

論文の内容の要旨

論文題目 Mechanism of Spontaneity in Utilization of Qilou Verandah Space: Case Study on Amoy

（自発性のメカニズムに注目した騎楼ベランダ空間の利活用に関する研究：厦門を例として）

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Qilou is one of the unique vernacular architectural types in Southeast Asia and East Asia. The recessed space on the ground floor, Qilou verandah space, is the prominent symbol of Qilou. Generally speaking, Qilou verandah space is defined as the walkway for pedestrians regardless of the ownership, and unauthorized occupancy for private use is prohibited.

Nonetheless, in real life Qilou verandah space is functioning way beyond a walkway: it has become not only the space for traffic but also a space for various activities, utilized by different users with different reasons. Defined as “spontaneous behavior against authorized planning”, the word “spontaneity” is applied to describe such phenomenon in this research. On the one hand, spontaneity can be regarded as an urban issue that causes conflicts; on the other hand, spontaneity can be regarded as a type of regional townscape, which represents the feature and uniqueness of the street.

To make clear the nature of spontaneity, the objective of this research is to find out the underlying mechanism behind the spontaneity in the utilization of Qilou verandah space, by taking Amoy City in China (厦門, Xiamen) as the case study. The findings of this research will be able to provide insight and reference for the preservation of regional townscape; to provide problem-solving ideas for achieving the balance between planning and spontaneity, public and private; and to work as a reference with a bottom-up perspective for the policy makers, planners, and designers.

Mechanism of spontaneity is studied from three aspects with three individual chapters: "Representation of Spontaneity", "Cause of Spontaneity", and "Control of Spontaneity".

Representation of Spontaneity

Representation of spontaneity is clarified in Chapter 3 with the research question of "How do people utilize Qilou verandah space?". Method of walk-through observation is conducted six times a day, and video captures the way people utilizing Qilou verandah space. Four analyses are conducted quantitatively: "Element", "Setting", "Behavior" and "Correlation".

First, in the analysis of element, based on the notion of "semifixed-feature element" proposed by Amos Rapoport, a total number of 9 elements are concluded: "Element A: Furniture (commercial)", "Element B: Goods", "Element C: Operation", "Element D: Display", "Element E: Furniture (personal)", "Element F: Household", "Element G: Hobby", "Element H: Vehicle" and "Element I: Others". The distribution of element and temporal change of element are made clear.

Second, based on the analysis of element, a total number of 47 types of settings are summarized. The paper shows the case studies of eight of the most common settings that are witnessed. By analyzing the composition of element in a setting, the purpose of setting is concluded as "Commercial Use", "Personal Use", and "Mixed Use", and the tendency of three target streets is analyzed quantitatively.

Third, in the analysis of behavior, based on the behavioral theory proposed by Jan Gehl, 21 types of stationary activities are categorized into necessary activity, optional activity, and social activity. The proportion of activities are also made clear.

Fourth, using the activity as criteria, the impact of element and setting are analyzed by correlation analyses. The analysis between element and behavior shows that Element A is the major trigger for necessary activity, while Element G is the major trigger for both optional activity and social activity. The analysis between setting and behavior shows that setting of commercial use is the major trigger for necessary activity, while setting of mixed-use is the major trigger for both optional activity and social activity.

Last but not least, this part concludes the representation of spontaneity following with two discussions. In the discussion of “Mixture of Meanings”, it indicates that it is not a simple question of "preserve spontaneity or not", but "what to preserve and what to eliminate". In the discussion of “Trigger of Activity”, it suggests to rethink of the role of spontaneity and to reconsider the trade-off.

Cause of Spontaneity

Cause of spontaneity is clarified in Chapter 4 with the research question of "Why do people utilize Qilou verandah space?". Two rounds of questionnaire survey are conducted, one with an architectural approach, and the other with a personal approach. According to the data collected by questionnaire, 4 topics are discussed quantitatively: "Architectural Problem", "Personal Reason", "Situation of Utilization", and "Spatial Network".

First, in the analysis of architectural problem, 4 problems regarding architectural and urban issue are found out: "Lack of Functional Space (internal)", "Lack of Parking Space (external)", "Ownership", and "Isolation of Shop and House", among which "Ownership" and "Isolation of Shop and House" are regarded as indirect causes, and the others are regarded as direct causes. In the analysis of "Isolation of Shop and House", 4 types of shop-house relationship are categorized: "Integrated Type", "Compact Type", "Neighboring Type", and "Detached Type".

Second, from a personal perspective, 7 reasons are given in the analysis of "Personal Reason": "Business", "Lack of Space", "Communication", "Ventilation & Lighting", "Habit", "Appropriateness", and "Others". The proportions of personal reasons are calculated as well. Also, case studies are given for each of the 7 reasons.

Third, in the analysis of "Situation of Utilization", the awareness of Qilou verandah space and the actual situation of utilization are made clear. Situation of utilization is researched with frequency, consistency, including factor and activity.

Fourth, from the spatial relation point of view, 4 types of network are concluded in the analysis of "Spatial Network": "Enclosed Type", "Segregated Type", "Extended Type" and "Extended-Segregated Type". Each type is analyzed with a corresponding case study.

Last but not least, this part concludes the cause of spontaneity following with two discussions. In the discussion of “Local Culture or Countermeasure”, it classifies the causes into two categories. In the discussion of “Spatial Network of Resources”, utilization of Qilou verandah space is explained with a spatial-network point of view.

Control of Spontaneity

Control of spontaneity is clarified in Chapter 5 with the research question of "How do stakeholders manage Qilou verandah space?". The method of interview survey and observation survey are applied. Interview survey is conducted with 48 interviewees of different status. Three analyses are done qualitatively: "Background of Management", "Official Management", and "Exercised Management".

First, in the analysis of "Background of Management", the system of administrative area in China and the laws applicable in Qilou verandah space are introduced. A self-managing regulation, "3 duties" is explained in detail, which is taken as the backbone of the following studies in this chapter. Main stakeholders of management and the system of management are analyzed.

Second, under the background of management, the authorized management system is analyzed in "Official Management". According to the regulations of "3 duties", analyses are conducted from 3 aspects: management of order, management of facility, and management of sanitation. Three models of the official management systems are constructed.

Third, based on the analysis of "Official Management", "Exercised Management" is analyzed. Three original models built in official management are revised into models of exercised management. By comparing official management and exercised management, a total number of 7 phenomena are found out, including "Resistance to Official Management", "Making of Own Rules", "Spontaneous Construction", "Invalidation of Facility", "Absence of Official Management", "Ignorance of Duty", and "Transfer of Duty".

Last but not least, this part concludes the control of spontaneity following with two discussions. In the discussion of “Translation of Phenomena”, it classifies the

phenomena into unspoken rule, conflict and management issue according to the properties. In the discussion of “Spontaneous Order”, it indicates the insufficiency and shortage of the present official management applied in Qilou verandah space and suggests for a more flexible management system.

Conclusion

As conclusions, Chapter 6 structures the mechanism of spontaneity with the knowledge of "Representation of Spontaneity", "Cause of Spontaneity", and "Control of Spontaneity", which are researched independently yet connected logically. Pushing a bit further, the nature of spontaneity is partly summarized. Additionally, based on the discussions of each chapter, several general suggestions and specific suggestions for the target streets are proposed. Finally, it discusses the significance and further development of this research.