

RESEARCH METHODS FOR PUBLIC BUILDING

What is the role of praxeological research method on exploring public life and public space?

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INTRODUCTION

Architecture is a complex discipline of study, which meaning that no single approach can tell you everything you need to know.¹ Thus, architects have to develop their own research and design approach to deal with specific project. Research activities will take place in all design periods, and will lead and promote the design more efficient. Methodology of research, which could be considered as a practical system of theoretical knowledge, is compulsory for architects. A methodology most closely associated with anthropology, ethnography is actually somewhat discipline-agnostic, and can be used by a wide range of academic fields.² It requires architects being critical to choose the appropriate methodology to develop their research question.

In one sense, architectural research has been conducted throughout the history of architecture. The development of particular structural forms or building materials over the centuries is the outcome of trial-and-error experimentation, systematic observation, and application of such building principles to other building projects.³ However, broader research on architecture and its research methods has been conducted with the development of architecture theory. The Lecture Series of the Research Methods expanded my awareness about research methods on specific question. It provides an overview of the knowledge of methodology from theoretical and architectural perspective. Knowledge of the method is crucial, and gives structure to the activities; from the ways in which data is to be collected, to the eventual analysis and presentation of results.⁴ However, to be critical, methodology could provide the architects with systematic approaches to develop their research, on the other hand, it might make people lost in the existing method and limit people's critical thinking and creative work.

The public has always been one of the most vital concerns for modern architecture.⁵ With the development of society and technology, the study of human action and conduct seem to be increasingly aware by people, and praxeology became more and more important in architectural design and research. This paper will focus on the transformation from praxeology to architectural design, a built environment as stage for everyday practice. By studying the practice of architecture one can develop an eye for the actual users of building based on practice instead of imaginative pictures. Combine with the Public Building graduation studio, we are encouraged to be analytical and critical to ultimately approach in our specific context. Through their projects, architects have articulated specific definitions of the public and simultaneously pronounced their own professional positions and approaches.⁶

RESEARCH-METHODOLOGICAL DISCUSSION

The target of Public Building studio is to develop new types of public centers which local culture is shown, shared and created, a healthy lifestyle is promoted, and all kinds of experiences are offered. These new types of buildings and their surroundings act as a framework for meeting and interaction, and are often catalysts for the development of their environment. That is so called public condenser, the place where people of different ages, cultures and lifestyles can meet. Social Practices is seen from the perspective of urban scale to detailed spatial design. The gentrification of the community results in an increasing gap between old inhabitants and new inhabitants in our site in Copenhagen, which is the main challenge we have to face in the design. And here comes the question that how to find the common language for people with different background through the public building.

¹ Lucas, R. (2016). *Research Methods for Architecture*. p.21

² Lucas, R. (2016). *Research Methods for Architecture*. p.10

³ Groat, L. N., & Wang, D. (2013). *Architectural research methods*. John Wiley & Sons, p.6.

⁴ Lucas, R. (2016). *Research Methods for Architecture*. p.36

⁵ Avermaete, T. (2010). "The Architect and the Public: Empowering the people in Postwar Architecture". p.49

⁶ Avermaete, T. (2010). "The Architect and the Public: Empowering the people in Postwar Architecture". p.49

People are in space. The space required by a single person includes the space occupied by the human body itself, the space of the action domain, and the psychological space. The first two types of space can be measured through ergonomics, and the rest depends on psychological research. Humans have directionality in space. In addition to their actions, they will have judgments in up, down, front and back, and left and right directions. This kind of judgment will have different associations, such as rising, falling; forward, backward; victory, defeat ... and so on. People have a sense of realm. The sense of realm is a certain range of space that people have and control. It can be part of the building space or it can be symbolic.

In more complex interpersonal relationships, everyone's requirements for space involve many factors such as furniture arrangement, group interaction, and personal spheres. Because people are both individual and social, they need privacy in some cases and publicity and openness in some cases. In order to formulate a continuous and logic way of thinking, a series of research methods cooperate. At the beginning period, the tools of morphology, statistical, observation, as the starting point to explore the existing context and future plan. Collage and narrative will be abstract methods to fascinate and describe the possible innovation in urban life. Moreover, praxeology will provide theoretical basis to the architectural design base on the relation between people's activities and space.

Praxeology offers a perspective to study the architecture nature and social connotation. In order to explore the essence of public condenser, I attempted to use collage to combine all important elements I observe from site to develop narratives. It not only illustrates my observation and understanding of the collected material abstractly, but also formulate and promote the multiplicity of our research topic. Through analysis the context of inhabits with different background, we could divide them in several groups according to their interests. The next step is to define the characteristic of the space which each individual group of people would like to enter and stay. For example, children's space might be colorful and multiple shaped, which indicated an energetic and fascinated space atmosphere, while elder's space would be bright and cool colors decorated, which indicated a harmony and calm space atmosphere. These characteristics of the space are closely connecting to the activities and behavior of specific group of people. Through this step and combine with the preliminary site analysis, it is easy to find out that the how site and its infrastructure serve with the community and each different part of the public space has their own target group people to serve.

RESEARCH-METHODOLOGICAL REFLECTION

As a research-methodology, praxeology has a very reasonable origin. Praxeology started from human action, it shows how individual acts and what consequence can happen out of those. Human action can be seen as a method that could explain the essential nature of human action to understand the field of architecture and society.

Danish architect and urban design consultant Jan Gehl developed the Three Types of Outdoor Activities in his book *Life between Buildings*. These three activities are necessary activities, optional activities, and social activities, and each of which places very different demands on the physical environment.⁷ The three types of activities are categorized by people's intention and place where the people behavior happen. Necessary activities mean those are more or less compulsory, for instance, going to school or to work, shopping, all activities in which those involved are required to participate. Optional activities are those demands that people could choose to participate in if there is a wish to do so. These activities take place only when exterior conditions are optimal, when weather and place invite them. ⁸When the quality of outdoor areas is good, optional activities occur with increasing frequency. As levels of optional activity rise, the number of social activities usually increases substantially. Social activities are based on the participation of people in public space. Social activities always take place with necessary activities and optional activities, and they develop in connection with

⁷ Jan Gehl (2001) *Public Life between buildings*. p.9

⁸ Jan Gehl (2001) *Public Life between buildings*. p.11

the other activities because people are in the same space, meet, pass by one another. In Jan Gehl's opinion, the character of social activities varies, depending on the context in which they occur. In the some specific public space such as street in residential area, working space or playground, where there are a limited number of people with common interests or backgrounds, social activities in public spaces can be quite comprehensive: greetings, conversations, discussions, and play arising from common interests and because people "know" each other, if for no other reason than that they often see one another.⁹ Jan Gehl's study on public life insist on counting pedestrians and recording stationary activities, he always focuses on people's movement and people's intension of using the space, and the further design is developed based on these principles.

Humanized pedestrian streets and cycle paths are the main symbols of Copenhagen as a livable city, and they have also become urban spaces that the world's cities are following Humanized cities are not new. More than 60 years ago, Jan Jacobs questioned modern urban planning as a commoner. From the implementer to the method to the result, Jacobs believed that the data and rational description adopted by the planning agency at that time were not only untrue. Reflecting the current state of the city, it also prevents urban life from serving the right people. Jacobs believes that starting from the residents' emotional experience and shaping the neighborhoods that are suitable for living, residents will participate in the autonomous management of the streets and create a safe, clean, and trustworthy surrounding environment.¹⁰ These qualities are provided by urban development. Infrastructure cannot guarantee it. Jacob's theory has won widespread support, and it has also urged people to focus more on urban spaces that are suitable for people.

Like Jacobs, Jan Gale likes to use his own story to emphasize the importance of humanized cities or humanized buildings: Gale graduated from architecture education in the 1960s; in that era, urban planning was Various data induce: planners and designers are anxious to analyze how cars use cities, how real estate changes cities, and how incomes divide cities, but no data can intuitively show how residents use cities. In the end, residents found themselves abducted by these indicators. They could find driving routes and real estate value-added trends, but it was difficult for them to access the neighboring and vibrant street space in their daily lives. ¹¹Under the influence of this kind of thinking, Gael established two paradigms in his mind that have the most negative impact on modern cities: the vehicle-centric planning paradigm and the architecture represented by modernism. The former cuts off the relationship between personal scale and urban space, making planners focus on vehicles and roads when considering issues, especially in the process of urban expansion, ignoring the feelings of pedestrians; the latter is considered by Gael as a suitable method to escape the complex modern urban environment.

At the core of Gale's public space quality reshaping system is the human scale, and the adjustment of space priorities based on this. Gale's ideal urban space is not a carrier of logistics and people flow. On the contrary, walking traffic not only facilitates the movement from point A to point B, but also provides opportunities for stops, meetings, playfulness and exercise, thereby creating Healthy and safe living environment. Gale uses the human senses to classify and delineate the urban spatial scales and architectural and landscape elements required by civic activities, and uses this as a criterion for urban space design. In planning, Gael believes that shaping urban life should take precedence over planning urban space, and the protection of urban space should take precedence over the development of individual buildings.

Copenhagen's transformation proves that even small spaces can have significant effects:

Copenhagen's first pedestrian street appeared in 1962, and the number of pedestrians in the city increased by 35%.¹² In Copenhagen, pedestrian streets are no longer simply for revitalizing the decaying shops along the street, or to increase the area covered by the sidewalk from the book, but to make the city more suitable for pedestrians to stay and live, and to give citizens more than just car travel select. Therefore, the goal of a humanized city is no longer just to reshape the public sphere, but to find a livable space that belongs to the new city itself.

⁹ Jan Gehl (2001) Public Life between buildings. p.12

¹⁰ Jane Jacobs (1961) The Death and Life of Great American Cities. p. 50

¹¹ Jan Gehl (2013) How to study Public Life. p.126

¹² Jan Gehl (2011) Public Life Studies in Copenhagen p. 150-157

POSITIONING

Praxeology and public life studies can be found everywhere including architecture, economy, and marketing because it is about our daily life. All information we can find on the internet or literature are also the consequence of human actions. Through thinking what we need and why we need, it will lead our designs to a more livable way. Especially, architecture is to construct space that will be used by human.

In this essay, the position I assert is that we should think praxeology and the relationship among people, building and city in bigger context comprehensively. Because the relationship between the building and the city is intricate, the most convenient way to avoid these complex problems is to condense these relationships into the design of a single building. Therefore, modernist buildings not only provide large-scale construction during the production process. The type of housing has also developed a widely adopted reproducible scheme on social issues. As a result, monolithic buildings have replaced urban space and become the carrier of public activities, while real public space is facing more and more challenges.

In the past, critics of the humanistic city theory, such as Lewis Mumford and others, often supported the two paradigms behind the challenge in the public territory through discussions on the nature of modern cities.¹³ They believe that although the remodeled street space of humanized cities conforms to the characteristics of pedestrian activities, they deny the basic fact that modern cities are composed of large-scale materials, crowds and information flows. Therefore, humanized urban solutions are always There seems to be some sort of end to end; it is like though the street space of appropriate scale can guarantee the neighborhood relationship, but the neglect of the planning of private car traffic means that such a block cannot meet the basic needs of its residents for efficient travel, which means that such blocks are not necessity in the city. Therefore, for these critics, the crisis facing modern cities is not the invasion of cars or large-scale construction, but how to effectively accommodate these phenomena with new transportation and social networks.

Mechanized modernist architecture has also proven difficult to truly meet the needs of people's social life. These challenges mean that the paradigm that modern cities have always followed needs to change in order to redirect public spaces suitable for people's lives. As people shape the city, the city will shape the inhabitants;¹⁴ the success of walking and cycling in cities such as Copenhagen has led Gal to discover that in the vibrant public realm, people are more willing to walk and ride public transportation to improve their bicycles. Road safety will also make more people willing to give up driving.

In this perspective, praxeology can have a strong position in architectural practice and it illustrate the interaction between people and public space. Architecture is to materialize ideas or concepts in real world. However, it is not enough if people only considering about actions happening in internal space, livable space and livable city can only be developed with profound understandings of human's actions. We need to prepare giant transitions to architecture and public space in the future.

¹³ Lewis Mumford (1961), *The City in History*

¹⁴ William H. Whyte (2001) *The Social Life of Small Urban Spaces*

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