

An Analysis on the Design of Public Communication Space in College Student Apartments Taking the Student Apartments on the Nanhu Campus of Wuhan Textile University as an Example

Yuhui Yuan^{1,*}

¹College of Art and Design, Wuhan Textile University, Wuhan, Hubei, China

^{**}Corresponding author. Email: 105189368@qq.com

ABSTRACT

This paper starts with the analysis of the current situation of modern college student apartments, and takes the student apartments on the Nanhu Campus of Wuhan Textile University as a survey object to summarize the composition of public communication spaces in student apartments, and summarizes four types of communication spaces in student apartments. Then, this paper discusses the specific methods of creating a good public communication space from the aspects of multi-level and humanization.

Keywords: *student apartment, communication space, humanization, multi-level*

I. INTRODUCTION

As an important part of modern university campus architecture, college student apartments are not only a space for students to live and rest after school, but also carry functions such as entertainment, communication and learning. With the further deepening of China's higher education teaching reform, the material and spiritual functions of the construction of university student apartments have also been developing in diversification. While meeting the basic accommodation and living requirements, it is also one of the important contents of higher education to pay more attention to and think about the interaction and communication between students, and develop students' interpersonal communication ability. American psychologist Erikson mentioned in the theory of personality development: the time during 18 years old to 25 years old is a period when it is easy to accept the intimate relationship with others. During this period, due to the changes in living environment, young students who have just entered university life appear to have temporary vacancies in interpersonal relationships, increasing their need and desire for communication. Student apartments are the space where the students have spent the longest time on campus. According to the survey, 50% of the college students surveyed said

that the most effective interpersonal communication is centered on the student apartment. Therefore, creating interpersonal communication spaces in university student apartments and conducting in-depth research are of great significance to the physical and mental health of college students.

II. ANALYSIS ON THE STATUS QUO OF STUDENT APARTMENTS

A. Current situation of contemporary student apartment space environment

In China, after the merger of universities in the 1990s and the expansion of universities, the construction of university towns has begun in major cities in the country. This is another major effort in the field of higher education, so the construction of student apartments has reached an unprecedented height. The student apartments are not only places for students' life, but also important parts of the campus landscape. The new student apartments have greatly improved the living conditions. However, with the enrichment of the campus's spiritual and cultural life, the function of the student apartments is no longer just for living and rest. They also provide students with a good space for extracurricular learning and socializing, which play a positive role in cultivating students' healthy social communication ideas and personality cultivation. The monotonous and bland accommodation environment has been unable to meet the needs of student life and the development of personality. It is mainly reflected in the following: Firstly, the interior spaces of many

*Project: Hubei Provincial Department of Education's Philosophy and Social Science Research Youth Project "Research on the Innovative Application of Chu Culture Elements in the Design of Modern Space Environment" (Project No.: 19Q088); Wuhan Textile University Teaching Research Project "Patternized Design in Art Design Specialty Research and Practice" (Project No.: 2018JY070).

student apartments are mostly used in interior corridors. They have long corridors with poor lighting and ventilation. The small area of the dormitory and the crowded living space will inevitably produce a large mutual interference of activity space. Secondly, the function of the student apartments is too single, lacking a place for student communication and activities. In the age of the Internet and information technology, these are not conducive to the development of students' physical and mental health.

B. Status of student apartments on the nanhu campus of wuhan textile university

At least half of the college time, which is vital to one's development, is spent in student apartments. Student apartments on the Nanhu Campus of Wuhan Textile University are divided into 1st and 2nd districts, of which each district has 9 buildings, each building is 6 floors, and each floor is about 3.5 meters high. There is a foyer, corridor, public laundry area, boiled water room, etc. The single apartment is divided into four-people and six-people rooms, most of which are six rooms. Each room is equipped with a separate toilet and balcony. The internal facilities are quite complete. However, the space level is very simple, and each space is relatively isolated. Most of them are in regular rectangles. A long corridor connects the dormitories. The corridor goes all the way to the bottom, lacking ventilation and light transmission, and the design is rigid. The communication on the floor is limited to the dormitory, and the neatly arranged desks in the dormitory make the students placed in it do their own things in the face of the computers. There is a lack of communication between the students. The space is simple and the life is monotonous. There is no place for communication and activities in the whole building, which is contrary to the needs of college students for social interaction and meeting friends due to their physical and mental development. The reason is mainly due to the low standards of early student apartment buildings and insufficient design considerations. With the diversified development of the material and spiritual functions of university student apartment buildings, as well as the new education concept of quality education and open school running, while meeting the basic accommodation needs, the construction should pay more attention to the design of public communication spaces.

III. COMPOSITION OF PUBLIC COMMUNICATION SPACES IN STUDENT APARTMENTS

For a long time, due to historical reasons or economic development, the function of the student apartments on the Nanhu Campus of Wuhan Textile University is mainly to stay on the basic needs of life,

sleep, study, storage, etc. The interior space of the apartments is inward and closed. Students' college life is dull in the mode of "three points and one line". However, with the development of the Internet and science and technology, the Internet is affecting students' learning and lifestyle in an all-round way. They spend more and more time in the apartments, and the relationships between students are gradually inclined to be built on the transfer of information and the update and complementation of knowledge. They hope to broaden their knowledge, enrich their imagination, and strengthen their speculative power through contact with each other. At the same time, the interaction between students can also improve their social skills. Then the establishment of public communication space in the student apartment meets the needs of students' mental health development and social communication, and creating a multi-level learning and communication space has become the focus of student apartment design.

A. Communication space for learning

The average per capita area of students in Wuhan Textile University student apartments is about 6m². Some students study very hard. They often learn until the time of light-off at night. Just before the exam, most students will stay up all night. The school's classroom resources available for overnight learning are very limited, and apartment buildings are lights-off at regular intervals. Often in the apartment corridor, there are often students who study by faint lights or study hard with a large flashlight. Over time, they form a stable social relationship. If the appropriate study space is set up in the student apartments, it is undoubtedly a concern for students.

There are about 5,500 students on the Nanhu Campus currently, and they are mainly arts students. They are more emotional and active in thinking. They often need more free communication space, so that they can more contact with the people around them and learn new design ideas and concepts in order to better engage in artistic creation. For example, a small classroom is set up in the apartment building of The Chinese University of Hong Kong high-rise student apartment, and the Stabile dormitory designed by Pratt Institute in the United States for students of architecture and arts has set up studios and exhibition rooms for students.

B. Communication space for activities

Activities are a potential process of self-reinforcement. Jan Gehl found in research: "When someone starts to do one thing, others will show a clear tendency to participate." In the design of the student apartments, the activity space can not only provide students with daily communication, but also should be flexible, such as student associations, public events, etc., should be able to hold here. When setting up an

activity space, designers should consider the places where students often pass without disturbing the apartments, pay more attention to the common ground of the space, increase the possibility of students' sense of belonging and participation, and make the space multifunctional features, such as TV area, sports area, reading area, etc., which may achieve better results.

In addition, the roof platform is also an excellent place for public activities. There is a large platform on the top of each student apartment building on the Nanhu campus. This is actually a waste of resources. When planning, on the premise of satisfying the drying, it can be divided into different functional areas. Landscape and rest seats can be appropriately set. Combined with the sculpting of the facade, it will form a sense of enclosure and area. Students can study, read and discuss here, and also hold large-scale events to form a vibrant campus interaction space. The student apartments of National Hualian University of Education in Taiwan use the balcony and roof terrace formed by layer-by-layer retreat to create a place for conversation, relaxation and social interaction. In addition, the retreat of the area has expanded the daylighting opening, so that the lighting and ventilation effects of the building are better, and the building form is livelier.

C. Small communication space for dining

In students' university life, they usually eat in the canteens. There is one student canteen and one staff canteen on the Nanhu campus. However, the actual situation is that during the concentrated dining period, the canteens are often overcrowded. Some students cannot find empty seats and have to bring the food back to the dormitory to eat. If family members come to visit, all kinds of snacks, drinks, and fruits will be piled up in the dormitory, making the dormitory more family-like and life-like. Some students rest late at night and develop the habit of eating supper at night. Often it is lively in the apartment building after the evening self-study. Everyone moves their stools in pairs and has supper in the hallway and chats, gradually forming deep friendships. According to a survey of students in Wuhan Textile University, the demand of boys for a canteen in a student apartment is ranked fourth, while such demand of girls is ranked third. It can be seen that with the increase of students' daily expenses, more and more students will demand for public small restaurants in apartment activities, of which it is more demanded in girls' apartments.

D. Communication space for traffic

The communication space for traffic in the student apartment refers to the spaces such as entrance, entrance hall, foyer, and stairs. These are the core traffic hubs. Their functions are not only transportation, but also spaces for students to interact, rest and talk.

When coming and going in the corridor, people are the easy to stop and communicate. In the design, consideration should be given to make the corridor bright, to make the width of the corridor appropriate, and to set up appropriate detention spaces, such as concave spaces. Arranging seating in the hallway is the simplest and most convenient way to make the hallway a social space. The foyer is the first space to enter the student apartment. It is also a place where many people flow in and stay. The area should not be too small. There should be rest seats in the foyer to increase the possibility of communication between students. An activity room can be set near the foyer to increase the intimacy and living atmosphere of the student apartments, so that it can enhance the communication and information exchange between students.

IV. CREATING A PUBLIC COMMUNICATION SPACE ENVIRONMENT WITH HUMANE CARE

A. Multi-level public communication space

The main body of the college apartment is a group of young and energetic young students who are confident, optimistic, positive, and eager to socialize. In the planning of student apartments, the design of communication space has become an important part of space design. For the study of communication space level, the more representative are the theory of residential area neighborhood level, communication unit, space classification and so on. The main difference between a college student apartment and a general residence is that communication is not based on blood and direct emotions, and the basic unit is not a family. The study of the communication space level of the student apartments can be divided according to the level of environmental psychology on space privacy, which can be divided into three levels: public space, semi-public semi-private space and private space. Public spaces mainly refer to foyers, hallways, corridors, stairs, etc. These are the types of spaces with the highest frequency of interaction; the semi-public semi-private spaces include the activity spaces in the apartment. Compared to the exterior of the student apartment, they are private spaces, but they are also public spaces in the apartment, such as various activity rooms, small restaurants, study rooms, etc.; private spaces refer to each single apartment, they are convenient for students to form close and stable student relationships. In addition, according to the space composition of the apartment building, it can be divided into: single apartment communication space, multiple apartment communication space, intra-floor communication space, intra-building communication space, and apartment building adjacent communication space.

Architect Robert has set up a series of public communication environments in the University of

Delaware student apartments, providing various spaces to meet different numbers of people, and different functional activities and interactions: the smallest communication unit is a space for 2-6 students to move in the corridor; second is a large living room at the corner of each floor, which can accommodate the activities of half of the students on the floor; the third level is a common room located between the two apartments, which can accommodate the number of students of three floors. In addition, he also set up some small alcoves in the large space to form different levels of communication and activity spaces. The multi-level nature of Robert's public communication space is in line with the composition and structure system of student apartments, and it visualizes the abstract space form, providing students with a possible place for communication to the greatest extent, and providing a reference design method for the design and implementation of public communication space.

B. Humanized public communication space

Really caring buildings cannot ignore people's communication requirements, and it will be a must to integrate the concept of communication into the design of college student apartments. Each student apartment on the Nanhu campus has a capacity of 400-450 students. Compared with other types of buildings, they have higher living densities and special living crowds. In the design of the public communication space, it is necessary to first determine the student's subjective status, consider the students' spiritual demands, and truly realize the benign interaction between the student and the apartment space and the student and apartment environment. Designers should adhere to the people-oriented design principle, and start from the study of human behavioral characteristics and physiological and psychological needs. Whether it is the overall layout, space division, or design details of each space, it must reflect humane care as much as possible to make the college students feel physically and mentally healthy and happy, and create a public communication space with reasonable functions, convenient use and characteristics. The Brazilian student apartment at the University of Paris has standard living units on the upper floors, but a large public activity space is set up on the ground floor, which accommodates various student activities, such as restaurants, laundry rooms, cafes, conference rooms, management rooms, canteens and other functional spaces, where students communicate and interact, making the entire student apartment full of vitality.

V. DISCUSSION ON THE DEVELOPMENT DIRECTION OF PUBLIC COMMUNICATION SPACE IN STUDENT APARTMENTS

The design of student apartments in foreign countries has undergone many years of theoretical research and practical construction, and has gained a lot of experience. Due to different national conditions in China, the time of development of new student apartments is relatively short. With the change and development of education models, human behavior habits have also changed accordingly. Communication has become the basis of knowledge dissemination and learning, and the communication space is essentially a spiritual place. In order to adapt to the changes of the times, the future student apartments will meet the psychological and physical demands of college students, and will realize the function conversion, and the unity of living and learning, the unity of learning and communication, the unity of communication and entertainment in the student apartment. The experience of distance education shows that the connection between society and communication is very important for creativity, and more public communication spaces should be provided in student apartments for students' common learning and communication.

According to the questionnaires from Wuhan Textile University students, it can be seen that the desire expressed by the students on the student apartments is to live a true life determined by the students themselves and adopt a lifestyle that is consistent with it. This also means that the living style of modern college students will gradually develop towards a comprehensive and diversified direction, and the multi-level and multi-functionality of public communication spaces in student apartments will become more prominent.

VI. CONCLUSION

College students are the vital force for Chinese social development and technological progress. Creating a good campus cultural life is conducive to the development of their physical and mental health and the expansion of their knowledge, improving their learning efficiency, and building a healthy campus lifestyle. Student apartments are important places for students' life, and the living environment directly affects the quality of life of the entire university. Communication is an important interpersonal activity in the information age and a useful means for students to learn non-class knowledge. Integrating the communication space into school life and forming the characteristics of the student apartments is conducive to creating a suitable space atmosphere, creating a multi-level public communication space, and creating the apartment culture belonging to the school itself, thereby enriching college students' daily life.

References

- [1] (Denmark) Jan Gehl, *Life Between Buildings* [M]. He Renke trans. Beijing: China Architecture & Building Press, 2002. (in Chinese)
- [2] Xu Yingying, Cai Hua, Han Linfang, Types of College Student Apartments and Space Organization for Communication [J]. *Journal of Guilin University of Technology*, 2007 (2). (in Chinese)
- [3] Sun Chuanfei, *Research on Modern College Student Apartments Optimization Design* [D]. Donghua University, 2011. (in Chinese)
- [4] Chen Li, *Analysis of the Design of College Dormitory* [D]. North China University of Technology, 2011. (in Chinese)
- [5] Li Xian, Li Li, On Cultural Education of College Students' Dormitory [J]. *Chinese Geological Education*, 2005 (02). (in Chinese)
- [6] Chai Fangjian, *Existing Colloge Dormitory Reform Design Study* [D]. Nanjing Tech University, 2014. (in Chinese)
- [7] Xu Chang, *University Dormitory Space Research* [D]. Hubei University of Technology, 2016. (in Chinese)
- [8] Liu Yang, *Modern College Students' Apartment Design Research* [D]. Hunan University, 2011. (in Chinese)