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# Building Socialistic Architectural Schools: The Transformation of China's Architectural Education from American Beaux-Arts Model into the Soviet Model

XIAO HU

University of Idaho

The professional education is a vital component of the architectural profession. It not only offers special training to obtain the required basis of architectural knowledge and skills needed for the professional practice of design, but also ensures the stable development of the profession by excluding other competitors through a monopoly of knowledge and skills. The required formal training of architecture provides a cultural and social legitimation for architects' responsibility and importance.

The formation of the modern architectural profession in China was the product of political and social change – the falling of China's imperial system and the rising of Western capitalism in the end of 19th Century. The introduction of modern Western capitalist forces of production had undermined and transformed much of China's traditional economic order, and the onslaught of the Western model disintegrated China's traditional architectural practices. However, the architectural profession in China was not refashioned in the image of the Western professional world. Although Chinese architects shared the similar, if not the same, professional criteria and social distinction with those practitioners in the West, the changeable ideological structures, repeated foreign interventions, and constant revolutions significantly changed the nature of the architectural practice in China. In the 1950s, China's architectural education underwent a significant transformation under political and ideological orders. Within a few years, the American Beaux-Arts model was wiped off and was replaced by the model borrowed from the Soviet Union. This paper focuses on how the Chinese Communist Party effectively implemented its plans and policies step by step to complete this transformation.

## BACKGROUND

Modern architectural education in China started in the 1920s as a self-regulation and self organization effort by the first generation of Chinese architects who were trained in the US and Japan. During the 1930s, Chinese universities demonstrated a strong preference on recruiting Chinese students who graduated from American architectural schools for faculty. A few returned architectural graduates, including Wang Heng from the University of Pennsylvania and Bao Ding from the University of Illinois, Liang Sicheng from the University of Pennsylvania. The American-Beaux Arts model was introduced by the American-trained architects, especially those from the University of Pennsylvania, where Paul Cret's Beaux-Arts tradition dominated the curriculum. This began the profound and long-lasting influence of the Beaux-Arts model in China until today. However, China's architectural education did not have any opportunity to become more fully fledged. The Japanese invasion in 1937 forced most of architectural schools in China to be shut down.

With the Chinese Communist Party's victory in 1949 and the establishment of its highly disciplined and powerful centralized administration apparatus, all professions, including architects, were quickly and effectively integrated into the state organizational system, which was actually fully controlled by the Chinese Communist Party. Since higher education played an important role for the socialist transition and China's modern higher education was primarily a Western-inspired learning pattern, it was crucial for the Party to reconstruct the entire higher education system and to transform it into a socialist in-

stitution. As a result, in addition to nationalization of the architectural profession, the architectural education within higher education had to undergo a significant reformation for the needs of socialist order and economic modernization.

### **NATIONALIZATION & THE THOUGHT REFORM**

During the era of the Republic of China of 1912-1949, China's higher education primarily adopted the American model, as a direct consequence of the return of China's top intellectuals trained in the United States and a more profound cultural influence from American Christian organizations. Both China's public and private higher education institutes had strong ties to the United States before 1949. The majority of private institutions were funded by American Christian organizations. In 1947, there were around 12,000 students enrolled in American-Christian funded institutes, about 20 percent of all college students in China.<sup>1</sup> In public universities, professors with American degrees were widely hired and the American curricula also were widely adopted.

In June 1950, Mao Zedong stressed eight principles for restoring the nation's economy. The fourth principle focused on higher education:

Reform of the old school education and of the old cultural institutions in our society should be conducted carefully step by step, and all patriotic intellectuals should be won over to the service of the people. On this question, procrastination or reluctance to introduce reforms is wrong, and so is rashness or any attempt to push them through arbitrarily.<sup>2</sup>

The process of higher education reformation in the new era took two main steps – nationalizing and reordering. In December 1949, the First National Conference of Education pointed out that the primary task in higher education for the new regime was “to build the people's higher education and to train capable people for new development, which is a starting point for an entirely new higher education system.”<sup>3</sup> The final report of this conference concluded that the higher education must be reformed in terms of educational systems, curricular contents and the pedagogical methodologies.

China's involvement in the Korean War accelerated the nationalization of Christian-funded institutes. By the end of 1951, the state had taken over all foreign-funded or administrated institutes and transformed

them into 11 public and 9 private institutes run by Chinese citizens.<sup>4</sup> By the beginning of 1952, most of foreign faculty members and staffs had left China. Although the nationalization of private institutes would take a few more years to complete, the Party had actually eliminated private controls and established its firm administration in major universities. It was achieved by re-registering all private institutes, dispatching Party cadres or promoting pro-communists intellectuals to key positions, and establishing the Party-controlled student organizations on campus.

After two years of ruling, the Party had more confidence to conduct further reformation in higher education. In May 1951, the State Council approved a proposal by Ma Xulun, the Minister of Education, to “appropriately and gradually reform the existing higher education system.”<sup>5</sup> In order to prepare for more profound reform, the Party launched a repressive campaign in 1951, the Thought Reform, aiming at the university faculty, especially those elites in higher education. For the Party, this campaign was critical as the majority of China's elite intellectuals did not participate in the revolution and did not experience any type of political reeducation. Although most of them welcomed the communist victory, the Party was concerned about the individualistic tendencies and liberal thought that were prevalent among intellectuals.

On the other hand, the Party understood the importance of retaining the high-level intellectuals' cooperation for the national development, particularly for architects and engineers. Mao Zedong considered the reformation of intellectuals essential for “the thoroughgoing democratic transformation and progressive industrialization of our country.”<sup>6</sup> The Thought Reform emphasized on political education courses with intensive study of Mao's works and other fundamental knowledge of Marxism-Leninism. This political education aimed at instilling an appreciation of the value of collectivistic mentality and socialism, and removing the admiration of American culture and ideologies. In addition, people had to participate in a rectification-style session based in Maoist techniques of mass meetings, small groups of individual criticism and self-criticism, public humiliation and written and oral confessions of ideological deviations.

As the Chinese architectural scholars and educators were primarily trained in the West, it was difficult

for them to accept the Party's accusation against the Western learning, values and ideologies at the beginning of the Thought Reform Campaign. Some challenged the claim that "the American models of higher education only produced the thoughts of exploitation and the pursuit of pleasure."<sup>7</sup> In Tianjin University, some faculty members complained the Party's policy on studying the Soviet Union model – "They [the Party cadres] always say that the Soviet Union is the most advanced country in the world. But can Moscow be compared to the New York City? It may be because Chairman Mao only went to one foreign country – that is the Soviet Union."<sup>8</sup>

Responding to those reactions, the Party intensified the campaign by encouraging students and regular staff members to assist the campaign. The Ministry of Education described this process as "taking a shower" –

"we should burn them with hot water. As long as they are not dead, it is fine. They need to repeatedly make confessions in public meetings and small group discussions. We should release their wrongdoings and mistakes by posters and broadcasting. Young Party members and members of the Chinese Communist Youth League from our faculty groups and students must help them to clean their bodies by going to their homes and explaining the Party's policies. They also can overlook these intellectuals' behaviors and ensure that they all accept the criticism."<sup>9</sup>

Although there was little overt political violence, the social and psychological pressures were intense.<sup>10</sup> All faculty members had to confess their past mistakes and wrongdoings. For example, many architectural professors admitted that they had been attracted by the bourgeois influence of exploiting junior designers and pursuing profits when they did professional practice.<sup>11</sup> Some architectural scholars acknowledged their admiration of American lifestyle – "I wanted to have a good house and own a car. I have hired two servants to work for me because I did not like to work. The admiration of American life had made me become a slave of imperialists, continuously disseminating toxin to students and colleagues."<sup>12</sup>

It was noted that some architectural educators actually supported the Thought Reform Campaign. They considered that the individualistic aversion to discipline and the greedy pursuit of professional profits learned from the West eventually caused the disorder of urban development and the ignorance of public goods. A few months before the

Thought Reform Campaign, Liang Sicheng and Lin Huiyin had claimed that "the capitalistic political system generates the disorder of urban development in capitalist countries."<sup>13</sup> In order to serve for China's new development, Liang and Lin suggested that "we should conduct a full self-assessment of our thoughts...learning the Party's policies and directives, to work hard for a national, scientific, and public architecture."<sup>14</sup> During the Thought Reform Campaign, Liang stated:

Most of Chinese architects learned architecture from the West, especially the United States. After graduation, we all have lived in large cities...and served for high-level officials, warlords, compradors and landlords... We have worked in design for satisfying their desires and earning our profits... Having studied the socialist theories and been helped by the Soviet advisors, we have now begun to recognize that all designs should serve for the people, taking care of their needs and acknowledging the ideological meaning of architecture.<sup>15</sup>

The Thought Reform did not result in an immediate and significant change within the architectural curriculum except for the addition of political studies into the curriculum. But this campaign caused the split of architectural educators. Some architects began to embrace the Party's ideologies while others seemingly achieved the reformation but hid their true thoughts inside. This campaign helped the Party to identify and develop its establishment architects and educators who could take more leading roles in architectural practice.

## REORGANIZATION OF ARCHITECTURAL DISCIPLINE

In 1949, the Soviet Union had demonstrated its great success in industrial development and scientific technologies. Since the Soviet patterns of higher education had helped its nation's significant growth in science and technology, the Chinese Communist Party believed that organization and management of higher education in the Soviet Union could be borrowed as the quickest and best way for the practice of the higher education's socialist transformation in China. The nationalization of higher education and the Thought Reform conducted in 1949-1951 had paved the way for reorganizing the entire system of higher education along Soviet lines.

One major distinction between the Western model of higher education system and the Soviet one was that the Soviet system aimed to create a more

specialized division of academic disciplines according to the needs of industry and to produce more trained students in specialized technical areas necessary for economic development, while the Western model focused on general undergraduate education with emphasis on liberal arts. Another major distinction was the Soviet model's strong emphasis on industrial development and practical application. The Soviet higher education had been structured to produce more specialized engineers and industry administrators for the needs of industrial growth. Hence, the structure of higher education needed to aim at orienting students towards careers in the highly specialized fields which the industry demanded the most.

In 1952, the number of institutes in China with architectural education programs was reduced and consolidated to seven. The development of architectural education as an independent discipline since the 1930s was discontinued as the Soviet model considered architecture an integral part of construction engineering, serving for the nation's intention on economic development. China was in a great need of architectural graduates who were specialized in particular fields of construction and could quickly apply the knowledge into practice rather than possessing profound and general architectural understanding. As a result, it was crucial to borrow the Soviet model of higher education in order to efficiently and effectively transform the generalist architectural graduates into modern construction specialists for the needs of national industrialization and economic materialization. In addition, China's architectural education had been mainly influenced by Western values and ideas before 1949, which were popular among the disciplines in humanities and liberal arts. In order to achieve the socialist transformation of higher education, it is necessary to cut the linkage between architecture and humanities/liberal art, reducing the Western influences in architectural education.

When reorganizing architectural programs, the Party attempted to preserve and to enhance most of prestigious architectural programs while eliminating or merging small ones. It conducted the reorganization of architectural programs in three different manners:

1. the Party preserved prestigious architectural programs in major universities and promoted their quality by merging smaller architecture or architectural construction programs from other mid-size or small-size universities. The architectural programs in Tsinghua University and Northeast College of Technology were outcomes of this approach.
2. the Party split a prestigious program off from its original university and transferred it to another major university with other smaller architecture or architectural construction programs when the original university was either dismissed or defined for different specializations. That was the process for the architectural programs in Tongji University and Tianjin University.
3. the Party also divided an architectural program away from its original universities, combined it with other smaller programs, and then formed the architecture department in a newly established institute. This approach resulted in the creation of the architectural programs in Chongqing Construction Engineering Institute, Nanjing Institute of Technology and South China Institute of Technology.

Through the higher education reorganization, the architectural education lost its tie to humanities and liberal arts, which were undergoing major cuts due to their admiration and support of the western values and ideologies. Under the strong influence of the Soviet model, the architectural education was seen as a unit of construction engineering. The Party reconstructed the whole architectural education not only for a firm control over it, but also for ensuring the direct service of the architectural education to the economic development. Thus, the consideration for architectural learning was functional in terms of producing more qualified personnel in architectural design for the urgent needs of industrialization rather than to nurture the profession of architecture.

#### **CREATION OF HIERARCHICAL RANKING TITLES & THE ASSOCIATED SALARY SYSTEM**

A significant step of bureaucratizing the architectural profession in the 1950s was the adoption of a hierarchical salary system, also borrowed from the Soviet Union. The Ministry of Education released the "Criteria of Salary Levels for Employees in All Institutions and Schools" in July 1952. These criteria allocated salary levels into 33 grades, with

several grades applied to one job title. The highest salary was 12 times greater than the lowest one. Each person's salary was determined by five factors: political integrity, academic or professional capability, working experience and educational background, former salary level, and the local living expenditure level.<sup>16</sup>

The State Council set two major criteria for assigning a person to a specific technical or academic title: the political attitude and the professional expertise.<sup>17</sup> According to these two criteria, three factors were primarily considered –the political qualifications, professional competent, and professional or academic accomplishments. In addition, the educational degrees and working experience were regarded as two affiliated factors.

In 1956, the Ministry of Higher Education only approved 56 Level-One Full Professors nationwide, among whom there were three architectural educators, Liang Sicheng at Tsinghua University, Liu Dunzheng and Yang Tingbao at Nanjing Institute of Technology. These three architects were also among the first 40 members of the Technology and Science Institute of the Chinese Academy of Sciences, which was the top national research center for practical science and technology.<sup>18</sup>

The salary grades for higher level practitioners were far beyond the average incomes of the majority of Chinese people. This reflected the Party's sustained efforts to reassure key groups of the society whose skills and expertise were crucial for the nation's economic modernization. In addition, the distribution of high salaries to elite engineers and architects also reflected the Communist Party's attempts in expanding the "United Front" to absorb more allies who supported the Party's policies and goals, and participated in carrying out these policies to achieve those goals.

As a result, most architectural practitioners and educators were actually more concerned about their salary grades than their academic and technical titles because the salary grade primarily determined the quality of well being and the amount of income. The technical or academic title only defined a person's duty and responsibility while the salary grade defined his/her political and social status. As the salary grade was bundled with a certain academic or technical title, it helped the Party reduce

the resistance when transferring professionals from one employer to another according to the economic needs. Those professionals could gain the same, if not more, salary and enjoy the same social privileges between different employers. However, the Party did not present a well-defined criterion for salary and title promotion to create an incentive for performance. This caused an actual stagnancy in professional promotion during the following decade.

### DEVELOPMENT OF SOVIET MODEL

Since 1952 when the Party completed the reorganization of higher education, the Soviet model of teaching methods, curricular structures, operational systems and even textbooks were largely borrowed. In both 1954 and 1956, the Ministry of Higher Education conducted two meetings with the Soviet advisors' help for the adoption of textbooks nationwide.

In order to systematically remove Anglo-American influence and to strengthen the specialties needed for economic development, the Party needed to revise curricula, textbooks and teaching methods. One major lesson from the Soviet experience was that the state should clearly define the curricula, teaching methods and disciplinary procedures with strict rules and regulations.<sup>19</sup> As a result, all Chinese institutions adopted uniformed teaching plans, materials, and textbooks for every specialty.

According to the Soviet model, the curricula of architecture were modified. All courses were divided into three categories: foundation courses, technological courses and specialized courses. First, the technological courses were strengthened by adding more study hours in building technology, structure, materials and construction. For example, in the building structure field, Tsinghua University added 202 hours of mechanics of structure courses, 137 hours of concrete structure course, 51 hours of steel structure courses, 34 hours of wood structure courses, 44 hours of building foundation courses, and 28 hours of structure design courses.<sup>20</sup>

Second, more courses of field studies and internship were added. In Tsinghua University, an undergraduate architectural student had to take eight courses of field studies and internships within the five-year architectural program. These courses included: eight weeks of Working With Construction Workers I in the 2<sup>nd</sup> semester, two weeks of

Building Survey in the 4<sup>th</sup> semester, one week of Measurement Study in the 4<sup>th</sup> semester, two weeks of Watercolor Drawing at the 4<sup>th</sup> semester, eight weeks of Working With Construction Workers II in the 6<sup>th</sup> semester, six weeks of Assistant of Worker Leaders in the 8<sup>th</sup> semester, 10 weeks of internship in design institutes in the 10<sup>th</sup> semester, and a field trip investigation before the thesis project.<sup>21</sup>

Third, political and ideological studies were significantly added. A total of 392 hours of political and ideological courses were incorporated into Tsinghua University's architectural curricula.<sup>22</sup> However, the architectural design studio courses still occupied the most study hours among all courses. There were 1,560 hours of design studio learning in Tsinghua University, including 747 hours of civilian building design, 179 hours of industrial building design, and 160 hours of urban planning and design.<sup>23</sup>

The Soviet pedagogy and teaching methods were also borrowed. For example, the five-point system was emulated to replace the 100-point grading system. In the new system, "5" was equivalent to the grade "A" in American grading system while "1" meant the grade "F". For example, during 1955-1957, there was no grade of "5" was given to students in the Nanjing Institute of Technology as the Architecture Department thought that there was no perfect design and consequently no full point could be given. Hence, a 5-minus was the highest grade given to excellent students' designs. A major change in teaching methods was the adoption of the oral examination. Unlike the public design presentation in the American model, all Chinese architectural students had to go through an oral examination when their design assignments were completed. Each student was called individually to present his/her design works in a room to a group of faculty members, followed by a question-and-answer session.

Another major change in architectural education was the academic intra-institution organization. College-level administrations were eliminated and each department was further specialized into several academic units, called the teaching-research groups (*jiaoyan zu*), each with specific expertise and specialties. These teaching-research groups became the core managerial unit of academic activities – it ensured the Party's educational plan was correctly carried out by each faculty member. It was also responsible to supervise teaching and research activities,

train junior faculty members, develop innovative teaching approaches, conduct political studies, and make teaching assessment. Several groups were responsible for different aspects of the teaching of a particular specialization. A teaching-research group was formed by faculty members who taught courses in the same field. For example, in 1954, the Nanjing Institute of Technology established three groups within the Department of Architecture, the Architectural Design Group, the Building Technology Group and the Fine Arts Group. With the urgent needs for industrialization and China's quick urbanization, those three groups were expanded to five in 1956, the Architectural Design and City Planning Group, the Industrial Building Design Group, the Architectural History Group, the Building Technology Group and Fine Arts Group.<sup>24</sup> A senior educator was designated to be the leader of each group and normally 10 to 20 faculty members composed of each group. In Tsinghua University, the Civilian Building Design Group had 19 faculty members, the most, while the Architectural History and Theory Group had only 5 faculty members, the least. Each group had its own resource center and library.<sup>25</sup>

With the adoption of the Soviet model, the enrollment of architecture stably increased. The freshman enrollment of architecture in Tsinghua University from 1953 to 1956 was around 90 students per year. In the Nanjing Institute of Technology, the freshman enrollment in 1956 had increased 73% from the enrollment in 1952. With the increase in student enrollment and the socialist transformation, the social stratification of architectural students also significantly changed. By 1949, most architectural students came from wealthy families. This was especially apparent in the first generation of Chinese architects. After 1949, the socialist transformation substantially changed the social stratification and class closure by recruiting more students from low-income families. In 1952, the Party began to provide a basic living stipend and eliminate tuition payments for all college students. In addition, a national unified examination for college entry was put in place in 1953 to ensure a fair distribution of students from different social classes according to their academic performance. This accelerated opportunities for students from working class and peasant families to enter college. The percentage of college students of worker-peasant origin rose from 20.5 % in 1953 to 36.4 % in 1957.<sup>26</sup>

## CONCLUSION

The nationalization and reorganization of architectural education in higher education took place a little later when the Party had gained full control over the profession and other key cultural and educational sectors. It was obvious that the Party intended to eliminate western ideological influences on higher education by conducting the Thought Reform Campaign. One of the major problems facing the Party to achieve economic restoration and industrialization was the shortage of trained architects and engineers. To meet this need as quickly as possible, the Party borrowed the Soviet patterns of higher education by placing an increasing emphasis on engineering and science disciplines and offering more specific educational programs. The Thought Reform Campaign had paved the way for the reorganization of all academic disciplines. Being considered as a unit of construction engineering, the architectural programs were amalgamated with other engineering disciplines in polytechnic institutes. The connection to humanities and liberal arts was cut off, which led to a more intensified focus on architectural technologies and science in teaching and learning thereafter. The Party also attempted to retain and enhance the quality and function of architectural education by re-assembling the resources of architectural education. The prestigious architectural programs were retained and enhanced by absorbing smaller architectural programs. All retained architectural programs were assigned to main industrial centers in order to satisfy the immediate needs of industrialization.

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