Revolution of Chinese architectural design at the new-type urbanization stage

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Abstract

Witnessing more than three decades of sustained and rapid economic growth, China has become a nation that enjoys the fastest rate of urbanization; the largest quantities of civil construction; the most obvious urban development to be “newer”, “bigger” and “higher”; and the most prosperous architectural design market worldwide. In terms of the construction industry, housing construction totals 31.3 billion square meters, occupying more than 70% of the floor area of the existing stock houses. It is safe to say that the construction industry significantly boosts GDP growth, expands the number of jobs, and improves the living conditions of the masses. Related to this is the need to end the architectural guidelines of the planned economy era economizing on food and clothing and instead step into a new historic stage allowing bold pursuit of architectural aesthetics and individuality. A group of architects who have social ideals, adhere faithfully to professional standards and pledge to pursue architectural innovation are active in China. Instead of simply converting the overwhelming opportunities brought to carry economic benefits, they dare to embrace the challenges imposed on enhancing architectural connotation and create a batch of high-level work that lives up to expectations of the era, marking the achievement of reform and rapid urbanization in China. Yet, as time goes on, the promotion of national development concepts, ideas of social consumption and the masses’ cultural level establishes new requirements for the architectural design industry, architects and architectural design works. An appeal is thus made against Chinese architects for a summary, reflection and proactive anticipation to respond to the new requirements of the era.

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1. Reflection: Problems in Chinese architectural design during the period of rapid urbanization

In the process of rapid urbanization and under the holistically favorable circumstances of social economic development, architectural design catalyzes a batch of cutting-edge works and excellent designers, but misconduct in the national building policy and self-discipline is frequently observed. In particular, a group of fellow architects, in order to adapt to the rapid development and “profit-seeking” demand of the market, fail to properly handle the relationship among the favorable market, power capital and professional ethics. They cross the value baseline, leading to inappropriate compromises on profession and quality, such as the absence of a design concept, “fast food”-style buildings based on a copy of form and style, plain pursuit of grandness and luxury, and blind faith in foreign things. As for the queer buildings represented by vulgar production and kitsch that are the confusing and challenging aesthetic baseline of the public, the emergence of “Same Imagines of the City” and “Rural-urban Convergence” phenomena are widely criticized, especially deterioration of the quality of urban and rural environment and the cultural anomic in values, so that Chinese architects shall claim a considerable and unshirkable responsibility (Wang, 2015). In addition, due to the pursuit of shape at the cost of expenditure and violation of basic concepts for energy conservation and environmental protection, a batch of energy-consuming buildings has turned up in two modes. One is luxurious and irregular buildings with considerable consumables, causing excessive waste of human resources and natural resources and even going so far as to be extravagant as builders crave for greatness and success and designers look for novelty; the second is energy-consuming buildings, which either rely too much on artificial energy sources to enable separate operation of buildings escaping from the external environment or seek over-opening without necessary heat insulation measures and consciousness of energy conservation and environmental protection (Wang and Wang, 2011).

Cheng Taining, the executive chairman of the forum, director of the Architectural Design & Theory Research Center of Southeast University, host of China United Zhujing Architecture Design Co., Ltd., and academician of Chinese Academy of Engineering, delivered a keynote speech titled Hope Challenge Strategy: Current Situation and Development of Chinese Contemporary Architecture. Mr. Cheng notes that since the reform and opening, the rapid development of contemporary Chinese architectural design has exerted a great influence on the trend of world architecture and meanwhile encounters a profound issue called the “Chinese context”. The rapid social development of urbanization, a complex cultural background and the vision of “Beautiful China” constitute the realistic context that studying the development of contemporary Chinese architectural design shall face. However, the imbalance of value judgment, barriers among intercultural dialogues and the anomic of institution and system construction have restricted further healthy development of our architectural design. At present, China’s urbanization is undergoing upgrades and transformation, and the climax of new-type urbanization focusing on the connotation and guided by sustainable development is looming. If improperly handled and addressed, the above problems will inevitably bring irreparable loss to Chinese urbanization construction and cultural development and will make it hard for Chinese architecture to edge itself into the world’s advanced civilizations. To this end, effective path and strategy must be worked out (Cheng, 2015).

2. Prospect: Transformation direction and strategy of Chinese architectural design during the period of new-type urbanization

Currently, the Chinese architects once again stand at a key historical turning point. At this time, we need to look back: what is and where to base the core value of the development of Chinese architecture? How do we figure out the path for Chinese architectural design in the context of new urbanization? What should, may and can be done by architects?

On Nov. 22 and 23, 2013, the Chinese Academy of Engineering, by combining the research achievement of scientific research subjects, held the International Top-Level Forum on Chinese Contemporary Architectural Design Development Strategy in 2013 in Nanjing. The forum included in-depth discussions concerning the promotion of Chinese local architectural culture in the context of new types of urbanization, the status and interrelations of Chinese and foreign architects in the present Chinese construction market, and the urban construction bidding system and decision-making mechanism and reached a consensus of taking “territory as foundation, culture as soul, innovation as orientation, design as path and environment as outcome”.

Starting from the problems in architectural design and construction during the rapid urbanization stage in China and following the development concept and guidance in the stages of new urbanization, Chinese scholars hold theoretical ideas from multiple perspectives and have put forward their respective views. According to Cheng Taining, a member of the Chinese Academy of Engineering and professor at Southeast University, in the face of problems existing in the development of contemporary Chinese architecture, countermeasures shall be extensive and shall cover many aspects, among which two measures are the most fundamental. The first is the theoretical construction, and the second is the system construction (Cheng, 2014). In contrast, Wang Jianguo from the School of Architecture at Southeast University believes that originality shall be deemed the most important and the core competitive element for Chinese architects to be recognized by the world and proposes six design paths for exploration and reform of architectural design in the context of new urbanization: first, the appropriate “bottom-up” design path that advocates for the concern of local regional and cultural collective consciousness appeals; second, the design path that helps to regain the reasonable values of “common building” and focuses on quality promotion for extensive, massive and general standard construction products; third, the design path that shows concern for balanced development between urban and rural areas,
explores the construction innovation of villages and towns, and responds to the promoting strategy of new urbanization; fourth, the design path that emphasizes symbiosis identity, rationality and integration between architecture and urban and rural environments; fifth, the design path that is based on the development of construction technology, construction materials, construction equipment and construction technology and is in line with the global consensus for sustainable development; and sixth, the path design that is dominated by innovative ideas and cutting-edge concepts. (Wang, 2014). Song Chunhua proposes six issues related to building design transformation and innovation: first, a transition from deliberate pursuit of form to pursuit of function, adherence to the unity of being practical and to being economic and beautiful; second, a transition from concerns about excessive decoration and dazzling appearance to creating the spatial beauty of architectural art; third, focusing on technology and materials, architects shall possess some technological thinking; fourth, insisting on a transition from copycats to innovation on the basis of inheritance; fifth, transitioning from mass-demolition and mass-construction to organic renovation, architects shall pay more attention to the renovation of historic blocks and old buildings; and sixth, transitioning from high energy consumption to energy-saving and low-carbon processes, effectively saving energy and reducing emissions using innovative green technology. In addition, creative passion is required. Architects should try to shake off cultural parasitism and path dependence against international architects and change our creative inertia (Wang, 2014). Song further proposes that, as architecture is able to produce energy and help reduce the demand on and even provide energy to society, passive housing design and energy-saving technology deserve more effort, and the integrated design of building and solar energy and geothermal development should also be conducted. Moreover, energy recovery technology and corresponding architectural construction shall be developed and employed to realize energy conservation and emission reduction by effectively preventing heat loss during ventilation (Song, 2015). Another feasible path is also found to be available by summarizing cultural wisdom associated with the Chinese regional architecture to seek the reforming orientation of architectural design. The research group led by professor Wang Jianguo from the School of Architecture at Southeast University, through systematic study and summarization of the architectural culture in Jiangsu Province, put forward three paths concerning nature, humanity and technology strategies for advancing the inheritance and innovation of the architectural culture in Jiangsu, as inspired by the regional and historical architectural culture factors of Jiangsu (Wang et al., 2012).

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References


Dr. Jianguo Wang received his Doctor of Engineering degree from Southeast University of Nanjing in China in 1989, now acted as professor and director of research institute of urban design of the Southeast University. Wang published 7 monographs and more than 160 papers covering a wide range of academic fields including urban design theories and methodology, history of urban form, green urbanism, urban historic building and sites conservation etc. As project leaders, Prof. Wang has been involved in a series of research and real projects concerning urban design, architectural design, digital techniques application in urban design and adaptive-reuse of historic industrial site and buildings etc, meanwhile, he has got numerous prizes and honors in urban design and architectural research and real projects.