Environmental design strategies for integrating campus culture with students’ emotional needs

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Abstract: In recent years, with the increasing attention and investment of Chinese governments at all levels to education, China's campus culture construction is facing new development opportunities. Taking the indoor and outdoor environmental design of Wuhan Jingkai foreign language school as the main research object, this paper explores the theoretical basis, practical exploration and effectiveness of campus culture from the perspective of students' emotional needs, and reflects on the construction of campus culture in environmental design. In view of the lack of comradeship and connotation in the environmental design of campus culture, this paper takes "based on students' emotional needs" as the core, and tries to create a campus cultural environment in which students have a more sense of belonging and campus recognition.

Key words: Environmental design; Campus culture; Landscape design; Interior design.

1. Introduction

1.1 Current status of campus culture development

From a cultural perspective, campus culture is the sum of all the material and spiritual wealth created by the creators of campus culture in their long-term practice of campus life. In terms of the nature of campus culture, the essence of campus culture is.

First, campus culture is the materialized form of campus spirit and campus will. By campus spirit and campus will, we mean the overall consciousness and grasp of the world shared by the members of a school and a campus.

Secondly, campus culture shows an advanced and exploratory quality in the form of multiple constructs. On the other hand, it often takes the group image of certain “leaders” as the construction target, and then takes the philosophy of campus culture, the politics of campus culture, the economics of campus culture, and the art of campus culture as the common development object. This constitutes an overall situation of campus cultural studies.

Thirdly, campus culture is an intensive culture, which is different from other areas of society, such as the diversity of urban culture, the simplicity and permanence of rural culture, and the utilitarianism of corporate culture. On the contrary, campus culture often has an idealistic color. Of course, in recent years, the phenomenon of "lost" campus culture has appeared in many colleges and universities in China, which should draw our attention. Another important reason for the intensive nature of campus culture is that it is the result of the strong cultural synthesis ability of the main body of campus culture. In the process of creating their own culture, campus cultural subjects often do not take the transfer of established traditional cultural forms as a means, but pursue a high degree of integration and intensification of forms. Therefore, the culture they create is highly refined.

Fourth, campus culture has innovative content. That is, a high degree of combination of material culture and spiritual culture. From the historical performance of campus culture, the material form of campus culture is still secondary, while the spiritual form of campus culture is often regarded as a sacred thing. For example, we do not pursue utilitarianism but morality, sentiment and character, and we do not pursue the details of realism but the overall atmosphere. The stroll in the woods, the reading competition, and the power of individuality are the main themes of campus culture.

As an important part of "cultural confidence" in the "four self-confidence", scholars have been very enthusiastic about the development of campus culture and the construction of campus culture. In recent years, scholars have focused more on the ideological and political education of campus culture, and primary and secondary school students may resist the suspension of campus culture in the midst of their intense studies. Some scholars increase the media for disseminating campus culture, for example, by starting from the construction of visual images of campus culture.

Starting from the campus environment, building and developing campus culture is undoubtedly a more gentle way. Let students implicitly accept campus culture in their daily learning, combine it with local special school-based curriculum in different regions, build campus environment, increase the recognition of different regions
and schools, give students a greater sense of belonging, combine the emotional needs of primary and secondary school students, and let campus culture flourish in a pleasant and warm environment.

1.2 Students’ ideal needs for campus culture building

With the focus on the behavioral and psychological changes of students and teachers in the campus public landscape environment, we explore the design methods of landscape facilities that contribute to physical and mental health. By analyzing the current situation of campus public landscape facilities, and with the design principles of emphasizing environmental services and manifesting campus culture, the design content and application methods that meet the physical and mental needs of teachers and students, enhance user experience, and promote positive psychology are summarized and improved from the aspects of color, form, material, and size of facilities, so as to effectively expand the design perspective and value dimension of campus public landscape facilities and promote the humanization of campus environment. This will effectively expand the design perspective and value dimension of campus public landscape facilities and promote the construction and development of campus environment.

Although campus public landscape facilities are not as large and bright as buildings, they are an important carrier to shape the campus environment and improve the service quality of the place, and the purpose is to facilitate the learning and living of teachers and students. Therefore, we should follow the principle of "people-oriented", pay attention to the behavioral and psychological needs of the audience, and use public facilities with regional characteristics, emotional characteristics and easy to approach to serve the campus landscape environment, which can not only enrich the daily life, study, work and leisure activities of teachers and students and meet their basic functional needs, but also stimulate their positive emotions and immerse them in a joyful, lively and friendly campus atmosphere. It effectively creates and spreads the campus characteristic culture and academic atmosphere, improves the teaching quality of the school, and promotes the good development of teachers and students' physical and mental health and humanistic literacy.

Public landscape facilities have become the main focus of creating a high-quality campus environment. The design should facilitate the daily learning, communication and working behavioral needs of students and faculty, while refining the categories and tendencies of the required service functions. At the same time, on the basis of respecting the characteristics of the region and the characteristics of the place, we pay attention to the aesthetic psychology and the communication of campus culture, pay attention to the emotional state of the audience in the process, and care for them in time to continuously improve the effect of user experience.

Today, due to the increased emphasis on education, there is an increasing demand for campus environments. As an important place for teachers and students to learn, think, research, and communicate, the quality of the campus environment is also influencing the establishment of their mindset. The venue for professional learning and innovative thinking is not only limited to the classroom, but also needs to be integrated into the environment outside the classroom. Therefore, the design of campus public landscape facilities should keep pace with the times, optimize the layout of the existing land on campus, and use the environment to promote communication and cultural integration between teachers and students through the development and reuse of the stock of land. By making use of different colors, forms, structures, materials and sizes, the public landscape facilities should be improved so as to regulate and guide the behavior of teachers and students.

2. Analysis of the concept of campus cultural environment construction

2.1 Wuhan Jingkai Foreign Language School Location Analysis

The most important feature of Wuhan Foreign Language School's campus culture is the "culture of international exchange and cooperation", which is also the purpose and characteristic of the school. Wuhan Foreign Language School has worked with many schools in many cities, including the United Kingdom, the United States, and Australia, to create various classrooms, programs, and institutions. Not only bring international culture into the classroom, but also bring Chinese culture to the world. Wuhan Economic Development Foreign School is a key project of Wuhan Economic Development Zone, which is an important initiative of Chendu to accelerate the development of education and retain high-quality talents with high-quality education. The project covers an area of 182 mu, with a new construction area of 13,800 square meters, including teaching buildings, comprehensive buildings, dormitories, cafeterias, wind and rain playgrounds, lecture halls, underground garages and bleachers and other sub-projects. The whole campus of Jingkai Foreign School adopts European-style architecture and boldly explores the use of information technology engineering in the new situation, which will build the first 5G school in Hubei Province. Parents of students can order food on the cell phone app and make private orders for their children. After students sit in the dining room, robots can automatically bring meals to them. Wuhan Jingkai Foreign School, as the first step in the group development of Wuhan Foreign Language Experimental School, will realize the integration of elementary school, middle school, high school and international department.

The school uses a global vision to run the school and an international vision to educate people, exploring the talent cultivation model in which the top innovative talents and excellent foreign language talents go hand in hand. With the philosophy of "Virtue, New Thinking, and Knowledge", we will provide "real education" to the satisfaction of the people! Let every child experience the joy of growth, let every teacher enjoy the happiness of
education, and let every parent reap the fruits of education. We strive to cultivate students with a patriotic heart, benevolent virtues, elite aspirations, wise insights, and healthy bodies, so that they can become global citizens with future international competitiveness.

2.2 Environmental design concept of Wuhan Jingkai Foreign Language School

The environment of Wuhan Jingkai Foreign Language School is designed mainly from the following points. First, true education: seeking true knowledge, transmitting true feelings, exchanging true hearts, and raising true people.

Second, family culture: keep a quiet heart home, run a warm little family, and dedicate to a great country.

Third, internationalization: perceive the world and embrace the future.

In terms of family culture, it revolves around the heart family: keep a quiet heart home; small family: run a warm small family; country: dedicate a great country. The three aspects are shaped, and the educational essence contained in the fables is extracted from them, and the "truth, goodness and beauty" in them are spread out through the philosophy of the stories, so called true education, and the true value of education is found. The combination of fables and narrative space design techniques stimulates students' imagination and enables them to think about themselves when they drink water, to start from their hearts, and then to keep a peaceful home.

In order to avoid the homogenization of campus environment vignettes, designers must dig into the characteristics of the campus and find the most representative theme elements based on an in-depth understanding of the campus culture. In the process of designing and developing campus environmental vignettes, designers can design excellent environmental vignettes by organically combining campus characteristic patterns and shapes with environmental functions, and reasonably show the cultural symbolism behind campus environmental vignettes. Campus environmental vignettes can be used as memorial places with campus cultural characteristics for filming, thereby gaining recognition from visitors, teachers and students; they can also be environmental facilities with certain practicality, such as public seats, trash bins, street lights, etc., to deepen people's understanding of campus culture. This plays an important role in improving the overall quality of campus environment and enhancing the inheritance of campus culture.

When designing campus interiors, designers should optimize the design concept, adopt modern design models, and incorporate regional culture into different aspects of campus interior design. First of all, in the process of designing the campus interior environment, designers should adopt the design concept of keeping up with the times according to the current school style and campus construction needs, and combine natural and artificial beauty to design a campus environment that can meet the aesthetic needs of teachers and students. At the same time, designers should enrich the shape of the campus interior environment and integrate the school-based characteristics, traditional Chinese culture and the surrounding buildings within the limited space in order to fully demonstrate the unique artistic beauty of the campus environment. In addition, designers can appropriately draw on traditional Chinese garden architecture design methods to highlight the regional cultural characteristics of the campus environment. For example, designers can appropriately draw on the design concept of Suzhou garden architecture and highlight their own design features according to the characteristics of the region, so as to enhance the artistic effect of the campus landscape.

In the campus green landscape construction, designers should follow the principle of natural staggering, dig deep into the artistic value of the original landscape and strengthen the understanding of local history and culture, so that the final designed campus green landscape can have its own characteristics and advantages. In addition, designers should also focus on the creation of spatial landscape, taking into account the needs of teachers and students for the use of green space and ornamental needs. For example, in terms of greening technology, designers should make reasonable use of different resources to highlight the characteristics of regional culture and campus culture and create a good leisure space for teachers and students.

3. Campus cultural environment design program application

3.1 Application of campus culture in interior design

Students are the main experience and users of the interior of the campus environment, and the cultural concepts and values contained therein will gradually penetrate into their daily lives, thus achieving cultural inheritance. Therefore, designers should focus on meeting students' daily needs and aesthetic psychological needs when designing campus environment objects, so as to subconsciously spread campus culture.

Interior design is a very important part of the built environment, which is set among the natural and artificial environments and takes up the most time in daily life. It has a strong use function and can also meet the aesthetic needs of teachers and students. Campus interior environment can not only improve the quality of learning, working and living of teachers and students, but also make people unconsciously experience the special charm of public art in campus environment. The construction level of campus interior design environment has an important influence on improving the quality of students' campus life and is also an important reflection of the clear image and culture of the campus, as the construction time of some new campuses of universities is not long. Designers start from field research, use design vision to find problems and analyze them, and design campus interior environment through scientific design methods and design concepts, which is conducive to promoting the harmony and unity of campus interior environment, campus outdoor environment and the people who use it.
The design plan of Wuhan Jingkai Foreign Language School is divided into five parts: comprehensive building, high school, elementary school, storm playground, and cafeteria.

3.1.1 Complex Building

On the exterior wall of the piano room in the complex, an interactive music wall is set up, with musical instruments capable of emitting musical tones and resonating with sound. The shape is designed to imitate the musical form of the guitar minor pentatonic scale, each circle represents the note point of the guitar, and when rotated and opened is a brief introduction of the type of the instrument. When the rotation, accompanied by the musical sound of the instrument. This not only increases the interactivity, but also makes students feel the joy of "playing" in it. The interactive vinyl wall allows students to communicate audibly through music. By tapping, students can play their favorite music and create a creative interactive space for them. Music and emotions have the same essence, tension and relaxation, anticipation and change. Emotions are a reaction and expression to the physical embodiment of these elements in life. Therefore, the design will be different colors of music records to give the corresponding mood music, or sad, or happy, or upset. When students are approaching, the sound of music comes slowly, using music to relax and soothe the mood. (Fig. 1)

Albert Einstein said, "Interest is the best teacher of learning". So when we develop children's sense of music rhythm, we must first stimulate their interest in music activities. In creating the campus environment, we might as well pick some decorations about musical instruments, so that children can feel the inculcation of music all the time. The design elements in the middle of the wall are represented by classical music, and the figurative classical musical instrument elements enrich the wall shape.

3.1.2 Wind and rain playground

At the bottom of the cultural wall at the entrance of the wind and rain playground is a photo wall reserved for Wuhan Jingkai Foreign School to show the sports style and Olympic spirit of the students, echoing the "Ode to Sports" above.

The photo wall is made of acrylic panels, with a double layer of acrylic panels in the green part of the warp, where photos can be placed, and a single layer of acrylic panels in the transparent part, which is used to paste text descriptions of the photos. The purpose of this design is to facilitate the pasting and replacement of photos, and through the green hue of the warp to attract people to stop and look. (Fig. 2)

The "Ode to Sport" was written at the Fifth Olympic Games in Stockholm in 1912 by Kubitan, internationally known as the "Father of the Olympics", and published under the French and German names of Holroyd and Eichebach. According to the interpretation of Hungarian Mezzo, member of the IOC, this name implies that even countries like France and Germany, which have a long-standing feud, can get along with each other in the Olympic family by improving mutual understanding.

The sports star science wall is distributed on both sides of the entrance: divided into Chinese sports star science and foreign sports star science, with a timeline as a clue to introduce each sports star respectively. Then the ribbon of Jingkai Green will link these together, conveying the determination to pass on the glory of sports.

Sports are important to students, not only because they strengthen the body, but because they are a sporting competition steeped in the light of cooperation and trust, both in individual and collective sports, which require athletes and people - opponents, teammates, coaches, referees, spectators - to interact intensely, to collaborate and compete.

The Olympic Games is the highest stage of sports competition, the field of every athlete's dream. In the Olympic Games, each individual and collective, representing their country and nation, go forward. For China, the significance of the Olympic Games is very significant. When Xu Haifeng got the first gold medal in 1984 Los Angeles Olympic Games, China came into the ranks of the world power, and generations of athletes have...
been competing for the country, and the names behind the gold medals are worth remembering. There are 4 staircases inside the Stormy Playground with the number of steps 56, 56, 54 and 54, for a total of 220 steps. From 1984-2016 Olympics, China won 227 gold medals, so the name plates of gold medalists can completely cover all the stairs. The stair surface of each stair is slowly transitioning from blue to red, of which there are five colors. The color of each stair surface corresponds to the gold medalist nameplate. (Fig. 3)

3.1.3 High School Program

The calligraphy classroom in the Upper School is designed around the symbolic art of calligraphy, which is based on Chinese characters and written with a brush. Chinese calligraphy embodies the fundamental law of "unity of opposites" in all things, as well as the spirit, knowledge, temperament and cultivation of different people. The first thing to learn about calligraphy is the strokes, the organization of the lines, the changes in the beginning and end of the strokes, and the meaning of the brush. As a unique national art form, both the theory and practice of calligraphy have been influenced by "nature" and are based on it. Therefore, by summarizing the artistic characteristics of calligraphy and using strokes and natural elements to showcase ten famous Chinese calligraphers, teachers and students will gain a better understanding of Chinese calligraphy. (Fig. 4)

3.2 Integration of campus culture and students’ emotional needs

With the focus on the behavioral and psychological changes of students in the campus public indoor environment, we explore the design methods of indoor environmental facilities that contribute to physical and mental health. By analyzing the current situation of campus public environmental facilities, the design principles of environmental services and campus culture are emphasized, and the design contents and application methods that meet the physical and mental needs of students and teachers, enhance user experience, and promote positive psychology are summarized and improved from the aspects of color, form, material, and size of facilities, so as to effectively expand the design perspective and value dimensions of campus public environmental facilities and promote the humanization of campus environment. This will effectively expand the design perspective and value dimension of campus public facilities, and promote the construction and development of humanized campus environment.

Although campus public facilities are not as large and bright as buildings, they are an important carrier to shape the campus environment and improve the service quality of the place. Therefore, we should follow the principle of "people-oriented", pay attention to the behavioral and psychological needs of the audience, and use public environmental facilities with regional characteristics, emotional characteristics and easy to approach to serve the campus indoor environment, which not only can enrich the daily life, study, work and leisure activities of teachers and students and meet their basic functional needs, but also can stimulate their positive emotions and immerse them in a joyful, lively and friendly campus atmosphere. It effectively creates and spreads the campus characteristic culture and academic atmosphere, improves the quality of school teaching, and promotes the good development of teachers and students’ physical and mental health and humanistic literacy.

Many campus indoor environment designs in China refer to the planning concepts of Western countries such as Europe and the United States, and the homogenization phenomenon is serious, that is, only focusing on the direct presentation of visual effects, ignoring the integration of campus emotions, which on the one hand leads to campus public indoor environment facilities do not reflect the differences in behavior and psychology of teachers and students, and the scope of communication activities of
teachers and students is relatively limited; on the other hand, it is difficult for teachers and students to have emotional resonance when they are in contact with public environment facilities, and they are far away from each other. On the other hand, it is difficult for students and faculty to have emotional resonance when they come into contact with public facilities, and they are far away from each other emotionally, which is not conducive to shaping the academic character of students and faculty and building the campus culture and emotion.

Schools are places where quality talents are cultivated for society, and among them, public environment facilities are closer to teachers and students. A good design of campus public environment can enhance students' participation and sense of belonging to the campus by meeting functional and formal needs while taking into account the role of nurturing people. If the design of public environment facilities ignores the spiritual symbolism and educational functions, it will be difficult to implicitly promote the immersion of students and teachers in the campus culture, resulting in the lack of campus identity and sense of belonging, which is not conducive to the overall growth of talents and value building.

By recognizing and perceiving colors, people generate associations and feelings, which are fed back to the brain to form conscious behavior. This process is very rapid, and it can be said that color is the element that can give the fastest results, make judgments and influence emotions under the visual senses, and is the most direct emotional language to communicate with people's hearts. Therefore, when designing campus public environment facilities, we should reasonably match the colors according to their psychological directionality and cultural symbolism to form a unified color hierarchy. Based on the fact that color emotion corresponds to human visual senses, and considering that human visual experience is not single, the richness of color is very important for sensory response. Harmonious, steady and bright color combinations can better gain the favor and recognition of users in the vibrant campus environment, making the audience happy and happy to communicate.

Campus environment has its pure and beautiful spatial characteristics and cultural impressions, and the design of campus public interior environment is closely related to the life of teachers and students, which is an important indicator of the overall strength of the school. Therefore, the visual image and morphological structure of campus public indoor environment facilities should be in line with the characteristics of campus environment, i.e. fresh, simple and simple, instead of focusing too much on the transient attention and noise when using them, as in the case of commercial public space design. The morphological structure of the campus public indoor environment facilities should be abstracted to refine the campus culture, and use creative design techniques to integrate the commonality of use and psychological personality of teachers and students in specific functional occasions, so that they can become symbols that teachers and students like to see, and precisely and conveniently shape the cultural quality of the campus environment.

By viewing and touching the material texture of the campus public indoor environment facilities, users can immediately form the intuitive impression and feeling of the physical senses. The emotional factor generated by this feedback will greatly guide the behavioral response of users, judge the quality of products, and decide whether they are safe, hygienic and comfortable. Therefore, the choice and combination of materials need to meet the physiological needs and psychological expectations of students and teachers for the campus public indoor environment. For example, metal and stone can be used at the main support structure, and more natural and soft materials, such as wood and plastic, can be used at the parts in close contact with people. Of course, there are some emerging composite materials that can take into account the above characteristics and can be used in the integrated design innovation of campus public indoor environment facilities. Their accurate use can guarantee the stability and safety of the facilities, and convey the sense of temperature and closeness to users.

Campus public environment facilities need to be designed according to the characteristics of different audiences, with a pleasant size ratio for perfecting the details of product use, while ensuring practicality. Public environments should fully measure the relationship between function and form, and meet the demand for form on the premise of function, with an aesthetic shape that meets ergonomic requirements. For example, in the case of campus public lounge seating design, the campus attributes and the distribution of student age groups are taken as the main reference criteria. If the school is a high school or university, the students' physical functional characteristics are close to the adult standard, the height of the seat, sitting surface, chair waist and other interfaces, structural size design to the average height of young people as a benchmark value; if the school is a junior high school, it is necessary to consider the differences in the degree of student growth and development, diversified size, proportional combination; if the school is a kindergarten or elementary school, the size and proportion of rest seats can not be copied. If the school is a kindergarten or primary school, the size and proportion of the rest seat cannot be designed according to the size of the university or secondary school, and the combination of the form interface and structure will also change to be more inclined to the active needs and habits of children. A single formalism can no longer meet the needs of all colleges and universities. The design of public landscape facilities should consider the needs of as many different users as possible, and coordinate functionalism and formalism. But in any case, the design purpose is to make the audience feel comfortable, respect and care from the dimensional proportion level inadvertently when using, so as to create a sense of closeness with the product.

4. Summary

Today, the integration of campus culture into the campus environment has become a development trend. As a silent art language, campus culture is in dialogue with the campus environment and communicates with teachers and
students. Excellent design works that integrate campus culture with the campus environment not only enrich students' aesthetic sensibilities and enhance their taste, but also purify their hearts and minds and make them identify and resonate with the campus culture. The creators should grasp the characteristics of the functional area of campus public space environment and the unique campus culture, closely follow the campus culture to explore the thematic symbols, and use the appropriate media materials to create the space atmosphere, so as to add bricks to the practice of campus installation art design application.

References


