

Conceptual Design of Children's Hospital Landscape based on Children's Psychological Needs--A Case Study of Children's Hospital in the Qian Southeast Prefecture of Guizhou Province

Qin Li ^a, Lan Wei ^b

Chongqing Technology and Business University, Chongqing 400067, China

^ahylgd2004@126.com, ^b4453189@qq.com

Abstract

Landscape design, road system, zoning design, plant design and other aspects were described. The case study was from the children's Hospital was from the qian southeast prefecture of guizhou province. Due to children difference from different diseases and hospitals outside environment, the design of landscape design, landscape planning and design need to consider the different psychological characteristics of children in order to carry out a more humane landscape design.

Keywords

Children's Psychological Needs, Children's Hospital Environment, Landscape Design.

1. Introduction

In present, people pay more and more attention to the better medical environment. The better hospital environment was beneficial to the patient's tension, so that patients approved the hospital with the concept. And the confidence was gained to cure the disease. That was beneficial to relieve pressure for family members of patients and cure the patients. Especially for the children group, children's perception was very sensitive about the external environment. The external landscape environment in the children's hospitals needed to pay attention to eliminating the fear of children during treatment. The landscape design should consider the interesting and sensual, which could effectively transfer the child's attention. The children's hospital landscape design was also particularly important due to the above description.

Children's hospitals serve mainly children who were under 14 years of age with health problems. The outdoor landscape design should take into account the special physiological, psychological and behavioral characteristics of the clients. From these perspectives, we should strive to promote children's health and create a favorable outdoor environment conducive for the recovery of sick children. Learning from the type of landscape, natural and beautiful environment. Therefore, the main service for the hospital population (children) psychological analysis, which was a very important step for children's hospital outdoor landscape design. The different age groups and different diseases children needed different psychological needs of the outdoor environment.

The children less than two years old cannot be independent activities. Their activities were generally guided only by their parents, or they lied in a baby carriage, or they were guided in the open space toddler. The period was the main period of identification things and marking things. During this period, they began to understand the outdoor landscape and identify colors. They began to form a certain selectivity, preference complex, unique shape, bright colors and other objects. The environmental requirements should have sufficient sunshine, open field of vision, and separation of relatively independent space.

At the 2-7 years of age, the children had the curiosity. And they liked observing and measuring and recognizing the things of space and the world. In the period, the logical thinking ability of children developed rapidly. In this period of children, they liked sports and probe, but their activities were weak. They needed to help with parents during their activity. The first element in landscape design

was safety, the second was the functionality, openness, theme, and activity facilities, and can be a collective multi-player.

At the 7-14 years of age: the children could be independent activities, they liked their own activities, and the time which was accompanied by parents also gradually reduced. They began to like the various outdoor sports. During this period, children had already gone to the school. They began to master a certain amount of knowledge. Their thought ability and activity had been strengthened. The freshness of the outdoor landscape things had begun to transform into a strong desire to explore things. And they hoped to find in reality consistent with his knowledge or consistent with the contrary to the place. Landscape design need not fancy, not binding, not mutually exclusive, you can learn and feel easily.

In addition to considering the psychological impact of age on the environment of the hospital environment, for common diseases, such as cold children, the outdoor environment should not be too tight, relatively needed more ventilated environment, and adequate sunlight to prevent cross-infection. Especially in outdoor environments, safety and convenience should be considered, such as the use of wheelchairs. For patients with mental illness, in the environmental space the patients may have to set a relatively private space. The need focused on color guidance. Similarly, children's hospital in the outdoor space could not ignore the activities of adults. Parents of the task were to take care of the activities of children here. Especially young children may have small rallies. In these adult caregivers, they also had older people. Elderly people would need handrails and resting facilities due to mobility problems. In addition, the medical staff was also the hospital outdoor activities, one of the main service personnel. In the workplace, the busy work made its requirements for the outdoor environment may be more comfortable, so that in the busy work there was a comfortable time to relax. In the space requirements, the space combined with the main design.

Qian southeast Children's Hospital project was the 2014 state project which was funded by the central budget for investment and construction projects in the Guizhou province. Guizhou southeast people's hospital, a subsidiary of the hospital, was the first southeast Guizhou children's hospital. The project was located in Guizhou Kaili economic development zone. It covered an area of 100 acres. The total construction area of 33,200 square meters was a total investment of about 133 million yuan. The service object was to the newest town and village under the age of 14 mainly children.

2. The Design Concept

According to the analysis of regional environment and humanities, the main inhabitants in the region were mainly constituted by the Miao people. So the culture of Miao people was also one of the main considerations for the landscape design. Miao people was the best embodiment of Miao people culture. Bronze drum was also the main representative of the Miao people culture. So the design of the main combination of Miao people bronze drum shape was taken as a square pavement design, building with the cultural environment of Miao people. Among the circular things were seen very sacred. So the landscape design was also dominated by round. In addition, the use of sculpture showed cultural characteristics.

The design was people-oriented, natural and consistent. And the integration of convalescent hospital environment was created. According to the current planning and design of the block in the road and building layout, the foundation was from the export layout and flat terrain. In the design of children in the landscape, the Miao people played landscape sketches and the cartoon sculpture shape. As the main landscape range from the 2 years of age, 2-7 years old to the 7-14 years old children as the main service of three different square crowd. In order to plant configuration, it should create a fusion of Miao people culture characteristics and rehabilitation theme of children rehabilitation garden.

3. Landscape structure

The landscape structure was composed of one axis and four main pairs. The four circular plaza was taken as the main landscape node. These secondary landscape nodes were cooperated with each other. The rehabilitation garden was the most important landscape design node.

One axis was the main landscape axis of the landscape structure. It was connected with the main axis of the landscape nodes. Four main pairs mainly referred to the four circular plaza. The entrance square was the starting point of the hospital landscape design, the three circular plazas had different functions of different ages and different square landscape. It was also an important aspect of the design. For the other landscape, a number of subsidiary landscape nodes also was made through design.

4. Road System

The main function of the road in the hospital was to meet the daily traffic, ambulance traffic, as well as hospital public service facilities and medical freight transport needs. People and vehicles diversion ensured the smooth flow of traffic and traffic safety.

4.1 Car system

The design of a trunk road met the fire requirements. The road with cement pavement and deciduous trees planted formed tree-lined roadside green. In the east and north directions with two car entrances, it was facilitated the entry of vehicles. At the same time, the road trunk road formed a loop with two on-site parking lots to facilitate vehicle parking.

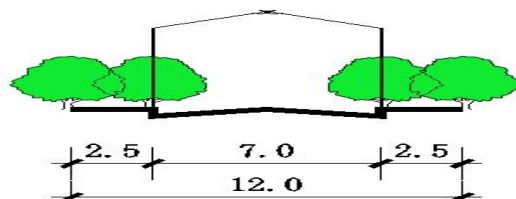


Figure 1 Road cross-sectional map

4.2 Walking System

In the north of the hospital, a pedestrian main entrance was set up. In four sub-districts it was set up for a landscape path. With 1.5-2 meters. Landscape walking road was not set up steps. Slope design should be reasonable. Its function was to contact the green area. And it also was the patient walk, leisure and garden. Pavement with interesting patterns, rich texture and guidance, the road should be anti-skid treatment. Ensuring the safety of children. The material should not be too tough and not slip.

4.3 Square

The main entrance of the northern entrance was placed the entrance plaza. The sculpture and the entrance of water features not only increased the square facade effect, but also reflected the space arts of the living culture. In addition, there were three main shapes of the landscape node shape. With different ages of children as the main distinction, it was created different space. Square pavement was interesting, and was also anti-skid.

5. The district design

According to the landscape layout and design requirements, the first overall was designed to form a unique landscape. The overall composition with three circular plaza and the entrance plaza was taken as the main node. The overall design for the square block of circular was streamlined with graphical landscape. The landscape was made as a whole of the main curve. Overall landscape design of four seasons with landscape, full of green and harmonious was surrounded by the environment.



Figure 2 The Overall Plan of Qian Southeast Children's Hospital

5.1 Entrance plaza werea

Entrance werea of the landscape was very concwase. The entrance was set up as a semi-circular shape concwase and clear andsqwere. Both sides of the entrance was planted by the ginkgo tree array. The main entrance squwere set the name of the entrance of the hospital landscape flower beds, sculpture and water features. It was planted with low shrubs and then to the grass. The main entrance in the north and the west side of a corridor, take a level of cultivation, so that the landscape change in unity, to provide people waiting for the place. In addition, the western entrance was near the white horse avenue side of the ecological parking lot, which provided convenience.

5.2 Treatment werea

Landscape design node plused the internal courtyard building atrium landscape. Central dry spray squwere was taked as the main landscape node. The squwere had Gallery, as well as a pavilion. In the south of the squwere there was a small irregular garden. Outpatient building atrium landscape, the hospital outpatient hall reserved oval central courtyard. The core viewing space was also important ventilation and lighting werea. For the design of the first atrium landscape, the middle of a water desig and rockery water was taked as the main support. Seats were located in the surrounding werea.

5.3 Convalescent werea

The main landscape design in the rehabilitation werea was in the rehabilitation of the garden design. There were two circular squweres, which were divided into three parts. The first part was a playground with children's playground. The south had a set of various miao people culture and cartoon statue can enter the lawn. Children can enter Play. Its main service was targeted for children 2-7 years of age. The second part was a bamboo garden and the third part of the flower garden squwere. The quiet environment was set up a different seat with a different use. Its main service targete were the children aged 7-14 years, which was mainly in private and semi-private space-based.

5.4 Logwastics accommodation werea

The indoor courtyard of the logwastic lodging werea was a fun and lewasure space in the hospital. The main service group was the medical and logwastic staff. It wwa also the indoor supplement natural light. Landscape settings and landscape stone created a natural plant configuration. The seating werea was provided around the room.

6. Plant design

Plant selection in the plant was reasonable and plant localization. The main choice of trees were elm, acacia, camphor, platanus, ginkgo, cedar, sweet-scented osmanthus, magnolia, cherry, palm tree, palm leaf, Huangshan Koelreuteria, shrubs gardenia, bloom, Nantian bamboo, azalea Jasmine grass, leafy blue, Houuttuynia, etc. Grass flowers had onion blue, Zoysia japonica, Ophiopogon japonicus, white clover, etc. Children's Hospital of Guizhou Province was more frequent activities in the main wereas to avoid toxic thorns, excessive pollen. Children may cause harm to the plant.

7. Landscape sketch configuration

7.1 Functional essay configuration

The configuration and selection of landscape sketch should be fully considered and combined with the characteristics of children themselves. Material and color coordination with the formation of vivid, clear and interesting features attracted children's attention. So that children in their physical meted children's activities and communication needs. The combination of equipment was the main body. The use of glass fiber reinforced plastic diversified shapes. The glass fiberbecomed the focus of environmental landscape.

Rest facilities included open-air seats, benches. The rest of the external environment of the hospital facilities mainly provided double, multi-person seat in the rehabilitation of the garden. The children's play werea featuring seats should be environmental coordination. In the open-air seat, seat material selection of wood stone was focused on the unity of landscape and viewing.

7.2 Ornamental essay configuration

The children sculpture and lighting system, like animals, cartoon image-based, and railings, handrails, barge, light box was combinated as design.

Road on both sides of the street lights should be used as the main lighting. For saving unnecessary expenses, the landscape nodes considered the overall landscape vwasual effects. Lighting class set lawn lights, squwere lights, landscape lights, etc. Ensureing that the hospital internal lighting, the internal lighting effects of the building was taked into account. The design of cartoon statues and national characteristics of the statue accounted for a large part of the cartoon statue mainly set the children's rehabilitation garden location. Considering the fun and the diversity of color, the national cultural statues mainly set in the various landscape nodes rockery location and the need to place position.

8. Conclusion

By analyzing the actual cases of environmental landscape of qian southeast children's hospital, the landscape characteristics of children's psychological characteristics in different age structures were summarized in the aspects of design concept. The landscape structure, road system, zoning design and plant design was used to design more children's physical and psychological needs of children's hospital landscape.

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