

USING PRAXEOLOGY RESEARCH-METHODOLOGY TO EXPLORE WHAT IS THE KEY ELEMENTS TO SHAPE THE INTIMATE CITY ROOM

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I INTRODUCTION

Architectural design as a highly customized product, it is essential to intervene in a suitable research methodology. Because architectural design does not have a standardized answer, the architect's background, knowledge, and style can have a huge impact on the architectural design of the same site. However, the architecture should not be determined by the architect's personal style or inclination. How the architectural design fits into the history and context of the site is the key to determining its quality. The research base on context, history, urban morphology, culture, etc. has always been an important basis for promoting design. Therefore, how to choose a suitable research methodology for graduation design has become a very critical issue.

During this course, I gained a further understanding of the impact of research methodology on architectural design. For example, in Eireen Schreurs' material culture lecture, I have learned how to research the building materials of the site, and through the material culture to connect the architecture with local history and context. In the Marieke Berkers' praxeology lecture, I have learned the method of praxeology research and how to make use of the praxeology to design the architecture. I found that the praxeology research-methodology is very suitable for my graduation design and then I did more study about it.

I am in the graduation studio interior, cities, buildings. The graduation project of this year is to design a city room under the theme of intimate city. How to define the city room and which kind of space can create the sense of intimate become the important research subject. The private spaces always have a strong sense of intimacy, but in such a private space, it is difficult to generate social activities. Public space undoubtedly plays the role of city room in the city, but public space often loses its intimate and comfortable atmosphere because of its openness and huge scale. Therefore, a public space with an intimate atmosphere is very important and precious to the city.

The general approach of studio is to ask students to explore some of the existing city rooms. Experience and analysis the atmosphere, collect the inspiration and design a city room with an intimate atmosphere as a result. Therefore, researching the key elements contributes to the intimate city room is very important to my graduation design.

II RESEARCH-METHODOLOGICAL DISCUSSION

1. Selected research method

My research topic is exploring what is the key elements to shape the intimate city room. There are many public spaces in the city, but only a part of them loved by people and become intimate city room for the citizen. It may be because of its history, or because of its comfortable space, or because of its essential functions. Observing human behavior in different public spaces and summarizing the characteristics of these spaces is very important to my research. As a result, I select the praxeology research methodology. It can guide me analyze the architecture space by observing people's behavior, and explore the key elements to shape the intimate city room.

2.Current status

In the *Urban Planning by Le Corbusier According to Praxeological Knowledge* written by Jolanta Dzwierzynska and Aleksandra Prokopska (2017), the authors describe the praxeology research-methodology as, "from praxeological point of view an active human being takes her choice between different possibilities by preferring one of these possibilities to the others, and she performs it not in words being thought or pronounced, but in manifesting it by her actions."¹

In the study of praxeology, a very important concern is the relationship between human behavior and space. Bryan Lawson (2001) describes it in the book *Language of Space*, "of course good architecture does not actually waste space, it is just that often space is needed in order to prepare us for a change of mood, to establish relationships, to separate activities, and to suggest or invite appropriate behavior. In fact it creates settings, which organize our lives, activities and relationships. In good architecture space does this for us without our noticing, hence the possibility of joking that such space is wasted! This book will explore just how that happens, and how we can learn to 'read' and work in this human language of space."²

According to the *The Hidden Ways That Architecture Affects How You Feel* written by journalist Michael Bond (2017) published on BBC Future, more and more scientists are beginning to adopt advanced technology to apply to the study of human behavior. Some of these studies have attempted to measure subjects' physiological responses in situ, using wearable devices such as bracelets that monitor skin conductance (a marker of physiological arousal), smartphone apps that ask subjects about their emotional state, and electroencephalogram (EEG) headsets that measure brain activity relating to mental states and mood.³

For instance, Colin Ellard (2015), who researches the psychological impact of design at the University of Waterloo in Canada, found that people are strongly affected by building façades. If the façade is complex and interesting, it affects people in a positive way; negatively if it is simple and monotonous. For example, when he walked a group of subjects past the long, smoked-glass frontage of a Whole Foods store in Lower Manhattan, their arousal and mood states took a dive, according to the wristband readings and on-the-spot emotion surveys. They also quickened their pace as if to hurry out of the dead zone. They picked up considerably when they reached a stretch of restaurants and stores, where they reported feeling a lot more lively and engaged.⁴

III RESEARCH-METHODOLOGICAL REFLECTION

1.Praxeology historical & theoretical context

The word praxeology is created by Louis Bourdeau, the French author of a classification of the sciences, which he published in his *Théorie des sciences: Plan de Science intégrale* in 1882, "on account of their dual natures of speciality and generality, these functions should be the subject of a separate science. Some of its parts have been studied for a long time, because this kind of research, in which man could be the main subject, has always presented the greatest interest. Physiology,

¹ Dzwierzynska, J. and Prokopska, A. (2017). *Urban Planning by Le Corbusier According to Praxeological Knowledge*. IOP Conference Series: Earth and Environmental Science, 95, p.052007

² Lawson, B. (2001). *The language of space*. London: Routledge.

³ Bond, M. (2017, June 06). *Future - The hidden ways that architecture affects how you feel*. Retrieved from <http://www.bbc.com/future/story/20170605-the-psychology-behind-your-citys-design>

⁴ Bond, M. (2017, June 06). *Future - The hidden ways that architecture affects how you feel*. Retrieved from <http://www.bbc.com/future/story/20170605-the-psychology-behind-your-citys-design>

hygiene, medicine, psychology, animal history, human history, political economy, morality, etc. Represent fragments of a science that we would like to establish, but as fragments scattered and uncoordinated have remained until now only parts of particular sciences. They should be joined together and made whole in order to highlight the order of the whole and its unity. Now you have a science, so far unnamed, which we propose to call Praxeology (from $\pi\rho\alpha\chi\iota\varsigma$, action), or by referring to the influence of the environment, Mesology (from $\mu\epsilon\sigma\omicron\varsigma$, environment).”⁵

However, the application of human behavior research methods in the field of architecture is far earlier than the creation of the word praxeology. For example, the design of monasteries and churches can generate inspiration and contemplation. Moreover, during 1400s, the Italian architect Leon Battista Alberti claimed that balanced classical forms would compel aggressive invaders to put down their arms and become civilians.⁶ Just as Winston Churchill said in 1943 while considering the repair of the bomb-ravaged House of Commons, “We shape our buildings and afterwards our buildings shape us.” If the architect neglect the research of praxeology, the design of the building may have great flaws. For example, the design of the Pruitt-Igoe housing complexes in St Louis was criticised for alienating communities and stoking racial segregation.



Figure1. Pruitt-Igoe housing complex. Image courtesy of “the Pruitt Igoe Myth”

⁵ Praxeology. (2018, October 07). Retrieved from <https://en.wikipedia.org/wiki/Praxeology>

⁶ Golembiewski, J., & Environmental Determinants of Mental Health. (2018, December 06). *Building a better world: Can architecture shape behaviour?* Retrieved from <http://theconversation.com/building-a-better-world-can-architecture-shape-behaviour-21541>

2. Critical positioning in regards to the selected approach

During my praxeology research to explore what is the key elements to shape the intimate city room, I use the unstructured participant-observation method to experience the atmosphere of the space and participate in the activities which is happening in this space. The intimacy of a space depends largely on the subjective feelings of the experiencer. When I use the unstructured participant-observation method, I can not only get my own subjective feelings, but also observe the behavior of other people in this space. So that I can research whether these spaces have an intimate atmosphere, does it undertake the role of the city room, and which key elements shape this space.

During the process of graduation design, the tutors organized us to go to Paris, Milan and Antwerp. We visited the local city room and felt the atmosphere. For example, we visited the Les Deux Plateaux located in the inner courtyard of the Palais Royal. It was designed by the French artist Daniel Buren in 1985–1986 and elicited considerable controversy at the time. Before I visited Les Deux Plateaux, I didn't think this space would have an intimate atmosphere. The huge scale of the space and the pillars poking up from the courtyard's floor may cause the lack of the sense of place.

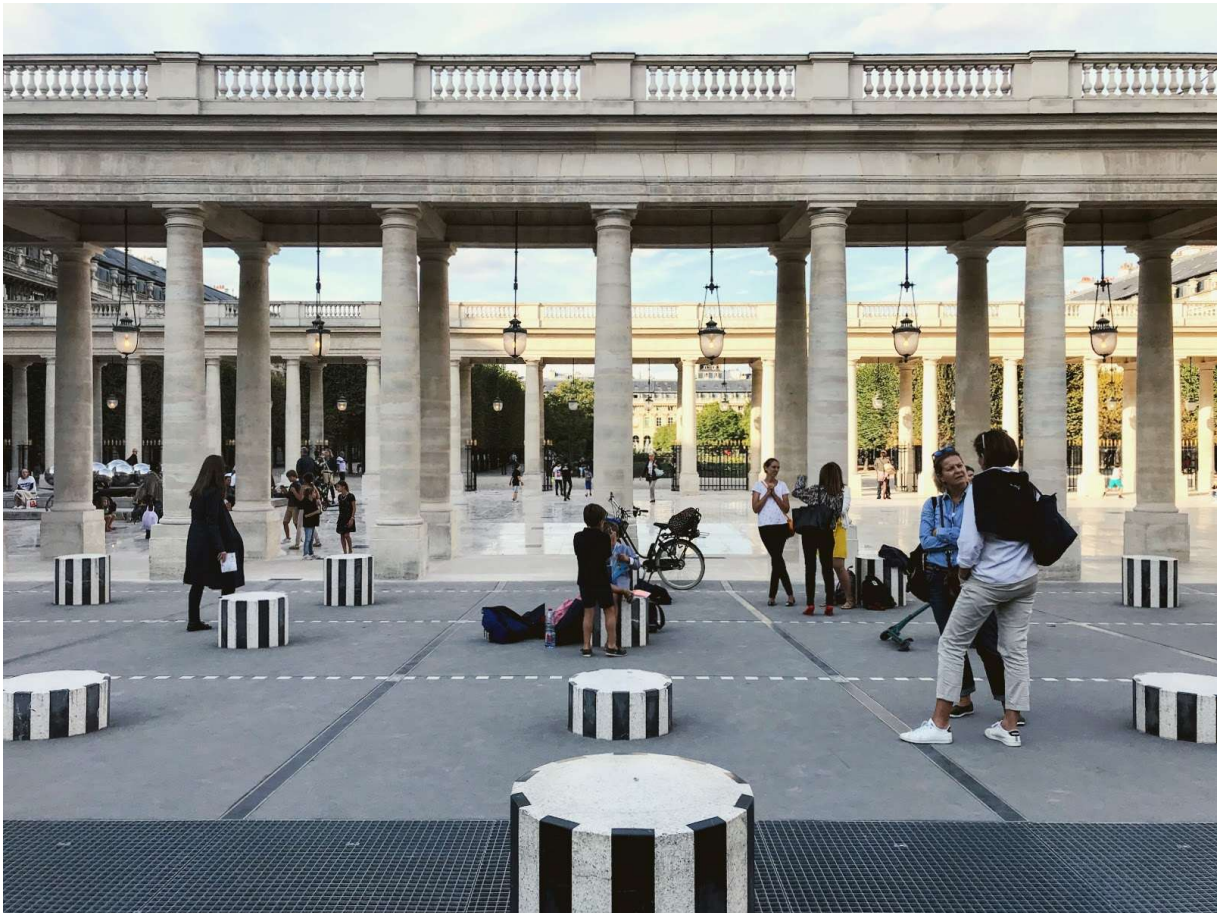


Figure 2. Les Deux Plateaux. Photo by Pinrui Liu at Paris

However, when I was in this environment, I found the atmosphere is wonderful and many people stay at here. The surrounding buildings create the sense of enclosure. Meanwhile, the pillars that I thought would cause trouble, became the soul of this space. The pillars become recreation facility and

interacts with children constantly. The children run between the pillars and climb up the tall pillars from time to time. Even adults who are in the process of communicating with friends also like to lean on or sit on low pillars. The children ran between the pillars and climbed up the tall pillars from time to time to play with their friends. Even adults also like to lean on or sit on low pillars while talking to their friends. Using the unstructured participant-observation method, I found that the sense of enclosure and interaction is the key word of this space. The design of these elements enabled Les Deux Plateaux to successfully play the role of the city room, bringing together the people while having an intimate atmosphere.

IV POSITIONING

The praxeology lecture by Marieke Berkers is very relevant and helpful to my research topic. Just as Marieke Berkers mentioned in the lecture, Bruno Taut use the praxeology research-methodology designed a more convenient kitchen for women. I use the praxeology research-methodology to explore what is the key elements to shape the intimate city room, in order to design my own intimate city room at last.

Marieke Berkers talked about she use the unstructured participant-observation in India. As I wrote above, I used it in my research in Paris, Milan and Antwerp. Because the research in India is similar to my research about the intimate city, they are both to find a solution for the urban public space. The unstructured participant-observation can bring me closer to the space user, as Marieke Berkers said in class, "by studying the praxis of architecture one can develop an eye for the actual users of building, and not the imagined ones".

Although intimacy is a very subjective psychological feeling, but through the research of praxeology, I can find some quantitative elements to contribute to it. Such as the sense of enclosure, appropriate architecture materials, comfortable furniture, plenty of sunshine, etc. We can always found that a successful intimate city room always include one or more of these elements.

Beside these basic elements that shape the intimate city room, the sense of direction is also a very important one. According to the *The Hidden Ways That Architecture Affects How You Feel* written by journalist Michael Bond (2017) published on BBC Future, the sense of being lost or disorientated in the city make people feel negative and lose the sense of security. "Some cities are easier to navigate than others – New York's grid-like street pattern makes it relatively straightforward, whereas London, with its hotchpotch of neighborhoods all orientated differently and the Thames meandering through the middle, is notoriously confusing." Kate Jeffery (2017), a behavioral neuroscientist at University College London who studies navigation in rats and other animals, claimed at the Conscious Cities conference that to feel connected to a place you need to know how things relate to each other spatially. For example, the place like Piccadilly Circus with rotational symmetry, which look the same whichever direction you look at them from, cause people's insecurities and cannot be considered as intimate city room.⁷

Meanwhile, people should have the right to choose their personal behavior in this space. People are divided into extroverted personality and introverted personality. There are some public spaces in the city, which are often liked by extroverts, such as some lively gathering places. And some spaces are very intimate and quiet, such as bedrooms, which liked by introverts. An intimate city room should

⁷ Bond, M. (2017, June 06). *Future - The hidden ways that architecture affects how you feel*. Retrieved from <http://www.bbc.com/future/story/20170605-the-psychology-behind-your-citys-design>

have the quality in between, giving people the opportunity to choose freely. People can choose to join public events and interact with other people. People should also have the opportunity choose to be alone in this public space without feeling uncomfortable. This quality largely determines the intimacy of a public space.

Moreover, besides the architectural elements shape the space, there are more layers influence the city room. In the drawing below, I collected the city room I visited in Paris and Milan, and analyzed the elements influence the human behavior besides the architectural space. Through the praxeology research I found that there is a lot of layers influences the city room, such as economy, history, politics, etc. By observing human behavior in these spaces, to research whether these behaviors have been influenced by history or whether the behavior are driven by economic power. These studies can help me choose what layer to use when I design my design to shape the intimate city room.



Figure 3. Collection the city room. Drawing by Pinrui Liu.

In conclusion, although the intimate city room is a very subjective concept. I can conclude some elements to define it through the praxeology research-methodology. Light, sense of enclosure, furniture, sense of direction are all the key elements to shape the intimate city room. In the next period, I would find more elements which is shape the intimate city room and then summarize and integrate these elements into my own design. Praxeology provides me with a research method and attitude to observe and study the relationship between human behavior and architecture, and to explore what is intimate city room.

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