UNCERTAINTY AND DESIGN PRACTICE IN CHINA. THE "APPARATUS" OF SHANGHAI EXPERIMENTAL ARCHITECTURE

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Abstract. Professional architects and scholars in China have pointed out the issue of uncertainty in the everyday realm of the design practice. Experimental architecture firms, the Chinese-born ateliers committed to seeking the "Chinese Identity" of architecture, have accepted uncertainty as a constitutive category of the process of city making and claimed they are learning from it. Yet, the cultural and political genealogy of uncertainty in China's design process has not been significantly investigated. Building on the Foucauldian notion of apparatus, this paper unpacks the condition of uncertainty in Shanghai's experimental architecture design practice and examines the formal and informal negotiations of power emerging among the diverse actors taking part in this process. Those include conflicts between governments at different levels, the contingency of the market demands, overlapping roles of design consultants, dynamics of cultural capital within the academic institutions. Based on methods of participant observation of experimental architecture ateliers in Shanghai, this analysis conveys that the Chinese Identity of architecture, the center of experimental architect's design research, emerges as a consequence of the dynamics of the apparatus rather than from an a-priori formal determinism.

Keywords: uncertainty, experimental architecture, Shanghai, architecture and power, identity.

Introduction

Uncertainty is closely related to the design practice. The Latin root of the word "project" means "throw on" and involves the sense of futurity and risk given by the time span dividing the determination of an idea from its final realization. Benjamin Flowers considers uncertainty a constitutive condition of architecture in the whole contemporary reality, as a natural consequence of the current "Great Recession". In his view, today's global crisis affects the security of practice and changes the approach of architects, constructors, and academics, increasing vulnerability and risk in architecture (Flowers 2016).

In the postmodern *pastiche* of contemporary China's construction industry, conflicts arise between the top-down mechanism for development settled by the State and the unpredictable variables of each singular passage. Many scholars and architects have pointed out how uncertainty could represent a positive condition of architectural design practice in China. Yung Ho Chang classifies uncertainty into four categories – the myths, the morphs, the debatable and the unknown,

and sees in uncertainty the opportunity for architects to expand their role as agents of economic and social changes (Chang 2005). In a similar way, Li Xiangning highlights the several opportunities that uncertainty provides in determining the formal layout of building themselves, including flexibility for future adaptations of the space (Li 2011). Xuefei Ren argues that, within the complicated global-local frictions in contemporary Chinese society, uncertainty emerges in the increasing separation between where the initial design in conceived and where it is consumed, and this process is strongly reshaping the landscapes of architectural practice (Ren 2011). In spite of these interpretations of uncertainty, this condition seems to constitute an ongoing struggle in the everyday design practices of architects in China.

More than architecture theorists and historians, however, the issue of uncertainty has been the center of several books and articles produced by practitioners. The Chinese architect Ma Qingyun enthusiastically endorses instability in the roles of the city-making actors and expresses his own wish to explore the role

of developer, rather than designer: "a developer really operates in a lovely world – thinking about what he does, having a goal, an idea and knowing how to fund it. Why can't architects do that? In the end, architecture is not, for me, about buildings, it is actually about creating everything" (de Muynck 2006).

On the other hand, both Chinese and international architects have expressed frustration in applying the western paradigms to design practice in China and have described their struggle in maintaining the control of the building over its development and construction (Van De Water 2011; Cagnardi 2008). The documentary "Bird's Nest", showing the construction process of the National Stadium in Beijing by Herzog and De Meuron, highlights how even the architecture "star system" is not immune to uncertainties. The whole narrative of the movie is constructed around the uncertain development of the building, perpetuated by the lack of a formal commission from the Chinese Government to the Swiss firm until almost the end of the construction (Schaub, Shindhelm 2008).

Both scholars and practitioners often highlight the consequences of uncertainty in China, whether those are considered enriching or disruptive for the design practice. However, the question of *what produces uncertainty, and why is it so rooted in the contemporary design practice in China* has not yet been adequately addressed. With the aim of lessening this gap in the literature, this article analyzes how uncertainty is produced within the design practice in contemporary China. Specifically, it focuses on experimental architecture firms in Shanghai as a case in point. The necessity of circumscribing of the focus of the investigation within the complexity of the architectural production in China drove this choice. Shanghai represents an urban context where, historically, local and global forces have been collaborating in shaping the built environment; experimental architecture firms, as the further chapters will better explain, refer to a specific category of Chinese design firms committed to exploring deeper layer of Chinese Identity (Xue 2006) and, with such a defined purpose, constitute an interesting medium for investigating the power dynamics within the design practice.

The next paragraph looks at Shanghai's architectural Identity historically, and the emergence of the experimental approach. The second section analyzes how uncertainty is produced through the "apparatus" of contemporary experimental architecture in Shanghai, intended as the set of actors taking part in the design process, and the formal and informal dynamics occurring among them. This section builds upon existing literature and empirical data gathered through ethnographic methods and participant obser-

vation, conducted through a six-months fieldwork in several Shanghainese experimental architecture firms. The conclusion argues that architectural "Identity", the object of experimental architect's ongoing research, does not necessarily refer to the style or other pre-determined formal choices, but it rather represents a product of the several conflicts emerging within the specific apparatus.

Uncertainty in Shanghai as a historical category

Historically, in China, architectural production was considered the direct result of the administrative machinery of the State rather than a cultural phenomenon originated by individual authors. The Yingzao Fashi (XI Century), probably the most meaningful treatise in Chinese History, consisted of a set of constructive instructions rather than the theoretical speculation that typically composed the western treatises (Feng 2006). The workshop was the creative hotspot of architecture creativity, where the technical knowledge of wood joinery was orally transmitted from the master to the apprentice. Professional architects emerged in China during the 20th century's colonialism. With its strategic harbor, Shanghai was one of the most active colonial cities in China. During the decade of the "Peace of Nanjing" (1927–1937), a new middle class arose within the Shanghainese social structure. A dense network of transnational flows of capital fostered the power of this newborn mercantile society and contributed in shaping the new financial center – the Waitan districts. During this process, Shanghai experienced a form of forerunner globalization, in which some Western architects, such as Lazlo Hudec (Poncellini 2007), established in Shanghai their own design firms and initiated a process of transplantation of the professional practice.

The cultural exchanges with the West contributed to the formation of new figures of Chinese-born architects, mostly educated in the United States; Lu Yanzhi, who graduated from Cornell University, established the earliest design firm in Shanghai in 1921, "Yanji Design Firm", followed by "Huagai Shiwusuo" founded in 1930 by Zhao Shen, Chen Zhi, and Tong Jun were among the most significant. Along with the transplantation of architecture professionalism in Shanghai, some architecture scholars started wondering about issues of Modernity in China. The scholars and architects Liang Sicheng and Lin Huiyin were one of the most eclectic expressions of Chinese architectural culture and research. Princeton University, when awarded Liang Sicheng with a honorary doctoral degree, stated that he was "a creative architect who has also been a

teacher of architectural history, a pioneer in historical research and exploration in Chinese architecture and planning, and a leader in the restoration and preservation of the priceless monuments of his country" (Kammann 2006). He graduated from the University of Pennsylvania; he was architect and designer, professor of History at Tsinghua University in Beijing, a preservation expert and an urban planner – he was named Vice-Director of the Beijing City Planning Commission. His book "History of Chinese Architecture" helped to individuate and categorize the evolution steps of Chinese architecture from the origins.

When Mao came to the head of the Party, in 1949, Liang Sicheng was at the vertex of his career. However, the new political system crushed all the attempts to build a theoretical framework for modern architecture in China. Since Mao's rise to power quickly led to the disappearance of private capital, architects were reintegrated within the state bureaucracy. A network of Local Design Institutes was made responsible for building production management for the entire nation. All over the Country, architecture became a matter for public bureaus, directly dependent on the central government. Even after the opening policies by Deng Xiaoping and the wide blooming of diverse professional firms, Design Institutes survived and maintained a key role in the processes of territorial development of the Nation. (Li 2010)

After the "Opening and Reform", the amendment to the Constitution allowed the transfer of land with compensation in 1988, triggering the real estate market and the blooming of the most diverse architectural approaches. In this critical stage, the government restored private design firms, and international design companies quickly appeared. State-owned Local Design Institutes were gradually privatized and competed with corporations and architecture offices in the increasingly liberal market. As a Special Economic Zone since 1984, Shanghai was open to the foreign direct investment, and the global design culture started circulating again. Within the proliferation of the most diverse architectural approaches, two main paths are detectable in this decade: on one side, simulacra of the ancient Chinese Confucian architecture became the symbolic expression of the new great China and a natural consequence of the foregoing socialist forms and the more recent post-modern icons. On the other side, attempts to follow the young international avant-garde and late echoes of modernity appeared, particularly deconstructivism. The revival of National forms was the most consistent approach. Charlie Xue describes this practice: "the transplantation of Postmodernist theories into Chinese gave the advocates of 'National form'

the theoretical basis for restoring traditional architectural models and venerating the past. […] Concepts such as the separation of a building's exterior from its interior function, the juxtaposition of historic icons, and two-dimensional decoration were readily accepted by vulgar, fashion-seeking developers and obedient 'productive' designers" (Xue 2006). Starting from the early 80s, a small group of "experimental architecture" ateliers emerged in this context, as a consequence of the increasing demand for Chinese design professionals and an increasing institutional concern with the construction of the specific characters of Chinese architecture. This élite of Chinese-born and Western-educated architects focused their research on the concept of "Chinese identity" in contemporary architecture. According to Charlie Xue, such professionals and thinkers represented such a strong opposition to mainstream practice to gain the appellation of "experimental" (Xue 2006). The notion relates to Theodore Adorno's aesthetic theory and Renato Poggioli's theory of avant-garde (Poggioli 1968; Adorno 1984; Li 2013), and identifies a collective or individual attempt at subverting the status quo and opposing the mass culture, where the mass is represented by the speculative approach carried on by developers in the Real Estate, gradually erasing China's "cultural identity" (Botz-Bornstein 2009). In this initial stage of institutionalization of the "Chinese way" of making architecture, uncertainty is playing a role. The architects' seek for a unitary Chinese identity clashed against Shanghai municipality's turn towards the model of the "world city", materialized in the early 90s with the competition for the Lujiazui Business District and in 2001 with the "one city nine towns plan," proposing nine themed European suburban townscapes (Xue, Zhou 2007). The central government's increasing concern for finding national architectural forms conflicted with the market demand of foreign aesthetical models (Ren 2011).

The production of the built environment in Shanghai today reflects this long lasting contradiction between the expression of the National power and the expanding transnationalism. In this milieu, contestations over Shanghai's identity represent the primary soil from which uncertainty in the design practice emerged.

The apparatus of Shanghai's experimental architecture

In the contemporary professional practice, in China and elsewhere, architects need to relate with a complex set of actors affecting design in the time span dividing the genesis from the construction. This idea assumes the condition of dependency, or heteronomy, of archi-

tecture, as a form of knowledge. In his effort to outline the relationship between knowledge and power, Michel Foucault elaborated the concept of *dispositif,* or "apparatus". Through this notion, he indicated the physical, administrative, and institutional mechanisms and the cognitive structures that maintain the exercise of power within a social body; namely, "a heterogeneous collection of discourses, institutions, architectural forms, decisions, laws, administrative measures, scientific statements, and philosophical, moral, and philanthropic propositions – in short, both the stated and unstated. The apparatus is the system of relationships that can be established among these elements" (Foucault 1977). Building on this notion, Agamben expanded the semantic field related the term; he extended its use to all that is able to intercept and control gestures, thoughts, behaviors, and lifestyles – including schools, religions, legal measures, literature, philosophy, agriculture, cigarettes, computers, and mobile phones (Agamben 2009).

For the purpose of this investigation, the apparatus identifies the complex set of "actors" to different extents taking part in the design process, as well as the relations of power establishing among them, including formal and informal agreements, mass aesthetics and demands, institutional guidelines, and dynamics of cultural capital. Therefore, by applying the Fucaludian concept of Apparatus to experimental architecture in Shanghai, not only we can evaluate the agency of the various actors shaping the built environment, but also intercept cultural constructions affecting such built forms. Identifying such processes is always complicated as it involves a certain amount of "unsaid" information. However, it is possible to identify the main actors taking part in the design practice: the municipal government, the driver of the several investments in urban development; the real-estate developers, or the principal investors and the only nexus with the mass culture; the diverse consultants, including the different architecture firms, offices, ateliers, and the public or private design institutes; the academia, as the institutional force affecting decision making in different ways.

The further chapters will clarify the roles of the many actors of the apparatus in relation to the practice of experimental architecture. The research is based on ethnographic methods and related to a broader literature on the subject. I spent six months working with a well-known experimental architecture firm, in which I conducted interviews and participant observation. I also interviewed several other Chinese and International architects. As requested by my interviewees, I am not allowed to refer to specific people, companies, or buildings, as a form of protection of my

subjects. Much information refers to ongoing competitions or project protected by agreements of confidentiality. For the purpose of this investigation, however, forms of relations among people are more relevant than the identity of people themselves.

The State Power: urban planning and urban forms

The economic policies of Deng Xiaoping subverted the Maoist system of state organization, that fostered the flattening of social differences and the homogeneous distribution of the labor outside of the urban settlements. From 1984 to 1989, the government spent large amounts of energy in the production of a legislative apparatus that would regulate public-private led urban development and that included guidelines for site selection, building permits for the development of buildable areas, and engineering concessions for construction. The crucial step of this process was the amendment to the Constitution of 1988, which granted the transfer of rights to the use of urban land – exclusively state-owned – upon compensation: the real estate industry found a huge growth opportunity, pulling the nation rapidly towards the economic boom.

In this radical change from the traditional system of regional economic centers towards the concept of "urban nodes", the government settled Special Economic Zones (SEZ) with the aim of triggering the economic growth of the entire nation. Shanghai became a SEZ in 1992, as part of the coastal development plan. This policy followed the axiom "administrative localization, fiscal centralization" (Qizi 2011); i.e., a larger involvement of national and provincial government in the drafting of guidelines and the administration of fiscal resources, and a greater responsibility for municipal government in land management and the control of real estate investments. This system has generated strong tensions between the central government and the municipal government in the management of building permits (Cfr. Li, Ma 2009) and is one of the key concepts for understanding the political development of contemporary China. The Central Government has, in fact, a mixed attitude toward sprawl and massive granting of contracts for land use. While it welcomes the increase in tax revenue, it also fears increasingly expensive externalities coming with massive urbanization, most notably the lack of agricultural products. Shanghai municipal government has always boosted supported the granting of land lease contracts since tax revenues are the only source to finance public projects and the infrastructure necessary for developing public facilities, utilities, transportation systems. This form of "speculative urbanisation" (Shin 2014) was

the strongest constrain for design firms operating in Shanghai. Planning policies have made the designer even more subservient to investment logic; the design process became a hysterical race to the sale, serving the demands of the expanding housing market. Housing, specifically, is strictly regulated in terms of construction systems and exposure, becoming a standard type for which any design experimentation remains impossible. As a first relevant consequence, architects, including experimental ones, cannot deal with single houses, while can barely define the exterior façade of the high-rise collective housing towers. The agency of architects increases within all types of public building, intended as everything except housing.

In these profit-oriented dynamics, how can experimental architecture exist? As experimental architecture often entails the adoption of expensive detail solutions and customized technologies, it seems it does not fit well in this model of standardized public-private speculation. Yet, in spite of the negative cost-benefit ratio of experimental architects' buildings, the amount of their design opportunities is significantly expanding. One of my interviewees, an international architect operating in Shanghai, after recently losing a competition against a Shanghainese experimental architecture firm, provided me with this perspective: "I am sure that it is necessary to acknowledge the authorities' will of letting Chinese architects prevail in public competitions, at least a part of them. […] They have been wondering why they need to call foreign architects when they have got the possibility to engender their own architecture, which can compete with the architecture of the West. Therefore, it is necessary to acknowledge this will from the side of the public bureaus and of the architects themselves". How real this bias is and to what extent it affects the built environment in Shanghai is hard to tell. However, as the next paragraph will further elaborate, Shanghainese experimental architecture firms have established long lasting institutional connections, which provide them with more opportunities to expand their businesses. They also enjoy the favor of those government officials seeking for national forms, rather than foreign models, for the creation of urban landscapes that celebrate institutional power.

The real estate market: banks, developers, and buyers

In China, the majority of urban interventions are large-scale investments managed by Real Estate Development Enterprises. With the crucial amendment to the Constitution in 1988, the control over the building production transferred from the central to the municipal governments and to the newborn Real

Estate enterprises. The early '90s witnessed the success of real estate investments, and soon construction became the driving force of economic growth. After ten years of experience in real estate investments, in 1998, the State Council approved a law to regulate building production, which threatened to escape the control of the authorities. Article 12 of the "Regulations for the control of the management of urban Real Estate" requires real estate companies – before the conclusion of a contract for land use – to present the design for the requested area to the administration of urban planning and the relevant departments of local governments. Developers must provide a design detailed with respect to its nature, scale, and duration, urban design criteria, construction requirements for infrastructure and public services, definition of property rights after completion, and any specific requirements. Article 15 imposes a penalty equal to 20% of the amount for the transfer of land use rights, established in the agreement for failure to start work at the end of the first year from the date of signing of the contract, and confiscation of land without compensation for failure to start work at the end of the second year of the conclusion of the contract – except in cases of *force majeure* (asianlii.org 2014). This article had a large influence on the development process and the work of the designers themselves and explains the furious speed reached by the design and execution processes in China.

As a SEZ, Shanghai municipality has a large freedom in arranging the city planning and the contracts for the land development. The city making is based on agreements between the municipal government, enterprises, savers, and investors. Convergence of interests strengthens relations among these actors. Although plans contain general guidelines for urban development, more effective proposals and innovative business plans presented developers are very welcome. The city shape is thus largely defined within the contracts between municipalities, manufacturing, investment banks, and real estate companies, which dispose of the largest agency. In Shanghai, as well as in many other cities in China, the first step for the city making is the issue of building permits to manufacturing industries. The local government grants substantial tax benefits directly to the settling company, which can directly develop productive areas. This has often represented the first step to increase the land value and attract further investments. Before signing the leasing agreements with developers, the government provides land with infrastructures, technologies, and public utilities. At this stage, investment banks provide the government with funds in the form of loans and mortgages. Once the land is ready, it is allocated to development companies on the basis of competitions or by direct assignment.

As decreed in the 1998 State Council's law, the contract can be stipulated exclusively on the basis of a specific project; for the first time, the figure of the designer, or "consultant", is involved in the city making. When working with real estate developers, experimental architects struggle to mediate between their personal investigation on the Chinese Identity of architecture with the institutional guidelines and the market demand. One of my interviewees, an experimental architect operating in Shanghai, explained how he could manage this conflict: "There's a certain type of architects that, moneywise, don't rely on their business, as maybe they have other ways to make money and to run the office. So they can basically do whatever they want. And also there are other architects that have to manage big offices and have to give up their own ideas and just do what clients ask. I think I am not one of both, I am actually somebody in-between". Some experimental architects, including the Pritzker prize award Wang Shu, do not run their own firm. They are perhaps faculty members of universities or have other sources of income. Therefore, they can exercise their design practice being completely detached from the market. As for experimental firms active in the market of Shanghai, the interviewees described himself as a figure in-between, or mediator. He further explained his position: "So, I know that at the beginning I don't have to worry too much about the market. You can insist a little bit. And then, you have to be aware that at least you have to feed the people working in your office. What I have to do is to balance. When I take a project, I have to be a little tricky. Three-fourths of my project clients are that one I would like to work with, and I can keep the majority of my work on the ideas I really want to develop. But I have another fourth that… is not that I hate them, but they are not the ideal clients. I take them because they can give me some budget". It seems that experimental architecture firms could hardly survive doing merely experimental architecture. They accept other types of projects that will easily provide them with a surplus used to cover the high expenses of designing experimental architecture. In China, the highest labor/income rate is provided by large-scale standardized housing developments, which is probably the type of project my interviewee is referring to. Interestingly enough, it seems that experimental architecture firms need to find ways to internally redistribute the capital gained through speculative urbanization in order to support the higher cost of designing experimental architecture. This dual attitude of having to achieve a certain quality of design in order to maintain a high status, while concurring in producing buildings for speculation, is typical of many architectural firms today. However, within the fast pace and high pressures of Shanghai's construction industry, this condition makes life of people working in experimental architecture firms particularly schizophrenic, and uncertainty in their practice more impendent.

Other "consultants": local design institutes and international corporations

One of the major reasons for conflicts is the fact that experimental architects are not the only actor in charge of the design. Design projects in Shanghai, whatever their size, intended use or location, are generally part of plans for large-scale investments, and architectural design is a relatively small part of the entire process. Thus, experimental architecture firms need to relate with at least two other important actors: the local design institutes and the international corporations. Such complexity affects the development of experimental architecture during the design stage and the construction.

Local design institutes represent a heritage of Maoist policies for the bureaucratization of the building process, and still play a key role in the architecture market of contemporary China (Li 2010); they represent a quite peculiar example of how the communist idea of construction is evolving by getting in touch with the global financial economy. Design Institutes are legally in charge of every project from large scale planning to detail design, and every architecture company must establish a partnership with a local design institute in order to operate on the Chinese territory. This legal condition reduces the role of the professional designer to a mere consultant, who is not authorized to take care of the legislative and technological aspects of the design.

After the developer, or the local government, defines the schematic design with the experimental architect, then the Local Design Institute carries it through the detail design and construction phases. Whether or not the original designer is involved in these stages merely depends on the client's will, and not infrequently experimental architects lose control of their initial proposal. As the correct development of details through the construction is a crucial step for the success of experimental architecture's approach, these firms normally define the highest detail possible during the schematic design phase. These include sizes, profiles, materials, brands and specific products available on the market. After the LDI carries on the project, the phase of "review" from the architect becomes crucial. However, the success of this phase is totally up to the informal power dynamics among the group. One of the Chinese architects I interviewed explained: "during

these fast-moving relationships between government, customer, and architect, the architect is always the weakest link. […] Although I did involve this Design Institute myself, it only took orders from the client. The original design has been respected in general, but, for many details, I did not have a voice. I tried to interact with the design institute. However, immediately after our meetings, they made decisions based exclusively on the client's wish. The only way to express my idea was by talking with the client, who, in many situations, defended the initial project – but only because of personal kindness toward me. And just like me, in China, every architect has no voice, particularly when we are dealing with money". The interviewee highlights how power within the detail design and construction phase is distributed in a merely informal way. The client is the major decision-maker and uncertainty depends on the *guanxi* – personal-professional relationship (Ai 2006) – among the actors, as well as the authority the architect is able to exercise over the process.

"International corporations" are another key actor in this stage. The name refers to those design companies more similar in terms of their scale, inner organization, and income, to multinational enterprises rather than architectural firms. Shanghai Pudong's Skyline was almost entirely shaped by these companies, including SOM, KPF, and Gensler – three of the most influential corporations globally. With the aim of giving a Western outlook to what was supposed to be the future global city, the municipal government assigned a huge quantity of large-scale projects to international corporations, and their experience in different-scale project management made them very welcome to both public and private clients. Local governments or developers often ask these companies to define the guidelines for large-scale master plans in particularly strategic areas of the city. Experimental architects are involved in a further stage with the aim to design the architectural layout of already defined buildings.

On this purpose, an anecdote I witnessed during my fieldwork in a famous Shanghai experimental architecture firm is particularly meaningful in displaying how uncertainty emerges through the apparatus of developer, International Corporation, and experimental architect. In 2013, one of the largest Real Estate development firms in China had recently built a large high-end housing development in South Shanghai. As the as the intervention targeted a luxury market, the developer asked a large international corporation to define the master plan and the schematic design of the residential buildings. The corporation had provided the master plan disposing a museum in the center, with the only scope of increasing the value

of the land. The corporation provided no information about the content of the museum, nor the developer had any idea of the purpose of the cultural artifact. Three famous experimental architecture firms were invited to take part in a competition to define its architectural layout, including the one I was working for. In spite of the fact that we developed a project based on mere assumptions, we won the competition and we received a formal appointment to continue the development of the landmark building. The developer came up with one request: keep the shape that had convinced them so much, but transform the internal space in a selling center, a hybrid of exhibition and office building, with the aim of showing the models of the master plan and signing contracts with house buyers. After three years, the time estimated to complete the sales, the building would have been reconverted to a museum. While we were carrying on the detail stage to transfer to the LDI, the chair architect of our office was involved in the discussion on what would have been the content of the museum. In a first moment, the developer was about to sign a contract with a famous Japanese cartoon-maker, with the aim of turning the building into his personal exhibition space. But after visiting the site, the Japanese director rejected the agreement. A few days after, the developer's company gave us formal communication that the building would have displayed a collection of full-scale dinosaurs models.

Academia: architecture schools and magazines

In Shanghai, such as in several other Chinese cities, academia is a lively actor of the regional development (Cai, Cui 2013). Schools of architecture and urban planning are strongly linked to the market, becoming an active part of the forces shaping the built environment. Tongji University is connected with two giants of the construction industry of China: the Tongji Architectural Design Institute (TJAD) and Tongji Urban Planning Institute (TJUP). Although formally private, these institutions constantly collaborate with the College of Architecture and Urban Planning and are directed by several faculty members. Because of the connection with Tongji, these institutes entered the design market as centers of research and high-quality design. They have entertained collaborations with major international firms, including SOM, KPF, ARUP, Foster & Partners, Gensler, EMBT, Kengo Kuma, FOA, and Tadao Ando, and with many others from the star system. In spite of their privileged position, TJAD and TJUP compete with other design firms operating in Shanghai, by taking part in architecture competitions and working for private and public clients.

As Lawrence and Martin note (2013), academia in China is also strongly related with the communist party. Tongji College of Architecture and Urban Planning maintains strong relationships with local governments and it is not unlikely that some graduates or doctorates from the school of architecture, educated to understand the dynamics of planning and land management, may undertake a political career, resulting in a convergence of interests between universities and municipalities. Greatly interesting, in this regard, is the case of Tongji Architecture PhD Sun Jiwei, now part of the Shanghai government at the district level. The deputy director of Qingpu District in 2002, executive director of the Jiading District in 2008, and governor of Pudong New Area in 2013, Sun Jiwei became famous even outside China (de Muynck 2011) for involving famous international firms as well as architects from the experimental scene in Shanghai.

One of the experimental architects I interviewed explained: "in past twenty years, the amount of clients good to us is actually rising up and expanding. When I came back from the US it was much better than the beginning. Then I met Mr. Sun Jiwei, who was deputy director of Qingpu district, and he was a former PhD from Tongji University, department of Architecture. He was an official knowing modern architecture and local traditions and supporting it. This gave us a lot of opportunities to try new things".

Many experimental architects are also teachers at local universities as both, faculty members or adjunct professors. In addition, magazines like "Time + Architecture" have played a leading role in spreading their practice all around the country. By celebrating them as primary intellectual figures, this media has effectively been spreading their name and helping to boost their business around the country. Therefore, a close connection with the political environment and the academia is an important condition of existence for experimental architecture. Academic environments are continuously engaged in providing a critical platform for the discourse on the Chinese Identity of architecture, through lectures, publications, and exhibitions (Ding 2013). They represent a further necessary media among architects, the State, and the market, thus complicating the weaving of connections and impulses affecting the decision-making. In this sense, they actively take part in producing uncertainty during the design process. Experimental architects must be cunning enough to accommodate all of the instances of the diverse actors while maintaining the control of the building forms within the pressing timetables.

Conclusion: uncertainty as identity issue

The analysis of the apparatus of experimental architecture in Shanghai has highlighted several issues in the power dynamics of this specific design practice, determined by cultural clashes between the city's culture, the politics at the National level, and the globalized economy. Besides attempting to unpack the reasons for which uncertainty exist in the design process, this analysis aims at shedding light on roles and responsibility of the architectural design practice in Shanghai within a broader network of forces and heteronomous conditions.

The analysis highlighted how experimental architecture is part of large-scale investments, in which commercial aspects significantly overcome any other discourse. The public financing systems itself ultimately aims at maximizing the profit of the investments. Experimental architecture firms operate within the limits and possibilities entailed by a master plan already established by the local governments in partnership with local design institutes or, possibly, with large private corporations. More important, the overlapping of roles between the architect and the LDI in the detail design and construction process hinder the full accomplishment of the architectural design. Experimental architects need to develop informal mechanisms to keep the control over these stages. In addition, academia is an active entity in the territorial development and represents the driving force for providing business opportunities, but also formal guidelines, to experimental architecture firms. The clashes of will among all of these actors produce uncertainty. I argue that much of these clashes derive from the different interpretations of the concept of Chinese Identity of architecture. Both, ethnographic data and the literature references presented in this essay suport this argument. Every actor has a different vision, or multiple visions, or no vision at all – of what cultural and political values the building should embody. Needless to say that such conflicts on the issue of Identity are indeed political conflicts, and derive from different conception on how the Chinese Nation should be represented. As a consequence of the examined conflicts, the identity of architecture does not emerge as an aprioristic unitary condition, nor it represents something that can be imposed on the design process – such as the discourse on experimental architecture in China has so far implied (Xue 2006). On the opposite, this analysis highlights how Identity is the resultative outcome of the formal and informal power negotiations taking place within the power apparatus of the design practice.

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