

Discussion on Communication Space in Colleges and Universities and Its Environmental Design

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Abstract—Under the strong impetus of quality education, the development of colleges and universities has been greatly promoted, and new functions have been given to colleges and universities. Colleges and universities must attach great importance to personnel training as well as communication space and environmental design, which have become the top priority of college campus construction. In terms of college communication space and environmental design, the environmental characteristics of college campus space should be analyzed, the environmental design of the campus building's external and internal space should be systematically studied and the college communication space should be expanded so as to provide a certain basis for environmental design and ensure that the regional characteristics of the space environment are fully demonstrated. This article focuses on the in-depth study of the communication space and environmental design of colleges and universities.

Keywords: colleges and universities, communication space, environmental design

I. INTRODUCTION

In the planning and construction process of colleges and universities, higher requirements for high-quality talents are helpful to the implementation of diversification and open education, and have a great impact on the cultivation of students' learning ability. At this stage, in the higher education model, exchanging ideas and communicating are one of the important channels for acquiring knowledge. In terms of communication, the communication space is the key point, and the communication space of colleges and universities can help to reflect the educational effect of the environment of the colleges and universities and meet the training needs of knowledge transfer and interpersonal skills. There are some problems in the communication space of colleges and universities, especially in terms of environmental design. Therefore, efforts should be paid to work out practical measures to continuously improve the level of environmental design, and provide a broader development space for higher education exchanges.

II. ENVIRONMENTAL CHARACTERISTICS OF COLLEGE CAMPUS SPACE

The characteristics of the "spatial" environment of the campus space environment are significant. Under the

influence of the transformation of the social structure, the characteristics of the campus space environment mainly include: first, socialization. Education should shorten the distance with the society, and students must keep closer to society. During the continuous development of the electronic information industry, the teaching concepts and methods of education have changed greatly, greatly increasing the number of people receiving higher education. An analysis of the form of running a university shows that the characteristics of multi-disciplinary and multi-level running are fully reflected [1]. Second, the characteristics of the campus space environment mainly include openness. The overall spatial environment layout of the campus should abandon the singular form of the previous teaching area, and strengthen the setting of squares and different space types, which can greatly enhance the richness of the campus space environment landscape and ensure the formation of a variety of communication places. Third, the characteristics of the campus space environment mainly include informatization. With the strong promotion of information technology, the application of networks and computers has been greatly promoted, which has helped intelligent and digital penetration in the campus. The use of computers in the campus can improve the overall rhythm of the school. The dense and integrated whole of the campus space environment is one of the important components, and its richness and comfort can be greatly reflected. Finally, the characteristics of the campus space environment mainly include personalization. In the campus space environment, it is necessary to pay attention to reflecting the characteristics of individual style; based on the overall campus structure, coupled with the impact of natural and human environment, it is necessary to strengthen the application of modern architectural planning and design theory, change the traditional campus model, and reflect the personalized characteristics to ensure the creation of space and environment.

III. DESIGN PRINCIPLES OF COMMUNICATION SPACE IN COLLEGES AND UNIVERSITIES

A. Integrality

The environment, which belongs to the artificial material system, has a relatively high complexity and has a great influence on the external things of its behavior. The

emergence and improvement of the campus space system has the characteristics of dynamics and balance, and it is necessary to continuously improve it to ensure the formation of a specific space character. At the same time of dynamic development, it is also necessary to attach great importance to orderly space, ensure the recognizability of the overall communication space form, and have a good specific cultural atmosphere. Based on the holistic perspective, the dynamic planning guiding ideology is the key point. It is necessary to strengthen the application of various design methods to ensure that the overall campus environment can be smoothly constructed and formed. The efficient communication space designed should ensure consistency with the subject differentiation and reorganization of future college students.

In the traditional campus communication space, the design of the goal is very important, but due to the changing characteristics of campus diversified communication, it should be given high attention. In the continuous development of the times, the future development mode of college communication space will also change significantly. The idea of dynamic planning is to achieve mutual feedback and perfection in the aspects of human communication mode and the campus's overall communication space, so as to achieve common adaptation development. At this stage, the scale and construction volume of some newly-built campuses are inestimable, so the phased construction method is more appropriate. The holistic principle requires that the future development of colleges and universities should be consistent with long-term development goals. It should be consistent with the current use needs and ensure the balanced development of the campus space pattern. [2] And it is needed to reserve land for future development, consider the single building and group development vein, and practice sustainability. Based on this, in the creation of the communication space, it is also necessary to plan the future development space model to ensure that the future campus overall plan can come down in one continuous line with the campus architecture and communication space, thereby reflecting the richness of the level of communication activities.

B. Diversification

Diversity is an important principle in the adaptive design of campus communication spaces. At the current stage, under the strong promotion of science and technology, social life is characterized by diversification and dynamics, and the multi-level development trend of university student demand is also relatively significant. Therefore, the college communication space must analyze the principles of diversification and multi-levelization. In order to make diversity reflect in the communication needs of college students, in the process of college communication space design, it is necessary to pay attention to improving the ambiguity of communication space. The number and type of users are very different, and the relativity between collective behavior and individual behavior is analyzed, that is, the diversity of accommodative behavior activities. For example, in the large space of collective activities, the possibility of individual behavior is considered, and the laws of individual

and collective behavior should be highly consistent to ensure that the sense of hierarchy in the communication space is prominent.

C. Growth

This principle has a significant reference meaning to the theory of organic architecture, and it puts forward mainly by means of campus form control and development demand. The campus is a living body, and it attaches importance to the shared blending and organic growth of the campus space. The place not only has the meaning of abstract space, but also fully reflects the generation of a specific spatial logical structure in life, thereby ensuring that the architectural space and form of the place's spirit can be created and giving a strong guarantee of the quality of the building space.

At present, a lot of sense of place to expand the campus communication space has not yet been reflected. The analysis of its problems is mainly due to the fact that in the early stages of planning, there is no in-depth analysis of the later growth pattern of the campus, and the relationship between the campus communication space and the overall campus space shape is not actively analyzed from a general perspective [3].

The adaptive communication space design can reflect the public communication space outside the campus, and it is necessary to infiltrate the scientific campus rationality into the campus communication space. It is necessary to strengthen the application of network structure combination and division mode, and centrally integrate architectural design ideas and computer technology to create favorable conditions for the continuous growth of the campus, so that the design ideas of the overall communication space can be formed.

IV. ENVIRONMENTAL DESIGN OF EXTERIOR SPACE OF CAMPUS BUILDING

A. Campus square

In the process of teachers and students studying and working together, the university campus plays an important role, which has a certain impact on the creation of artificial environment and the use of the natural environment on the campus. Among them, student learning should be encouraged and guided, and students' life should be enriched [4], so as to ensure that students have good thoughts and sentiments and lay a favorable foundation for promoting students' all-round development. During the campus square design process:

First, it is necessary to clarify the function. In the process of designing the campus square, it is necessary to fully understand the environmental conditions around the square, clarify the functions undertaken by the square, and create favorable conditions for creating a square atmosphere and artistic conception. However, it should be noted that the functions of the square are diversified. For example, they are used in transportation hubs, etiquette spaces, and teacher-student communication. In addition, it is also necessary to

pay attention to the openness and naturalness of the square, respect the history of the environment, raise students' sense of civilization and behavior norms, create a beautiful campus environment, and bring out the freshness and elegance of the university. Second, it should have activity support. In the design of the space environment of the square, activity support is one of the important aspects. In terms of event support, strengthening the attractive functions and activities of the square space environment is an important content, because activities and physical space have the characteristics of complementing and perfecting each other. Third, detailed processing. In the design process, students' psychological characteristics and cultural background should be analyzed, so that the vivid vocabulary can be formed, and the spiritual environment language system can be smoothly constructed.

B. Road space

Among the dominant elements of the campus space environment, roads can't be ignored. This can connect building groups and nodes to ensure the formation of an overall order, which has become an aspect of the campus space environment that can't be ignored. It also belongs to the communication space and its characteristics are important conditions for the formation of campus image characteristics. Campus roads, which are related to the inner part of city and the campus, play a prominent role in the campus and are an important way to improve overall order.

Roads play a significant role in the campus environmental space, affecting transportation and people's outdoor activities. The campus has a large flow of people, and many students travel to and from the campus. Based on the perspective of the law of walking activities, people's walking activities have been demonstrated in activities such as conversation and rest. Therefore, the walking path has the characteristics of combining dynamic and stagnation. It is necessary to analyze whether there is detention and ensure that the formation of centripetal space has a high degree of rationality. Driven by the combination of dynamic and stagnation spaces, in the node, the setting of steps and corridors ensures that the walking environment is highly rich and interesting.

C. Pedestrian traffic system

In terms of student activities and perception of the campus, the transportation system plays an important role. Strengthening the layout of the transportation system can ensure that the personality of the campus image is reflected and bring convenience to the formation of a rich communication space, thereby ensuring that communication activities have a high diversity. Combined with the perspective of interaction, low-speed movement provides convenience for both parties of interaction to obtain sufficient information, and provides the time for interaction. Therefore, the pedestrian space on campus can lay a solid foundation for forming occasional interaction. In the design process, the unicity of traffic functions should be prevented, the actual walking distance and feeling distance should be analyzed to relieve the psychological emotions and ensure

that students can feel the happiness brought by the interaction.

V. DESIGN OF CAMPUS INTERIOR SPACE ENVIRONMENT

A. Teaching buildings

In teaching buildings, the design of communication spaces should be based on the needs of teachers and students in order to create a good learning environment, activate students' thinking, and ensure that the breadth of learning is improved. In the teaching building design process, the creation of the overall academic atmosphere should be strengthened, specifically: first, the dividing area of sound should be considered. Quietness is more common in classrooms, and motion is more common in dynamic communication spaces. Therefore, reasonable division should be made to avoid mutual interference. Second, the natural lighting should also be considered. The atrium has a large space, so it is necessary to attach great importance to natural light design. Third, the event facilities should be convenient for communication [5]. In order to ensure the space environment inside the teaching building, it is conducive to the communication between teachers and students, and the construction of activity facilities should be strengthened. In addition, the seat also plays an important role in teacher and student rest and conversation. What's more, it is necessary to create atmosphere. In the process of teaching buildings and in the creation of humanized places, it is necessary to analyze the different functional and behavioral requirements of the space to ensure the creation of a space atmosphere. Finally, the principle of people-oriented is also important. It is necessary to strengthen the application of people-oriented in the design of teaching buildings to facilitate people-to-people communication. For example, the application of corridors in teaching buildings should be strengthened to create conditions for communication and rest between teachers and students.

B. Student dormitories

In the past design of colleges and universities, student dormitories have not received much attention. The reasons for this are mainly due to economic reasons and the psychological needs of students have not been taken seriously. At this stage, China's comprehensive strength is developing at an extremely rapid rate, and the psychological maturity of students is getting higher and higher. It is necessary to innovate the original dormitory design model. First, it should fit the needs of public and private. The analysis of young students is mainly due to group tendency and outlier tendency. Therefore, in the design process of student dormitory, students' behavior and psychological characteristics should be analyzed in depth to ensure that the design of different public and private spaces has significant differences and conforms to the needs of publicity and privacy. Second, it needs to create a space for interaction. First, it is important to strengthen the use of space such as roofs and verandas, and expand the functions of the former auxiliary parts without increasing the building area. The above space is not only reflected in terms of transportation

functions, but also brings great convenience to student interaction and rest. Therefore, in terms of design, the light and width of the corridor should be analyzed in depth, and the setting of the detention space should be strengthened so as to ensure that a good living environment can be formed. Second, it is important to strengthen the setting of the activity room. In the space for group activities and discussions, the activity room plays an important role and helps to improve the privacy of the bedroom. At the same time, as one of the social places, the activity room has played a good active role in the dormitory atmosphere, therefore, when designing, people should avoid serious interference.

In addition, in the design of the dormitory communication space, people need to pay attention to the flexibility of the plane to ensure that the accessibility of the communication space is fully reflected. In people's spontaneous behavior, communication plays an important role. If the difficulty of reaching the communication time is high, it is difficult to improve the efficiency of space use. Therefore, the accessibility of the communication space has played a decisive role in the occurrence of the communication space. Therefore, it is necessary to ensure the flexibility of the layout during the layout process. Some dormitories have communication spaces, but the corridors are relatively long and it is difficult to reflect the accessibility. Therefore, the analysis should be based on the overall perspective, and the trade-off between open and semi-open should be ensured to ensure that the accessibility of the communication space can be steadily improved.

VI. CONCLUSION

In short, in the process of continuous development of colleges and universities, the design of communication space and environment is crucial. It can not only create a good campus environment, but also create convenient conditions for the communication between students and students, and between teachers and students, and create a unique college communication atmosphere. The notice centrally integrates the external space environment design of the campus building and the internal space environment design of the campus building to provide favorable support and guarantee for the communication space and environmental design of colleges and universities.

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