

Semantic Analysis of the Column Style of the Building Façade at the Former Site of Canton Customs in Guangzhou

Yongye Zhu¹, Qionglin Liu^{1*}

¹ Department of Environmental Design, School of Art and Design, Guangdong University of Finance & Economics, Guangzhou, China

Email Address

L@gdufe.edu.cn (Qionglin Liu)

*Correspondence: L@gdufe.edu.cn

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Abstract:

After analyzing the decorative characteristics of the column type of the building façade at the former site of Canton Customs in Guangzhou, this paper has found the connection between the column decoration of the building façade at the former site and the traditional Western classical column specification and the local evolution. In addition, this paper has interpreted the decorative shape semantics, and summarized the artistic and humanistic value of the column style of the building façade at the former site.

Keywords:

Former Site of Canton Customs in Guangzhou, Column Style of the Building Façade, Decorative Characteristics, Shape Semantics

1. Introduction

In Western classical architecture, the column style is an important language for expressing the will of architecture, and the British architectural historian John N. Summerson believes that the classical column style is the most basic element that defines classical architecture [1]. Taking the classical column style of the building façade at former site of Canton Customs in Guangzhou as the research object, this paper analyzes the proportion, combination, and components of the column type of the building façade at the former site through historical research, survey, mapping and comparative research, and finds the development connection, semantics and value of the column decoration form of the building façade at the former site.

2. History of the Former Site of Canton Customs in Guangzhou

The former site of Canton Customs in Guangzhou was completed in 1916, and the building was planned and designed by David C. Dick, a British engineer at that time (Figs. 1~2). The former site of Canton Customs is one of the main customs office buildings in old China, which was used to manage affairs such as regional coastal commerce, taxation, postal services, translation and transportation [2]. As a customs

agency building for the management of modern Lingnan foreign trade, the former site of Canton Customs has witnessed the development history of modern Lingnan commercial and trade culture.

The building façade at the former site of Canton Customs adopts the British neoclassical style, set up with Ionic columns, Tuscan columns and corresponding square column variants, which are simple and elegant. Affected by the social, economic and technological influences at that time, the structure and materials of the columns between the facades of the former site of ©© were not uniform. For example, the columns of the front and east facades of the old site were made of granite stone from Britain, while the columns of the west façade were made of clear water red bricks.



Figure 1. Building Façade at the Former Site of Canton Customs.

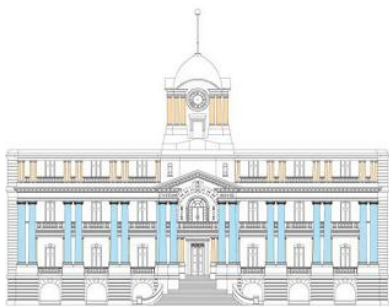


Figure 2. Column Distribution of the Building Façade at the Former Site of Canton Customs.

3. Analysis of Column Decoration Characteristics

Based on the theories of Giacomo Vignola, Andrea Palladio, Claude Perrault and other architects on the classical column specification, this paper roughly divides the column form into three aspects: overall proportion, combined form, and component elements.

3.1. Overall scales

In this paper, the diameter of the column at 1/3 of the column is used as the basic modulus (Mo). After calculating and verifying the scale data of the façade design scheme of each version of the former site of Canton Customs, it is found that the architects of the former site of Canton Customs have followed the scale law of neoclassical architecture, and the use of column scales is generally close to the scale specifications commonly used by classical architects in previous dynasties, with slight changes in some parts (Table 1).

Table 1. Comparison of the Scales of the Column-type Partial Structure.

Column Type	Unit	Column height	Eaves height	Plinth	Column cap	Cornerstone height
Ionic column style	Giacomo Vignola	9Mo	2 ¹ / ₄ Mo	1/2Mo	1/3Mo	1/6Mo
	Andrea Palladio	9Mo	1 ⁸ / ₁₀ Mo	1/2Mo	1/2Mo	1/6Mo
	Claude Perrault	8 ² / ₃ Mo	2Mo	1/2Mo	1/2Mo	1/6Mo
	Former site of Canton Customs in Guangzhou	9 ² / ₅ Mo	2Mo	3/5Mo	1/2Mo	1/5Mo
Tuscan	Giacomo	7Mo	1 ³ / ₄ Mo	1/2Mo	1/2Mo	1/4Mo

Square Column	Vignola					
	Andrea Palladio	7Mo	$1\frac{7}{8}$ Mo	$\frac{1}{2}$ Mo	$\frac{1}{2}$ Mo	$\frac{1}{4}$ Mo
	Claude Perrault	$7\frac{1}{3}$ Mo	2Mo	$\frac{1}{2}$ Mo	$\frac{1}{2}$ Mo	$\frac{1}{4}$ Mo
	Former site of Canton Customs in Guangzhou	$7\frac{3}{10}$ Mo	$1\frac{7}{10}$ Mo	$\frac{2}{3}$ Mo	$\frac{1}{2}$ Mo	$\frac{1}{2}$ Mo

3.2. Combination forms

The building façade at the former site of Canton Customs adopts various forms of column combinations for layout and decoration. For example, the second to fourth floors of the front façade of the former site are constructed in a layout similar to the superposed order to form a colonnade supported by multiple groups of columns, which makes the former site of Canton Customs a neoclassical architectural work with the characteristics of a corridor.

Secondly, the front and east facades of the former site also adopt the Ionic double-column combination, the Tuscan double-column combination, and the multi-column hybrid combination (Table 2). The double-column combination can be referred to as a coupled column [3]. Claude Perrault made innovative use of coupled columns in the 17th century when designing the east façade of Louvre (Figure 17), but because there was no corresponding precedent in ancient architecture, his design was severely criticized by architects such as François Blondel [4]. However, Perrault still insisted that the columns were arranged in pairs was a rational innovation, and the setting increased the beauty and convenience of the building, such as increasing the spacing of the columns by arranging them in pairs to make the doors and windows on the colonnade more visible [5]. The layout of the former site of Canton Customs verifies Perrault's point of view: the layout of the coupled columns does not only make the doors and windows of the façade of the former site independent and clear, but also the combination of columns at different levels form a strong contrast and rhythm of harmony with each other.

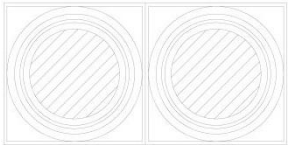


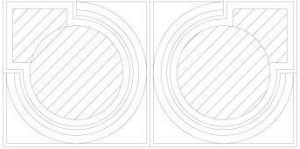
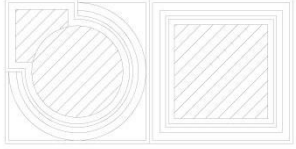
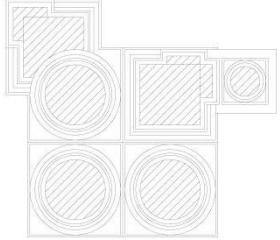
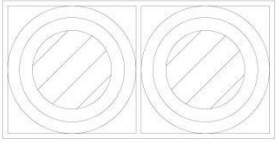
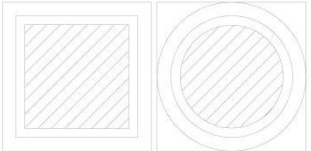
Figure 17. East Façade of Louvre Official Building.



Figure 18. Palazzo Chiericati.

Table 2. Combination Form of Façade Column at the Former Site of Canton Customs.

S/N	Diagram of the site	Combination form	Plan
1	 Figure 3	Ionic double-column style Combination	 Figure 4

2	 Figure 5	Ionic Double-column Type and Tuscan Double-column Type Hybrid combination	 Figure 6
3	 Figure 7	Ionic Round + Square Column and Tuscan Square Column Hybrid Combination	 Figure 8
4	 Figure 9	Multi-column Hybrid Combination	 Figure 10
5	 Figure 11	Tuscan Double-column Type Combination	 Figure 12
6	 Figure 13	Tuscan Round + Square Column Type Combination	 Figure 14
7	 Figure 15	Combination of the Tuscan Square Column Variant	 Figure 16

In addition, the former site of Canton Customs also used the structural form of superimposed columns, which Palladio called double columns [6]. Palladian used double columns in the design of the Palazzo Chiericati in Vicenza in the 16th century: the walls of the second-floor hall in the center of the façade of the Palazzo Chiericati protrude slightly forward, so Palladian used double columns for support and transition at the corner of the first floor below the hall (Figure 18). The architect of the former site of Canton Customs also used double columns for transition in the design, and the architect strengthened the primary and secondary relationship of its own three-stage

structure and enriched the form of the building structure through this traditional system.

3.3. Component elements

3.3.1. Capital and eaves

The Ionic capitals at the former site of Canton Customs were influenced to a certain extent by the Italian architect Vincenzo Scamozzi [7] (Figure 19, Figure 20). At the beginning of the 17th century, the British architect Inigo Jones introduced the improved diagonal Ionic capitals designed by Scamozzi to Britain[8], and Jones used them several times in architectural works such as the Queen's Palace (1616), which led to the widespread spread of Scamozzi capitals in Britain. However, there has been controversy in the later development of the Scamozzi stigma, such as Perrault's criticism of the cartouche form of the capital, who argued that the thickness of the cartouche designed by Scamozzi was too flat, while the Ionic cartouche in the temple of Fortuna increased in thickness downward and appeared very delicate [9]. Although the shape of the Ionic capital at the former site of Canton Customs continues the Scamozzi style, it is different from the Scamozzi style, and the Ionic capital cartouche at the former site increases downward and simplifies the cartouche ornaments, which not only makes the capital shape more simple and plump, but also makes the temperament of the column fit the modern environment.



Figure 19. Ionic Capitals on the Façade of the Former Site.

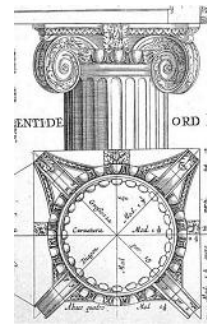


Figure 20. Capitals Designed by Scamozzi.

In order to control the overall space, scale and vision of the building, some of the eaves of the façade of the former site were not designed in full accordance with the traditional column eaves shape, such as the two-layer frieze of the Ionic column eave architrave and the two-layer frieze of the Tuscan column eave architrave on the second floor of the façade, which are similar to the eaves designed by James Gibbs [10] (Figure 21, Figure 22).

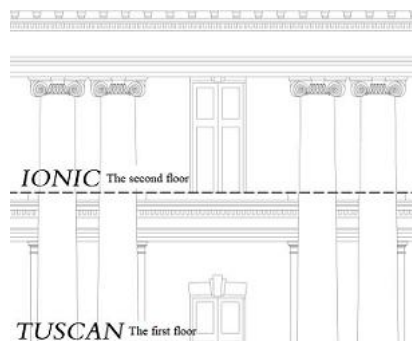


Figure 21. Eaves of the First and Second Floors of the Former Site of Canton Customs.

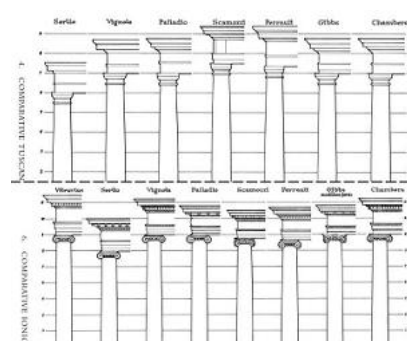


Figure 22. shape of the Eaves Commonly Used by Architects in the Past Dynasties.

3.3.2. Column base

The Ionic and Tuscan column at the former site of Canton Customs both use the Attic base, which has been widely used since the ancient Roman period. However, the Attic base is not a typical Ionic column base but a variant column base, so many architects have different standards for the Ionic column base form over the ages. For example, the Italian architect Giacomo Vignola advocated the use of the standard Ionic column base [11], while Palladio preferred the more attractive Attic base (Figure 23, Figure 24). The Attic base at the former site of Canton Customs shows a stable and upward posture of the Ionic column in the building façade due to the trapezoidal collection and arc streamline. Due to the fact that the traditional Attic base is rarely used in the Greek Doric column type and the Roman Tuscan column type, the Attic base was not used for the Tuscan column type at the former site of Canton Customs to a large extent to follow the traditional norms and maintain the coordination of the structural connection between the columns.



Figure 23. *Ionic Column Base at the Former Site of Canton Customs.*

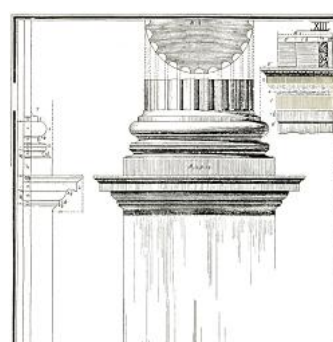


Figure 24. *Ionic Column Base designed by Vignola.*

4. Morphological Semantics of Column Decoration

Although the column decoration form of the building façade of the former site of Canton Customs is not much different from the traditional form of the West on the whole, the multiple decorative symbols used in the local variables of the column type of the former site reflect at least three sets of complex architectural emotions of the former site of Canton Customs, and this sentimental influence of identity, place, and value is applied to the column decoration.

4.1. Adherence to traditional authority

There were two main sets of design schemes for the façade of the former site of Canton Customs, the 1911 version and the 1913 version, and the latter was the final scheme (Figure 25, Figure 26). The 1913 version of the scheme made a more concise and serious adjustment of the Ionic column structure with Baroque decorative features in the 1911 version. This adjustment was largely due to the special social status of Canton Customs at that time, as well as the formal constraints of the public building in the neoclassical style.

James Gandon, chief architect of Dublin's Customs House, believes that neoclassical public buildings can highlight and convey the economic and cultural power of their home countries, and promote control over the power structures of surrounding societies [12]. By following the neoclassical style, the traditional form and context of the former site of Canton Customs strengthened its authority and symbolism as a power building. For example, the former site expresses the class and

order of the building through a streamlined and symmetrical column decorative structure. Another example is the adherence of the will of ancient Western civilization, which can be seen from the large number of Tuscan columns on the building façade and their arrangement, and the former site focuses on the use of the ancient Roman revival with expansion and conquest significance to express the functional will of the institution, which is different from the mild ancient Greek revival style that was once popular in Britain.

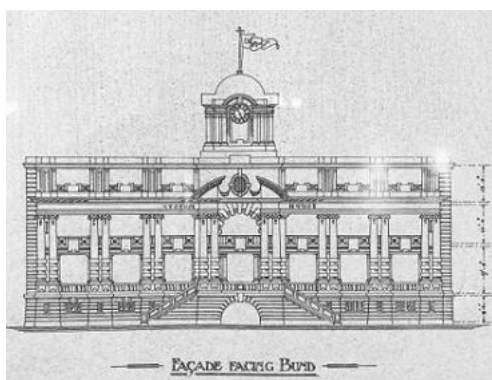


Figure 25. Façade Design of the 1911 Version.



Figure 26. Façade Design of the 1913 Version.

4.2. Pursuit of the spirit of innovation

Influenced by the Arts & Crafts Movement in Britain, Neo-Baroque and Art Nouveau at that time, the architects of the former site of Canton Customs deliberately followed the traditional rules of neoclassical architecture while innovatively integrating a variety of artistic elements, so as to show more diverse foreign art and culture in Lingnan through architecture, and this integration can be seen in the open mountain flowers and exaggerated arches on the façade of the former site.

Therefore, the former site of Canton Customs not only continues the conservatism and restraint of British neoclassical architecture, but also shows the “newness” of British neoclassical architecture that is open and diverse, and moves with the times [13]. In the columns of the building façade at the former site, the architect's use of decorative elements such as Scammozzi capitals, coupled groups, and eaves friezes reflects this “newness”. Although these elements are no longer new in classical architecture at the beginning of the 20th century, the elements still represent revolutionary milestones of different eras. The former site of Canton Customs has given traditional neoclassical architecture a new way of regional culture and emotional expression through innovative symbolism of column combinations, components and layouts.

4.3. Conveyance of humanistic values

The ancient Romans insisted on using columns to suggest or convey all ideas, and they wanted to use the artistic expressions and emotional symbolism of columns to dominate and control the buildings attached to them [14]. Similarly, in the feudal social environment of China at that time, the bourgeois managers of the former site of Canton Customs hoped to use the classical column-style cultural and artistic images to declare the humanistic background and class concepts of the country and region to which they belonged, and imperceptibly influence the surrounding social environment. Therefore, the former site adopts the large, calm Ionic column and the dense,

powerful Tuscan column to convey the values of freedom, equality and order, and constructs a picture of the elite leading its followers and the followers above the elite through the orderly arrangement of columns, thus contributing to a confrontation between humanism and feudalism.

5. Conclusions

The former site of Canton Customs is a neoclassical architectural work in modern Lingnan where tradition and innovation are coordinated, and a variety of artistic styles and concepts converge, and its architectural façade column decoration contains rich artistic characteristics and significance. Through the study of the decorative form of the column on the building façade at the former site, it is helpful for us to understand the historical, artistic and humanistic values of the column style of modern classical buildings in Lingnan, and provide a reference for the interpretation of the column style of modern classical buildings in Lingnan.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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