

# Issue of Architecture

## My Tectonic Approach to Auguste Choisy

Zhao Chen

As a Chinese architect and professor, my academic approach to Auguste Choisy was little bit special and incident. While my continued interest in Choisy and relevant French early modern architectural theorists rooted to my searching for a better understanding the modern architecture, this experience has helped really much to my academic architecture life.

To have this review is first of all interesting to myself, might be probably also meaningful to young colleagues and my students. That is basic reason to make this small essay to explain my architectural interpretation with tectonic approach to Auguste Choisy, hopefully will be shared by you.

### **Confusion of the Interpretation of the History of Chinese Architecture or Construction**

It was already more than twenty years before, in 1980's, when I was still a master degree student intended to study about the History and Theory of Chinese Architecture at the Southeast University in Nanjing. My unsatisfactory of existed interpretations of Chinese traditional architecture, was started from a specific opportunity, I was asked to design and to build a Buddhist temple with the exact form of the ancient Song Dynasty (960 A. D.-1279). Through the whole process of design and construction for the temple, I came up with many real design problems in classical Chinese wooden architecture, which were not very well studied in the area of Chinese architectural research, and even didn't showed as problems. That gave me a strong impression about mis-orientation of the research in Chinese ar-

chitecture, meaning, the design problems were not being paid enough attention. It seemed most work in this area has been done on the level of either collecting the information of historical architecture, or intellectual research about ancient relics. The Neo-Classical Style had a strong influence on all areas of Chinese architecture, specifically in the area of Chinese architectural research. The history of Chinese architecture was studied mostly the same way as the Western classics, real design and construction problems were ignored or thought of as the problems of carpenters and crafts. I recognized the key problem actually was the same as it was in the whole architectural area of modern China; it is that research was based upon a not well established modern architecture system in China, which troubled strongly also architectural education.

With this experience, as the start point, I began to search the theoretical issue of how to interpret Chinese architecture, which was spent me more than twenty year.

I got a basic point of understanding; Chinese architecture, as a long history of construction development, has demonstrated its brilliant achievement and rich variations but only as the carpentry and crafts, not as the realm of intellectual in the history of China. Since the architecture as an academic discipline introduced into China in the early 20 Century, correctly to say, a long history with pretty short history of academic system. That produced a serious problem of how to interpret it with architectural theories in modern time.

Started from the end of 19 Century, and the beginning of 20 Century, the Chinese traditional architecture (wooden structured as the major) has been continuously interpreted, first by Western late on Chinese architectural historians. Unfortunately, those interpretations were all with stylistic view, based upon the Classicism in that time however, those interpretations had been really confined.

From some design works for real projects of Chinese traditional temples and specifically their construction processes, I realized that construction should be more the priority in the complex of architectural elements. My un-satisfaction and suspicion of existing stylistic interpretations of Chinese architecture was getting stronger, nevertheless the stylistic view of interpretation of Chinese traditional architecture, even today still, has been dominating the academia system of China since early the 20th Century. I began to be searching for the possibility of different view of interpretation in the history of architecture, which I had to look it in the West.

### **Encounter to Auguste Choisy, Construction Development as the Interpretation of Architectural History**

My first time encounter to Auguste Choisy (1841-1909), (Fig. 1) was in the later 1980's by reading of Kenneth Frampton's *Modern Architecture, A Critical History*. Frampton described: «For Choisy the essence of architecture is construction, and all stylistic transformations are merely the logical consequence of technical development: 'To parade your Art Nouveau is to ignore the whole teaching of history. Not so did the great styles of the past come into being. It was in the suggestion of construction that the architect of the great artistic ages found his truest inspiration». <sup>1</sup> I never saw the Western Architecture interpreted in such clearly way based upon the logic of construction, which is corresponded to my thinking of Chinese traditional architecture. I was also amazed by his illustration of axonometric, later on I learned it named as «worm-eyes view», with which he got be able to examine the historical works exactly in its construction (Fig. 2). I got a loom feeling of that Choisy's theory might be fit the architecture I intended.



Figure 1  
Auguste Choisy (1841–1909)

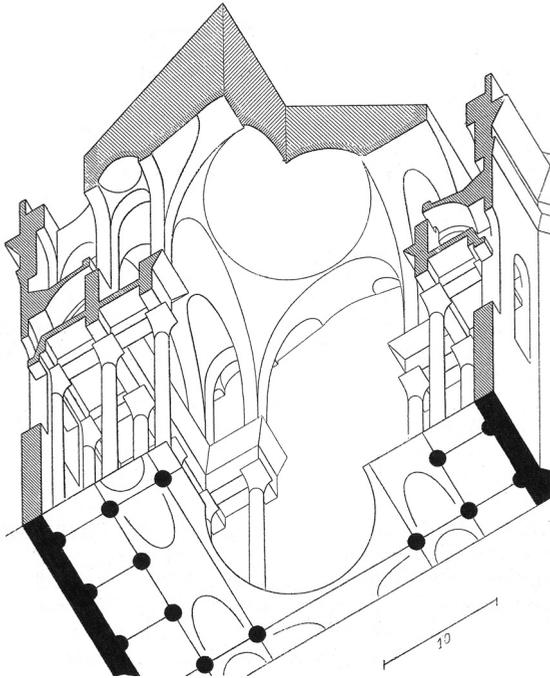


Figure 2  
Choisy illustration of axonometric, «worm-eyes view» in his «Histoire»

I got to learn bit more about Auguste Choisy, as an engineer based architectural historian from «the Ecole des Ponts of Chaussees» in 19th Century, he certainly connected to Julien Azais Guadet (1834–1908), Henri Labrouste (1801–1875), Abbé Jean-Louis de Cordemoy (1651–1722), as well as Marc-Antoine Laugier (1713-1769), which was threaded and named somehow as «the Anglo-French Origins of Tectonic Form»<sup>2</sup> by Frampton. This strong tendency was started very early but parallel to the stylistic view of architecture represented by the Ecole des Beaux Arts in Paris. I also recognized that Le Corbusier (1887-1965) and the other modern architects in Europe were strongly influenced by this linear, even directly by Auguste Choisy. While I was also very disappointed about the fact of that there were almost no any book of Auguste Choisy in Chinese architecture schools that time, due to the foreign language limitation. I am not sure how about that today but, the reality is that Chinese architectural academia has been very much concentrated to American-English publications, which I will talk about it late.

From the beginning to the end of 1990's, I have studied and worked at the Department of Architecture in the Swiss Federal Institute of Technology, Zurich (ETH-Z). Where I was able to first time read the books of Auguste Choisy, specifically his *Histoire de L'Architecture*. I also tried to check through overall picture of theoretical development of the West especially from the period of 19th

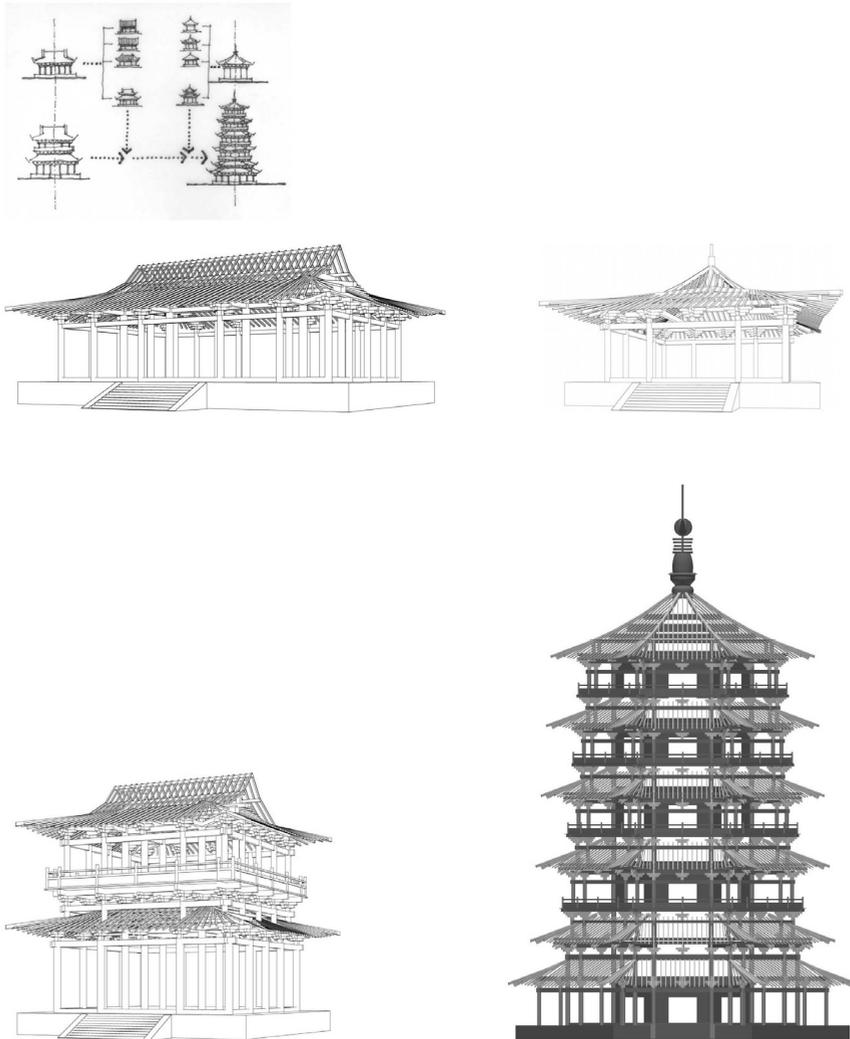


Figure 3  
CAD modelling of Chinese traditional wooden structure in typological development

to 20th Century. Tectonic cultures in the Europe became really my favored, combined with theory and works, historical and modern. Richness of wooden tectonic cultures of Alps, give me strong impression to compare with Chinese wooden tradition, and I appreciated these compared traditions between Europe and China both rooted into really origin of civilizations. As Pugin said: «Grecian architecture is essentially wooden in its construction; it originated in wooden buildings and never did its professors possess either sufficient imagination or skill to conceive any departure from the original type . . . This is at once the most ancient and most barbarous mode of building that can be imagined; it is heavy and, as I before said, essentially wooden; but is it not extraordinary that when the Greeks commenced building in stone, the properties of this material did not suggest to them some different and improved mode of construction?»<sup>3</sup> I was eventually approaching to the theory of tectonic, and felt that is something will really nice to Chinese architecture. By understanding of to interpret architecture development to be as the innovation of construction in different civilizations, I tried to make some typological studies of CAD modeling with Chinese traditional wooden structures, in order to explain the variation of archetypes of «hall», «pavilion», «tower» as well as «pagoda» just in its logic of construction (Fig. 3). It was pretty successful test run, which supported me continue to applying tectonic thinking in the research of traditional architecture in China.

It was again very happy for me to read Frampton's further contribution of masterworks: *Studies in Tectonic Culture, the Poetics of Construction in Nineteenth and Twentieth Century Architecture*, firstly came out in 1993 with German version, then by 1995 in English. I got to understand important role of Auguste Choisy played in his time, and continues influence in modern architecture. Choisy's works was be described as «Apart from being written by an engineer, this was the first architectural history to explain the origin of tectonic form in terms of the materials available, the structural systems employed, and the state of craft production.»<sup>4</sup> With that, I looked back to the architectural academia in China, noticed the serious confine of theories: with unilateralism understanding of the Western architectural history only in stylistic view of the Classicism, but the ignorance of European tectonic tendency in theory, specifically with Auguste Choisy's interpretation of architectural history. So that, my theoretical interest led to focus on Auguste Choisy, who should be as important as other architectural theorist and historian but was almost ignorant in China for decades. So what western modern architecture, especially its theories, Chinese architects learned is not really true and comprehensive. There are great mount of theoretical works of western architecture needed be made up as the missed lessons. Auguste Choisy and his theory should be doubtless one of those lessons.

## How to Interpret Chinese Architecture or Non-European Architecture with Justice

My further study related to Auguste Choisy was about historiography research of interpretations of Chinese or the other non-European traditional architecture. In the middle of 1990's, combined with the theory of Post-Colonialism, there happened some debating and criticism about asking for interpretation of different cultures in justice. Major critique concentrated to so call «Europe Centralism»,

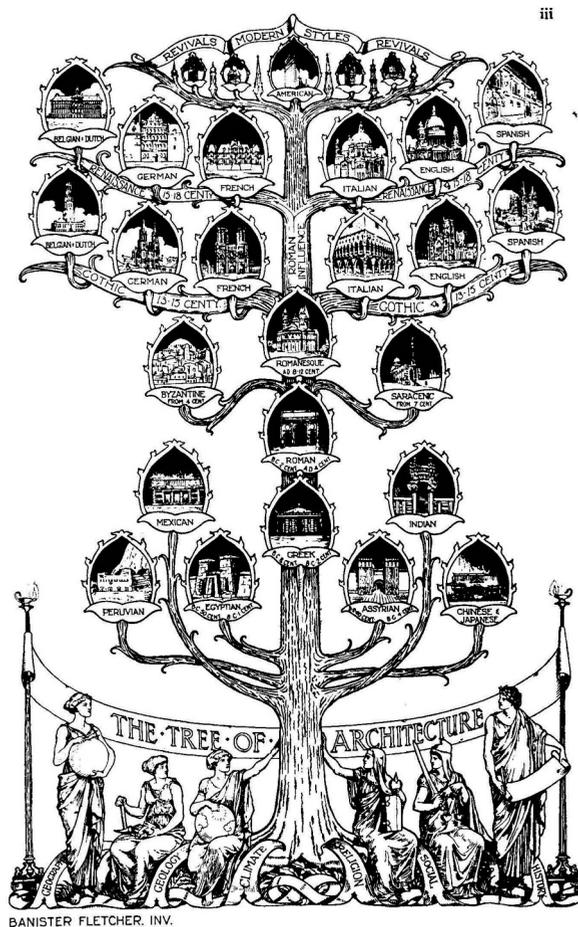


Figure 4  
Tree of Architecture, Sir. Banister F. Fletcher(1866-1953): History of Architecture on the Comparative Method for the Student Crafts- man, and Amateur. London, 1896-1996

as the origin of unfair view of culture, in the realm of architectural academia, Sir. Banister Fletcher's *History of Architecture* was thought as the representative. There were several papers of criticism all concentrated on Fletcher's history of architecture, and especially *The Tree of Architecture* (Fig-4) in the book between 4th to 16th versions. Most of those criticisms were made by the scholars from non-European countries such as India, Singapore, Malaysia, as the former colonial countries before the Second World War. While Chinese scholars followed up afterwards, again without enough understanding of western theories, but very provokingly with enthusiastic of the Nationalism. This theoretical pulse was noticed by me, and I tried to make some reviews of all the editions (20th until to 1996) of Fletcher's *History of Architecture*, which made me understand how great development of the view of western architecture. I realized the fact of that the early versions of Fletcher's *History of Architecture*, were clearly based upon the view of Classicism, or to say stylistic interpretation. It is clear that the «Europe Centralism» in the sense of cultures, was related in the one hand, academically the Classicism of stylistic interpretation of the architecture histories, while on the other hand geo-politically the Colonialism / Nationalism in the end of 19th Century and beginning of 20th Century. But for those scholars in non-European, especially Asian countries seemed very much to be confined by English publications, what mainly were put as their criticizing targets of «western» namely almost limited as language of English-American. That is made for Asian scholars basic misunderstanding of modern architecture theories in the west, tectonic tendency was clearly ignored. Therefore, there may be existed some unfairness in Asian scholars with confusion of English-American as the Western, specifically ignorance of some important theorists like Auguste Choisy. I noticed also a detail of that there is no any English version of Auguste Choisy's book unfortunately, probably even today.

That was coming to my mind, to make a comparison between Fletcher's *History of Architecture* and Choisy's *Histoire de L'Architecture*. Since both books were published in the end of 19th Century, only few years between.<sup>5</sup> They should be in same time of culture and similar knowledge bases of the time but, nevertheless these two books looked really different. In case of my ignorance of French, I asked my colleague in ETH-Z to help to read and translate the book and specific chapters of non-European countries. I couldn't say I understood all but, one thing to me is definitely clear that, August Choisy's *Histoire* was successfully avoidant «Europe Centralism»; in the Chapter VI of «CHINE, JAPON» in his book, as in other chapters, he made some analytical drawings of Chinese and Japanese architecture, from spatial organization to detailed wood construction. (Fig. 5) It is clear that with an attempt to explain the logic of design and construction. From this chapter, we could not get any unfair critical points on Chinese and Japanese

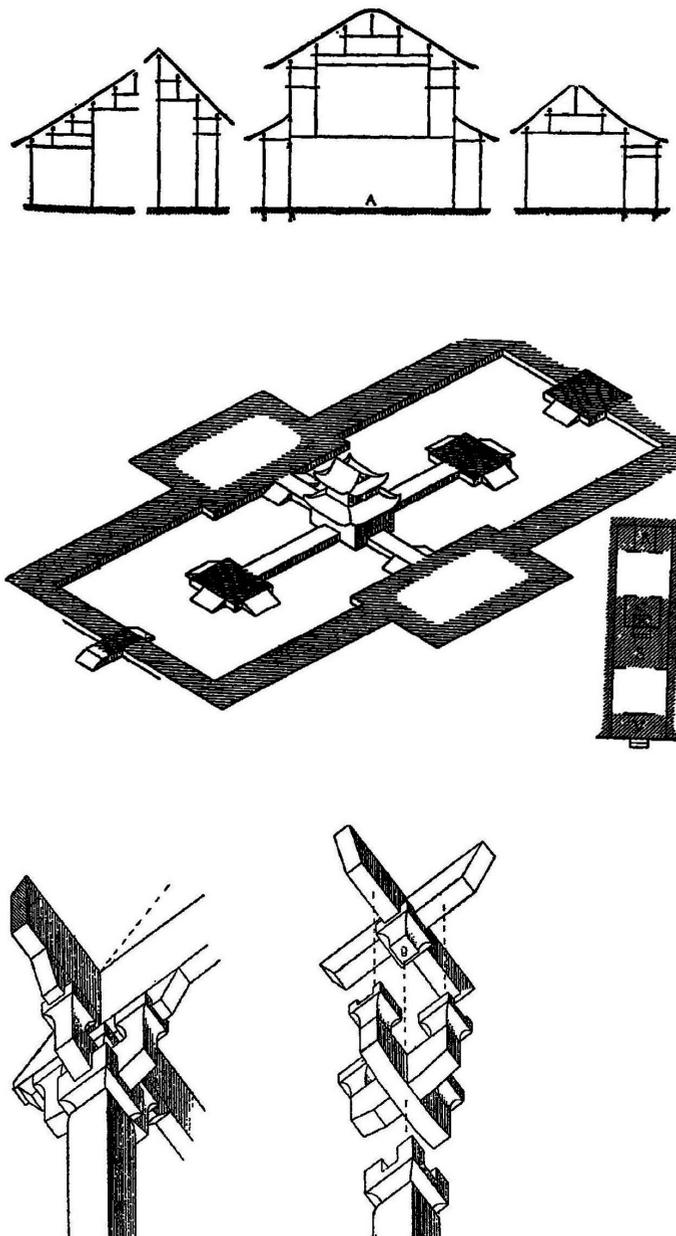


Figure 5  
About Chinese wooden construction from Auguste Choisy's *Histoire de L'Architecture*,  
1899, Paris

architecture. Compared with interpretations by Banister Fletcher from same time, it made more sense than to discuss about the styles of architecture, even though Choisy's knowledge about Chinese and Japanese or the non-European architecture was still quite primitive. The good lesson I got from Choisy's *Histoire* is what he really avoided was stylistic view of architecture, which was applied by most other architectural historians that time to interpret architecture in the World, typically with Fletcher's *History*.

The things to be eventually more clear to me, with the tectonic view of architecture, like Choisy, the history of architecture would be explained clearly the innovation in certain tradition of regional construction. With this way, the architecture in different regions can be shared and exchanged each other. While with the stylistic view, like Fletcher, the history of architecture explained in an innovation of styles, it was defined as «Historical Styles» from the 1st to 3rd versions of his *History*, then from 4th to 16th versions became two volumes of «Historical Styles» for European and «Now-Historical Styles» for non-European countries, and that made serious problem of justice when all the non-European countries' scholar asked for. In reality, they had previously accepted stylistic view of architecture, and anyone would base on his or her regional or national taste of style, and then compared the other styles in the World. That will produce basic problem of conflict between cultures, so stylistic view provoking the conflicts and nationalism. It seems to me the conflicts would be anyway there if we take stylistic view to interpret history of architecture in the World, the justice should be never reached with the stylistic view. The real contradiction is that those scholars from non-European countries who asked for justice but still stick on stylistic view.

We also have to believe the fact of that stylistic innovation in European history is much clearer than the other cultures in the World, so that stylistic view has certainly helped very much «European Centralism» in the realm of architecture and in other cultural areas. Chinese traditional architecture is not comparable to the Western but, not primitive enough than Mongolian tents in styles. My question is how can we ask for justice for Mongolian architecture in this world, but have to take stylistic view as to interpret the history?

### **Conclusion: Departure from Stylistic to Tectonic**

Auguste Choisy helped me to have different view to interpret architecture, and I found his view is what I needed, as a Chinese architect and professor. Combined with my recognition of the confusion of the stylistic interpretation of the history of Chinese architecture or construction, I decided to departure from stylistic view of architecture, and approach to what I called tectonic view, actually to the view of architecture represented by Auguste Choisy in the end of 19th Century.

**Notes**

1. Kenneth Frampton: «*Modern Architecture, A Critical History*», Thames & Hudson, London, 1985, p. 19
2. Kenneth Frampton: *Studies in Tectonic Culture*, The MIT Press, Cambridge, Massachusetts, London, England 1995, p. 29
3. A. W. N. Pugin, *The True Principles of Pointed or Christian Architecture*, London; John Weale, 1841, reprint, London; Academy Editions, 1973, P. 3
4. Kenneth Frampton: *Studies in Tectonic Culture*, The MIT Press, Cambridge, Massachusetts, London, England 1995, p. 57
5. Sir. Banister Fletcher's *A History of Architecture, on the Comparative Method for the Student Craftsman, and Amateur* firstly published in 1896, edited to third version in 1897. From fourth version in 1901 to sixteenth version in 1954, two parts of «Historical Architecture» and «Non-Historical Architecture» were embodied. Auguste Choisy's *Histoire de l'Architecture* firstly published in 1899, Paris.

