

THE INITIAL ARCHITECTURAL SHAPE OF THE GUANGTA MINARET: TEXTUAL AND ARCHITECTURAL STUDY

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ABSTRACT

In Guangzhou, Guangdong Province, stands one of China's oldest mosques, the Huaisheng Mosque. Its initial construction occurred in 627 during the Tang Dynasty during the reign of Taizong (627-649). The Guangta minaret of the mosque is one of the oldest surviving examples of Chinese Islamic architecture in mainland China. It is a vivid example that testifies to trade and economic relations between China in the east and the Islamic world in the west. To achieve its aims; the study relies on several methodologies; the historical approach, the descriptive approach, and the critical deductive approach. The study seeks to limit and follow the historical texts it referred to and also aims to explore the initial architecture of the minaret. In addition, this study attempts to compare and, at times, refute these historical texts to determine the date of their construction based on the historical texts. The architectural form of the Guangta raises many questions and draws attention. Based on the limited historical evidence about the minaret, this study presents some ideas and theories on its initial form and architectural elements. The study also provides a hypothetical record of its original architecture during the Tang Dynasty, which was recorded as the era of construction.

KEYWORDS

Mosque; Guangzhou; Minaret; Fanar; Islamic architecture; Guangta; Huaisheng.

المخلص

في قوانغتشو بمقاطعة قوانغدونغ، يقف مسجد هوايشينغ أحد أقدم المساجد في الصين، والذي تم تشييده لأول مرة في عام ٦٢٧م خلال عهد أسرة تانغ في عهد الإمبراطور تايزونغ (٦٢٧-٦٤٩م). تعتبر غوانغتا، منئذنة المسجد، واحدة من أقدم الأمثلة الباقية للعمارة الإسلامية الصينية في البر الرئيسي للصين، وهي مثال حي يشهد على العلاقات التجارية والاقتصادية بين الصين الواقعة في الشرق والعالم الإسلامي في الغرب. في سبيل تحقيق أهدافها؛ تعتمد الدراسة على عدة منهجيات علمية؛ المنهج التاريخي، المنهج الوصفي، المنهج الاستنتاجي النقدي. تسعى الدراسة إلى حصر النصوص التاريخية التي أشارت إليها ومتابعتها، كما تهدف إلى استكشاف العمارة الأولية للمنئذنة. بالإضافة إلى ذلك، تحاول هذه الدراسة مقارنة هذه النصوص التاريخية ودحضها بهدف الوصول إلى تحديد تاريخ بنائها اعتماداً على النصوص التاريخية. يثير الشكل المعماري لمنئذنة غوانغتا العديد من الأسئلة وتلفت الانتباه بصورة كبيرة، خاصة أن عمارتها وعناصرها المعمارية تختلف بصورة كبيرة عن تقاليد العمارة الصينية المحلية التي تعتمد بصفة رئيسة على الهياكل المعمارية الخشبية. بناءً على الإشارات التاريخية حول المنئذنة؛ تقدم هذه الدراسة بعض الأفكار والنظريات للوقوف على العمارة الأولى للمنئذنة وعناصرها المعمارية. تقدم الدراسة أيضاً تصوراً علمياً لشكلها المعماري الأصلي خلال عهد أسرة تانغ، عصر الإنشاء.

الكلمات الدالة

مسجد؛ غوانغتشو؛ منارة؛ فنار؛ عمارة إسلامية؛ جوانجتا؛ هوايشينغ.

INTRODUCTION

The Guangta is one of mainland China's oldest surviving examples of Chinese Islamic architecture. However, up until the present, researchers have not examined its initial architecture and form. The study aims to follow the structure of the minaret using historical texts that referred to it and attempt to visualize the minaret's architecture during the earliest periods by relying on historical texts from the 11th century to the 19th century. To achieve this objective, the study uses several methods: the historical approach, by revealing historical information that dealt with the minaret. The descriptive process will be conducted by exploring the architectural features of the minaret and its structure contained in successive historical texts. Finally, a comparative analytical study by comparing the architecture of the minaret with others from the Muslim world, then completing analytical research, where we present some hypotheses and ideas about the minaret.

Guangzhou is a Chinese city, the capital of the Guangdong province, located on the southern Chinese coast (Hagras 2020, 68-76), on the Pearl River (Guang 1987, 150). Guangzhou has a long history and is one of the most important historical cities in China; it has been known by many names throughout history. During the Han Dynasty, it is known as the Xingwang (Chin 2012, 202), while Muslim historians have suggested many names; Khanfou, خانفو, by Sulaiman Al-Tajir (9th century), Abu Zeid Al-Serafi (10th century) (Al-Tajir 2005, 41), Ibn Khordadbeh (9th century) (Ibn Khordadbeh 1889, 69), Abu Zeid al-Serafi (10th-century) (Abū-Zayd and al-Tajir 1999, 24), Ibn Al-Faqih (10th century) (Ibn Al-Faqih 1996, 68), and Al-Idrisi (12th century) (Al-Idrisi 1989, 97). The name of Khanku, خانكو, was known to Al-Mas'udi (Al-Masudi 1989, 156), while Ibn Battuta (14th century) named it Sin al-Sin, صين الصين, and he indicated that the Chinese called it Sin Kalan صين كالان (Ibn Battuta 1992, 634). Later, the city was known as Canton by the Portuguese. (Yule, Henry; Burnell, A. C. 2013, 127)

HISTORICAL BACKGROUND

During the 7th century, the Maritime Silk Road played a notable role in the upsurge of trade between China and the Islamic world. The emergence of these economic relations between the Chinese and Muslims from the Arabs and Persians led to the settlement of many of them in Guangzhou, and they were the nucleus of the Islamic enclave “town” outside of the city, which was known as *Fanfang* (蕃坊). However, unlike other Chinese cities, Guangzhou was distinguished by an indeterminate population of Muslims (Schafer 1963, 14) to the degree that the city fell under their control and, for this reason, became known as the Arabian Khanfou (خانفو العرب) (Schafer 1963, 14). Muslim communities spread throughout China, especially in major cities such as Guangzhou, Quanzhou, Yangzhou, and Hangzhou, thanks to the large migration of Muslims, which was strengthened by the political and economic advantages they obtained (Hagras ٢٠١٦، ١٣٤-١٥٨). The Tang court had to establish a Customs Supervisor's Office, known as *Shibosi* (市舶司), to smooth out the commercial dealings of foreign Muslims in Guangzhou and other cities on the Chinese coast (Chiu 1973, 58-72). The

Huaisheng Mosque was founded in the center of Islamic town (Fitzgerald 1958, 321), and it was the first mosque built in China (Steinhardt 2008, 335) (Hagra 2020, 68-76).

THE GUANGTA MINARET

The Huaisheng Mosque, 怀圣寺, is located on Guangta Road, 光塔路; its name means “Remember the Sage-the prophet”, also known as Guangta Mosque, 光塔寺, which means “the Lighthouse Mosque” (Ameen 2014, 19). The initial construction was in 627 during Taizong’s reign (627-649) of the Tang period. Since that date, the mosque has been repaired and expanded several times; in 1350-1351, the mosque was rebuilt, as well as between 1662-1722 (Steinhardt 2008, 335) (Zhiping 2008, 14) (She 2009, 9-12). The minaret is considered the oldest surviving architecture of the Huaisheng mosque (**Fig.1**). It is one of the earliest examples of Islamic architecture in China (Yulan 1993, 163). The minaret is located on the southwest corner of the mosque and overlooks the main street. Regrettably, the minaret may be threatened by collapse, as the angle at which the mosque is leaning is increasing. (Zhiping 2008, 14). The inclination is currently 2.5 degrees northwest by 1.06 meters (Guohua 2001, 56). The architectural form of the minaret took a different format to that of the pagoda, which made it unique in its architecture; the Chinese Minarets generally took the form of a low-rise Chinese pavilion. Unlike those Minarets, the Guangta design was in a straight tapering cylindrical form (Petersen 2002, 190), which was a common type in the Islamic world and appeared to be an influence of the Central Asian minarets (Lu 2014, 127). It was built with grey bricks and covered by a layer of stucco made from clams (She 2009, 9-12), so it was known as the Guangta or the Smooth Tower, and this finish was the reason for its white color (Lu 2014, 127).

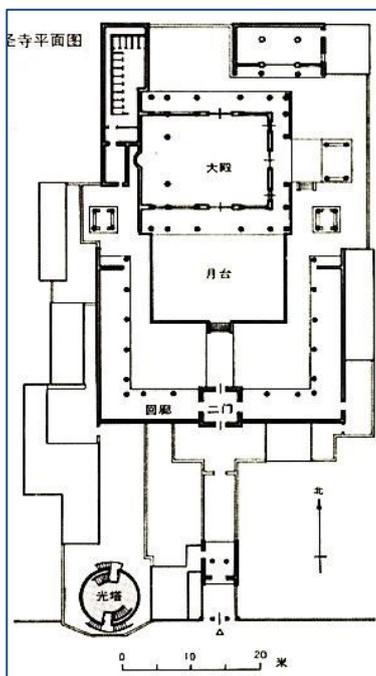


Fig.1. Plan of the Huaisheng Mosque.

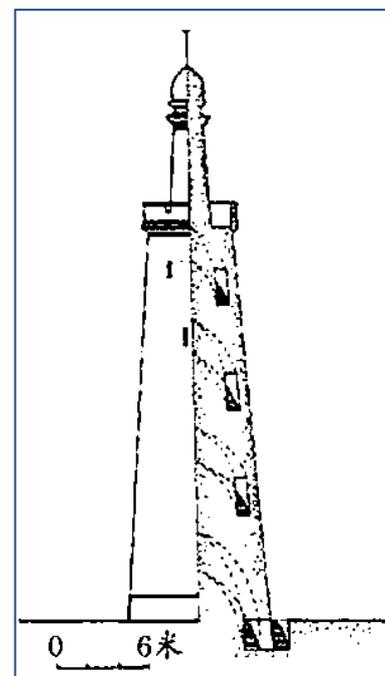
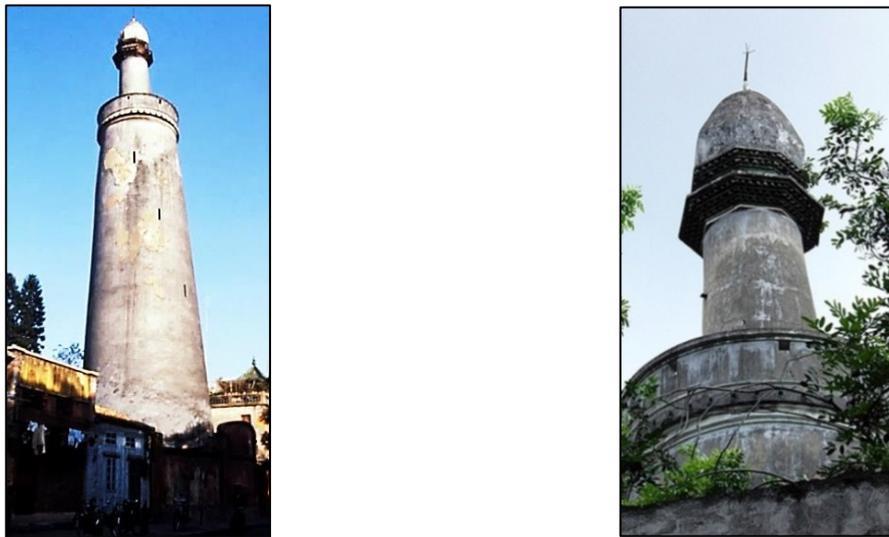


Fig.2. The layout of the Minaret

The Guangta has a height of 36.3 meters (D. Yi 2006, 187) (Yulan 1993, 163) (She 2009,

9-12), divided into two stories: the height of the lower storey is 30.516 meters, and the upper storey is 5.784 meters (**Fig.2**). According to the Guangdong Institute of Architectural Design and Research; there are still several meters of the structure buried, so it is thought to have originally been higher than the current height (Zhiping 2008, 14). The two levels are circular, with a lower diameter of 8.3 meters (Guohua 2001, 56). Gradually, its diameter decreases from the base up to 6.7 meters at the upper edge (Yulan 1993, 163). The Minaret has a pair of entrances, one on the north side and the other on the south, each with a spiral staircase. The northern staircase is built at an angle of 158 degrees, while the southern staircase is built at 145 degrees (Ting 2011, 72). The facade of the minaret is pierced by small alternate openings for letting light through its outer walls (Ting 2011, 72). The upper level is a tapering cylinder that ends with a pointed top (Zhiping 2008, 14). It is built on two layers of brick Bracketing (Lang 2003, 139) (Hagras 2020, 68-76). (**Pl.1**)



Pl.1. The general views of the Minaret.

THE TEXTUAL RECORDS

GUO XIANGZHENG (1035- 1113)

In 1088, during the reign of northern Song Emperor Zhezong (哲宗) (1085-1100), in the 3rd year of *Yuanyue* (元祐) (1086-1094), the Song Poet Guo Xiangzheng, (郭祥正) (1035-1113) gave us the oldest textual record about the minaret and is the first record dealing with the minaret (Hagras 2020, 68-76). Xiangzheng introduces the minaret in two poems; in volume number 20, entitled with the name of the minaret, *Tong Ying Shu Xiu Zhuan Deng Fanta* (同颖叔修撰登蕃塔) of his book *Qingshanji*, 青山集, he described the minaret as follow:

“The unique tower attracts attention and raises many questions. It stands up like a great pillar and extends to the sky. It is located in the midst of the enclave of the Wuyue people [foreigners]. ... It rises sharply from the ground level and has a path that reaches the top. It is like the guard of the three towns. It is like a control tower of its surrounding places. It contributes to the religious rituals of the Fan people [the foreigners]. They pray to God for the west wind. The sound of its huge bell is loud and clear. Its role is evident during the

spring ... It has a duty to protect, like a tall guard. I feel a passion for passing by her". (Xiangzheng 1987).

In the second poem, Xiangzheng also recorded, "The tower is located in the ancient northern area known as Yuewangtai, 越王台. My ascension and exploration led to immersive happiness. Iron chains connect the three cities. It stands tall and looks at everyone with a superiority that wasn't destroyed. The grey tower in the town of foreigners, and it is like the great pen extending to the sky ... Huge drum sounds blend with the bells, which guide ships and boats on their journeys back to the city." (Xiangzheng 1987).

YUE KE (1183- 1243)

The Song historian Yue Ke (岳珂) (1183-1243), in the 11th volume of his book "Pillar Histories", *Tingshi* (程史), gave us an important description of the minaret, quoting from what he mentioned:

"At the back side [of the Huaisheng Mosque], there is a Stupa (窣堵波) [Minaret] that extends majestically into the sky, this type of tower is uncommon and not comparable with any other. The tower's form is cylindrically built from bricks, laying up from the base. Its outer façade is plastered, grey, and its form looks like a silver pen. Its ground level has an entrance leading upwards. There are a pair of spiral stairs that can't be seen from outside, each consisting of dozens of stairs on each level. On the fourth and fifth month of every year, when the ships are about to come, a crowd of the foreign people enter into the tower and go out into the hollow to sing and pray for the southern wind. In order to measure the direction of the southern wind, the top of the tower has a big golden rooster as a substitute of the *sōrin* (相輪).^{*} But it was destroyed and annihilated at some time in the past." (Ke 1981, 125).

FANG XINRU (1177- 1222)

In 1206, During the Southern Song period (1127–1279), the minaret attracted the attention of the historian Fang Xinru (方信孺) (1177-1222); he recorded the description of the minaret in his book, *One hundred poems in the South China Sea, Nanhai Baiyong*, 南海百咏, quoting from what he said:

"The Fan Tower, *Fanta* (蕃塔) [tower of foreigners] was built in the Tang Dynasty, and it is called Huaisheng Tower, *Huaishengta* (怀圣塔). It is a cylindrical silo standing upright; its height is 615 zhang (丈). To monitor the direction of the southern wind, its top contains the golden rooster, *Jinji* (金鸡). In the fifth and sixth month of each year, the Barbarians [Foreign merchants], *Yiren* (夷人), climb with drums to the top in five periods. They pray to God and supplicate to him to check the winds. At the bottom, there is a mosque" (Xinru 2010, 7-8).

JOHN GRAY (1828- 1890)

In 1875, the Anglican priest John Gray (1828-1890) published his book, *Walks in the city of Canton*, in which his visit to Canton was recorded, quoting from him:

^{*} The Sorin is a column or vertical shaft that crowns the top of the pagoda, the most important part of pagoda architecture; besides its decorative function, it has symbolic facets. It is usually made of metal and its tall can be over 10 meters. For more see: **Invalid source specified.Invalid source specified.**

“In the courtyard of the mosque, there stands a tower, which, by the Chinese, is called the 光塔 Kwong-T’ap, or “Plain Tower.” Upon the summit, thereof, is a short minaret, which, by a spiral staircase consisting of several stone steps, is approached. This tower, or pagoda, was formerly used by the muezzins, who, daily, ascended its summit to proclaim, by their voices, to the faithful the near approach of the hour of prayer. Upon the minaret, there was, at one time, a gold vane, which in form resembled a game cock. This vane was broken during a typhoon, which, in the seventh month of the twenty-fifth year of the reign of T’ai-tsu, or Hung-wu, A.D. 1393, prevailed throughout the city of Canton and its environs. This gold vane was, according to Chinese records, forwarded to the emperor already named and, by him, was, most carefully, deposited in the imperial treasury. On the top of the minaret, the officials of the city placed, in its stead, a vane of copper” (Gray 1875, 350-351).

SAMUEL WILLIAMS (1812- 1884)

In 1833, during his journey to Canton, Samuel Wells Williams (1812-1884), the American missionary, recorded the mosque’s architecture. In the first volume of the *Chinese Repository*, published in 1852, Williams said, “In the old city, there is a mosque with a dome and minaret with a height of 160 feet” (McCulloch 1852, 541). In 1848 Williams published another text in which he reported that:

“The plain Pagoda in Canton was built during the Tang dynasty ... it is one hundred and sixty-five cubits high; it was built by foreigners, who used to go to the top during the fifth and sixth moons at dawn and pray to a golden weathercock there, crying out in a loud voice” (Williams 2005, 269).

In 1849, the book of *The Chinese Empire and its inhabitants* was published by the same author; he reported a new record of the minaret, quoting from his words:

“There are two pagodas near the west gate of the old city ... one of the pagodas, called the *Kuang tah* or Plain pagoda, was erected by the Mohammedans, who still reside near it, about ten centuries ago, and is rather a minaret than a pagoda, though quite unlike those structures in Turkey in its style of architecture: it shoots up as an angular, tapering tower, to the height of one hundred and seventy feet high, and was first erected more than thirteen hundred years ago” (Williams 1849, 132).

MAYERS

In 1851, Mayers (1831–1878), a British official and sinologist, also recorded the Minaret structure, he writes: “Mosque-- some little distance to the south of this spot, and still in the Tartar Quarter, the Mohammedan Mosque and Minaret, called the Kwang T’ap, (光塔), or Bare Pagoda. This place of worship was founded circa A.D. 850 ... the pagoda or minaret joining the mosque is a two-storied circular tower of some 120 feet in height, gradually diminishing in diameter upwards, the upper storey being also of considerably smaller diameter than the lower. One or two large trees have grown up on the platform at the top of the first storey, which was until lately accessible by a winding staircase in the interior, but, owing to the danger incurred through the ruinous condition of the staircase, the entrance

(some 10 feet above the ground) was blocked up a few years ago” (Mayers and King 1867, 165-166).

REISEBUCHER

Reisebücher (1862-1936) also indicated to the Guangta, quoting from which he reported “the oldest mosque (Wai Sing Tse) in China, founded about 626; above it the Naked Tower (Kwong Tap) as a minaret; the mosque is said to have been built by an uncle of Mohammed, whose tomb is in another of Canton's three mosques. In the vicinity of the "Kwong T'ap", most Mohammedans live, whose total number is given as 3000” (Reisebücher 2013, 229).

DISCUSSION

NAMES OF THE MINARET

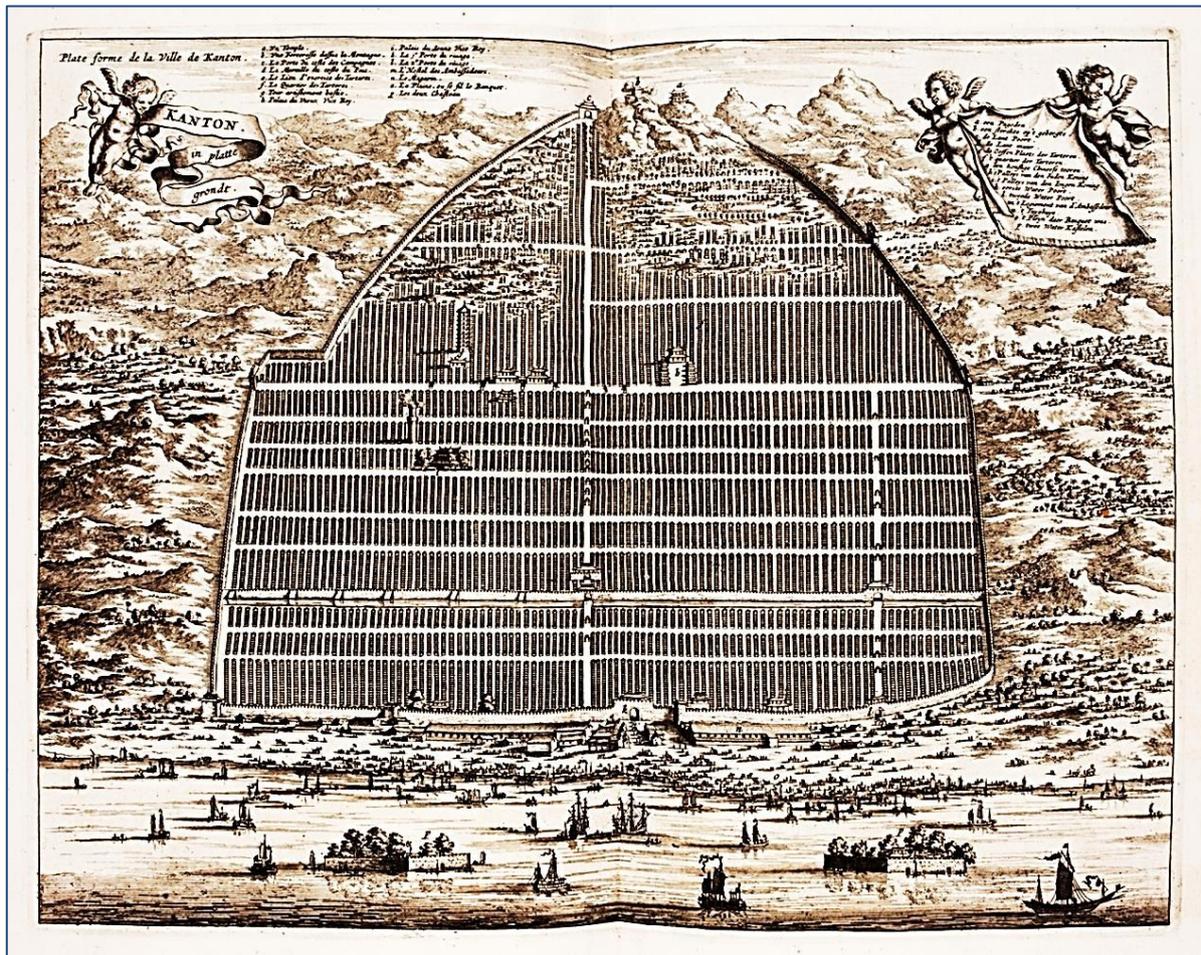
The minaret has had many names attached to it since its establishment; in 1088, Xiangzheng (1035-1113) gave us its first name, the Tower Foreigner, *fanta* (蕃塔), which is derived from the name of the Muslims' Square, the Foreigner Enclave, *fanfang* (蕃坊). The Chinese used this last name to denote Muslim settlements during the Tang and Song era (Xiangzheng 1987). The historian Ke (1183-1243) gave it two names: *stupa* (窣堵波) to denote its religious function, and tower, *tah* (塔) to denote its architectural form (Ke 1981, 125). In 1206, Xinru (1177-1222) also recorded two names for the minaret: the tower of foreigners, *fanta* (蕃塔), relative to the Muslim settlement, and Huaisheng Tower, *huaishengta* (怀圣塔) relative to the name of the mosque (Xinru 2010, 7-8). During the Qing period (1644-1911), many travelers and western missionaries visited the city and the mosque. They all created and recorded new names for the minaret, which was the Tower of Light- Lighthouse, *Guangta* (光塔), and this name was recorded by Gray (1828-1890) (Gray 1875, 350-351), Williams (1812-1884 A.D.) (Williams 1849, 132), Reisebücher (1862-1936) (Reisebücher 2013, 229). Needham suggests that this name means that the minaret of the mosque has been used as a lighthouse (Needham and Ling 1959, 661).

THE MINARET'S STRUCTURE

As mentioned above, the historical texts by the other Song and Western writers give us many detailed descriptions, all of which indicate that it was a cylindrical tower. This layout was not familiar in Chinese architecture at that time. It is known that the ancient Chinese pagodas during the Tang Dynasty (618-907) were built with a square layout (Watson 2000, 186) and made with bricks instead of stone. It had a wooden floor and used a wooden staircase, but in the Song period (960–1279), the octagonal layout was adopted (Zhiping 2008, 18-19). The Huaisheng minaret relied on advanced engineering methods that were not familiar to local Chinese, such as circular planning and spiral stairs, and thus far from comparison with the Chinese pagoda, which was recorded by the historian Xiangzheng (1035-1113), who said: "The unique tower raises many questions" (Xiangzheng 1987), as well as, Ke (1183-1243) asserted this point when he described the minaret as an exotic architecture for traditional Chinese architecture, quoting from his writings, in which he said: "but this type of towers I

have never seen him before" (Ke 1981).

In 1655, a Dutch embassy from the East India Company arrived in Canton to open trade routes with China. It was connected via the sea route, through Canton, and continued to the north. The painter Johan Nieuhoff (1618-1672) was a member of the Dutch delegation (Nieuhof 1668, 40-41). According to Nieuhoff's map and painting (figs.3, 4- pls. 2, 3), the minaret is located within the city walls on the left side of the center in the area between The Flower Pagoda and The Five Immortal Taoist Temple (Wuxian Guan). It is worth mentioning that the minaret and the mosque were outside the city walls; however, in 1378, the three cities were merged (Jiang 2010, 135). The form of the minaret in the painting differs from its current form; it is composed of two harmonious levels, with two balconies leaning on sections of corbels. The upper balcony represents the top edge of the minaret; therefore, we believe that the upper balcony was the third level, while the current architecture of the minaret consists of two levels which are inconsistent and have only one balcony with the highest-level ending in a pointed top.



Pl.2. Map of Canton (1655) by Nieuhoff.



Pl.3. print of Canton (1655) by Nieuhoff.



Fig.3. The Guangta in Nieuhoff's map

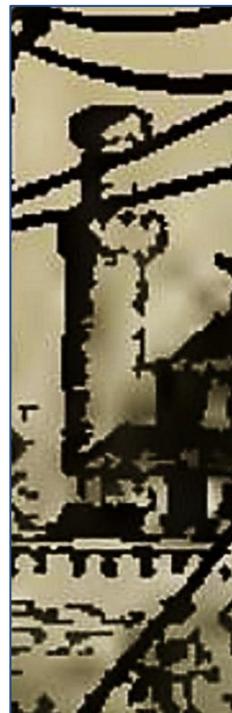
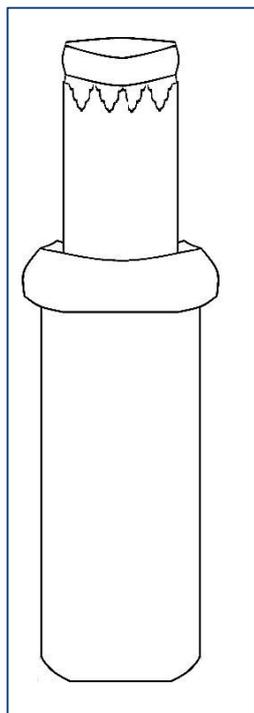
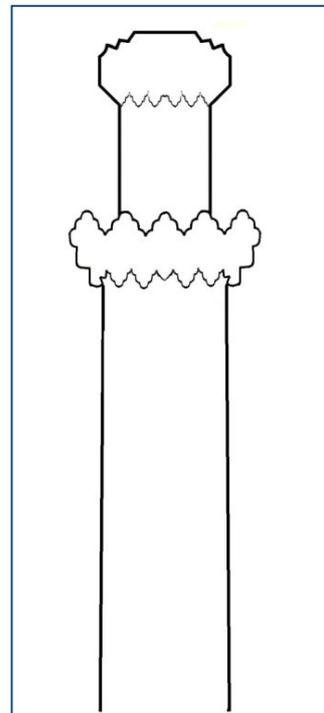


Fig.4. The Guangta in Nieuhoff's printing



The balcony that encircles the edge of both two levels has a balustrade formed with

Machicolations. The Machicolations were common architectural elements before Islam but were spread during the time of early Islamic architecture, such as the Dome of the Rock 691, as well as the Prophet's Mosque in Medina 902, and the Mosque of Ibn Tulun in Egypt 877-879 (Rajab 1989, 94). This suggests that the Muqarnas served as load-bearing structures of the two Machicolations.

Architecturally, the oldest surviving examples of the use of muqarnas in Islamic architecture date back to the 11th century, such as the Gonbad-e Qabus Tower in Iran 1006-1007 (Lamei 1984, 39-40), as well as the dome of Imam al-Dur in Iraq 1090 (Tabbaa 1985); But the appearance of Muqarnas in the architecture of this Minaret -at this early time- inevitably compels us to believe that it is the oldest surviving example not only in China but in the world. It is known that Chinese Islamic architecture showed examples of the use of muqarnas, such as the Mausoleum of Sa'd Ibn Abi Waqqas (宛葛素墓) (12th century) (Ning & Fang 2007, p. 18), and the mosque of Heishui (黑水城礼拜寺) (12th century) (Ning & Fang, 2007, p. 20).

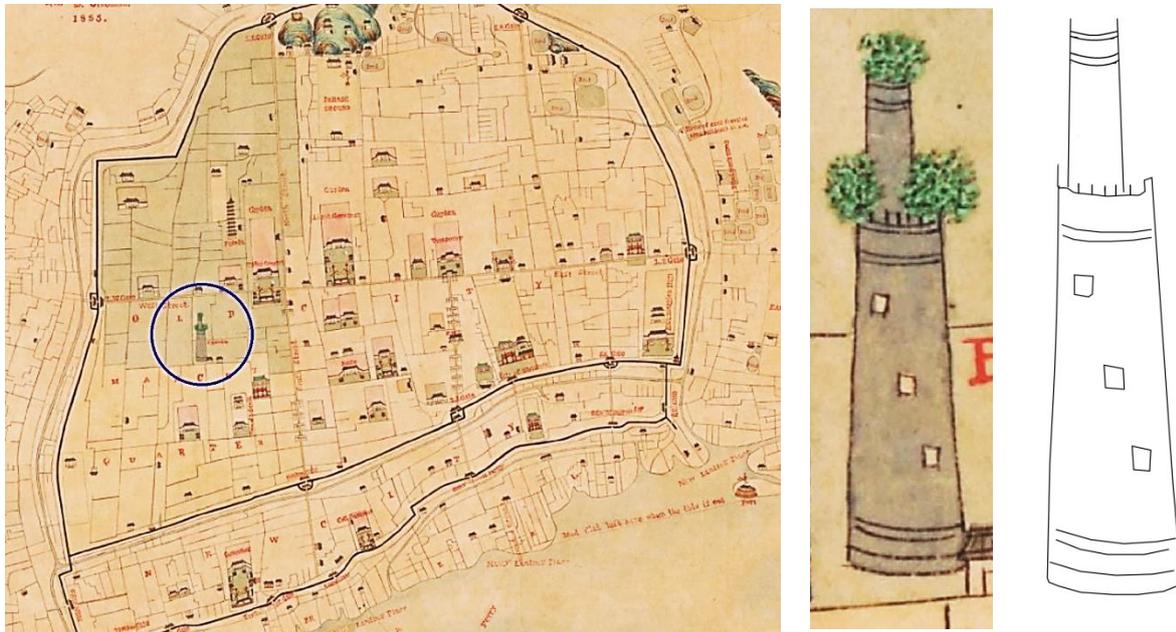
The Guangdong Yutu (廣東輿圖), the oldest local gazetteer on Guangdong, which was printed in 1685, presents a map of Guangzhou (pl.4) (Guangdong-Yutu 1685); the Guangta minaret was presented as a high tower that appears as a sign of the city, as it appears to consist of two levels, and ends with a pointed edge, but the map did not provide any details about its architectural elements. The Guangdong Yutu (廣東輿圖), the oldest local gazetteer in Guangdong, which was printed in 1685, presents a map of Guangzhou; the Guangta minaret was presented as a high tower that appears to identify the city, as it seems to consist of two levels, and ends with a pointed edge, but the map did not provide any details about its architectural elements. Actually, the minaret on this map is very consistent with the works of Nieuhoff; This is due to the fact that the minaret consists of two levels and is one of the distinctive towers in the city. Together with the Flower Pagoda, both are the two highest buildings in the city.



Pl.4. The Guangta in Guangdong Yutu (1685)

In 1855, Vrooman, D. published a map of Guangzhou entitled "Map of the city and entire

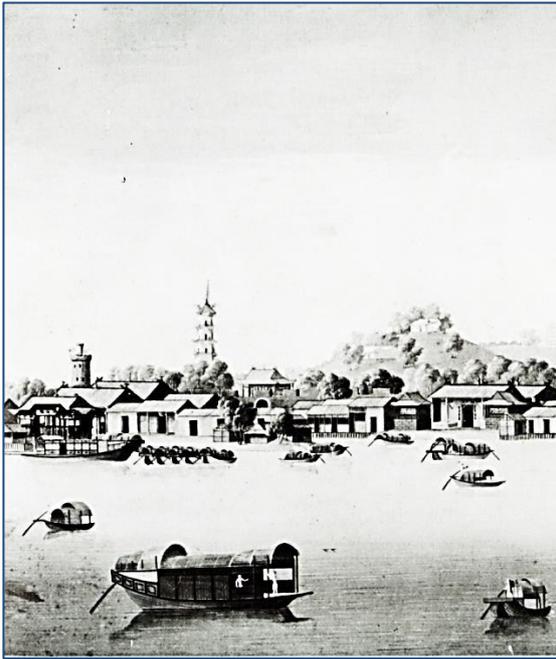
suburbs of Canton” (Vrooman 1855); the author identified her name on it with the name of Pagoda and presented the minaret so close to its present form. The minaret consists of one level topped by a small tower without a summit, its top is ruined and contains a lot of grass and small trees (pl.5).



Pl.5. The Guangta in Vrooman's map (1855).

The Hong Kong Museum of Art retains a painting by an unknown artist, dated in the 19th century; it is a gouache on silk, 40 x 70 cm (Huang 2014, 40), it is a view of the city of Guangzhou from Pearl River (Pl.6). In the painting, the minaret consists of one level topped by a small tower without a summit.

We believe that the current structure of the minaret was erected in the middle of the 19th century. The National Gallery of Canada possesses photography of the Mohammedan Mosque – Canton by Felice Beato, the Italian artist who visited the city in April 1860 (Beato 1860) (Pl.7). In this photograph, the form of the minaret is very similar to the current one. In 1873, William Floyd also visited the city and added a photograph with the title “the Mahomedan Mosque and Minaret” (Floyd 1873); His photograph shows that Guangta's shape and architectural elements do not differ from other artworks in the 19th century (Pl.8). John Kerr (1824–1901) who as a resident of the city provided us with a map of Guangzhou in 1880 (Kerr 1974, 41); his map shows that the form of the minaret is the same as the current one (Pl.9).



Pl.6. painting of Canton, Hong Kong Museum (the 19th century).



Pl.7. photography of the mosque (April 1860) by Felice Beato.



Pl.8. photography of the mosque (1873) by Floyd.

counterparts” (al-Baghdadi 2001, 384). It is noteworthy that the Museum of Santa Giulia in Brescia keeps the oldest surviving weathervane in the world in the form of a rooster, dated to 830 (Jiménez 2017, 188). (Pl.9)



Pl.9. a weathervane (830 AD) of the Museum of Santa Giulia.

THE MINARET'S INITIAL FORM

The oldest indication of the minaret was provided by Xiangzheng (1035-1113). Although he did not record the exact height of the minaret; we can conclude from his record that it was the tallest building in the city at that time, where it could have been seen from outside the city. Quoting from his words, “It stands like the great pillar and extends upward to the sky ... It is the guard of the three cities. It covers the sky of its surrounded places ..., it is like the big pen extending to the sky” (Xiangzheng 1987). Ke (1183-1243) also did not record the height of the minaret and described it in a simple way; however, apart from Ke's description of one entrance rather than two, the rest of the record is entirely consistent with the status quo, which prompts us to adopt one of the following hypotheses: Firstly, questioning that the historian had examined the minaret and that he may have relied in his recording on the anecdotal observations of the public, second: perhaps the entrance was reshaped at a later age.

However, Xinru (1177-1222) documented its height in a clear and direct text; in which he said, "its height is six hundred and fifteen Zhang" (Xinru 2010, 7-8). There is ambiguity in Xinru's description of the height of the minaret, as according to him, the height of the minaret is 615 *zhang* (equal to 2049 meters); *Zhang* (丈) is a Chinese unit of length equal to about 3.3 meters or equal to 10 *chi* (尺) (Yao 2016, 18) (Ioannides and Zhang 2017, 71-88) (Liang 1992, 680), *Chi* is a Chinese measuring unit based on the human hand, equal to 33.3 cm (San 2004, 187) (Rong and Yang 1994, 397) (Lu 2014, 180); as we believe Xinru replaced *chi* with *zhang*. So, we think he meant that the height of the minaret was 615 *chi* (equal to 54.9999 meters). Also, Williams (1812-1884 A.D) recorded three different heights of the minaret; 160 feet (48.76 meters) (McCulloch 1852, 541), 165 cubits (75.438 meters) (Williams 2005, 269), and 170 feet (51.8 meters) (Williams 1849, 132). According to Myers and King, its height was 120 feet (36.576 meters) (Mayers and King 1867, 165-166).

It is noted from previous historical records that none of them agreed on the height of the minaret, nor do they correspond to the current architectural height, which is 36.3 meters. However, we believe that the rise of the total minaret without the weathercock was close to that recorded by the historian Yue Ke (54.9999 meters) (Zhiping 2008, 14) and Williams 165 cubits (75.438 meters) (Williams 2005, 269) (**Fig.5**). It is noteworthy that the height, form, the distinguished top play a considerable role in terms of the visual impact of the minarets. No doubt that these aspects facilitate the recognition of the minaret and the whole mosque as well. (Ameen 2019, 109)

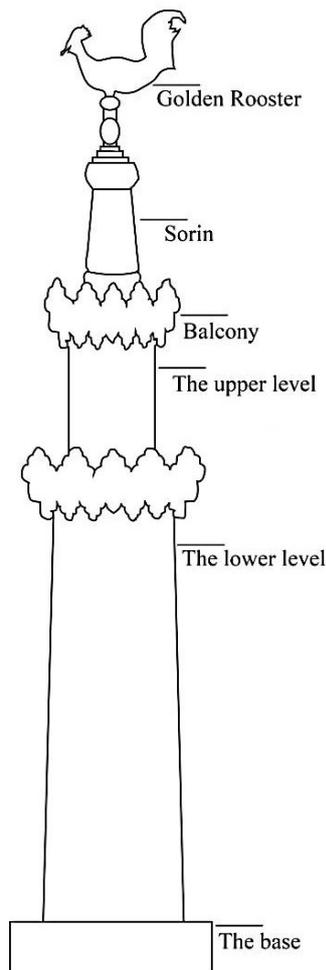


Fig.5. a hypothetical form for the Guangta

DATING THE MINARET

The minaret's construction date is not explicitly defined; some believe its construction dates back to the Song Dynasty (960–1279), while others believe its history was earlier. The oldest textual reference of the minaret was given by one of the poets of the Northern Song Dynasty (960-1127), Xiangzheng (1035-1113), in 1088. However, he did not examine the history of its construction. Accordingly, Xiangzheng's records can be relied upon as historical evidence of the earliest known presence of the minaret. There is no doubt that the minaret was built long before 1088. The historian Ke (d 1234 or 1243), who explores the history of the minaret, also

omitted any reference to a history of the construction. While Xinru (1177-1222), dating the minaret in the Tang period (618-907), made no reference to the period of the emperor's rule under which the construction was carried out. He did record its actual height, which shows that the historian had seen it himself and examined it closely.

We must keep in mind that it is not possible to date the mosque and the minaret together in one time period. In other words, the construction history of the mosque must be separated from the minaret. Ke explained that the mosque and the minaret were private buildings built by the Muslim community in the city. They were not built by the government but by Muslim merchants. It seems that the construction of the mosque was a reflection of the Muslim community's desire to fulfill their religious requirements. Over time, the minaret acquired economic and commercial exigencies during the Tang and Song periods. Although Xinru (1177-1222) –when he visited the city in 1206–explicitly stated that the minaret was built in the Tang Dynasty (618-907); however, this is not strong enough evidence of its construction during that era for many reasons. It seems that Xinru based his records on rumors. The historian was not contemporary to the Tang period (618-907). At the time he observed the Minaret, the Tang Dynasty had been over for three centuries. In addition, the merchant Sulaiman did not refer to the minaret when he visited the city in the third century AH (Anno Hegira) (ninth century).

The Guangta raises searching problems over its construction date; the cylindrical architecture of the minaret was not an architectural method during that period (Tang Dynasty) either in China or in the Islamic world itself. Additionally, their relative height and stone construction is more likely to be subsequent to the Tang period (618-907), after the development of these construction systems and others that helped the architects to increase the height of the minaret. In addition, its form and construction method were unique in China then; its shape is a tapering cylindrical shaft topped by a domed lantern and has a pair of interior spiral stairs leading to the top. The Guangta minaret clearly follows the design of the minarets of the cylindrical shaft in Central Asia and Iran during the 10th and 11th centuries. The mosque of Chehel Burj in Turkmenistan (4th AH/10thAD) had a cylindrical minaret (Anisi, *Early Islamic Architecture in Iran* (637-1059) 2007, 78-79). The minarets of the Seljuks in Iran are also frequently cylindrical such as Damghan Minaret (5th AH/ 11thAD) (Ettinghausen, Grabar and Jenkins-Madina 2001, 151)., the Simnan minaret (422-425 AH/1030-1034 AD) (Anisi 2006, 207-228), and the minaret of Masjid-i Malik in Kirman (477-490 AH/1084-1097 AD) (Anisi 2004, 137-157). In Central Asia, other minarets were built in cylindrical forms, such as Mesturīan (395-6 AH/1004-5 AD) and Kunya Urganj (402 AH/1011 AD) (Anisi 2007, 78-79). According to the Nieuhoff works, the minaret followed the style of Islamic architecture. Some Islamic architectural elements, such as the muqarnas, were applied, which was not a common element of Islamic architecture in the Islamic world at such an early time in their history. However, by monitoring the historical texts that dealt with the minaret and examining its architectural elements then comparing them with other minarets of the Islamic world, we believe that the minaret was built during the early years of the Song Dynasty (960–1279), in the 11th century.

CONCLUSION

This study closely examined the historical texts on the minaret during all periods from the Song Dynasty to the Qing; the oldest textual records of the minaret were in 1088 by Guo Xiangzheng (1035-1113), followed by the records of both Yue Ke (1183-1243) and Fang Xinru (1177-1222). In addition, it attracted the attention of European travelers who visited the city, such as John Gray (1828-1890), Samuel Wells Williams (1812-1884 A.D), and The Dutch painter Johan Nieuhoff, who created a map and a painting of the city in 1653. The works of the Dutch painter are among the rare documents and records of the minaret that preserved its architectural form during the early Qing period (1644-1911), which differs from its present form. In addition to this, the study examined the minaret in Guangdong Yutu (1658), Vrooman's map (1855), Kerr's map (1880), the Hong Kong Museum's photography (19th century), and Beato's photography (1860).

The minaret mimics the Islamic architectural styles, but the architects endeavored to integrate it with the local Chinese architectural styles. The study revealed that the architecture of the Guangta minaret in ancient times differs from the current situation. In ancient times the design consisted of several levels with the upper edge ending with a Sorin, a vertical column and above it, a golden vane in the shape of a rooster. This vane was cracked by a storm in 1393 and was later replaced by a copper vane. Based on its descriptions in the historical texts during the Song Dynasty (960–1279), the study succeeded in depicting the architecture of the minaret in its initial construction. The study confirmed that this minaret is one of the few examples used as a lighthouse, which testifies to the trade and economic relations between China and the Islamic world. Its importance is that lighthouses have lost their roles due to modern navigation techniques.

The study examines both the textual records and the architecture of the minaret. Although the Song historian, Fang Xinru (1177-1222), explicitly stated that the minaret was built during the Tang Dynasty (618-907), the study demonstrates that it is more likely to have been built in the early Song Dynasty (960–1279), as shown by its shape and architectural elements, such as the muqarnas, which did not appear in the architecture of the Islamic world at the earlier time period.; So the study suggests that its construction dates back to the early Song Dynasty (960–1279).

The study also demonstrated that the current structure of the minaret dates back at least to the second half of the 19th century, based on a picture preserved in the Hong Kong Museum, where the minaret appears in a largely similar form to its present form. The study succeeded in dating the minaret; by monitoring the historical texts that dealt with the minaret and examining its architectural elements before comparing them with other minarets of the Islamic world.

From the data collected, the evidence suggests that the minaret was built during the early years of the Song Dynasty, during the 11th century. Supported by historical texts of the Song Dynasty; the study was also able to suggest a hypothetical form of the minaret, in which it consists of three levels: the ground level, the second level, and the third level that was topped by the wind vane (the golden rooster).

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