

Nicola Pagnano  
**Experiences of critical regionalism in China**

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Abstract

The article testifies to some critical steps in architecture development in China through personal experiences related to the problematic relationship between atopic stereotypes and the specific culture of the places.

Keywords

China — Regionalism — Tectonic

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In my 15 years of experience in China (from 2007 to 22) as an architect first and then as a teacher (at Xi'an Jiaotong Liverpool University), I have witnessed the development of new cultural interests and aesthetic orientations in the architecture field. After almost 40 years of architecture managed by prominent state-owned Design Institutes, the professional activity of private architectural firms began in China again in 1990.

The economic and technological progress of the last twenty years (2000-2020) has led to a change in architecture's constructive and aesthetic processes. Young architects are amplifying a trend that from 1950 to 1990 was very rare and carried on with discretion by a small number of architects, namely an architecture with its own identity that we could define as the beginning of modern Chinese architecture. (Xue and Ding, 2018)

**The evolution of the professional practice of architects in China over the last century: from Design Institute to private architecture firm**

British, American, and European architects dominated the architecture market at the turn of the twentieth century, until the arrival of the first generation of Chinese architects, who had just finished their studies and training at the best American and European institutions. At that time, architects in China start their studios like Western countries as a modern profession. (Xue, 2006; Rowe Kuan, 2006)

Between 1949-1976 most foreign companies were confiscated or nationalized. The Party gradually reduced the opportunity for private architectural firms in the professional market. Most Chinese architectural practitioners ceased their firms because they believed that joining a state-owned Design Institute would provide stable income, secure their careers, and

offer more opportunities in architectural design. The Party and the state became both the project's clients and the contractors, so the architectural professionals became state employees. The design activities were seen as contributing to national modernization and the public good rather than following the architect's interests (Hu 2009).

In November 1984, the Ministry of Construction approved for the first time the private small-scale architectural design firm Wang Tianci.

The actual movement of private companies in the market started with Yung Ho Chang and his Atelier FCJZ in the 1990s. (Huang Yuan-Shao, 2010).

With the globalization of the world economy and China's accession to the World Trade Organization (WTO), China's industrial structure and economic system are undergoing significant reforms, which have given architects and professional architectural firms a vital opportunity. Starting from 2002, The government allowed Foreign Invested firms to operate with local partners, and from 2006, it allowed Wholly Foreign Owned Enterprise architecture firms (Long Xiu).

In those years, however, the architecture was still managed by the Design Institutes and by foreign companies in partnership with local partners. Small and medium-sized private studios that operated independently and could focus on quality design were still few and unable to exert any influence in the cultural context of architecture.

### **Experience in China**

The experiences of my first two years in China made me understand that my approach to the projects and the language I used to describe them did not entirely satisfy clients. In fact, they were not particularly interested in the themes of Chinese identity and culture or any case sensitive to social and environmental problems, but on the contrary, they were looking for projects with a strong staggering connotation, with concepts that are easy to understand and visualize: a formalist architecture that was in fact what was proposed by most Western architects. A trend that has not yet exhausted its course and continues to produce atopic architecture that is utterly alien to the context.

The classical architecture request by developers was a commercial strategy to sell to the new Chinese rich villas and palaces that expressed a concept of wealth. Calling it classic is certainly not the most applicable term, let's say a patchwork of orders and styles that spans all centuries and types. For example, a Gothic church enriched with Corinthian columns transformed into a villa. Traditional Chinese architecture was associated with the popular buildings where people of lower social classes lived who, although interpreted in a contemporary key, did not express a status symbol adequate to the needs of the new rich, inclined instead to demonstrate their wealth also through architecture.

The many design experiences in which I had the opportunity to participate are a demonstration of this difficult relationship, between the memory of Chinese architecture and oblivion, the search for internationalism and stereotypes of modernity.

One of the first design experiences I made in China was in a great site, the Inner Mongolia desert. I had to expand an existing resort and re-design the facilities building.

The strategy adopted was to get knowledge of the physical and cultural

**Fig. 1**

Traditional house of a village. Clay and mud walls mix with natural fibres, Inner Mongolia, China 2007.

**Fig. 2**

Traditional house of a village. Clay and mud walls mix with natural fibres, Inner Mongolia, China 2007.

**Fig. 3**

Sundry clay bricks. Inner Mongolia, China 2007.

**Fig. 4**

Door entrance of a traditional house of a village in Inner Mongolia, China 2007.

**Fig. 5**

Pigsty. Inner Mongolia, China 2007.

resources of the place; I started with a territory survey and a visit to the surrounding villages to discover the spontaneous architecture and meet the inhabitants to learn about the traditions of the place. I asked the client for a hydrogeological map to identify the aquifers, but I only managed to get an aerial photo of the area.

This image helped me visualize bands of vegetation that started from the lake and extended into the desert. I decided to design a planimetric system along the arid strips not to touch the humid vegetative bands. The designed buildings referred to traditional architecture amplified by bioclimatic architecture devices. Unfortunately, the client had little regard for the original buildings because, according to their aesthetic standards, they were not suitable for restoring an idea of an exclusive resort for wealthy tourists.

The result is a substantial atopic building surrounded by golf courses near the lake, the worst thing that could be achieved in this place both from an architectural and landscape point of view.

### The metaphor

In 2012 I designed a resort in southwest China, in the territory of Yunnan, near the border with Thailand. This area is famous for producing Pu Er tea, a particular type of fermented tea, among the most expensive in the



**Figg. 6 a-b**

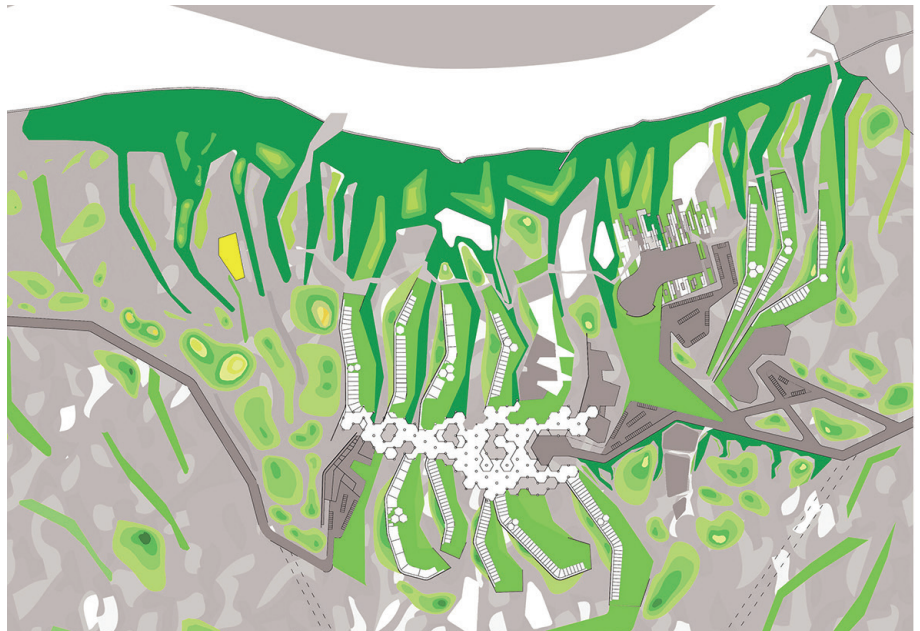
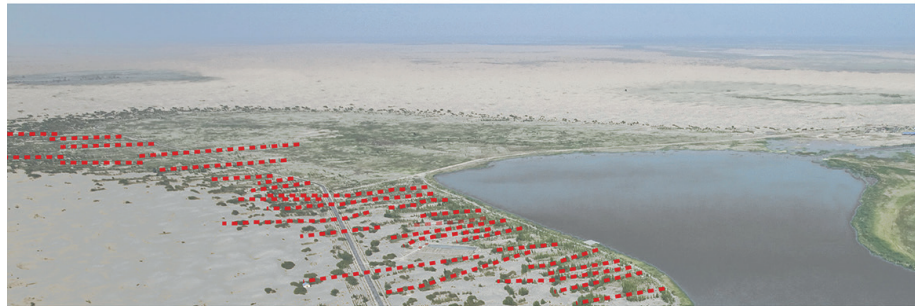
Top Aerial view of the project site; aerial view of the project site with landscape paths. Inner Mongolia, China 2007.

**Fig. 7**

Planimetry of the Resort, dark green colour indicates the existing vegetation. Inner Mongolia, China 2007.

**Fig. 8**

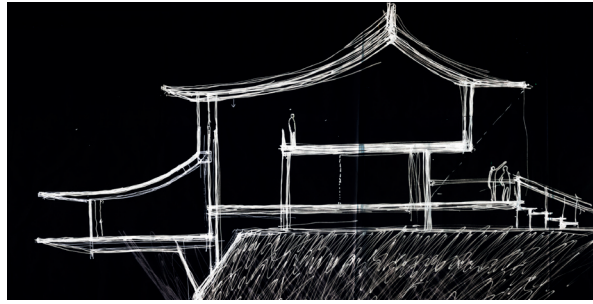
Bird-eye view of the resort. Inner Mongolia, China 2007.







**Fig. 9**  
Project site of a resort. Pu Er, Yunnan, Bai Ma Shan Mountain, China 2011.



**Fig. 10**  
Section sketch of one unit of the resort. Pu Er, Yunnan, Bai Ma Shan Mountain, China 2011.



**Fig. 11**  
3d realistic view of one unit of the resort. Pu Er, Yunnan, Bai Ma Shan Mountain, China 2011.

world. The project is located at the top of Bai Ma Shan's mountainous area (Mountain of the White Horse).

This time the project proposal originated from the reference to the mythical origins of the founding of Chinese cities.

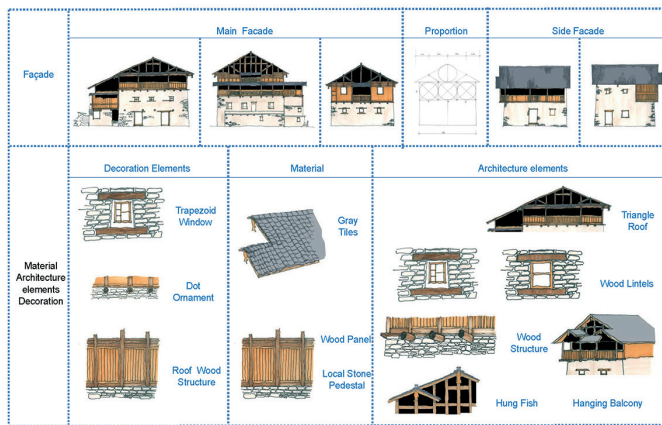
We began to explore the territory and study local architecture. In this area of China, the influence of Thai architecture is perceived, especially in Buddhist temples. It was therefore decided to work on the tectonics of local architecture, particularly of temples, interpreting the complexity and heaviness of the roof as opposed to the lightness of the walls. The first proposal consisted of drawing a section of one of the resort's units. The section had the task of strongly restoring the relationship between the ground and the relationships among the inside and the outside of the building. In addition, the section aided spatial visualization, scale and aspect ratio.

This process was not used in Chinese studios where management expects to see overall views, scenographic renders, and only later, floor plans and drawings.

In 2014 I worked on a project for a strategic plan for tourism development. I visited a project area at the border with Tibet, Shenmulei, in the Chinese region of Sichuan, where an ethnic Tibetan minority lives.

A water containment basin submerged the old town, and the new town was rebuilt with a patchwork architecture of local styles.

When I arrived at the site, I visited the areas affected by the tourism development plan in search of local architecture. They were all mountainous areas at 4000 meters. When the visit ended, I realized that the regional architecture had disappeared. Most of the original buildings had been submerged. However, during the territorial survey phase, it was possible to identify a few traditional buildings halfway up the mountains which were saved. A sectional drawing was drawn up among the various documents we delivered to the client, which took up the original types listed. The sketch depicted a street with shops, restaurants, small hotel buildings and chalets. It was an attempt to give guidelines for developing

**Fig. 12**

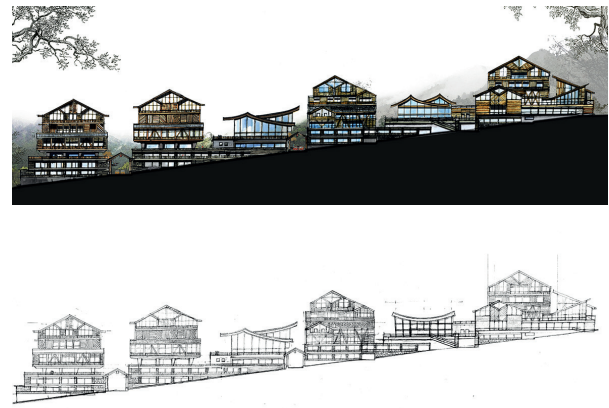
Typology of traditional Shenmulei house. Baoxing, Sichuan, China 2011.

**Fig. 13**

Section sketch of guidelines for the master plan. Shenmulei, Baoxing, Sichuan, China 2014.

**Fig. 14**

Section sketch coloured of guidelines for the master plan. Shenmulei, Baoxing, Sichuan, China 2014.



new facilities for tourism, oriented towards an architecture that respects the characters and identity of the place.

### The spread of critical regionalism

If, on the one hand, these experiences demonstrate the difficulties encountered with the Chinese clients, on the other hand, there are numerous testimonies of a changing process. The new generations of architects who recently operated widely in the territory, sometimes in remote places, pay greater attention to environmental values. They know the importance of the *Genius loci* and the relationship that architecture should have with the physical and cultural context. The large American and English formalist firms that dominated the market since the Olympic games of Beijing are now placed side by side by small Chinese, Italian, Spanish and French firms that helped change the formalist trend with an architecture that respects local cultures' identity. The individualist gesture has been replaced by a sense of identity, social and ethical responsibility. The beautiful form that seduces the great investor has been replaced by a simple architecture based on community values and recognizability.

In this new course of Chinese architecture, architects measure themselves against what can be considered traditional construction, in which the theme of tectonics is a determining aspect. Another not very well-known theme is the magic-propitiatory and auspicious aspect that implies Chinese architecture in which measures, proportions and specific tools regulated the construction of the building's tectonics. This a theme that, in some respects, could find a correlation with the conceptual experiments of Bernard Tschumi in *The Manhattan Transcripts* (1981) or with the musical proportions adopted by masters of the Renaissance (Foscarini-Tafuri 1983).

At Xi'an Jiaotong Liverpool University (XJTLU), I was able to directly experience the changes that characterize the new course of Chinese architecture.

In the latter school and at the China Academy of Art in Hangzhou, teachers conduct research and experiment in design courses on the themes of tectonics and critical regionalism.

With Adam Brillhart<sup>1</sup>, I worked on a design process with second-year students that relates to the tradition of carpentry. The design course, therefore, developed the theme of tectonics and carpentry in its more traditional aspects, from measurement systems to magical and propitiatory aspects.

The research involved a detailed investigation of the measurement tools



**Fig. 15**

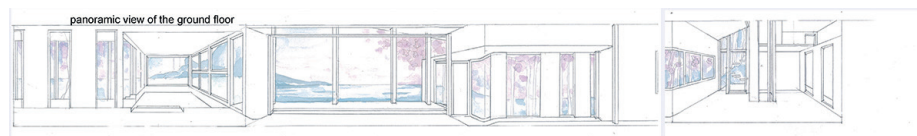
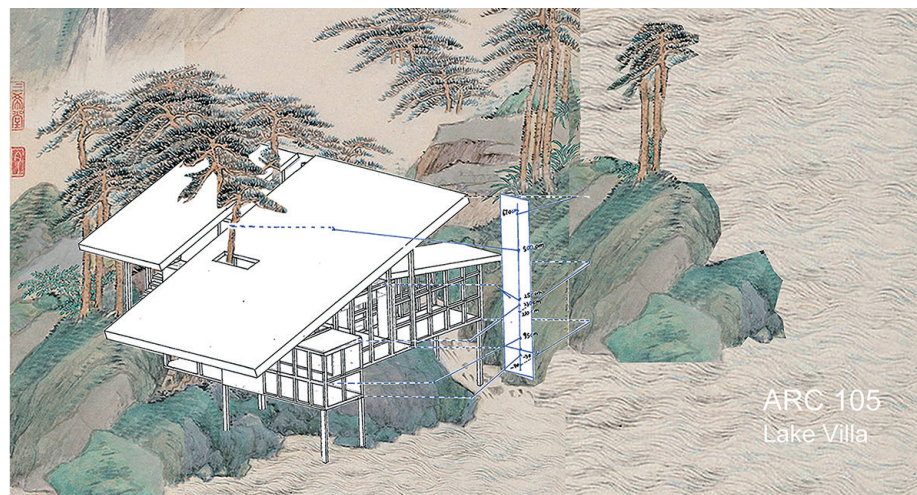
Axonometric drawing of a villa placed in the painting context. Hongyi Zeng, Design studio ARC105 AY 2018 at XJTLU, Suzhou, China.

**Fig. 16**

Elevation, hand drawing. Hongyi Zeng, Design studio ARC105 AY 2018 at XJTLU, Suzhou, China.

**Fig. 17**

Interior panorama, hand drawing. Hongyi Zeng, Design studio ARC105 AY 2018 at XJTLU, Suzhou, China.



used in the carpentry of the buildings built by Lu Ban, a famous Chinese carpenter, engineer, philosopher, and inventor. He lived between 507 and 440 BC.

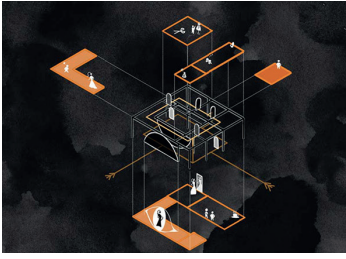
Brillhart explains in his research that many types of measuring instruments were used in traditional carpentry<sup>2</sup>. These not only allowed control of the buildings' forms and the elements that made them up but also reflected some characteristics of the culture of living in Chinese civilization.

Lu Ban's tools are the most famous among many measuring instruments in traditional Chinese carpentry culture. A commercial version of one of his rulers can be purchased on Tao Bao, the Chinese eBay.

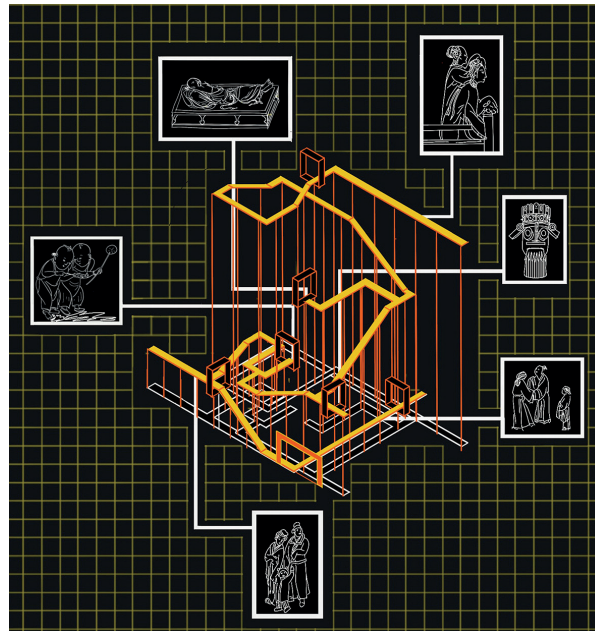
There are three categories of tools associates with stages of construction. The compass instrument, for finding the orientation of the house and the position of the front door, the Gaochi ruler for the ratio of the wooden frames and the Lu Ban ruler for determining the size of doors and windows.

The compass instrument utilized for the orientation was based on omens related to the stars positions and some other seasonal phenomenon connected with the Chinese calendar. The geomancy master instrument was endowed with a magnetic needle that would indicate the south orientation of the building.

The Gaochi ruler was 5 to 6 meters high and a few centimetres wide; using this was possible to measure and build on a 1:1 scale. The meas-

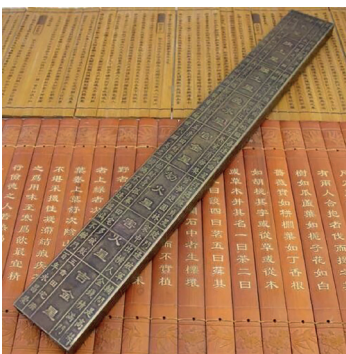


**Fig. 18**  
Openings' auspices related to the Lu Ban omens' poems. Meilun Zhang, Design studio ARC105 AY 2018 at XJTLU, Suzhou, China.



**Fig. 19**  
Openings' auspices related to the Lu Ban omens' poems. Yifan Qian, Design studio ARC105 AY 2018 at XJTLU, Suzhou, China.

**Fig. 20**  
A survey using the Luban measurement system through the use of symbols, student Xu Zhan, ARC105 Architectural Composition Course, XJTLU, Suzhou, China 2019.



**Fig. 21**  
Copper imitation of the Luban ruler available online on Aliexpress.

urements of the structural components were marked through symbols, and the carpenter will employ the ruler during the process of cutting and shaping the wooden elements. Subsequently, it was utilized to indicate the height or width of each tectonic part during the construction phase. The whole elevation ratio and measurements of a building were compressed into a small surface of ten centimetres width and six hundred centimetres high.

The dimensions were linked to poems that act as omens through proportional ratios in the Lu Ban ruler. The carpenter attributes to the openings a poem that will bring auspiciousness, luck, wealth, or happiness to those who live there. The omen remains a secret guarded by the carpenter and not revealed to the inhabitants of the house. The whole construction process, even the drawings, calculations, and tools, is kept secret by the master carpenter. The ruler was a personal tool of great value that the carpenter jealously guarded.



Here the experimentation with students on the theme of tectonics starts from traditional instruments and events (auspices): this approach has led to interesting results from the point of view of the design experience.

The design course develops tectonics in its most traditional aspects, from measurement systems to omens.

Students must build their tools for the spatial dimensioning of buildings, use the original poems of auspices, and translate them into events to be conceptualized to shape the structure. The project site is an ancient Chinese painting, inside which students define the location of their architecture. They identify the interior relationships with the landscape's elements represented in the painting through a prospective sequence.

This approach should sensitize students' architects to the importance of local culture to find principles or ideas for the project and thus direct them towards a creative process that blends tradition with the contemporary, favouring a propensity for tectonics rather than self-referential formalism.

Below are some recent examples of architecture in China, which stand out for the attention to the characters of the place and the interpretation of traditional architecture, as well as an interview with Yiping Dong. YD is an associate professor in the Department of Architecture of Xi'an Jiaotong Liverpool University.

### **John Lin, House for All Seasons, Shijia Village, Xi'an, Shaanxi Province, 2012**

Shijia Village is located in Shaanxi province, in northwestern China.

Development in rural areas such as Shijia, typically abandons traditional styles in favour of more generic housing types. This is partly the result of the area's gradual shift away from economic self-reliance: as labour tends to migrate toward more urbanized centres, traditional collective self-construction is increasingly rendered unviable. As a result, outside labor and materials have become the driving force in defining the rural housing scene. Funded by the Luke Him Sau Charitable Trust with support from the Shaanxi Women's Federation and The University of Hong Kong, this project looks at the idea of the village house vernacular and proposes a contemporary prototype. By combining ideas from other regions of China as well as traditional and innovative technologies, the design is a model for the modern Chinese mud-brick courtyard house.

All the houses in the region around Shijia are constructed of mud brick and occupy land parcels of 10 meters by 30 meters. The design promotes a sustainable alternative within this framework by integrating rammed earth, biogas, rainwater storage, and reed bed cleansing systems.

Serving also as a centre for women's handicrafts, the Shijia House bridges the individual and collective identity of the village. Construction of the house has initiated a new phase for the local economy, developing a new cooperative business in traditional straw weaving. Overall, the project represents an architectural attempt to consciously evolve rural house dynamics in China.

(from the project report, John Lin 2012).



**Fig. 22**  
Top view, A House for all seasons.

**Fig. 23**  
Façade Construction Phases, A House for all seasons.



**Fig. 24**  
Chinese traditional house.





### Neri&Hu Design and Research Office, The Walled, Tsingpu Yangzhou Retreat, Yangzhou, 2017.

Adaptive re-use of existing buildings and a new proposal for 20 rooms boutique hotel.

Neri & Hu's project interprets the theme of Suzhou courtyard buildings and gardens, such as Han's residence on Dongbei road in Suzhou, Peng's residence in Shiiia Alley in Suzhou and Pan's residence on Nanshizi road in Suzhou. In these types, the 'served spaces and serving spaces' can be read through the use of long service corridors that connect the rooms and a central path that develops along a sequence of courtyards and rooms that generally ends in a garden. This distinctive aspect of Suzhou noble residences is revisited in a modern key by architects with offices in Shanghai who manage to hold together different design themes such as recovery and new construction, modernity and tradition. All of this is through a rigorous planimetric system and a single complex which seems perfectly in balance with the context.

**Fig. 25**

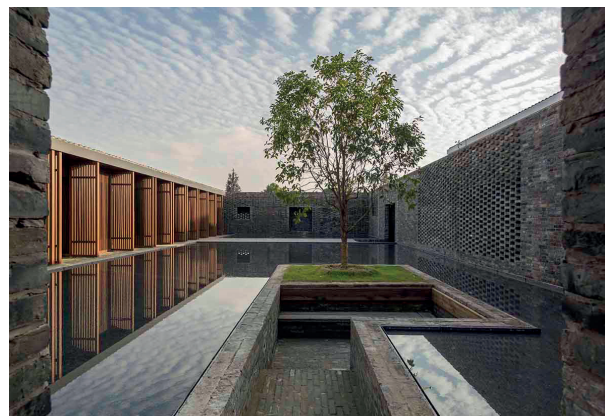
Top view, Tsingpu Yangzhou Retreat, photo by Pedro Pegenaute.

**Fig. 26**

bird-eye view, Tsingpu Yangzhou Retreat, photo by Pedro Pegenaute.

**Fig. 27**

Courtyard, Tsingpu Yangzhou Retreat, photo by Pedro Pegenaute.



**Fig. 28**

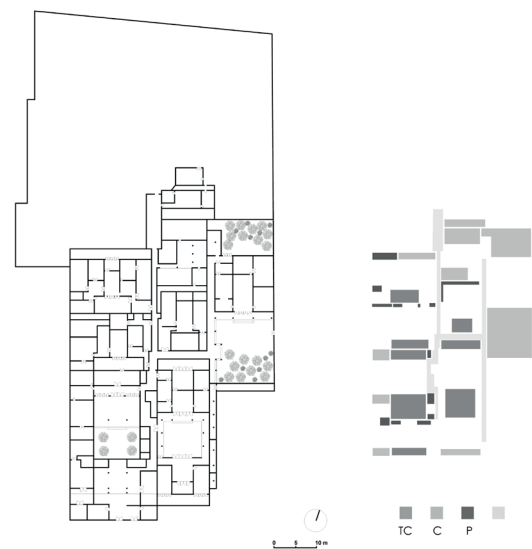
Top left: Peng's Residence in Shijia Alley, Suzhou, Nicola Pagnano and Ruqing Lyu 2020.

**Fig. 29**

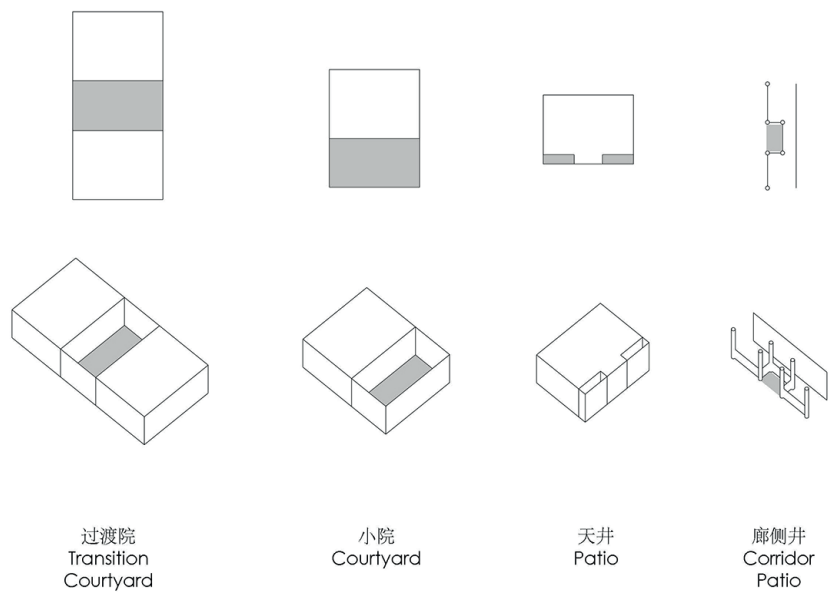
Top right: Han's residence in Dongbei street, Suzhou, Nicola Pagnano and Ruqing Lyu 2020.

**Fig. 30**

Zhang's residence in Dongbei street, Suzhou, Nicola Pagnano and Ruqing Lyu 2020.

**Fig. 31**

System of courts in the residences of Suzhou, Nicola Pagnano and Ruqing Lyu 2020.





### Interview with Dr Yiping Dong<sup>3</sup>

**Nicola Pagnano:** *Dear Professor Dong, can you describe the relationship between Chinese regional architecture and the transition from the Drawing Institutes to the diffusion of small and medium-sized architectural firms?*

**Yiping Dong:** The great transformation from the economic point of view of the last twenty years also affects technology and consequently the construction process of the enterprises. Innovation in construction processes offers designers more technical solutions that were previously limited. Thanks to the openness of the world, it is possible to access architectural information of the highest standards and consequently raise the awareness of critical education through the media, publishing, architecture exhibitions and open public competitions. The combination of these events leads to a broader understanding of architecture among young people, who have easier access to information, and large real estate companies or other investors.

The public's understanding of what is "good" architecture was very limited due to the lack of aesthetic education. The large-scale Design Institutes paid fewer interests to competitive design proposals, while most projects were commissioned until 2000. Being a member of the World Trade Organization (WTO) opened the door for international design companies in the market of China.

I.M. Pei's architecture has been an important landmark in interpreting modern Chinese architecture; think of the Fragrant Hill Hotel built in 1982 in Beijing and the most recent museum in Suzhou constructed in 2006. However, between 1950 and 1990 were built, fascinating examples of modern Chinese architecture not attributable to a single architectural style.

These rarities testify to the presence of an elite of architects who have never stopped creating buildings with an aesthetic value and a particular identity. An example of this is the Peace Hotel in Beijing (Heping Hotel), arch. Yang Tingbao, 1953. The Baiyun Estate, 1962, and the Double Creeks Villas, 1963 were both realized in Guangzhou and led by Mo Bozhi for the Guangzhou Architecture Design Institute. These two projects combined the regional garden feature in South China with the modern architectural spatial approach.

Architecture with a character was not always accepted or well regarded by the institutions, and today many of these buildings are almost unknown. Perhaps these few realizations are the seeds of architecture that reflect the sense of belonging spreading among the new architects in recent years.

When Design Institutes changed their form from state own to independent companies, they hired foreign and young Chinese architects. This process raised the quality of the projects in the consistent production of architectural artefacts.

In addition, the media supported the new trend by showing examples of architecture with aesthetic value through television programs, a guide for public opinion.

**NP:** *I remember that the Wang Shu Pritzker Prize victory in 2012 was a special moment for the architects working in Shanghai. I think that the*

*prize reveals to the world the existence of a modern Chinese style. Well-known architects and studios in China that believe in regional architecture were finally recognized in China and abroad. Consequently, many new studios of young architects have begun to propose architecture with a strong identity imprint, which respects the characters and culture of the place.*

**YD:** Yes, he was very influential in the professional and academic world, conferences, and television programs and even the students wanted to know more about Wang Shu's architecture and understand the motivations that led a regionalism architecture to win the Pritzker Prize. The impact was significant, and some governments were looking to carry out similar projects in that region. But the social conscience is not yet mature for understanding the importance of embodying the culture of a place in the architecture design; most administrators are looking for a famous architect, more than a style representative of local culture. Critical regionalism, more than architecture with aesthetic values that can be traced back to artistic values, is considered practical architecture that belongs to constructions tectonic. In addition, there are emerging exhibitions that are still inside a relatively professional community instead of the general audience. Wang Shu is best known in the professional and academic world. People outside of academia and architecture are not so aware of the significance of his contribution. In Hangzhou, where Wang Shu works, perhaps people do not know the architect's name, but that type of architecture is now recognized as "good architecture".

## Notes

<sup>1</sup> Dr Adam Brillhart is an Assistant Professor in the XJTLU Department of Architecture. In 2012 he received a scholarship from the Chinese government and was Wang Shu's first non-Chinese PhD student at the China Academy of Art.

<sup>2</sup> See: Brillhart, Adam, Dong Yiping, Zhang Yuyu. "Conservation Practice of the Wooden Gaochi Instrument, An Exploration in Architectural Tools and Design Inheritance". Xi'an Jiatong-Liverpool University SURF. Jul-Aug-2021.

<sup>3</sup> Dr Adam Brillhart is an Assistant Professor in the XJTLU Department of Architecture. In 2012 he received a scholarship from the Chinese government and was Wang Shu's first non-Chinese PhD student at the China Academy of Art.



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Nicola Pagnano was born in Treviso; he graduated from the IUAV with honour, with Bernardo Secchi and Carlo Magnani; he was selected as a member of the Ateliers led by Leonardo Benevolo to draft the current Venice Town Plan. He received the 6th Edition "City of Oderzo Architecture Award" and won national and international design competitions. He collaborated with Franco Purini in the architectural composition courses at the IUAV. He participated in the first three editions of WAVE, Architecture Workshop in Venice, with Benno Albrecht. From 2003 to 2006, he was a tutor at the design course in Architecture for Sustainability; in 2006, he was a tutor at the Master in Sustainability and organized the "Sustainable Cities" conference at the IUAV. In 2005 he exhibited at the International Architecture Exposition directed by Wonderland. In 2007 he moved to China, where he worked as Design Director for Architecture and Urban Planning firms such as Halcrow Group Ltd., IBI Group, and RMJM. He exhibits at the Milan-Shanghai 2017 furniture fair. Since 2020 he has been a Teaching Fellow at XJTLU University in Suzhou (China), where he teaches architectural composition and technology.