into Guangzhou, and there was an abundance of poultry and fish. Louis could also buy bread, English cheese and salted butter. He was not going to starve to death in China. Louis especially loved to get cheese and sausage from his home town, and whenever he was sent fresh sausage, his friends would rush over to visit him for a taste. Being far away and missing home, he would send his mother and aunts colorful embroidered shawls, and to his female cousins in London he'd send kerchiefs. He also sent back vases, ivory stamps engraved with people's names, tortoiseshell snuff bottles and fans, and sandalwood boxes. In February 1820, he even advised his aunt Julie-Caroline Bovet to keep every valuable item sent from China so they would have a unique collection. Today, the Val-de-Travers History and Crafts Museum in Môtiers exhibits objects from China, many of which are Chinese-style souvenirs sent home to Switzerland by the Bovet family.

# Bovet during the Qing Dynasty

## The Bovet brothers return home

In 1830 (the 10<sup>th</sup> year of the Daoguang Emperor's reign), Edouard and his four-year old son Edouard-Georges returned to Fleurier, where they moved into a beautiful, newly built home they called the China Palace in commemoration of their business relations with China. On their return, a Chinese man named Accan came with them, who was apprenticed to a local clock merchant before later returning to China. It is likely that Louis Bovet had seen Accan during his time in Switzerland, because later in his letters from China, Louis occasionally gave news of him – for example, saying that Accan had his own workbench in Guangzhou. But Louis was later disappointed to see that Accan was never as enthusiastic about his work as he had been while in Switzerland.

Seemingly, although Accan had learned to make watches in Switzerland, after his return home he failed to make the most of the craftsmanship he'd acquired. However in his book *Lu Yuan Cong Hua, Qian Yong (1759–1844)* states that "self-sounding bell watches all come from the West... but craftsmen in Guangzhou, Jiangning and Suzhou can also make them," so it's clear that there were a number of skilled craftsmen in Guangzhou who could not only build clocks and watches but, like Accan, were also able to repair them. This constituted a valuable local resource for the Bovet business.

Though Edouard Bovet had returned to his hometown a wealthy man, in 1831 unforeseen circumstances led him once again to leave the place he had already been away from for so long.

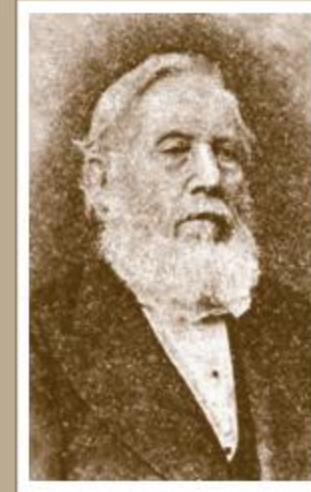


*Fleurier in 1840 with the China Palace on the left side*

In December of that year, he took part in a Republican revolution against the rule of the Prussian king, but the revolution was quashed and he was forced to seek refuge in France. Edouard ended up settling in Besançon, where he continued working with other clockmaker refugees such as Charles Lorimier, making and selling clocks for the Chinese market. There he also married Constance-Hilaire Meunier. Surprisingly, in 1848 Edouard returned to his hometown of Fleurier, where he stayed for a year before he died on October 25, 1849, at the age of 52.

When Charles-Henri Bovet returned to Switzerland in 1839, he followed in his older brother's revolutionary footsteps, and just as they had worked shoulder-to-shoulder in Guangzhou selling Bovet watches, they also followed this path together. In July 1840 the court issued a warrant for Charles-Henri's arrest, causing him to flee to London and begin a life of exile there. In 1849 he married his second wife, Sophie-Françoise Jardin, and eventually he died in London.

Neither Edouard nor Charles-Henri ever returned to China after their return to Europe—but as the first generation of Bovet family members to have lived there, they played a decisive role in laying the foundations and developing the Bovet business in Guangzhou.



*An elderly Charles-Henri Bovet*



*Edouard Bovet aged 50*



*Edouard Bovet's former residence, the China Palace*

In 1840 54-year old Charles-Frédéric Bovet returned to Fleurier from London in order to run the watchmaking factories, where approximately 170 people were employed at that time. On November 15 of that year the company was re-registered as Bovet Frères et Cie. with a capital of one million francs. Three years later 55-year old Charles-Alphonse returned home from London to manage the family business with his siblings Charles-Frédéric and Julie-Caroline. The two brothers had been away for a long time and with their advancing years, they may have been missing their hometown. As the first generation of Bovet empire-builders, they had done their bit to ensure the success of the family business and now they were ready for a well-earned rest.



### Bovet's specially-tailored Chinese market watches and the Bovet china hallmarks

When English and Swiss clockmakers arrived in China during the late 18<sup>th</sup> and early 19<sup>th</sup> centuries bearing their exotic products, they found a ready clientèle within the Imperial Palace, and there are also records of them being used by high officials, such as example the following description by Zhao Yi (1727–1814) in his book *Yan pu za ji*.

He wrote, “Self-sounding bells and traditional Chinese-style watches all come from the West. The clocks automatically chime on the hour, while the watches have rotating hands to indicate the time, and all of them are very skillfully made... Clocks and watches must often be repaired, otherwise the parts will be too slow or too fast and they won't be accurate. Thus officials who have watches are late for appointments, while those who are not late do not have watches.

Official Fu Wenzhong's home is filled with clocks and watches. Even his servants are never without a watch hanging from their bodies so they can verify the time with each other, and be sure of the correct

time. One day when the Emperor was holding court, Fu Wenzhong's watch was slow, he entered and when he entered leisurely the Emperor had already been seated a long while. Fu was extremely frightened and could only bow and apologize, and he was terrified for days afterward.”

The main focus of the text was a top official during the Qianlong period, the loyal Gong Fuheng (unknown-1770) and *Yan pu za ji* describes how his watch helped him avoid the awkward situation of being while simultaneously revealing how often the court, and officials used clocks and watches – proof that these timepieces were valued as much for their artistry and ingenuity as for their accuracy.

Today the Forbidden City Palace Museum in Beijing houses over 1,000 clocks and watches, many of which were made by clockmakers from that period. The collection is made up mainly of uniquely shaped watches—or “form” watches—and automaton watches. The form watches are embedded in decorative objects, many of which are shaped like animals, fruit, flowers, musical instruments, handguns, or even household objects such as ornamental vases, rouge boxes, music boxes, perfume bottles, snuff bottles, telescopes, scepters, rings, and fan pendants. Automaton watches told the time and also featured animated scenes operated by clockwork. Such mechanisms could be used for instance to activate one or more clear glass rods, which would turn rapidly giving the appearance of flowing water, a fountain, or a waterfall. Clockwork mechanisms were also used to activate human or animal forms and create various lively movements, such as someone ringing a bell, forging iron, or playing an instrument. Often such forms were designed to move in time with gongs or bells striking the time –such figures are known as *jaquemarts* and originally appeared in tower clocks, where they would often wield hammers to strike bells.

One fine example is a pocket watch made in Geneva, Switzerland, in 1810, with music and quarter repeater functions and a delicate enamel painting on the caseback executed by Jean-Abraham Lissignol, a famous enamelist of the day.

The two dancers it depicts appear to be moving and the gold case is decorated with pearls all around its edge. When the caseback is open it reveals a superb image of a swan swimming across a pool of water. The water flowing into the pond is made of glass to give the impression of a waterfall. Nearby a pair of lovers add wood to a blazing fire. In a final mark of mechanical design virtuosity, the watch plays a beautiful tune on the hour, or whenever a button is pressed. Such astonishingly intricate craftsmanship is incredibly rare.

The value of the watch is further increased by its unusual movement, which resembles that of a music box rather than those of normal musical pocket watches. Another splendid is a figure watch made in Geneva, Switzerland, in 1815. The edge of the 18-carat gold case is decorated with pearls, and the back is both engraved and painted with enamel to create a scene which also features two moving figure mechanisms. On the right-hand side a fire is blazing, while on the left-hand side a gold curtain can be raised to reveal an erotic scene between a man and a woman.

Around 1830, Swiss watches became popular across Europe as they were known for being elegant, moderately priced and of fair quality. Many French and English watch merchants mainly sold Swiss watches, while still producing their own higher quality watches for wealthier clients. With the establishment of Bovet in Guangzhou, it became more convenient for the Chinese nobility, officials and wealthy elite to buy Swiss watches. As the founder of the business, Edouard's legendary story was known far and wide: he once sold four watches to a Chinese merchant at price rumored to be over 10,000 francs. Fired up by his success in getting such a high price for his watches, he asked his brothers in England to send out more. His brothers were initially skeptical from their distant observation points in Europe, but their doubts were dispelled when Edouard sent them each a heavy payment of gold.



*Pocket watch produced in Geneva, Switzerland, in 1810 with music and quarter repeater functions (private collection)*



*A watch with moving figures made in Geneva, Switzerland, circa 1815 (Zhang Shuyang collection)*

Though we have no way of knowing, when exactly Edouard sold these watches or specifically which watches they were, what is certain is that the unique China watch eventually earned the Bovet business a great fortune. The so-called "China watch" refers to a specific type of watch, which was not produced by Chinese watchmakers but was made in Europe (mainly Switzerland) and sold to the Chinese market. There were two types of watches produced specifically for the Chinese market, which share certain key characteristics.

Simple watches had plain bassine-shaped cases of polished silver and a key for winding. This type of watch lacked unique features (the caseback and the bezel were connected with a hinge) and had an oval crown used to help release the spring lever to open the caseback. The dial was plain with elongated Roman numerals and centered hour, minute and second hands. The cuvette (the movement cover, inside the caseback) was made of glass and the movement was of a type known as "Chinese caliber", elaborately decorated, engraved and gilded. The escapement was most commonly a Jacot duplex, duplex, cylinder, anchor, or a special duplex anchor escapement.

Movements came in different sizes: 21 *ligne* (one *ligne* is equal to 2.255 mm) was the most frequent size, there was also the large-sized 24 *ligne*, as well as the 17 and 14 *ligne*. Women's watches were initially 14 but later changed to 12 *ligne*.

Luxury watches—the second type—were in a classic style, produced and decorated in Geneva. The case was often gold, either solid or gilded, and decorated with enamel painting and pearls around the edge. The movements of luxury watches were similar to those of simple watches and most used duplex escapements. This type of movement was also engraved, sometimes by hand, and often using a round chisel to create delicate engraved patterns. Many cases were decorated with flowers or busts of women. Until 1870 the majority of people depicted were European, with golden hair and a fine complexion. Later attempts were made to depict Chinese women, based on photos, though the results were often less successful, as it was difficult for painters to distinguish slight differences in Chinese faces. Luxury watches were manufactured until 1870. After that production was much more limited and they were sold primarily on a made-to-order basis.

Luxury watches were produced and decorated in Geneva

Bovet not only worked hard to produce and sell this type of watch, it also used a Chinese name, "播城" in order to adapt to the market. In a letter from March of 1838, Louis mentioned that Bovet engraved the Chinese translation of its name on watches. According to Charles-Alphonse's son Charles Bovet (1838-ca. 1929) they began using this Chinese name from 1830. From records existing today we can see that Bovet used at least three types of Chinese hallmarks: one was in the shape of a flower with 12 petals, one in shaped like a Chinese censer, and one was in the shape of a vase. In each case, the Chinese characters for Bovet "播城" were written inside from right to left. These designs all have a very Chinese feel and were probably inspired by objects that the Bovet brothers regularly encountered in their daily lives. The use of these Chinese hallmarks undoubtedly brought Bovet closer to its Chinese customers—so much so that "Bovet" became synonymous with "watch" in China.



Simple model of the "China watch" (Qing Long Private Collection)



Luxury model of the "China watch" (Qing Long Private Collection)





*Bovet's three Chinese hallmarks*

In addition to having a Chinese hallmark, Bovet also made many matching pairs of watches. In 1825 the American William C. Hunter (1812–1891), who was in Guangzhou on business, saw the Chinese placing watches—often pairs of watches—in embroidered silk bags on their belts, and they even intentionally put the dial facing out. In his *Bits of Old China*, he stated how “Instead of carrying one watch hidden in a pocket, a Chinese gentleman wears *two outside* of his garments, attached to a waistbelt of embroidered silk, with their faces exposed.”



*Qing painting of a royal prince and princess playing in a courtyard (with watch hanging from the prince's embroidered silk belt)*

This was the unique Chinese way of using watches as adornment, and led to the production of matching pairs of watches. In 1830 an English report by the House of Commons had already pointed out this phenomenon: “Chinese often wear two watches, based on the queer logic that if one watch is sleeping, the other will still be awake.” This was of course a misconception; research on Chinese culture at the time was not very in-depth, and the writer was simply unaware of the Chinese aesthetic preference for pairs. In 1823 the first batch of matching pairs of watches appeared in Bovet's London store, and in April they began sending them to Guangzhou. Obviously, Edouard Bovet's experience of selling watches must have led him to discover this particular Chinese preference, which undoubtedly encouraged the Bovet brothers to produce and send this type of watch to China. Afterwards, he also discovered that the Chinese notion of time was not all that precise. Perhaps for this reason, starting in 1824, most of the watches sent were without second hands.



*A pair of matching Bovet watches produced in London*



*A pair of matching Bovet watches produced in Fleurier*

## Elegance for the East: Bovet refines its Chinese market watches

In 1836, at time when pocket watches from Fleurier had already become important timepieces on the Chinese market, Louis Bovet entered the Bovet family business and went to work with his uncle Charles-Henri in Guangzhou. In a letter to his uncle Edouard in 1838, Louis mentioned that Charles-Henri Vaucher's enamel watches had arrived in Guangzhou. He not only provided reliable information on market competition in his letter, but he also began asking for improvements from Europe.

On the subject of his own family's products, Louis complained on several occasions that some watches needed to be of higher quality. For example, he pointed out that the watches must be well polished because "the Chinese like things that sparkle and always find scratches." In April of 1837, he wrote that Lorimier's movements from Besançon could and should be enhanced, and ought to be gilded with beautiful gold and be engraved with attractive patterns. He hoped that his family would tailor their pocket watches to cater to Chinese tastes. Several styles that had once been popular in China had already gone out of fashion, and watch production needed to be modified to keep up with what buyers wanted.

In December 1837 Louis wrote to Edouard Bovet, who was living in Besançon, and told his uncle not to send anymore enamel inlay or polished watches, or medium-sized copper cases, because the Chinese didn't like these types of watches. For medium-sized watches, it was better to use only silver cases. They also needed to make at least 10 large-sized copper watches and at least 20 small-sized copper watches. In his view, each year they also needed over 100 watches that only had cylinder escapements, steel hands and silver cases.



*Besançon engravers engraved the Chinese characters for Bovet “播職” on the movement*

Louis was very happy to see that Lorimier in Besançon had begun using the same artistic style as in Fleurier. He discovered that the Chinese market preferred heavily decorated movements for a more spectacular look and that small watches should have a round bow to make them appear fuller and more elegant—up to this point they had been mainly square shaped.

Louis also had his opinions about the placement of the signature on the dial. He suggested that a small signature should be placed on the edge of the dial outside of the second hand's reach rather than inside as they'd had it before. In his view the signature in the middle of the dial demonstrated a lack of attention to detail, since the Chinese prefer a tidy dial.



*The finely engraved patterns of the beautiful gilded movement can be admired through a transparent dome*

Louis also had his opinions about the placement of the signature on the dial



*Bovet signature located in the center of the dial (under 12 o'clock)*



*Bovet signature located at the outer edge of the dial (under 6 o'clock)*

As for the engraved movements of large silver watches, he expressed dissatisfaction, saying "shapes such as willow and shrub branches are unattractive, the long shiny lines of the engraved patterns are common and tasteless. The Chinese like more refined, delicate shapes with a sense of three dimensions,"—a keen, and very exact observation of the preferences of Bovet's Chinese clients.

Louis demanded that the engravers in Besançon recreate Bovet's Chinese name exactly as the craftsmen in Fleurier did, because for the Chinese this needed to be incredibly accurate. He also noticed that the Chinese didn't like bold patterns in the center of the cuvette and preferred straight, radial lines rather than arched lines. Finally, he recommended that the different-sized watches produced in Besançon should have transparent cuvettes with spare glass and dials.

Louis also wrote that with the Jacot duplex escapements produced in Besançon, the hands sprung too far forward but that this type of escapement was still the one preferred by the Chinese. He recommended that it was worth using a new escapement, which might cost 10-11 British pounds to purchase.



*Gilded copper dome engraved with a signature and flowers (Tianyixuan Watch Museum collection)*

*Silver dome engraved with a signature and radial lines (Tianyixuan Watch Museum collection)*



## New blood at Bovet

October 1838 brought a new member of staff to Bovet in Guangzhou, 23 year-old Auguste Jeannet (1815-1891) from Val-de-Travers. He was a childhood friend of Louis' and although he was the son of a lacemaker, Auguste had been apprenticed to a clockmaker. When the Bovet family suggested that he go to China to work, he accepted immediately despite feeling he was still young and lacked experience. However, seeing as Bovet was "a large, respectable company" he felt he ought to be optimistic.

Auguste left home on June 4, 1838, accompanied by his father. They traveled together to Pontarlier in France, and from there he continued on his own. He traveled via Paris and Calais, in northern France, where he boarded a steamboat for London. Having been brought up in the mountains, Auguste was amazed to see so many ships of different shapes, colors and sizes when they docked in London. A French-speaking Englishman brought him by coach to Bovet's London office, and in June 29, 1838, Auguste boarded the *Eliza Stewart* in the port of Deal. There were about 40 crew members on the ship, and three other passengers: a tea merchant, Mr. David Jardine of Jardine Matheson & Co.; his tea-taster, Mr. Humpston; and a Mr. Skinner, who was in the same business.

After 100 days at sea Auguste arrived in Macao, where he stayed for several days before starting out again for Guangzhou, 160 kilometers away. First he had to take a boat across the open sea before entering Humen at the mouth of the Pearl River. Along the way Auguste saw many lush hills covered in graves and temples as well as little channels of water that stretched out endlessly, irrigating the rice paddies. About 60 kilometers from Humen, he saw Huangpu, a spot where foreign ships would anchor while they waited for a shipment, or to unload—there would often be 100 or so ships moored here.



*A family in their workshop making lace and watches*

It was only 30 kilometers from Huangpu to Guangzhou. Like those before him, he was surprised by the number of small boats he saw along the banks in Guangzhou. He wrote that it looked as if they had formed a road on the river and that there must have been at least thirty to forty thousand of them. He finally reached Guangzhou during the night of November 30 to December 1.

Jardine's servant accompanied Auguste to the factory where the Bovet business was established. After greeting his friend Louis, he planned to take a long rest, but the idea that he had made it safely and smoothly around the world made it hard for him to sleep. In his words, his "heart was overjoyed, frolicking like a fawn." He set to work the next day, starting by preparing the goods for sale. He did his best to learn the clock business quickly and also had to learn the pidgin English needed to do business in Guangzhou.

Before Auguste arrived in China, Louis Bovet had been unsure whether he was the ideal choice. Auguste was three years older than him and had "a good personality and people trusted him", so Louis was certain that they would get along, but nevertheless he worried that Auguste was too meek and insufficiently skilled in watch and clock repair. On February 5, 1840 Auguste wrote to Louis reassuring him that he would do well in his work and that he would be the most useful employee at Bovet.



*Auguste Jeannet (1815-1891)*

Louis was upset in November 1841 when Auguste asked Louis' uncle to promote him. He considered Auguste overly ambitious because when the Bovet family sent Auguste to China he didn't think they'd been harboring any hopes of Auguste becoming their partner.

Auguste was very unhappy in China during the Opium War. The situation made him "short-tempered and picky, demanding a lot and never being happy." He finally found consolation when he returned to Switzerland in 1845. He wrote that for nearly seven years, he didn't see the snow, skate on ice, hike up a mountain, hear the sound of village bells or see the river or his friends in his hometown, —and he'd missed these things terribly. Though he didn't stay in China with Louis to continue expanding the Bovet business, he was the first Swiss person who was not a family member to go to work for Bovet in Guangzhou.



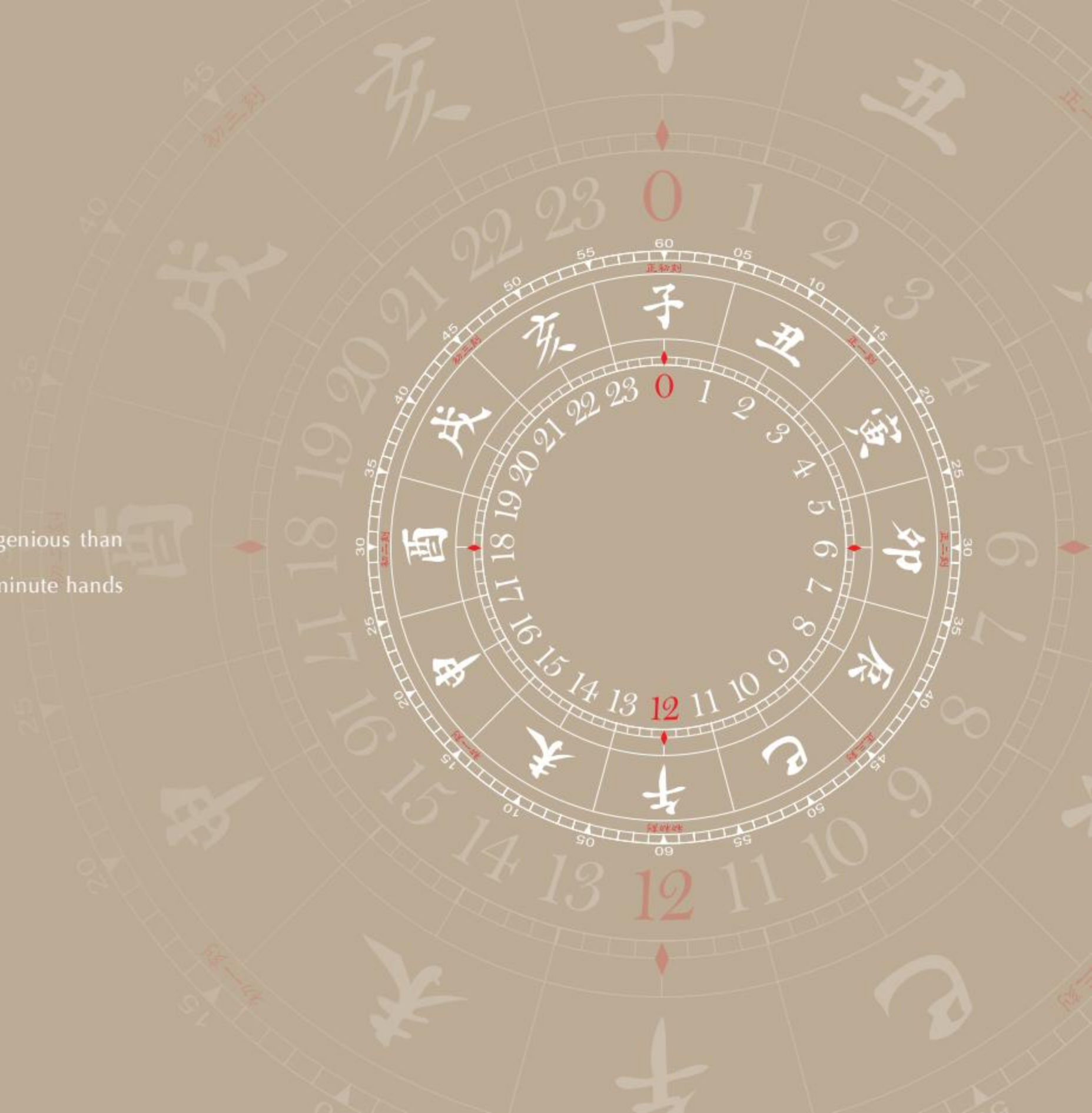
*Gold enamel pocket watch with pearl inlay produced in 1815 for the Chinese market (image provided by Antiquorum)*

1842-1901

The King of the Chinese market watch

Curious treasures that come from abroad, even more ingenious than the lotus lamps in the Imperial Palace. They function without water or fire, and the second and minute hands progress unnoticed.

*Emperor Qianlong*



## Turbulent times at home and abroad

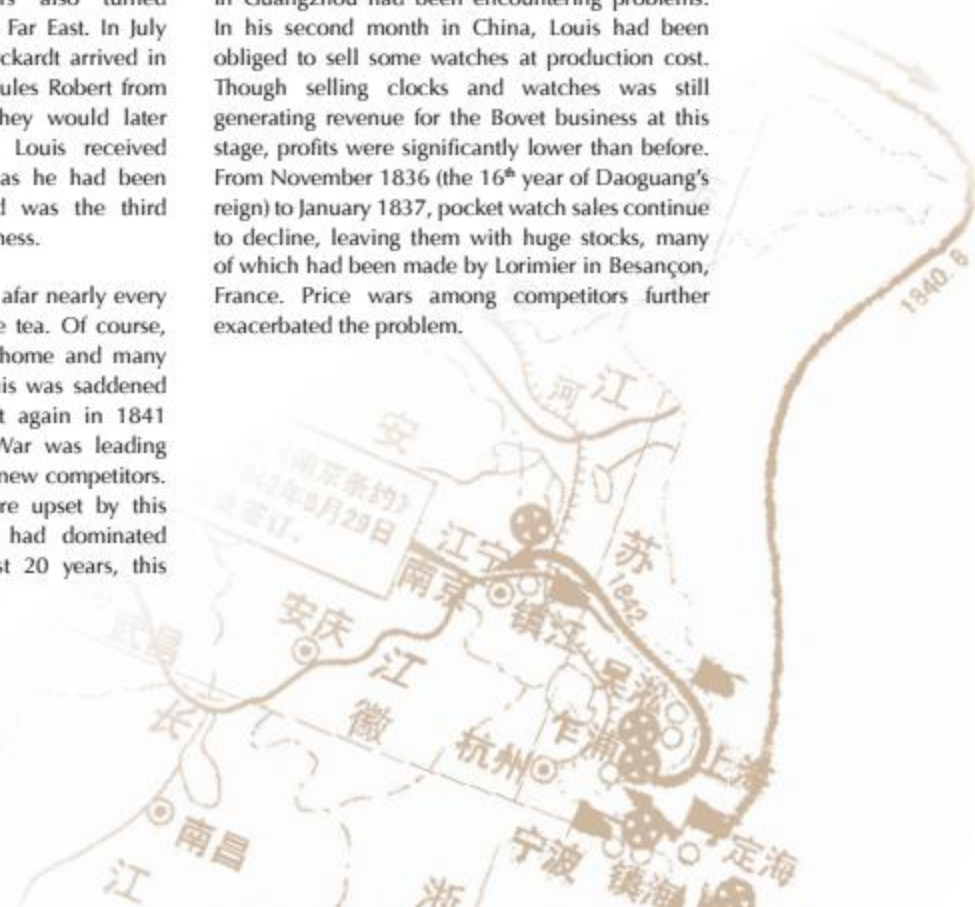
While Auguste and Louis were still working together, relations between foreign companies were uneasy. Whether they were importing or exporting, the competition was always fierce and Louis noticed that everyone was envious of anyone else's success. He didn't believe the Bovet watch company was doing other businesses any harm, aside from perhaps a few English merchants. The company took a neutral position with regard to conflicts that raged between the other Europeans. The Bovets did not get involved and did not take sides. Louis was only interested in being around other simple, honest, like-minded people.

Inspired by the success of their peers from Fleurier, several Neuchâtel watchmakers also turned their attention to China and the Far East. In July 1838, Henri Racine and J.S. Burckardt arrived in Guangzhou. They were sent by Jules Robert from La Chaux-de-Fonds. Although they would later become competitors to Bovet, Louis received his fellow countrymen warmly as he had been in Guangzhou since 1818 and was the third representative of his family's business.

He entertained these guests from afar nearly every day, always inviting them to take tea. Of course, they talked about watches and home and many other immediate topics, and Louis was saddened when Racine and Burckardt left again in 1841 but by then, the First Opium War was leading China to open up to an influx of new competitors. Louis may have been even more upset by this but, for the Bovet brand that had dominated the Chinese market for the past 20 years, this could also be a great opportunity.

The First Opium War took place between 1839 and 1842. It was sparked when Lin Zexu—a high-ranking and influential official, vehemently opposed to the opium trade—destroyed opium destined for the Chinese market. In revenge, the British carried out a series of attacks in the south of the Qing Empire and advanced to the mouth of the Yangtze River. Auguste saw that opium was not the real reason for the war but simply an excuse. The conflict was really about the irregular position of foreign merchants, who were not able to do business freely in China. Instead they had to go through Chinese merchants and this is how their prices and quotas were decided.

Even before the First Opium War, the watch trade in Guangzhou had been encountering problems. In his second month in China, Louis had been obliged to sell some watches at production cost. Though selling clocks and watches was still generating revenue for the Bovet business at this stage, profits were significantly lower than before. From November 1836 (the 16<sup>th</sup> year of Daoguang's reign) to January 1837, pocket watch sales continue to decline, leaving them with huge stocks, many of which had been made by Lorimier in Besançon, France. Price wars among competitors further exacerbated the problem.



A map of the Opium War

By March 1837 business was looking up again. At the time, the Great Qing Empire had a population of 300 million, who bought a quarter of the total production of European clocks and watches. Their criteria were that the timepieces should be beautiful and inexpensive.

Bovet was able to reach its sales target on April 27, 1837, but by early 1838, sales of pocket watches and music boxes hadn't grown much. Louis suspected that many people inland didn't have any opportunity to buy their products. Business didn't pick up again until August of that year and Louis became pessimistic about the Bovet business, which had now been operating in Guangzhou for 20 years. He wondered if the situation influenced his uncle Charles-Henri's decision to leave China a few months later. When Auguste arrived in Guangzhou as Bovet's newest employee, he and Louis were immediately faced with a series of grim business situations.

In April of 1839, prospects looked bleak and Auguste and Louis left for Macao, taking with them watches from their stock to sell. In mid-July, Louis told Auguste to return to Guangzhou. At the time there were only around 30 foreigners there and after several weeks without much competition, the Bovet watch business once again took a positive turn. In a letter dated September 1839 Louis wrote that the Chinese had previously thought Bovet watches were French, and that they weren't good quality. At that time, the Chinese had only a sketchy understanding of watches from various Western countries, an example is Zhang Wenan (1757–1815) wrote in *Yang bo za shi*, "Self-sounding bells include hanging clocks and table clocks. Table clocks have music. One foreign shop has a type of clock on which there is a copper figure that can move like Guanyin with 1,000 arms. Of the foreign watches, there are those by the red-hairs and those by the French. The red-hairs' have gold cases, those of the French silver cases."

Later, the Chinese realized the value of Bovet watches and for many years the Bovet brothers sold more pocket watches in China than the English, with clients ranging from the Great Qing Emperor to commoners. Louis confirmed that the Swiss had an excellent reputation and the best way to preserve it was to, "do business honorably, watch it thrive and have everyone involved in the business be loved and respected." Though the temporary upturn in business inspired Louis, the war afterwards had a negative impact on the Bovet business. In August 1840, Louis left Guangzhou for Macao, where he remained for a while because the war with the English had blocked the free movement of goods.

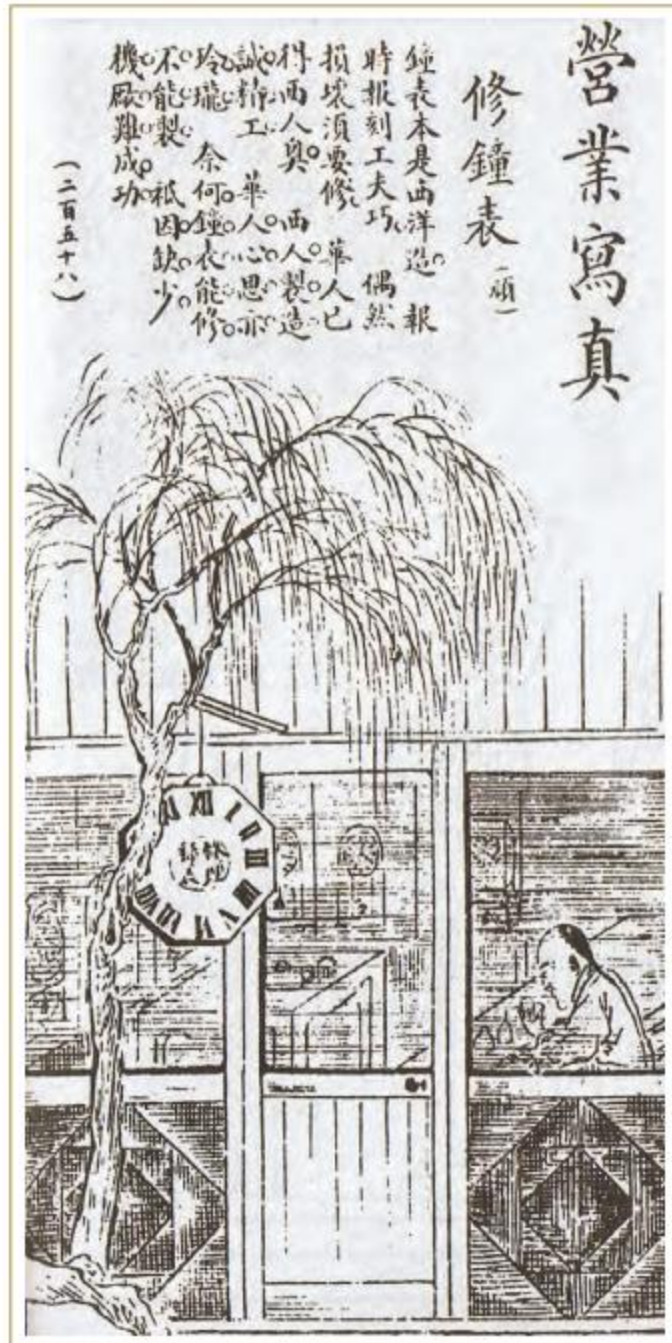


A clock shop in Canton during the 19<sup>th</sup> century (Huang Qing Chang Private Collection)

On May 22 and 23, 1841, the Guangzhou factories were attacked by the Chinese, and Bovet was not spared. Their furniture was broken but no one was injured, and they were able to leave for Macao temporarily. Business in Guangzhou recovered in December 1841 but the river connecting Guangzhou and Huangpu was blocked, which made the movement and sale of goods particularly difficult.

1842 saw the end of the First Opium War with the signature of the Treaty of Nanking, but the treaty only set the stage for further conflict. Its humiliating terms not only gave Hong Kong to England, but also opened five ports, including Shanghai, to free trade with foreign countries. In addition, the merchant system was abolished and customs tax was capped at 5%. Foreigners in China were not restricted by Chinese law and were judged by courts under the jurisdiction of their consulates. With more ports to trade from, foreign clock and watch merchants and shops gradually made their way from Guangzhou inland. In a letter dated June 1843, Louis wrote that Edouard-Auguste Vaucher (1819–1847) and Alexis Bugnon, both from his hometown, had arrived in Guangzhou. Of course Louis was not happy to have more competition, but he did acknowledge that there was nothing to gain from not speaking with or ignoring them. He concluded that the best defense was to make beautiful, rare watches.

In 1842 the Treaty of Nanking was signed, bringing an end to the First Opium War



A Chinese watch repairer in the mid-19<sup>th</sup> century

## From Guangzhou to Shanghai

At the end of the First Opium War, the Treaty of Nanking opened up the Chinese market and after seven years in China, Louis decided to move to Shanghai to expand the reach of Bovet watches. In a letter dated July 20, 1844, Louis said that because a large number of watches were being imported into China, the price had fallen significantly.

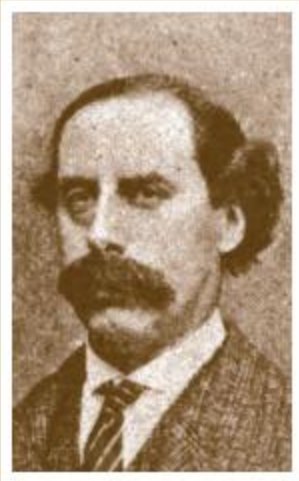


Letters dated 1837 to 1855 between the Bovet family and George-Emile Guillaume (image provided by Christie's)

They were unable to sell a minute repeater sent by Georges-Emile Guillaume (1817–unknown)—a clockmaker who worked in London and Fleurier—at the London market price, which was very disappointing. Louis considered it harder to sell just one of these watches than it was to sell 100 China watches. He also felt that that with the changing circumstances, he could no longer rely on Auguste because the latter was too headstrong and was absorbed in thoughts of returning home—and, in the event, Auguste did leave China in 1845.

To continue the company's development, Bovet needed a successor from Switzerland, and the firm concluded it would be best if this person came from the Bovet family. Macao-born Edouard-Georges was 20 years old at this time, and he was the ideal candidate. Unfortunately, though he had Chinese blood he was unable to adapt to the climate in Guangzhou and was uninterested in the watch business. Unlike his father, uncles and even cousin, he didn't manage to stay in China and quickly returned to Switzerland. He settled in Villars-sous-Champvent, in Vaud, married M. L. Minod and had nine children.

In 1845, Charles-Alphonse's oldest son Frédéric (Fritz) Bovet (1826–1915) arrived in China. He was an educated 19-year-old who was not only a new force in the Bovet business, but also a painter and violinist. He was able to forge links between business and music in China, researching local music and recording Chinese melodies, which he gave to music box makers in Sainte-Croix and Geneva to reproduce. Fritz appreciated folk music such as the previously mentioned "Mo li hua", and had delicate music boxes produced in Europe to sell to the Qing court and to wealthy merchants.



Frédéric (Fritz) Bovet  
(1826-1915)



Edouard-Georges Bovet  
(1826-1894)



Alphonse Bovet  
(1828-1918)



Gustave Bovet  
(1835-1906)

The arrival of Fritz inspired the entire second generation of the Bovet family to get involved in the family business, especially his younger brothers Alphonse (1828-1918), Gustave (1835-1906) and Charles (1938-ca. 1929). In 1855 a Bovet watch won the gold medal in the luxury category at the World Fair in Paris, unsurprisingly with an enamel watch. That this company should follow its success in China by conquering the international stage as well was down to the constant innovation and creativity of its watches.

Gustave, who was from the second generation of the Bovet dynasty, periodically engaged in business for the family company from 1856 onwards, living in China where he eventually died in Shanghai in 1906. According to the *Dictionary of Business Names in Old Shanghai 1880-1941*, Bovet's business address was listed in 1880 as 10 Beijing Road; from 1882 to 1901 it was 29 and 42 Jiangxi Road; and from 1902 to 1906 it was 22A and 23M Fuzhou Road. These records from the Guangxu period illustrate how Bovet's development in Shanghai was even greater than in Guangzhou.

Fritz proved to be both a capable businessman and an energetic participant in the diplomatic community—in the 1850s he was appointed Vice Consul to France in Guangzhou. It is said that the powerful official and diplomat Li Hongzhang was a connoisseur of Bovet watches, though we do not know if this had anything to do with Fritz's political history. Fritz paid a visit to Fleurier in 1857 before returning to China again. He traveled to England in 1867 and died in London in 1915.

## The Hantali Clock Company, and Bovet watches

The Second Opium War lasted from 1856 to 1860 and led to more ports being opened up during the Qing Dynasty, which gave a tremendous boost to the watch trade. Watches were so common that Ding Kerou (1840-unknown) wrote in *Liu hu*, "Today among merchants and slaves, none are without a watch and many have several." Once Tianjin became a trading port, a new and interesting phenomenon made its appearance, "People in Tianjin," he wrote, "have developed a habit of having pockets for watches on all their clothes, and shops have put out newly made articles of clothing like this. Foreigners' servants and grooms all wear short sleeves and fitted pants, with a straw hat on their head, a cigarette in their mouth and a watch chain across their chest, admiring their reflection and only worried they don't look foreign enough," (*Jinmen zaji*). During the middle of the Guangxi Emperor's reign, women "would match small watches to their clothes for decoration, either gold or silver, as small as a coin, and they were called gold coin watches", (Xu Ke, *Qing bai lei chao*). As Western watches were in vogue, watch shops played an important role in the watch trade. Particularly preeminent was Hantali, a store that stands out for its long history and has become very well-known among Chinese people.

Hantali had its beginnings in 1860, when Swiss merchant Edouard Laidrich teamed up with a Frenchman named Vrad to set up Laidrich & Vrad—later renamed L. Vrad & Co—in Shanghai.

Edouard Laidrich had previously worked in Fleurier making watches for the Chinese market. Ge Yuanxu wrote in *Huyou Zaji*, "Of Western businesses that sell foreign goods, Hantali is the most well known,



A scene from the Shanghai Bund during the 1860s

it specializes in all types of clocks and watches, musical instruments, scientific instruments, household goods and other interesting items, there are so many." In 1862 (the first year of Tongzhi's reign) the company expanded its business to Tianjin. By this time, the Bovet brand had already been around for 40 years and the two companies sometimes worked together. Up until 1894, Hantali acted as an agent for Bovet watches in Northern China. From Guangzhou to Shanghai, then Tianjin and Beijing, and from trade via the factories to free trade, Bovet watches made their way around China and earned their nickname "king of watches" in the China market.

In 1869 Fritz Laidrich took over the business in Shanghai and Tianjin, and by 1881 the brothers Pierre Loup (1840-1899) and Fritz Loup were in charge of the three stores in Shanghai, Tianjin and Beijing. Later, business spread to Hankou (1889) and Hong Kong. In 1891 the company moved to the busy Nanjing Road by the ball-pitching field in the British concession (today the intersection of Nanjing Road and Henan Road).

The company's Chinese sign read “亨达利,” which means “prosper, give, receive” and its primary business was in clocks and watches. In 1906 the Hope brothers took over the company (Cheng Xiaoqing, 1893–1976, a pioneer of Chinese mystery novels was an apprentice in the company at the time). Then in 1914, the business was transferred to comprador Yu Xiangshan (“comprador” is a term borrowed from Portuguese, used to refer to a Chinese buyer working for a foreign business) at Carlowitz & Co. and the name changed—for the last time—to Hantali Clock Company.

Hantali sold a wide assortment of clocks and watches, including some with complex functions. The company's main business was in importing goods, though they also placed orders for products from abroad for their customers. Some of the items needed for the wedding of late Qing Emperor Xuantong (reigned 1902-1912) were ordered from abroad through Hantali.

Emperor Xuantong was also a watch connoisseur, and a number of watches from his collection are on display at the Shenyang Imperial Palace; there is also a photo of him studying a pocket watch attentively. A book about life in the late Qing period described how men often had a fan, glasses and a pair of watches (specifying open-face watches such as those by Bovet). This confirms that Bovet watches were commonly seen at court.

Among surviving watches from the era, we have found a matching pair of early Hantali watches that have great historical value and would certainly be on show if China were to ever open a museum of timepieces. The casebacks of these two watches are painted enamel with a dark blue background, the image portraying a woman and a young girl. The woman is sitting on a railing and turning her head while the child is holding out flowers and gazing at her.



*Emperor Xuantong studying a pocket watch*

The edge of the case is inlaid with a ring of pearls, which means that the watches were undoubtedly designed for the Chinese market as the Chinese are particularly fond of pearls.

The watches as a whole, down to their tiniest details, could easily pass for Bovet pieces, and the superb quality of Bovet watches made for Hantali attests to the strong relationship between the two companies. Whatever the case may be, Bovet has also made very similar watches depicting mother-daughter love against a deep blue background.



*A minute repeater custom made by Bovet for Hantali (Chen Guowen collection)*



*A matching pair of Bovet painted enamel watches made ca. 1840 (image provided by Antiquorum)*



*A matching pair of Hantali painted enamel watches (private collection)*



Late Qing oil painting of the northern bank of the Pearl River in Canton, where the Bovet family built a dynasty (Huang Qing Chang Private Collection)

## The fate of the family business

In 1849 the legendary founder of Bovet in China, Edouard Bovet, wrote a will leaving everything he owned to one single heir, his son Edouard-Georges. Edouard's estate included moveable and immovable property, gold, silver, stocks and bonds, and the whole was valued at 207,572.02 francs on M&Y 18, 1858 (not including 200 Franco-Suisse Railroad shares). Edouard had managed to turn his close and lifelong connection to China into a means of making his family very wealthy. Once Fritz arrived in China, his cousin Louis was free to return to Europe to pursue other business opportunities in England and he eventually settled in London. Over time Louis left the watch business and turned instead to the tea trade, but nonetheless, it had been under his management in China (during the 1830s and 40s) that Bovet had unquestionably been the most prosperous.

While Fritz was expanding the business in Northern China, Alphonse managed the factory in Fleurier, where he died in 1918.

Younger brother Charles entered the family business in 1856, until he left to work in the tea business in London from 1865 on.

On January 27, 1863, Maison Bovet in London, F. & A. Bovet in Guangzhou, Bovet Brothers & Co. in London and Bovet Frères & Cie. in Fleurier were formally registered with the court registrar in Val-de-Travers. On June 10, 1864, a new contract was signed declaring that the names of the companies would remain unchanged but that they would all be based in London. This undoubtedly had to do with the fact that so many of the Bovet family members were there. At the same time, the Bovet family was no longer in charge of watch production in Fleurier but had entrusted it to Jules-Samuel Jéquier (1835–1915) and Charles-Ernest Bobillier (1835–1883). Later Jéquier carried on this work with Ami-César Leuba (1819–1884), and though the two broke off their partnership in 1871 (the 10<sup>th</sup> year of Tongzhi's reign), they continued to supervise the production of the Bovet family's China watches.

In 1901, Leuba's sons César and Charles bought the Bovet trademark for 100,000 francs at auction in Paris.

# F&A BOVET LONDON

Though this meant that the Bovet brand would live on, it was no longer owned by the Bovet family. From the time Edouard Bovet first entered the Qing Empire in 1818, the Bovet watch dynasty had ruled for 83 years—decades during which Bovet had both defined, and been defined by, the fortunes of history, and the evolution of that unique confluence of artistry and mechanical ingenuity known today as the China Watch.



The Bovet registered trademark



## Characteristics of Bovet's Chinese market watches

The popular Bovet pocket watches made specifically for the Chinese market at that time were known collectively in Chinese as *dabajian*, literally “the big eight parts” (in the Beijing and Tianjin area they were also called *changxingbiao*, literally “long-running watch”). The cases were generally made of silver, gold or gilded silver or copper, and most of the movements were gilded copper though some also had steel bridges. On the dial, the hour scale was in elongated Roman numerals, and a number of watches also included Chinese characters for traditional Chinese time telling.

Many cases were also decorated with painted enamel and vividly depicted a variety of subjects, such as people, flowers, outdoor scenes or animals, and these life-like paintings often contained many Chinese elements. Additionally, it was very common to produce pairs of matching watches bearing the same image, and the edges of many cases were inlaid with pearls or other precious stones.

During the 27<sup>th</sup> year of Daoguang's reign (1849), in his book *Pin hua bao jian* about the life of Qianlong and Jiaqing in the Beijing peach orchard, author Chen Sen (ca. 1797–ca. 1870) writes in chapter 36, “looking at his own waist to see a *dabajian* steel inlaid watch valuing 200 *daiqian*.”



Firstly, this demonstrates that the word *dabajian* had already found its way to Beijing by the mid-19<sup>th</sup> century. Secondly, at the time this type of watch was worn in a pouch at the waist that allowed for the dial to remain visible to facilitate reading the time. Thirdly, the so-called steel inlay referred to movements with steel bridges. Fourthly, one *daiqian* was equivalent to one silver tael, which means the watch cost about 200 taels.

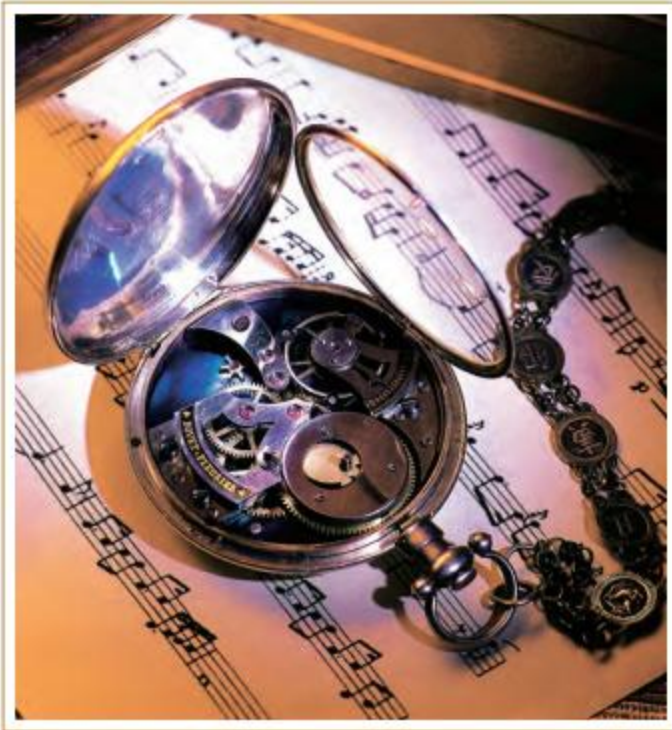
Regarding how watches were worn, Lin Sumen, (ca. 1748–1809) wrote in scroll seven “Watch with Three Hands” of *Three Hundred Sonnets to Han River*, “This object tells the precise time. It has a copper base and porcelain face as well as a glass cover, the inside is full of screws and it runs on a spring.

Many cases were also decorated with painted enamel and vividly depicted a variety of subjects, including people



*Dancing Lady*, a Bovet painted enamel watch made ca. 1860, (Pascal Raffy private collection)

The face is like the eight diagrams (the *ba gua*, or trigrams from which the hexagrams of the famous *I Ching*, or *Book of Changes*, are derived) inside of which are rotating hands, and when you look at where the hands are under the glass, you know the quarter hour or if it is a few minutes before. Foreigners sell one watch for only a few dozen gold pieces; today the faces have three hands, and are more accurate and the price is more expensive. In the city it is fashionable for people to say it is for telling time, but more often it is to wear on the waist as adornment.



*Movement with steel bridge (author's collection)*

Speaking of the pear orchard during the Qianlong period, in *Bei dong yuan bi lu xu bian*, Liang Gongchen (1814–unknown) writes: “Liang Zhangju said: when I was 13, I went to study in Xiamen, and the government office was especially luxurious. In the lobby were two striking clocks, one on the left and one on the right, they were as tall as people. There were six of us in my class, two were around 20, the others 13 or 14 and there wasn’t anyone who didn’t have a watch.”

Not only did Bovet produce a variety of watches for the Chinese market, it also maintained very close relations with other brands such as Eway and Guinand. Palace archives from the Qing dynasty state that in the 8<sup>th</sup> year of Tongzhi’s reign (1869), Prince Chun of the Second Rank was given a boxed set of matching gilded watches for his 30<sup>th</sup> birthday with enamel dials and second hands, and in the 9<sup>th</sup> year of Tongzhi’s reign (1870) Prince Dun of the Second Rank was given a boxed set of matching watches for his 40<sup>th</sup> birthday with a double row of pearls around the edge, a painting of figures against a blue background, two hands and a seconds dial. Clocks and watches were also presented as gifts when a princess married.

For example, for her wedding in 1870 Gulun Princess Rongshou received a boxed set of polychrome painted enamel watches with a second dial and pearls around the edge, depicting flowers and a pair of dove against a white background. She was also given a pair of matching gilded musical clocks with an enameled arched pedestal that turns into a vase and colorful glass flowers (Guo Fuxiang, *A Historical Reflection of Time*). Certainly some of these timepieces were *dabajian* pocket watches made by the aforementioned brands.



*Pouches used for carrying watches and which could be fastened to a belt*



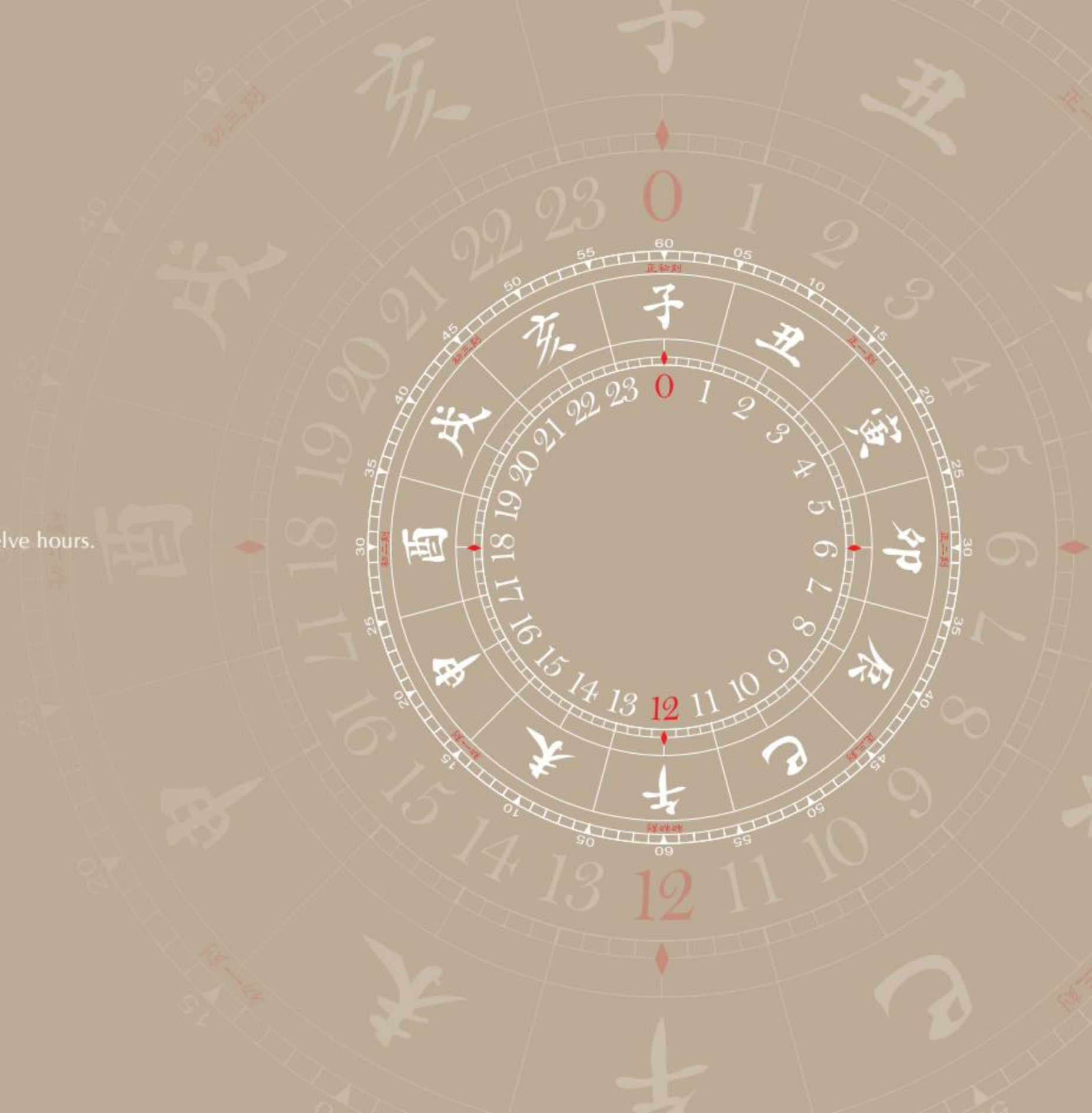
*Image of Dowager Empress Cixi playing chess*



*A pair of matching watches made by Guinand circa 1875*

The secret of movement, case and enamel  
Working day and night without rest, one cycle every twelve hours.  
The wheel rotates, the minutes slowly elapse.

*Emperor Jiaqing*



# The pocket watch in all its intricacies

## A variety of movements

We previously mentioned the five different sizes of the antique China pocket watch. Bovet watch cases were rather uniform in shape but came in an array of diameters so the beauty of the watch movement could be fully admired. As the famous watchmaker and collector Kiu Tai Yu, who drew me into collecting *dabajian* (pocket watches for the Chinese Market) once said:

“These pocket watches look very similar but their escapements, the shapes of the movement, how they move, the materials of the various bridges, the design of the movements, the craftsmanship and artistic engraving and decoration are all different, making each *dabajian* (Chinese Market Watch) completely unique. No two are exactly alike.”

“Years ago, these *dabajian* (Chinese Market Watch) dominated the Chinese market for a long time – Bovet was the most common and most famous brand in China, and sales were remarkable. With their superb quality, beautiful form, versatility and the fact that there were so many of them everywhere, they were a watchmaking miracle.”

His keen observations give us a glimpse into the mystery of watch movements, in addition to the details of cases and dials. These subtleties help us to recognize the technical innovation of watches and appreciate their artistic ornamentation, something that may make the China pocket watch unique in the history of timepieces.



*Rough cast brass movement (Watch Museum of Le Locle collection) dabajian (Chinese Market Watch) ébauche (MHL collection)*



*Sand-blasted gilded main and top plates (Watch Museum of Le Locle collection) (MHL collection)*



*Gilded brass main and top plates engraved with decorative pattern, eight-day power reserve and two train wheel bridges (Pascal Raffy private collection)*



Polished steel mainplate and gilded brass top plates engraved with decorative pattern (private collection)

## Basic structure and select materials

The movement of the *dabajian* (Chinese Market Watch) is usually composed of a mainplate, top plate (including the train wheel bridge, escapement bridge and the balance cock, the first and last of which are hollow) and a barrel. They can be made of a variety of materials, including brass, steel, or silver. Brass is a commonly used base material (usually with gold gilding), while steel (usually mirror-polished or blued-steel) is less common because its higher degree of hardness makes it difficult to work with. However Bovet initially used steel because of its unique look and for its anti-oxidation properties (in the case of blued-steel) that made it particularly suited to the humid climate in Canton where the watches were sold.

The following models were possible based on the different combinations of materials:

1. Gilded brass mainplate or top plates, including:
  - brass main and top plates engraved with decorative patterns
  - polished silver or steel mainplate and engraved gilded brass top plate
  - engraved brass mainplate and engraved brass top plate with enamel
  - sand-blasted gilded mainplate and gilded brass top plates engraved with decorative pattern
2. Steel main and top plates, including:
  - polished main and top plates
  - polished blued-steel main and top plate (or partial blued-steel top plate)
  - polished blued-steel mainplate and polished top plate



Polished steel main and top plates (Bovet private collection)



Brass main and top plates engraved with decorative pattern, eight-day power reserve and two train wheel bridges (Pascal Raffy private collection)



Sand-blasted gilded mainplate and gilded brass top plates engraved with decorative pattern (private collection)



Mainplate and certain top plates in polished blued-steel (photo provided by Antiquorum)



Polished blued-steel mainplate and polished steel top plate (Pascal Raffy private collection)

## Innovative decoration

The movements of *dabajian* (Chinese Market Watch) were often elaborately decorated with patterns engraved by hand in order to give them a magnificent appearance. A Tang dynasty flower design was particularly popular, though other images such as birds, butterflies and flowers were also not uncommon; some designs even gave the appearance of waves along the edges of the movement parts. Later movements of the period were of cast metal, which were somewhat rigid in appearance and lacked the light touch of the artist's handiwork.

Some special *dabajian* (Chinese Market Watch) movements were decorated with enamel, lacquer or metal flowers for a particularly artistic look. This additional touch of creativity appealed greatly to the Chinese, who were very fond of observing

and admiring watch movements. Some movements were decorated with blue, red black enamel, but these parts needed to be fired and were often deformed in the process, so such movements are quite rare and have a high collector's value. Geneva artisan named Pélaz decorated his calibers with this kind of motifs in 1858 (Alfred Chapuis *La Montre Chinoise*). Lacquer painting was a much simpler form of decoration, requiring only the application of color, and flowers were among the most common images painted. This type of decoration was sometimes combined with engraving for a dual effect.

Tiny metal flowers were also sometimes fixed onto the movement parts, making the already beautiful movement come to life in three dimensions.



Cast metal movement



Wave pattern along edge of bridges (Bovet private collection)



Lacquer painted movement (Tianyixuan Watch Museum collection)



The shape of a small bird has been engraved on the bridge (image provided by Antiquorum)



Movement decorated with flowers (Pascal Raffy private collection)



Separated bridges  
(image from Antiquorum)



Cloud bridges ébauche (Musée  
des Arts et Métiers collection)



Cloud bridges (author's collection)



Enamel full festooned bridges  
(author's collection)



Dragon and phoenix bridges  
(Huo Feile collection)

## Simple and complex shapes

Early movements produced by Bovet were not as uniform as those of the *dabajian* (Chinese Market Watch), but instead had a variety of patterns on them as opposed to the later decorative designs. In order to appeal to Chinese tastes, Bovet gradually began to develop a number of designs that were mostly used to ornament the top plate (that is, what we would call the back of a movement; to a watchmaker this is the "top"). Such designs included dragon and phoenix bridges, cloud bridges and full festooned bridges. Watchmaker Jean Tixier—a French-born watchmaker, active in the 1840s, who moved to Fleurier and made watches for the Chinese market—was the first to create this type of movement.

The dragon and phoenix bridges were bridge parts decorated in the shape of a dragon and were intended to appeal to the cultural aesthetics of the Chinese. The cloud bridges were a dense pattern of auspicious clouds and often involved extra decorative parts to give a total of eight pieces, which was appropriate as pocket watches were known in Chinese as *dabajian*, literally "the big eight parts." Full flower bridges formed an even denser pattern than the first two and completely covered the various parts of the movement, hence the name. These designs were also decorated with enamel to make them stand out even more.



Eight-day power reserve *dabajian* (Chinese Market  
Watch) movement (Dr. Cortt collection)



Bridge shaped like a monkey's face  
(Zhou Binyan collection)



Skeleton full plate movement  
(Chen Guowen collection)



Enamel full festooned bridges  
(Zhang Shengpeng collection)



*370-days power reserve movement (MIH collection)*



*Regular hunting watch movement (private collection)*

Of course, in addition to the above-mentioned complex forms, bridges with simpler shapes are also popular collector's items. One example of such interesting bridges are those shaped like a monkey's face. Another unusual feature was sometimes applied to an eight-day power reserve movement: two barrels in a symmetrical design, with the barrels on either side of the central axis, making them easy to recognize.

Once hunting watches (pocket watches with covers over the crystal, opened by a spring) were introduced, not only did the cases change but the movements also changed. Three-quarter bridges were used, which lacked all the esthetic qualities of the *dabajian* (Chinese Market Watch). In addition, eight-day power reserve movements were designed with one large barrel that completely obscured the structure of the movement when the caseback was open.



*Eight-day power reserve hunting watch movement (private collection)*



## The many types of escapements

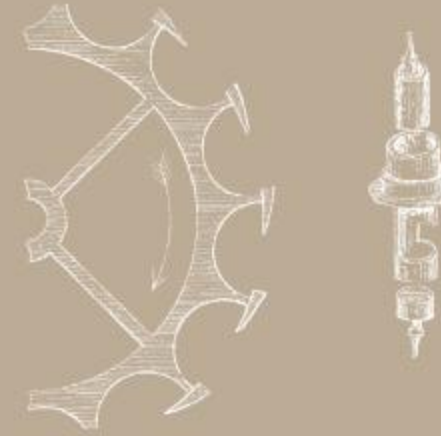
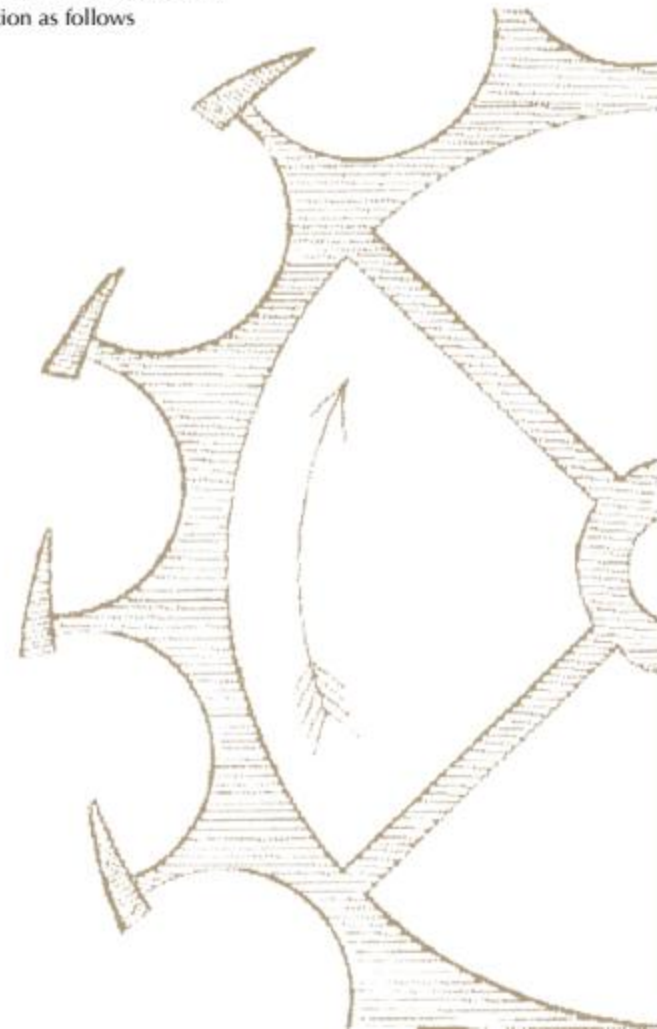
It is interesting to note that nearly all types of the major escapements have been used in *dabajian* (Chinese Market Watch) movements, and some of those used in Bovet watches are rarely seen elsewhere. A number of these unique escapements have never been documented in any books.

Based on Bovet sales records, we discovered that Bovet watches often used duplex and cylinder escapements. The duplex escapement gets its name from the two rows of teeth on the escape wheel, one of which provides impulse to the balance; the other teeth lock and unlock the escape wheel. It can provide excellent accuracy but is relatively challenging to make; the duplex was developed very gradually over the course of the 18th century until finally being patented in 1782 in its most finely-honed form by Englishman Thomas Tyrer. The cylinder escapement is usually credited to Thomas Tompion, who invented it in 1695; it's named for the hollow cylinder that forms the axis of the balance, and in which the teeth of the escape wheel rest; as the cylinder turns, an opening on its side allows one tooth of the escape wheel to exit, giving impulse to the balance; as the balance swings back, the following escape wheel tooth is captured, locking the escape wheel until the next vibration of the balance.

Initially copper and steel duplex escapements were used but by about 1824 cylinder escapements started to appear more frequently, despite the fact that duplex escapements were already widely used by Bovet. Beginning in 1825, duplex escapements had regained popularity, though cylinder escapements continued to be used often. From then on, both types of escapements frequently appeared in Bovet watches.

Later, Jacot duplex escapements (a type of duplex escapement with a jumping second hand) and anchor escapements were also used. The former was the most unusual and was produced specifically for the Chinese, as its special mechanism catered to their interest in observing the second hand jump forward with each passing second. The latter was popular in the second half of the 19th century, though slight adjustments were made when it was used in *dabajian* (Chinese Market Watch). For example, various shapes were added to the end of the fork, some of which looked like Chinese weapons or fish tails, or were inlaid with jewels. The idea was that when it moved it would produce an interesting visual effect. Once again, Bovet had succeeded in understanding Chinese interests in this area. According to *The Mirror of Seduction*, some escapements introduction as follows

The escapements used in Bovet watches are rarely seen elsewhere



Cylinder escapement



Duplex Escapement

**Cylinder Escapement:** This was invented by London watchmaker George Graham (1673–1751) circa 1720. One might say it was an improvement on the escapement invented by Thomas Tompion (1639–1713) in 1695, to whom Graham was apprenticed. For mechanical watches, the cylinder escapement had a number of advantages over the crown-wheel escapement. The cylinder escapement includes a cylindrical pinion with 15 teeth. The cylinder is small and hollow, made of polished steel, and has a cutout in it where the teeth can enter one by one. Both sides of the cylinder are closed off with steel in which pivots are set, and the balance wheel is fixed to the cylinder. The extra motion causes friction between the edge of the gear and the cylinder. This type of escapement was later replaced by the anchor escapement. Abraham-Louis Breguet (1747–1823) came up with ruby-set bridges to help improve the operation of watches.

**Duplex escapement:** This is a semi recoil escapement. The escapement wheel has two sets of teeth, or a double escape wheel (two overlapping gears). This type of escapement was probably invented by Pierre Le Roy (1717–1785), son of Julien Le Roy (1686–1759). Today we can confirm that the uncommon overlapping escapement wheels in a movement was the work of Pierre Le Roy, and this may have been a precursor to the duplex escapement because it already had the function of the single-wheel duplex escapement that appeared in the late 18th century.



Jacot duplex escapement



Special Jacot duplex escapement



Anchor escapement

**Jacot duplex escapement:** Also known as the Chinese duplex escapement, this type of escapement allowed the second hand to advance on the second, giving wearers the feel of a very accurate timepiece. It was invented by a Swiss watchmaker from La Chaux-de-Fonds, Charles-Edouard Jacot (1817–1897), in the late 1830s, and it is commonly used in pocket watches for the Chinese market because watches with this type of escapement do not require any other mechanisms. It beats at a rate of 14,400 per hour. It also has an independent second hand function. The dials of watches using this type of escapement have minute divisions but no fifth second divisions.

**Anchor escapement:** It is said that London clockmaker William Clement first used this type of escapement in 1675 to adjust a clock. Others believe it was invented in 1666 by English scientist Robert Hooke (1635–1703). In the early 18<sup>th</sup> century, another London clockmaker George Graham (1673–1751) developed the similar simple deadbeat escapement and used this in pendulum clocks. Around 1754, Thomas Mudge (1715–1794) invented the anchor escapement for watches and used it in several very small clocks and in pendulum clocks. Between 1781 and 1795, in London, Geneva watchmaker Josiah Emery (1725–1797) became the first person able to produce this type of escapement since Mudge (to date there is a record of over 30 escapements produced by Emery). In mid-1782 one of these chronometers was exported to Paris, where it inspired Robert Robin (1742–1799) to produce one of his own clocks. Robert Robin produced his first example in 1783. At the same time, in Geneva, Jean-Moïst Pouzait (1743–1793) independently produced his own version. In 1860, A. Jeanrenaud improved the anchor escapement, invented the Anchor duplex escapement

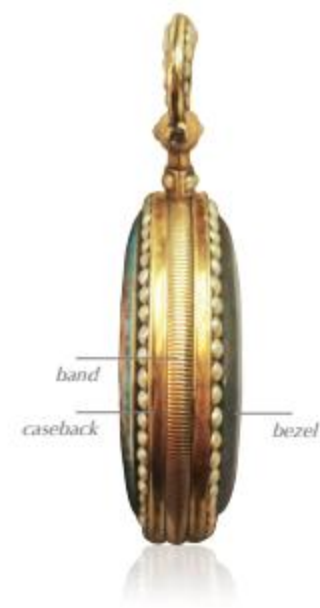
## Case details

Bovet watches sold into the Great Qing Empire generally had one of two types of cases: the bassine case or the empire case. With a bassine case, the bezel and the pendant are one piece and are usually hinged to the caseback. This two-piece case is often used in simple watches (though sometimes also in luxury watches). An empire case is made up of three parts, which includes the bezel, the band and the caseback. The pendant is on the caseband, which is connected to the caseback with a hinge. The surface of the band is frequently textured. Empire cases are used in luxury watches.

The two types of watches mentioned above are open face watches, meaning that they only have a caseback but no front. The pendant, located at 12 o'clock, is composed of the bow, neck and head, to which the ovular bow is connected with a pin. The head is usually full and round but can also be square, and the neck is divided into top and bottom, with the bottom wider than the top. The pendant and bow of luxury watches are almost always adorned with pearls or enamel and the caseback often has inlaid or enamel decoration, as this is especially eye-catching. Hidden in the pendant is a catch which, when pushed, will release and open the caseback.



Empire style case





*Decorative patterns engraved on gold cuvettes  
(Bovet private collection)*

When the caseback is open, the cuvette (movement cover) is visible. The cuvette is also on a spring system and can be opened. There are two types of round cuvettes. The first is made of metal and is often engraved with a flower motif or stamped with the maker's mark, while the second type is transparent, made of glass, and is fixed within a round metal hoop. This latter is a very special design that was particularly well suited to the Chinese, who were great admirers of watch movements, because it offers a clear view of the movement. It also serves to protect against dust. This dual-purpose design was a distinct characteristic of China watches. Regardless of the type, all cuvettes found on watches by Bovet of this period have two holes through which the watch can be wound and the time adjusted by means of a key.



*Transparent cuvette*



*Gold cuvette*



*The five sizes of the Chinese dabajian watch  
(Wang Kuan collection)*

The pocket watches known as *dabajian*, mentioned earlier, are open face watches and can be categorized into the following five types based on their size:

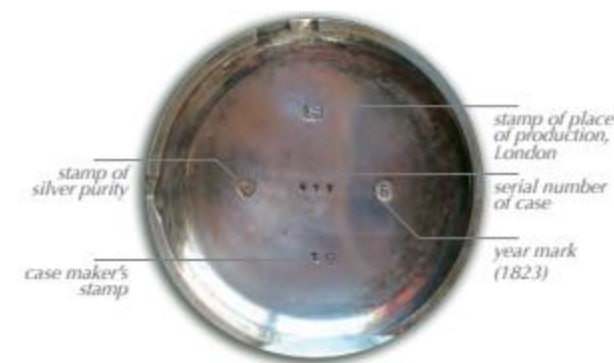
- Size one / extra large / 60 mm or more in diameter
- Size two / large / 50–59 mm in diameter
- Size three / medium / 40–49 mm in diameter
- Size four / small / 31–39 mm in diameter
- Size five / extra small / 30 mm or less in diameter



*Censer-shaped Bovet hallmark, with the Chinese characters for Bovet inside the caseback (private collection)*

Often the maker's mark and the serial number of the watch appear on the inside of the caseback (because watches were made in matching pairs, consecutive numbers were usually used, though sometimes the same number was used and one was given an extra mark to distinguish it from the other; later serial numbers were often multiples of 12, which meant that 12 of the same watch had been made). Some watches even bear the case maker's stamp and a stamp indicating the type and purity of the metal (for example, 0.875 or 0.900 to indicate purity). A number of early Bovet watches came from England and they are stamped to indicate the location and year in which they were produced. For consistency, the bezel inside of the case and the metal bezel in which the cuvette was set were both given numerical serial numbers, which indicated that they were original parts. Occasionally the cuvette bezel would also have the brand name and the place of production as well as the serial number, for example: Bovet London 677.

The special signature "Tevob"—Bovet spelled backward—also appeared. All of these features were common on Bovet watches produced in England. There are many special details on watch cases that are worth researching for watch collectors.



*English-made watch case*



*Back of hunting case with lotus-shaped Bovet hallmark inside (private collection)*



*Bovet London 677 on the cuvette bezel*



*Bovet minute repeater with hunting case produced in 1890*

The hunting case has been popular since 1860. It has both a back and front case to protect the dial and is unique in that the pendant is at three o'clock; often, the front cover is on a spring hinge that can be opened by pressing the crown to allow the time to be read. There is also the half hunting case, which has a window in the front case and time markers around that window, so that it is possible to read the time without opening the case. The hour hand also has two heads indicating the time. These cases are often engraved with decorative designs, especially circular ring-shaped patterns. However, as time went on, more original designs appeared. For example, in June of 2011, Christie's New York auctioned one particular Bovet repeater with a case made of niello silver, a type of silver-nickel alloy that appears black. As it was common to engrave patterns on these watches, this watch was engraved with a picture of hounds and a reindeer, depicting a vivid scene between these animals during the hunt. This is a great example of a Bovet hunting watch.

Watchcases are often made of gold, silver, steel, brass, gilded copper or gilded silver.



*Bovet watch with half hunting case produced in 1870 (private collection)*



Blued-steel peach-shaped hands. Early watches used scales with thick Roman numerals



Blued-steel pear-shaped hands. Later watches used scales with long, thin Roman numerals



Blued-steel pear-shaped hands, Pailloné decoration dial

## Dial design

Design elements on Bovet watch dials were fairly standardized. The hour scale was in radial Roman numerals that were especially long and thin. This gave them a sense of weightlessness, as if to imply that it didn't really matter whether or not it was actually possible to read the time clearly. In fact, Chinese demand for pocket watches at the time was not merely about the ability to know the hour, but also about having something special and being able to enjoy it. So this design served a dual purpose. In addition to the Roman numeral hour scale, there was also a minute scale that generally had only four Arabic numerals: 15, 30, 45 and 60. We believe this is likely related to the Chinese way of telling time in quarter hour increments. Dials were usually white enamel on a copper base with the Roman numerals printed by transfer and the minute scale painted by hand.

In addition to the numbers scales mentioned above, some watches used traditional Chinese methods of telling so-called Shichen, which breaks the day down into 12 two-hour increments. In such cases, the dial was ringed with the Chinese characters 子, 丑, 寅, 卯, 辰, 巳, 午, 未, 申, 酉, 戌, 亥 (with 子 at six o'clock and 午 at 12).



Chains made specifically for a watch, used to tell time the traditional Chinese way.

Shichen (Chinese twelve divisions of the day) watch chain: rat, ox, tiger, rabbit, dragon, snake, horse, goat, monkey, chicken, dog, pig.

Shichen (Chinese twelve divisions of the day) watch chain: zi, chou, yin, mao, chen, si, wu, wei, shen, you, xu, hai

Eight quarter hours are arranged clockwise along the outermost ring. The innermost ring has two repeating sets of 12 Roman numerals—for a total of 24—which correspond to the 12 two-hour periods of the day in the Chinese way of telling time. It takes the hour hand 24 hours to make one full rotation around the clock, one rotation of the minute hand takes two hours and one rotation of the second hand takes 120 seconds—to Western sensibilities, a most unusual way of telling time, certainly. This type of watch was well suited to the Chinese people's way of keeping track of the hours, and this dial was a unique feature of Bovet watches. The inside of the caseback of these watches often had the Chinese characters “何天生绘图、播碱行监造,” which means “drawn by He Tiansheng, produced by Bovet”. To this day, there is no clear evidence pointing to who exactly He Tiansheng was, but because the Bovet family was so established in China, it is likely they would have had no difficulty finding a Chinese calligrapher. This type of watch is quite rare and any that still exist today would certainly be highly prized by any collector.



Bovet zodiac watch “made by Bovet company” engraved inside the case  
Shichen watch (private collection)

Period	Day								Night									
	一更	二更	三更	四更	五更	子	丑	寅	卯	辰	巳	午	未	申	酉	戌	亥	
Han																		
Qing	Early	5	7	9	11	13	15	17	19	21	23	1	3					
	Mid	6	8	10	12	14	16	18	20	22	24	2	4					
Today	5-7	7-9	9-11	11-13	13-15	15-17	17-19	19-21	21-23	23-1	1-3	3-5						

Comparison of Chinese methods of telling time



*Flower-shaped hands*



*Foiled cross-shaped hands*



*Pear-shaped hands*



*Lozenge hands*



*Skeleton hands*

Both the minute and hour hands of Bovet watches are often pear-shaped, with an extended point at the tip of the hand. Upon close inspection, it is possible to see that the center of the pears are slightly sunken, to give a sense of three dimensionality, which is a completely unique design. The tail end of the second hand is often in the shape of a sesame seed, which comes to life as it moves. The hands of Bovet watches can also be flower or peach-shaped and are often made of blued steel or gold.

The Bovet signatures appear on the dial in a variety of ways. Sometimes the Chinese characters for Bovet “播喊” are used (written front right to left in the traditional manner) while other times “BOVET FLEURIER” appears (either in a straight line below 12 o’clock or split on either side of the 30-minute marker). The serial number can also be present, and occasionally there is no signature at all.



*Different placements of the signature*

## The charm of enamel

The mechanical differences between conventional watches and Bovet Chinese Market watches are fascinating, and their distinctive dials and case ornamentation make them absorbing subjects of study. But much of the charm of Bovet watches comes from their colorful enamel cases. The vivid paintings in an array of styles and colors were the reason for the glorious success of these watches in China nearly two centuries ago, and they continue to attract collectors to the world of Bovet enamel watches to this day. Therefore, we must examine the evolution of enamel painting throughout history, and take a systematic look at enamel Bovet watches in particular.

Enamel is composed primarily of quartz, feldspar and borax, and metallic oxide is used as pigment. Essentially, enamel is a kind of colored glass; the raw enamel must be painstakingly ground into a very fine powder, which is then mixed with a binding agent—oil or water—before being applied to a metal surface. After being heated, the powder fuses and solidifies, in a process called vitrification (which means, “to turn into glass”) becoming a colorful—and permanent, true enamel does not fade or age—part of the decoration of a watch case or other object. It also protects against corrosion. Between 1600 and 1900, this decorative art was used extensively in watchmaking, especially on watchcases and dials. Enamelers have been skillfully displaying their art on pocket watches, making the word “enamel” one of the most charming words in the world of watch making today.



*The art piece of Xiong's Enamel*

## The origin of enamel art centers

Enameling was already an established art in the Classical world and was practiced by the ancient Egyptian, Roman and Greek civilizations, among others. In late Medieval Europe, between the 12<sup>th</sup> and the 14<sup>th</sup> centuries, the French region Limoges became known for its enamel inlay on articles for religious use. Then, beginning in 1470, enamel painting gained a foothold in the area and slowly developed. At the time, *grisailié* painting (a type of enameling which uses only black and white, and variations of grey) with its distinctive three-dimensional appearance, was popular in Limoges. However by the early 17<sup>th</sup> century, Limoges was producing less enamelwork and was eventually succeeded by new enamel-producing centers. Around 1630, the art of miniature enamel painting began to appear in the French region of Blois. This technique was introduced by Jean Toutin I (1578–1641) and involved painting exquisite images in colorful detail on white enamel watch dials.



*Limoges grisailié painting (MAH collection)*

Over time, Geneva eventually became Europe's center for enamel art. Jean Petitot I (1607–1691), who was born in Geneva, carried on the Toutin legacy. He served at court in England, France and Italy, where he refined his enamel painting techniques and went on to become a renowned Geneva enameler. Of equal prestige was the Huaud family. French enameler Pierre Huaud I (1612–1680) arrived in Geneva in 1630, having left France after suffering religious persecution due to his Protestant faith, and he brought the art of miniature enamel painting with him. His three sons, Pierre Huaud II (1647–ca. 1698), Jean-Pierre Huaud (1655–1723) and Ami Huaud (1657–1724), were all born in Geneva and Jean-Pierre gave him a grandson, François Huaud (1701–1729), who unfortunately died at the young age of 28. It is said that Pierre Huaud II was the most artistically talented member of the family.



*Geneva miniature enamel painting (photo provided by Chen Mang)*

The fact that Geneva became the center of enamel painting is not only due to the art's close connection with the local watchmaking industry, which allowed it to thrive, but also in part thanks to the peaceful environment the area provided to the artists that lived and stayed there.



*Enamel painting by Jean Petitot I (1607–1691) (MAH collection)*

The dazzling colors used in Blois enamel painting were in stark contrast to the dull colors used in Limoges enamel. Later, Henri Toutin (1614–1684) went on to further develop his father's technique. Other famous Blois enamellers included Christophe Morlière (1604–1644), Pierre Chartier (1618–unknown) and Robert Vauquier (1625–1670). At the same time another enamel center began to gain ground during the 17<sup>th</sup> century: Augsburg, Germany. David Attemstetter (ca. 1547–1617) was a well-known inlay enameler from this area.

Between 1675 and 1680, the Augsburg region also saw a special enamel painting tradition take root, just as in France—enamel painting on watch cases.

Such artists included Jean André I (1646–1717), Jean Mussard V (1681–1754), Jean Etienne Liotard (1702–1789), Jacques Thouron (1749–1789), Jean-François Favre (1751–1807), Jean-François Soiron (1756–1812) and female enameler Elisabeth Terroux (1759–1822). By the middle of the 18<sup>th</sup> century, Geneva enamellers had refined their decorative enamel techniques, and in 1760 they developed what is known as "Geneva enamel," a type of colorless glaze that protects enamel paintings. The abundance of skilled artists and techniques combined with the appearance of newly emerging markets was an early indication that the most splendid period in the history of enamel watches was just around the corner.



*Tourbillon pocket watch painted the portrait of Napoleon and Josephine (private collection)*

## The development of enamel watches

Enamel watches in the early 17<sup>th</sup> century were often decorated with *Champlevé*. Many of them had unique designs and atypical shapes, such as a cross, an oval or an octagon, and watchcases were sometimes adorned with crystals and other materials. An example is a watch from circa 1600. At the time, devices such as the balance wheel spring did not yet exist, so watches were not very accurate and it was common for them to only have an hour hand. The dial of this watch bears colorful flowers, though the design is quite simple and the outline rough. Based on the appearance and technical artistry, the watch was likely made in Augsburg, Germany.

Beginning in the mid-17<sup>th</sup> century, watchcases gradually became round and a second, outer case was specifically designed to protect the watchcase from damage. This is what we know today as the double case. Such watches were richly decorated, with cases made of precious metals or gilded, and they were engraved, inlaid or painted, looking more like decorative artwork than anything else. Because the art of enamel painting flourished between the late 17<sup>th</sup> and mid-18<sup>th</sup> centuries, watchcases were adorned with miniature enamel paintings of a variety of subjects, including religion. These images were frequently based on oil paintings by celebrated artists and were replicated by the skilled hands of the enameler on a watch case or dial. As more enameled watch cases were made and the art of enameling continued to evolve, watch cases became miniature works of art of almost unbelievable splendor.

From the eighteenth century onwards, Geneva enamellers were celebrated for their artistry, and watchmakers from across Europe ordered enamelwork from them. In order to provide even more room for the enamellers' creativity, pocket watches steadily grew in diameter and were often as large as 50–60 millimeters.



*Late 18<sup>th</sup> century miniature enamel painting on watch depicting a pastoral scene (photo provided by Chen Mang)*

The most favored images for enamel paintings were romantic scenes from myths and legends, historic subjects, legendary tales, Alpine scenes of lakes and mountains as well as the ever-popular floral patterns. After 1790, pocket watch movements became increasingly thin and watchcases were lighter and thinner than before. The style of Geneva enamel painting was also affected by the influence of English literary developments, and the miniature enamel paintings on many watches were of pastoral scenes and people.



*"Paris and Helen" enamel watch (photo: Antiquorum)*



*Champlevé enamel watch produced in Augsburg circa 1600 (photo: Antiquorum)*



*Uniquely shaped watches from the early 19<sup>th</sup> century decorated primarily with enamel (photo provided by Chen Mang)*





*Watches manufactured for the Chinese market in the early 19<sup>th</sup> century were ornately decorated with enamel on the caseback and the cuvette (photo provided by Chen Mang)*



By the beginning of the 19<sup>th</sup> century, uniquely shaped watches and matching pairs with elaborate enamel decoration brought a new level of beauty to the world of enamel watches. Whether for their original design or rich decoration, these pieces are considered to represent the artistic peak in the history of enamel watches. Demand for enamel watches in China, Turkey and later India was high, and this led to the creation of enamel watches with unique features adapted to these local markets. This was particularly the case for Chinese market watch.

However, by the second half of the 19<sup>th</sup> century watch production was becoming industrialized and the market for enamel watches began to contract, causing enamel watches—with their added artistic value—to start losing their allure. At the same time, the number of enamellers was steadily declining and it was becoming increasingly difficult to pass on this art. By the time wristwatches appeared in the 20<sup>th</sup> century, the splendid enamel watches had already become highly sought after collector's items. Today, however—after nearly dying out completely in the wake of the Quartz Crisis—horological enameling is once again beginning to approach new peaks of creativity and technical mastery, as a new generation of artists working in enamel conserve and rediscover the techniques of past masters—and work to create their own.



*Navette-shape pendant watch (private collection)*



*Form watch in the shape of a peach (photo provided by Chen Mang)*

## The art of enamel watches

Over their 300 years of history, enamel watches have presented a variety of types of enameling techniques. In all of these art forms, enamel plays a key role. Enamel can be opaque, translucent or transparent, monochrome or polychrome. All of these differences impact the appearance of the enamelwork. Another important factor is the base on which the enamel is painted. Different types of enamel art require different bases, though certain bases can accommodate a variety of enameling techniques. Below are some of the most common.



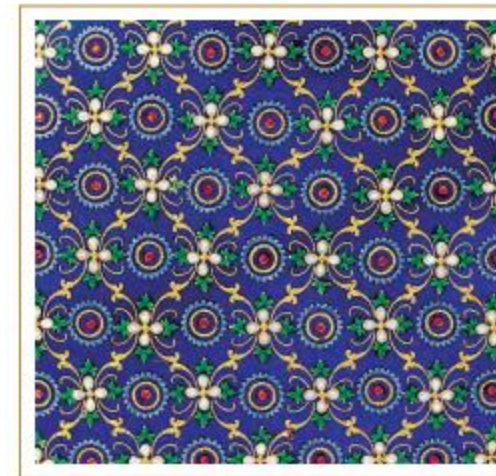
*Champlevé (Pascal Raffy private collection)*

**Champlevé** is one of the oldest types of enamel art. This technique begins with an engraver carving out pre-designed patterns on a metal base, being careful to ensure that the contours of all shapes are precisely outlined in order for the vivid pattern to appear sharply. Next, the artist fills in the hollows with different colored enamel and then fires the piece at over 800 degrees Celsius, sometimes requiring several rounds of painting and firing before the perfect colorful effect is achieved. Finally, the piece is polished and the finished product is a smooth, colorful work of art.



*Flinqué (Beijing Poly Auction Photo)*

**Flinqué** uses transparent colored enamel that allows the background to remain visible. This technique shows off the delicate designs engraved in the metal base, most of which are geometric patterns, and at the same time creates a strong visual effect.



*Pailloné*

**Pailloné** is carried out on a metal base and uses specially shaped gold and silver leaf between two layers of translucent enamel to create patterns. This technique takes advantage of the luster of silver and gold when used as a base color, not only creating spectacular decorative patterns but also giving a sense of three-dimensionality. There is another, less common type of pailloné that of *pailloné* combines the use of gold leaf decoration with the *baisse taille* technique. *Pailloné* became popular in the early 1780s.



*Cloisonné decorated movement (product of Xiong's Enamel)*

**Cloisonné** generally uses gold, silver, or copper wire to create the contours of a pattern on a metal base and the space between the wires is filled with colored enamel. The piece is then fired at a high temperature. This technique is rare and very complicated. The spaces between the wires are filled with several dozen types of colored enamel using an instrument no larger than the tip of a needle. The piece is fired starting with the enamel that requires the highest temperature and working down to the lowest temperature, so it may need to be fired and polished over 30 times. However, if any cracks appear in the enamel, the whole piece is discarded. Finally, the piece is polished, starting with a coarse grain then getting gradually finer, sometimes more than 20 times until the enamel and metal wire are flush and the piece is perfect.

The quintessentially Chinese “Jingtai” enamelware (so called for its use of predominantly blue enamel) is also a type of *cloisonné*. This art was most common during the Jingtai and Chenghua periods of the Ming dynasty, and though it continued into the later Hongzhi, Zhengde, Jiajin and Longqing periods, it did not develop with the fervor it had previously known, and in terms of quality it could not compare to the work produced during the Jingtai and Chenghua periods. By the Qing dynasty, the art of Jingtai Blue had improved and though the works produced in the time of Emperor Qianlong were no match for those produced during the Jingtai and Chenghua periods, they surpassed those made in the late Ming.



Miniature painting



Grisaille

**Miniature enamel painting** –generally considered the highest, as well as the most difficult by far of the enamelist’s arts—is commonly referred to as simply enamel painting. The first step in this process is preparing the enamel. Enamel is a type of compound material, not unlike the artificial pigments in glass, and is composed of several minerals. The advantage of it is that it’s hard and waterproof, and it has a lovely luster and texture, making it especially suitable for painting. Before any enamel can be applied, the pigments must be extremely finely ground using an agate mortar and pestle. Distilled water is then mixed with this powder to create a basic paint. The painting is carried out on a metal base, usually made of gold or silver but sometimes also of copper. However, before this can be done, the surface must be prepared. This is a key step in the enamel painting process because it affects the final appearance of the painting. The surface must be completely white and shiny, and not even the slightest blemish is permissible. The surface must also be completely smooth. Since the base could become warped when heated, it is imperative for the enameler to be able to completely control the temperature at which the piece is fired. Many of these challenges are common to all forms of enameling, but they are especially of concern to the miniaturist, whose work is so enormously time and labor intensive—and for whom accidents can represent the destruction of countless hours of the most painstaking work in an instant.

Once this has been done, painting can begin. This entails two main challenges. Firstly, the enameler must have a solid understanding of this art, with extensive knowledge of what the colors will look like once fired and how the colors change at different temperatures. Secondly, the enameler must, if copying an existing masterpiece such as an oil painting, be able to reproduce a large painting on a small surface without losing any of the colorful richness of the original, which is no easy task.

To do this, the enameler uses a range of special tiny brushes to paint on the fired white surface and create an image.

However because the various colored enamels react differently when heated at high, medium and low temperatures, and because each color must be fired at a different temperature, a piece may need to be fired several times for the different colors. If the enameler cannot carefully control the temperature in the kiln or doesn’t have a clear understanding of which color needs to be fired at which temperature, the final product will not have the desired effect and the colors might even bleed or change completely. After each firing, the surface must be polished, then refired, repolished and so on.

**Grisaille** is similar to miniature enamel painting, however rather than painting with color, only black, white and shades of gray are used against a usually black or dark gray enamel background.

**Plique-à-jour** involves firing transparent or translucent enamel on a thin metal base, with different colors separated by thin metal wires. Then the metal base is dissolved or stripped away. This type of art is very uncommon in antique watches because enamel decoration was primarily reserved for cases. *Plique-à-jour* is often considered an especially challenging and risky example of the enamelist’s art, as there is no support for the enamel once the metal underneath it is removed –hence its rarity in the decoration of watch cases.



Miniature painting

## The gem of enamel watches – the China watch

The China Watch is unique in the history of enamel watches and its artistry is unrivalled. Not only was it produced for the wealthiest empire at the time, the Great Qing Empire, it allied watchmaking technology and art in one superb product, making it one of the most sought after objects for the Qing emperor and other, later, collectors.

Watch enthusiast Emperor Qianlong was of course the premier watch collector of the Great Qing Empire, and it was because of his words, "When buying clocks, watches and splendid foreign gold treasures for display, silk cloths of gold and silver thread or any sort of novelty, money ought never

be a consideration," that the best timepieces from the West flowed steadily into the heart of the richest empire: the Forbidden City. The era of Emperor Qianlong coincided with a period when English clockmaking was booming though by the early 19<sup>th</sup> century Geneva had already become the world's center for watchmaking. Not only did some of the world's best watchmakers live in this free environment, but there were also enamellers, jewelers, case makers and many other types of talented artists. Watches from Geneva were at the top end of the market and consequently were always beautifully decorated and highly artistic, which made them perfectly suited to the Chinese court.



Enamel decorated pendant and bow  
(Pascal Raffy private collection)



An exquisite combination of enamel and pearl (Pascal Raffy private collection)



A colorful Ilbery painted enamel pocket watch ca.1805. (private collection, photo: Antiquorum). A very valuable 18-carat gold case. The watch has center seconds and an enamel painting Cleopatra and Octavian with attendants before a fortress. The edge of the case is decorated with pearls. Made specifically for the Chinese market. Serial number 6671.



A colorful Swiss painted enamel pocket watch ca.1815 (private collection, photo: Christie's). A very valuable 18-carat gold case. The watch has center seconds and an enamel miniature depicting a family after Jean-Honoré Fragonard. The edge of the case is decorated with pearls, quarter repeating through the pendant. Made specifically for the Chinese market.



A very rare Bovet painted enamel decorated with pearls, pocket watch  
(Pascal Raffy private collection)

In order to appeal to the esthetic preferences of the Chinese, watchmakers moved the second hand to give watches center seconds (coaxial with the hour and minute hands). Cases were also inlaid with uniform pearls and decorated with enamel. Special boxes were made to hold the watches. By the Jiaqing period, although the Great Qing Empire no longer held the power it once did, a combination of the determination of Western watchmakers, the demands of the imperial family and the elite, and the carefully selected gifts of Western diplomats meant that enamel watches from Geneva found their way into the Qing court and soon dominated the Chinese watch market. This was the beginning of the greatest chapter in enamel watch history. Swiss watch merchants had already begun selling to the Chinese market from the early 19<sup>th</sup> century—especially Bovet of Fleurier, Switzerland. Not only did Bovet produce a large number of unique pocket watches, the company also helped solidify the concept of the China watch. This led to the most splendid time in history for Western watches in China, and enamel watches undoubtedly played a pivotal role in this process.



*Enamel watches with images of people and pastoral scenes (photo provided by Chen Mang)*



*Very fine and extremely rare, Tevot (clearly the name Bovet spelt backwards) pair watch painted on enamel (photo: Antiquorum).*



*Enamel watches decorated with flowers and birds (photo provided by Chen Mang)*

## Bovet enamel watches

If the English can be said to have paved the way for the China watch, then it was the Swiss, with their watchmakers and artists, who brought the China watch to its fullest glory and splendor. Artistic craftsmen gave the China watch its beautiful exterior, and even English brands that manufacturing watches for China at the time collaborated with various kinds of artists from Geneva, including goldsmiths who made watch cases, such as:

*Jean-Georges Rémond (1752–after 1820)*

*Brothers Louis-David-Benjamin Oltramare (1781–1851)*

*Jean-Hugues Oltramare (1786–unknown)*

*Jean-François Baultte (1772–1837)*

Well known enamellers included :

*Jean Abraham Lissignol (1749–1819)*

*Jean Louis Richter (1766–1841)*

*Isaac Adam (1768–1841)*

*Jean-François-Victor Dupont (1785–1863)*

*Jean Léonard Lugardon (1801–1884)*

*Gaspard Lamunière (1810–1865)*

*Jacques-Aimé Glardon (1815–1862)*

*Charles-Louis-François Glardon (1825–1887)*

*François Chatel (1832–1874)*

*Marc-Louis Dufaux (1833–1877)*

*Louis-Samuel Rosselet (1833–1913)*

*Pierre-Amédée Champod (1834–1913)*

*John Graff (1836–1903)*

*Louis Pautex (1841–1916)*

*Frank-Edouard Lossier (1852–1925)*

*Louis Pautex-Meillard (1841–1916)*

*Louis-Elie Millenet (1852–1933)*



*Enamel with émailé, Miniature painting, Champlevé (photo: Antiquorum)*



*Enamel with Champlevé (Bovet collection)*



*Enamel with émailé, Miniature painting (photo: Christie's)*

*Bovet used many types of enamel techniques*



*Enamel with Miniature painting (photo: Antiquorum)*

If we were to list the subjects of miniature enamel painting in order from the easiest to the most difficult, first would come flowers, then birds and animals, landscapes, people and finally scenes with several people. Thus, not only did many Bovet watches bear artistically challenging images, the majority of the cases were also 60 millimeters or larger in to maximize the visual effect of the enamel painting. Matching pairs of Bovet watches may have been produced far away in the West but they were not merely exotic articles from afar. They embodied the specific tastes of the Chinese especially the Emperor: elegant pearls, the constantly moving second hand and uniquely decorated movements—all of these were specific Chinese preferences. Despite the fact that many of the enamel paintings depicted Western religion, legends and stories, they nonetheless spoke to the Emperors' understanding and enjoyment of foreign culture. In other words, Bovet enamel watches are not merely a random byproduct of those prosperous times, they are reflections of how watchmakers tailored their products to appeal to Chinese preferences. They are more than just Western watches, they are objects of beauty fit for the Chinese Emperor. Some watches even bore specifically Chinese elements in terms of the images painted and style used, and they are now highly sought-after collector's items. It is in their incomparable decorative richness, reflecting both pride in indigenous Chinese culture and fascination with Western culture, that the unique artistry and fascination of Chinese watches—especially those made by Bovet—can be found.



*Enamel painting with people subjects  
(MIF collection)*

*Enamel painting with landscapes subjects  
(Pascal Raffy private collection)*

*Enamel painting with flowers subjects  
(private collection)*

*Painted enamel Bovet watches depicting different subject matters*



*Enamel painting with mandarin duck (Pascal Raffy private collection)*



*An enamel watch depicting a Chinese landscape with a lake and mountain; the mountains in the distance contrast with the temple in the foreground, and there are two boats on the lake, one with a figure rowing (author's collection)*



*An enamel watch with a Chinese image of flowers and birds; two magpies, signifying good fortune, have been painted on a translucent background in a characteristically Chinese scene (Huo Feile collection)*



*Matching enamel watches with mirror image floral pattern. The flowers cover the entire caseback and they are so abundant that the background is not visible (private collection) (photo: Christie's)*

The reason why some of the best enamel watches of the time appeared in China was inextricably linked to the power of the Qing dynasty and the desires of the Emperor who was so enthralled with timepieces that he was willing to pay exorbitant sums of money to purchase Western watches. While developing the new Chinese market, the Bovet family was able to sense that this market was unlike any other and that its demands were unique. For example, the Chinese liked matching his and hers sets of things, so it was possible to sell pairs of watches. Over time, the trends in the enamel paintings on these watches subtly shifted. In the beginning, these pairs were exact matches with the same pattern, then later they became mirror images of one another before transitioning back to exact replicas. These watches were frequently adorned with pearls and the second hand rotated along the Roman numeral scale.

Given the Chinese predilection for things that are two of a kind, it was inevitable that matching pairs of watches would be made for the Chinese market –even more so given the ability of pocket watches

to display enamel art, because all enamelwork at court was produced in doubles. This is a concept that is not well understood by Westerners, many of whom mistakenly believe that the interest in matching pairs was so that if one watch became broken, the other could be used. In fact, at that time, the emperor viewed watches as objects to be enjoyed and admired, their practical function having long since been relegated to secondary importance.

Even on matching watches, the qualities of their famously delicate enamel paintings varied during different periods. There were three main phases in the fashion for matching watches. They first appeared in about 1770 and, at this time, the enamel paintings on the two watches were exact replicas of one another. After 1790, enamel paintings began to appear as mirror images of one another, and this trend continued until about 1850, after which time mirror imaged pairs were produced but were less common, giving way once again to identical images.



*A pair of mirror image matching enamel watches with a hunting scene. Pierre-Amédée Champod was an expert at this type of painting (private collection) (photo: Antiquorum)*





*Matching enamel watches with mirror image lady portraiture (Pascal Raffy private collection)*



*A pair of enamel watches with Champlevé (Pascal Raffy private collection)*



*Pair Flowers Enamel watches (private collection)*

The period between 1800 and 1840 was the golden age of watches at China's court, and mirror-image models were more expensive but also highly pleasing esthetically, which appealed to the imperial family and the elite. However, with the onset of the Opium War and the decline of the Great Qing Empire, as well as the rapid progress of industrialization and the passing of many talented watchmakers and artists, the curtains closed on the most splendid decorative period in watch history.



*Antique Brevet table clock from the Qing palace, commonly referred to as "top hat" style (Zhang Zhenghao collection)*



*At six o'clock are the words Hong Kong, Shanghai and Tianjin, in a foreign language*



*The Chinese characters for Bovet "播城" appear on the movement*

Bovet pocket watches

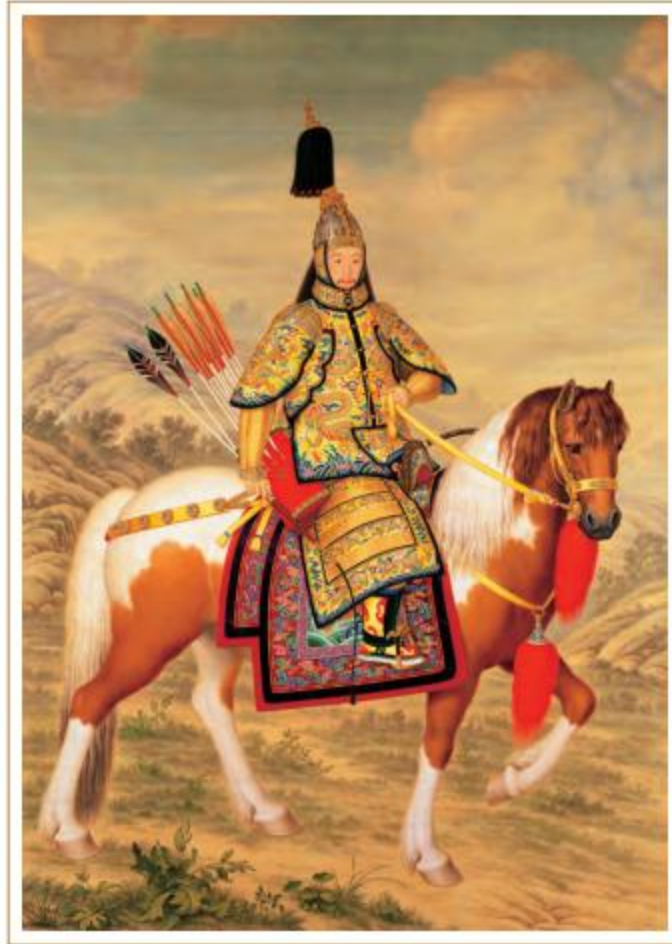


## Bovet Pocket Watches

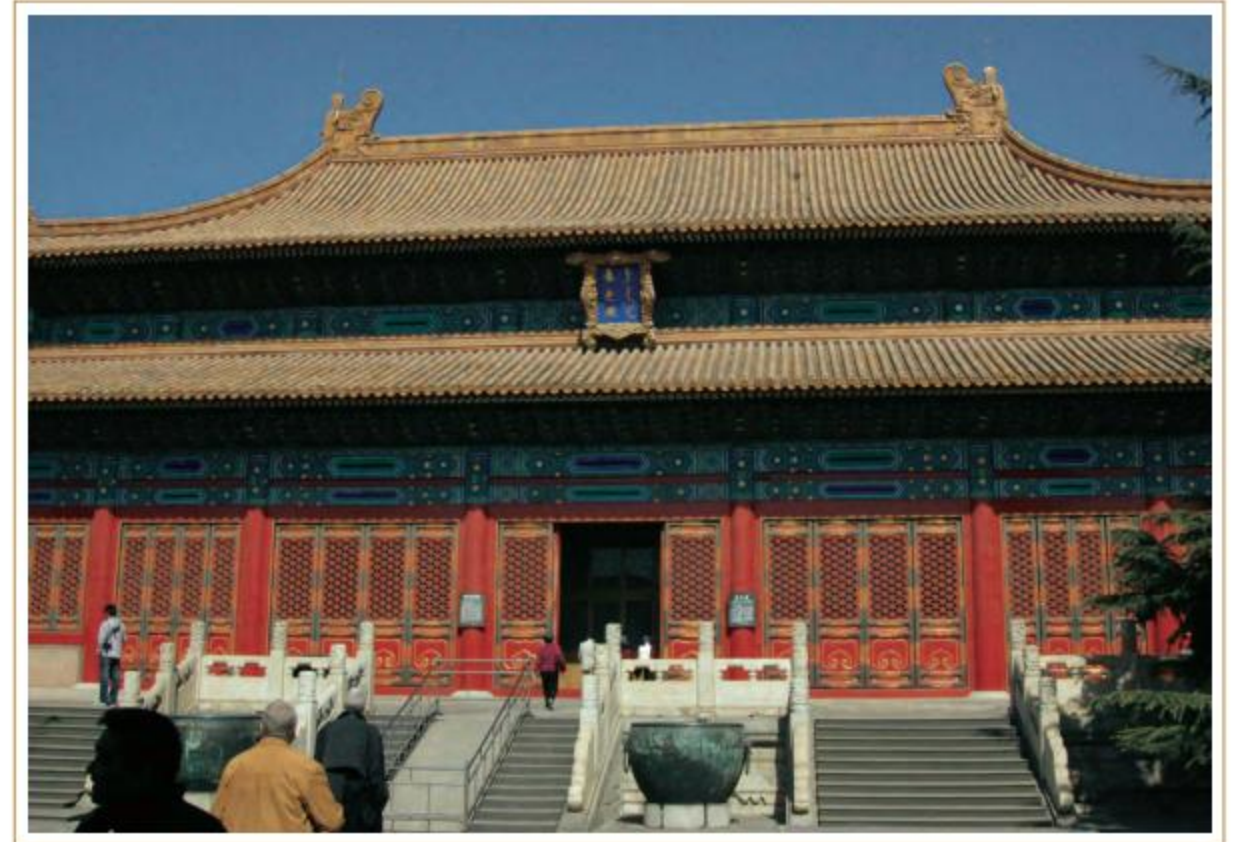
### The imperial art of watchmaking

"The water clock is made ever more elaborate, the armillary sphere measures result and conjectures reason. I don my robe and toil long for the state, paying no attention to the hour it has become." Emperor Xianfeng" When we read Emperor Xianfeng's poetic description of timepieces, we can't help but want to visit the Forbidden City's Palace Museum in Beijing. There, in the Clock Gallery, a variety of the finest antique timepieces from China and around the world are exhibited. The collection is quite extensive, and not only testifies to a historical period of dynamic cultural exchange between China and the West, but also serves as a record of the important role and fascinating story of Chinese clock collectors, whose tastes and interests were so instrumental in inspiring innovation in the creation of artistically distinguished timepieces.

The Palace Museum began exhibiting part of its timepiece collection in the 1950s. In 1985 it opened the Clock Gallery in the Hall for Ancestral Worship, and renovations in October of 2004 finally confirmed the Clock Gallery's position as an international clock museum of the first rank. Timepieces from China, England, France and Switzerland are on display, and multi-media support—including a documentary film, and computerized information—help make this a truly unique museum experience for visitors from China and abroad.



*Emperor Qianlong, great timepiece collector*



*Forbidden City Clock Gallery*

Over 1,000 timepieces are currently housed in the Palace Museum, the majority of which date from the 18<sup>th</sup> to the early 20<sup>th</sup> century—history's golden age of watchmaking. The clocks and watches on display in the museum's collection not only cover 200 years of watch history, they also illustrate a number of special features—many of them unique to timepieces produced for China. Among the pieces on display in the Forbidden City are a number of famous Bovet watches, which were the *crème de la crème* of Chinese-style watches during the 19<sup>th</sup> century and, of course, were the favorites of the Qing Court. In addition, there is a *sonnerie* watch painted enamel with flowers and birds in Shenyang Palace Museum, it is very rare and very complicated Bovet pocket watch.



### Painted enamel pocket watch with flowers and doves

#### Case

Empire case. The caseback is in painted enamel and depicts an image of flowers and a pair of doves, the latter representing love. Though the subject of this painting is not uncommon, its yellow background is quite rare and indicates that the watch was used by the imperial family. This is evidence that Bovet watches were collected by the court. The pendant, bow and edge of the case are inlaid with pearls.

#### Movement

Wound with a key. The main and top plates are made of mirror-polished steel—a type of movement that is difficult to make, due to the hardness of these parts. The train wheel bridge is engraved with “BOVET FLEURIER.” This watch uses an anchor escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals and the words “BOVET” and “FLEURIER” appear on either side of the 30-minute marker. The watch has three blued steel pear-shaped hands.

*Diameter: 54mm*



### Painted enamel pocket watch with flowers

#### Case

Empire case. The caseback is in painted enamel and depicts flowers in a riot of colors. The entire area is covered in flowers of all shapes and sizes, which are a metaphor for fleeting beauty and the impermanence of life. Flowers are a common subject on Bovet painted enamel watches. The pendant, bow and edge of the case are inlaid with pearls.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The train wheel bridge is engraved with “BOVET Fleurier”, Chinese characters for Bovet “播城” appear on mainplate. This watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals and the words “BOVET” and “FLEURIER” appear on either side of the 30-minute marker. The watch has three blued steel pear-shaped hands.

*Diameter: 55mm*



### Extra-large painted enamel pocket watch with swans

#### Case

Empire case. The caseback is in painted enamel and depicts swans on water. Flowers decorate the edge of the painting, in the background there is a majestic mountain peak and in the foreground a pair of swans are swimming on clear blue water that ripples around them. The entire image is a whimsical scene. The pendant, bow and edge of the case are inlaid with pearls, and the Chinese characters for Bovet “播城” appear on the inside of the caseback.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury—a traditional process known as fire gilding—which produces a very lustrous and durable gold coating, but is little used today as it exposes the artisan to mercury fumes.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals and the watch has three blued steel pear-shaped hands.

*Diameter: 63mm*



### Extra-large painted enamel pocket watch with flowers

#### Case

Empire case. The caseback is in painted enamel and depicts flowers of all shapes and sizes in a riot of colors. The flowers are centered on a light blue background, visible around the edges of the painting. The pendant, bow and edge of the case are inlaid with pearls.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The wheel bridge is engraved with “Bovet FLEURIER.” Serial number 827. This watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the words “BOVET” and “FLEURIER” appear on either side of the 30-minute marker. The watch has three blued steel pear-shaped hands.

*Diameter: 60mm*



Small painted enamel pocket watch with portrait of a Western woman

**Case**

Empire case. The caseback is in painted enamel and depicts the portrait of a beautiful Western woman. The background is painted with a transparent red enamel that allows the engraved pattern on the case to show through. The pendant, bow and edge of the case are inlaid with pearls.

**Movement**

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. This watch uses a cylinder escapement.

**Dial**

White enamel on a copper base. The hours are marked in radial Roman numerals, and the words "BOVET FLEURIER" appear in a straight line under 12 o'clock. The watch has three blued steel breguet hands.

*Diameter: 33mm*



Small painted enamel pocket watch with portrait of a Western woman

**Case**

Empire case. The caseback is in painted enamel and depicts the portrait of a beautiful Western woman. The background is painted with a transparent red enamel that allows the engraved pattern on the case to remain visible. The pendant, bow and edge of the case are inlaid with pearls.

**Dial**

White enamel on a copper base. The hours are marked in radial Roman numerals, and the Chinese characters for Bovet "播械" appear in a straight line under 12 o'clock. The watch has three blued steel pear-shaped hands. Serial number 597.

*Diameter: 35mm*



### Building-shaped clock painted black with gold detail

In addition to pocket watches, Bovet also produced a number of beautiful and intricate clocks for the Chinese market, the majority of which were small table clocks. The Forbidden City Palace Museum's Clock Gallery houses a particularly unique Bovet clock that is representative of the Imperial Court's collection.

The clock is in the shape of a large house, with intricately carved bricks, railing and windows. Inside the base of the house is a music box that can play eight different melodies. The music box is wound on the left side of the house. The front door of the building is a clock, which is wound in the back.

The dial of the clock bears the signature "Bovet Frères" and the hour and minute hands are in the unique shape of Chinese gourds. In addition to having hour, minute and second hands, the clock also features a small dial that serves as an alarm clock.

*Height: 65cm; width: 78cm; depth: 39cm*



### Extra-large sonnerie pocket watch with painted enamel with flowers and birds

#### Case

Empire case, gilt silver. The caseback is in painted enamel and depicts an image of flowers and a birds. The pendant, bow and edge of the case are inlaid with pearls.

#### Movement

Wound with the key. Full bridges are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The hours and quarters are struck automatically. Shenyang Palace Museum collection.

*Diameter: 72mm*

## Pascal Raffy's private antique Bovet collection

Pascal Raffy is not only the owner of the House of Bovet, he is also a keen admirer and established collector of antique Bovet timepieces. His current collection consists of 30 Bovet pieces, two of which have a double giving a grand total of 32 individual watches. This makes Pascal Raffy's personal collection of antique Bovet timepieces one of the most extensive known today and their significance was recognized in the 2012 book *"The Imperial Art of Watchmaking"*. These exquisite pieces serve as a benchmark not only for Bovet collectors, but for all horological enthusiasts, especially those who are also fascinated by the Chinese watchmaking arts.



*Pascal Raffy and his son*



*Château de Môtiers*

The collection is kept in the *Château de Môtiers* in Switzerland, which dates back to the 14<sup>th</sup> century. In 1835, the castle was purchased by the Bovet family, and in 1957 it was donated to the local government. Out of respect for Bovet's cultural heritage and in order to protect this historical location, Pascal Raffy bought the 700-year old castle in 2006. It has since undergone renovations and has been established as a workshop where Bovet timepieces are manufactured and assembled. In addition, traditionally trained engravers, enamellers and other specialty artisans work from its hilltop workshop.

Although the *Château de Môtiers* is the perfect setting for Pascal Raffy's antique Bovet collection, it is nevertheless extraordinary that these historic objects, which were manufactured in this very region some 200 years ago and have traveled all over the world, should finally come back to their origins—like Ulysees returning to Ithaca. These artistic timepieces once brought together the Bovet family and the Great Qing Empire, and today as rare collector's pieces, they offer a window for more collectors, Chinese, Swiss and others from around the globe to learn about this rich part of history.





### Painted enamel pocket watch with Romeo and Juliet

#### Case

18-carat gold. The caseback is in painted enamel and depicts two lovers. During the Renaissance, Western art was inspired by Ancient Greece and Ancient Rome. Several centuries later, painters and sculptors looked to portray male and female characters from classic stories and legends. This painting depicts Shakespeare's Romeo and Juliet. The pendant, bow and edge of the case are inlaid with pearls. Serial number 1319.

#### Movement

Wound with a key. This is an early period Chinese watch movement. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. This watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in Roman numerals and the watch has three gold hands.

*Diameter: 59mm*



### Extra-large painted enamel pocket watch with the Holy Mother

#### Case

18-carat gold bassine case. The caseback is in painted enamel and depicts a religious scene. Characters in Western religious painting can generally be identified by they are with or the story represented. This enamel painting shows the Holy Mother cradling the baby Jesus in her arms against a translucent blue background. The pendant, bow and edge of the case are inlaid with pearls. Serial number 1529.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. This watch has an eight-day power reserve and uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the watch has three blued steel flower-shaped hands.

*Diameter: 62.85mm*



### Painted enamel pocket watch with nightingale

#### Case

18-carat gold bassine case. The caseback is in painted enamel and depicts a nature scene: a nightingale resting on a stone, surrounded by green grass and flowers. The image is characteristic of Chinese paintings and the watch was made specifically for the Chinese market. The pendant, bow and edge of the case are decorated with enamel and pearls. Serial number 219 (caseback) and 425 (cuvette).

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The train wheel bridge is engraved with "Bovet London" and the watch uses a duplex escapement. Serial number 425.

#### Dial

White enamel on a copper base. The hours are marked in Roman numerals, and the watch has three gold pear-shaped hands.

*Diameter: 58.5mm*



### Painted enamel pocket watch with butterfly

#### Case

18-carat gold bassine case. The caseback is in painted enamel and depicts a nature scene: a butterfly sitting on a flower in full bloom and a bee collecting nectar from another flower in bud. This image is also characteristic of Chinese paintings and is a familiar subject to a Chinese audience. The pendant, bow and edge of the case are decorated with enamel. Serial number 321.

#### Movement

Wound with a key Polished bridges and plates engraved with floral decoration. Blued plate, barrel cover and index assembly. The train wheel bridge is engraved with "Bovet London" and the watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the watch has three blued steel hands.

*Diameter: 58.5mm*



### Champlévé pocket watch with “Mille Fleurs”

#### Case

18-carat gold empire case. The caseback is in champlévé and patterned with a floral motif. First the shapes of the flowers and leaves are carved out, then they are filled in with enamel. The pendant, bow and edge of the case are inlaid with pearls. Serial number 2406.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern and metal flower. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. Flowers have been applied to the various parts of the movement, which is quite rare. The watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the watch has three blued steel pear-shaped hands.

*Diameter: 56.9mm*



### Champlévé pocket watch with flowers

#### Case

18-carat gold bassine case. The caseback is in champlévé and patterned with a floral motif on a black enamel background. The shapes of flowers and leaves have been carved out and some have been filled with enamel while others have been left gold and unpainted to create a striking contrast effect. The pendant, bow and edge of the case are decorated with enamel. Serial number 475.

#### Movement

Wound with a key. The main and top plates are made of mirror-polished steel—a type of movement that is difficult to make, due to the hardness of these parts. The train wheel bridge is engraved with “BOVET FLEURIER” and the watch uses a duplex escapement.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the watch has three blued steel hands.

*Diameter: 55.3mm*



### Champlevé pocket watch with portrait of a Chinese woman

#### Case

Gilded Silver bassine case. The caseback has a champlevé floral motif as well as an enamel painting depicting a beautiful Chinese woman. Portrait painting was popular in the West from the 15<sup>th</sup> century onwards—monarchs and sovereigns across Europe were able to glamorize themselves through their portraits, choosing images of themselves they found most becoming to spread around the world—but Chinese portraits were much more difficult to execute. The pendant, bow and edge of the case are decorated with enamel. Serial number 25675.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative pattern. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The train wheel bridge is engraved with “Bovet Fleurier” and the watch uses an anchor escapement. Serial number 797.

#### Dial

White enamel on a copper base. The hours are marked in radial Roman numerals, and the words “BOVET” and “FLEURIER” are written on either side of the 30-minute marker. The watch has three blued steel pear-shaped hands.

*Diameter: 56.5mm*



### Chronograph

#### Case

Silver case. The start and stop by slide pusher at 3 o'clock—zero reset and flyback pusher at 9 o'clock. Serial number 41507.

#### Movement

Wound using the crown. “BOVET” is engraved on the barrel bridge and the movement is decorated with *Côtes de Genève*. The watch uses a Swiss anchor escapement and has a flyback chronograph.

#### Dial

White enamel on a copper base. The words “RELOJ UNIVERSAL PRIVILEGIO” appear under 12 o'clock and the hours and minutes are marked in black Roman and Arabic numerals. The watch has blued steel hour, minute and seconds hands and gold hands for the counters. Chronograph with 24-hour counter at 3 o'clock, 60-minute counter at 9 o'clock and 60-second counter at 6 o'clock.

*Diameter: 54.1mm*



### Silver traditional Chinese-style watch

#### Case

Silver hunting case. Stamped with the Chinese characters for Bovet “播喊.” Serial number 468.

#### Movement

Wound with a key. The main and top plates are made of brass and engraved with a decorative design. These parts are all gilded in a process that uses mercury to ensure that the gold coating lasts as long as possible. The mainplate carries the two Chinese characters for Bovet “播喊” and the watch uses an anchor escapement.

#### Dial

White enamel on a copper base. The time is marked using both traditional Chinese units of time and Roman numerals. Around the edge of the case, there are also eight quarter-hour markers. One rotation of the dial represents 24 hours. The watch has three blued steel pear-shaped hands.

*Diameter: 48.5mm*



### Minute repeater watch

#### Case

18-carat gold hunting case. Stamped with the Chinese characters for Bovet “播喊.” Serial number 5437.

#### Movement

Wound using the crown. The watch has a three-quarter bridge, which bears the two characters for Bovet “播喊.” and it uses a Swiss anchor escapement. It also has a minute repeater function.

#### Dial

White enamel on a copper base. The hours are marked in Roman numerals, and the Chinese characters for Bovet “播喊” appear in a straight line under 12 o'clock. Small second hand, diamond hour and minute hands.

*Diameter: 53.5mm*

## Remembering the great craftsmen of classic timepieces

In 2006, my former teacher Kiu Tai Yu published the book “The Chinese Pocket Watch”, in which he provides a fairly extensive analysis of the appearance of pocket watches made for the Chinese market. Bovet is the brand that appears most often in his book. In 2009, together with Bai Yingze, I co-wrote “China and Horologe”, in which we examine the four main Swiss families that came to China during the Qing dynasty. Once again, Bovet featured prominently among them. In 2012, I visited Môtiers, Switzerland, where Bovet timepieces are assembled by hand and I had the opportunity to witness first-hand how Bovet, founded in 1822, operates today.

Bovet is a brand I am extremely familiar with. I started collecting antique Bovet watches when I turned 20. Since the brand held a dominant position on the Chinese market, several families in my hometown owned a Bovet timepiece. As a result, collecting these items in China has been fairly easy. However, when I began to shift my gaze from their pocket watches to their history, I discovered that there were actually other things worth looking into. One two-sided Bovet timepiece, for example, actually provides a record of the Bovet family’s journey from West to East, from Switzerland to China. The story of how this brand once achieved such great success in China is not likely known by many today. But the fact that I, as a Chinese person, am telling it is an indication, I believe, of how the memory of classic watchmakers continues to resonate.

This book has been made possible by support from many sources, including significant support from Bovet, research assistance from academic institutions, selfless contributions from collectors and information provided by auction houses. The text and images in this book have come together smoothly thanks to their invaluable help. In addition, I’d like to thank the people and institutions that appear in these pages—you are the force that continues to propel watchmaking culture forwards today.

Special thanks for Mr. Chen Mang to share his collection for the support of this book.

Lastly, I would also like to thank my wife for everything she has done to help make this book possible.

*December 2014, David Chang, Shi Ji Tang, Beijing*



## Acknowledgement

We are grateful to the people who have contributed to the completion of this book.

A special thank you to Mr. David Chang, the author, for his research and his permission to reproduce his book in English.

We would also like to thank Mr. Jack Forster for editing the English version of the book and acknowledge his ability to eloquently capture the history of haute horology in the written word in his own work through the years.

