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Research on the Child-oriented Design for Community Libraries

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Abstract. Based on the reading behavior and reading psychology of children as well as the varying preferences among different ages, and with some references to the cases and the status quo of public libraries in China and the United States, a community library has been designed in this article. For the appearance, animal shapes are widely used in the design. The space is divided into different zones for different age groups. Dynamic zones are the main part of the design, which makes the space more open for communication and activities, in order to meet different needs and create a community library that really serves children. With an environment like this, the atmosphere will thus be enhanced for children's independent reading.

1. Introduction

Reading is the link of knowledge spreading and cultural communication, and also an important method for learning and mind purification. With the change of the times, books still play an important role in child development now in this information age. For children, reading is the beginning of their literature life, the formative education of art, and their cognition and experience of life and the world.

Reading has to be in a certain environment. If you want children to love reading, you have to make them love the atmosphere of reading before they read. Therefore, a space for children communication and education has to be created, and a reading place with good environment, facilities and services has to be designed.

In recent years, China has strongly pursued nationwide reading, and the government and society pay more and more attention to children's cultural life, as children are the future of the country. Some public reading zones have appeared in bookstores, which provides good places for children to read. However, those places are usually located in commercial districts where mainly provide services for adults. The spatial design and the size of facilities there are also not suitable for children. Children may also be dangerous when going out. Those are the problems that must be conquered. But how? A child-oriented community library will give a perfect solution.

2. Public library and community library

Public library is an important place for public service and knowledge spreading. It is the modern public reading space. Although started late, Chinese public libraries are continuously improving with belief of reading. The United States has a mature experience in public libraries, and is the first to establish legislation for public libraries. Community library is a branch of the public library system. It has not only the same functions with public library, but also unique charms making it appropriate for communities.[1]



2.1 Public library and community library in the United States

The United States is an early country with better results in developing public libraries. With its distinctive features, American public library works so well that has become a model of all public libraries across the globe. Public library is popular among American people for its free admission to public space and excellent services.[2]

Philanthropists and civil leaders first set up public libraries for those who wanted to read but couldn't afford to buy books. Through borrowing books, readers who were once just strangers could become close friends. The function of American public libraries can be defined as the English word "free", freedom, and free admission.

Community library is a huge part of the American public library system. American community library has formed the most mature system. A community library takes the important role as a center of entertainment, communication and education.

2.2 Public libraries and community libraries in China

The development of public library in China can be divided into three periods: the public libraries in the late 19th century, the Imperial Library of Peking during the Republican period, and the national public library system since the founding of People's Republic of China.

Public libraries in China are unevenly distributed across the nation, since most of them are located in cities. The number of public libraries in the major cities in the east is far beyond that in the west of China. For site selection, libraries are usually located near schools or government agencies, or in the commercial districts. However, such locations could only serve the upper class people.[3,4]

3. Child-oriented service

In recent years, children reading has appeared on stage. Children's libraries take a huge part of community libraries. Despite reading as the basic function for library, it is more important to give children the chance to discuss, to love reading, and for their lifelong learning.

3.1 Child-oriented service in the United States

Children's library has a long history of over 200 years in the United States, and almost every community has a children's library for children to read and learn. But even in the United States, children under 14 years old were not allowed to enter libraries, for they could make too much noise and disturb the quiet environment in libraries. However, with the change of times, Americans have realized that children could be easier to become a talented person if they receive education early. After over a century of development, children's libraries in the United States have developed a creative system of their exclusive collections, space, services and collaborative networks.[5]

First, exclusive collections. A good collection of books in a children's library is determined by the requirement of children. To meet children's requirement, the books should be fun, easy to read, and with intellectual features. In that way, children could be attracted to read, and also learn some knowledge. Another important point is to meet their interest. Children under 12 years old usually like fairy tales and craft books, while those over 12 years old may more likely to choose novels and comic books. All in all, the collection should be diversified and abundant.

Second, exclusive space. The spatial design of the building, the layout, and its ornaments should accord with children's mind. A children's library should break the traditional method of space layout. Inflexible segmentation of space has been prevented in order to increase service area. A large, open and bright reading space would be there welcoming the little readers. Color, safety and practicality should also be concerned in the indoor design. For example, wall paintings with full of children's favorite elements, ergonomic design of little tables and chairs and low shelves for children.....Through the bright, colorful and enthusiastic design of the library, a lovely reading environment will thus be created for children.

Third, exclusive service. The biggest feature of services in the United States is its targeted service. Children are diversified into different age groups. New methods and contents are continuously invented in terms of different preferences of different age groups. Activities within certain age groups

are also attached great importance. For example, storytelling and parent-child reading for infants, and homework assistance and summer reading for school kids.

Finally, collaborative networks. Libraries should keep in touch with schools, parents and communities, and thus form a quaternary system, so that the service will be extended. American libraries pay much attention to the double development both online and offline: online resources for children, and offline activities in the reading area. The Internet platform can be a supplementary resource for children's library.

Service is the first step of the work for library. The child-oriented service focuses on reading with joy, and cultivate children's interest in reading. The American concept of child-oriented service follows the mind of children and attracts children to library in their own will. That's the real service for children.

3.2 Child-oriented service in China

Children reading has become one of the hottest topics. In China, child-oriented service has taken its shape, but is still behind America. There are plenty of shortcomings in forms, contents and ability. Chinese libraries mainly focus on its facilities, but there are just few libraries that particularly provide service for children. The current situation of child-oriented libraries in China can be described as "strong in the south but weak in the north, and rapid in the east while slow in the west".

China has borrowed the five basic elements in child-oriented service from that in the United States, although not that perfect.

First, exclusive collections. There are rich collections in Chinese libraries. They are almost perfect in both quantity and quality. China does the best in library collection among these five elements.

Second, exclusive space. The indoor spatial designs of children's libraries are basically the same with libraries for adults. Their spatial plan, colors and functions cannot satisfy child readers. Normal libraries usually appear serious and solemn, which is just the opposite with those active children. It's not good for children's development.

Third, exclusive service. Not so many services are available in Chinese libraries. However, children are usually not attracted by a single book loan service, which results in a low visitor number in the library. Chinese children usually start reading at the age of 4, which is earlier than those in western countries. So many parents pay attention to their children's early reading and choose some random boring books for them. To deal with that, library stuffs should act as directors, and give suggestions for parents so as to get children interested and cultivate their correct habits for reading.

Finally, collaborative networks. Partners of Chinese libraries are different from those of American libraries. They cooperate with those agencies and organizations devoted in education for children such as local education bureau and the Communist Youth League. So they care much for the disadvantaged groups, which is another feature of Chinese libraries.[6]

4. Design practice for child-oriented community library

This project is located in a community in Tianjin, China. Directions for the design are set in terms of the analysis of age groups in the community. Based on the child-oriented service, children are divided into preschool children and school children.

The design should be based on different needs from different groups of readers. Besides designs of reading area for the elderly, accessible reading area, open reading area, semi-private reading area, discussion area for book clubs, family activity area, exchange area for child books, lecture hall, offices, front desk, warehouses and toilets..... detail design should also be attached great importance to.

4.1 Design principles

First, space. Too much inflexible segmentation of space may lead to psychological stress in children's mind. Based on the playful nature of children, some space should be designed as discussion areas, so that they won't disturb other readers and also give children a place to express themselves.

Second, color. Children have a strong ability to feel the change of colors, so the emotional effect of

colors on children has to be concerned. It's better to choose some coordinated and vivid colors.

Third, environment. Children usually read for fun, so children's interest is a chief concern. Ergonomic facility for children is another important concern. Through obvious signs, lovely decorations and mini-sized facilities applicable to children, a welcoming atmosphere for reading will be created.

Fourth, safety. Just like banknotes, books in libraries that are frequently touched by readers may contain bacteria. Children are liable to diseases, so disinfection cabinets for regular sterilizations are necessary in libraries in order to prevent infectious diseases from books. Furthermore, children's libraries may experience peak periods of readers during weekends and holidays, so a restricted number of readers could be set because places with large crowds of people may easily to spread respiratory diseases. Preventive works are necessary.

Fifth, extended services. For communities without children's library, on-site services can be provided nearby especially in schools, residential areas and streets. Organizing various forms of activities is also a good idea. For example, through reading illustration books with their parents, children can learn about skills and methods in reading. Activities like that help strengthen the love between parents and kids, and they will have fun in reading.

4.2 Project analysis

Based on the preference of local residents, the source of inspiration comes from the shape of snail. There are two floors in the library. Floor one is for main activities in the library, while Floor Two works as the space dedicated to cultivate children's interest. (See Figure 1 and 2)

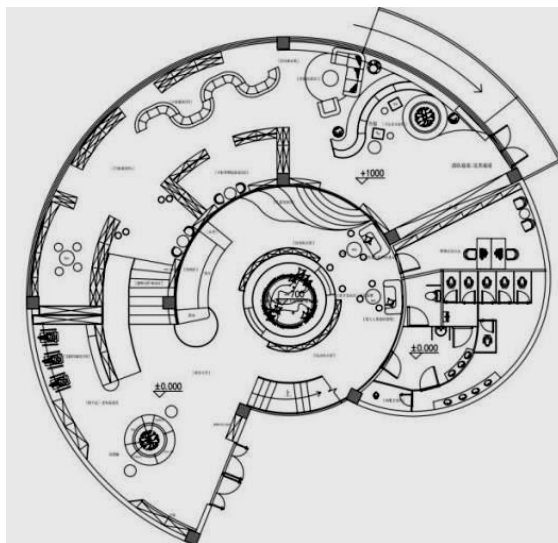


Figure 1. Plan of Floor 1

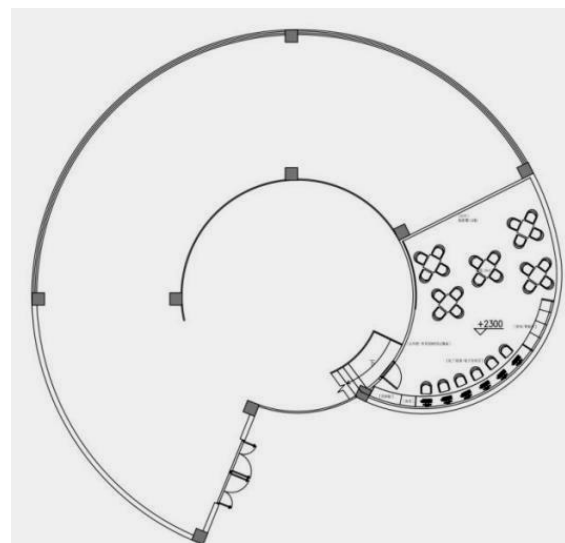


Figure 2. Plan of Floor 2

Preschool children are mostly between 2 to 5 years old. Forms of entertainment can be used to improve children's reading. The space are mainly designed as dynamic zones. (See Figure 3) The sunken space in the plan brings a sense of multi-levels, and also conforms to children's difficulty in concentration. Children may choose anywhere they like for reading thanks to the wooden floor with carpets on it, and family activities are also welcomed. Animal-shaped shelves work as an attraction to children, so that they will be interested in books, then love reading. According to children's preference on high color intensity, natural color is mainly used with some beige, yellow, orange and blue as decorations. Warm colors can greatly attract children's attention. (See Figure 4)

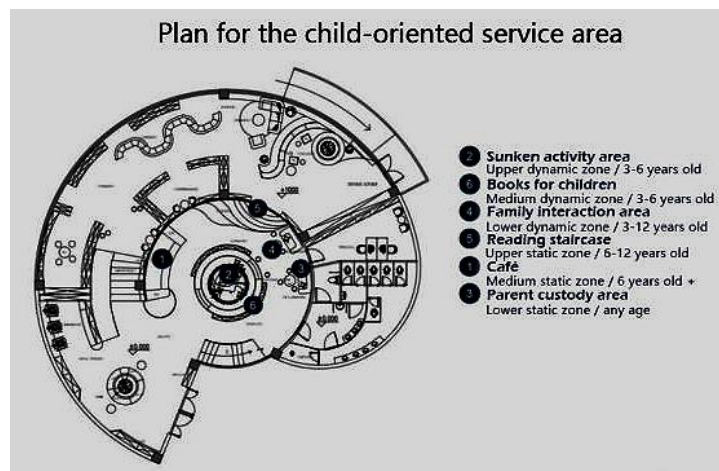


Figure 3. Plan for the children's reading area



Figure 4. Sunken Activity Area

The functions of school children area and preschool children area are quite different for their varied age groups and requirements for space. Obviously, two different kinds of reading area have been designed: a relatively open one and a relatively private one. (See Figure 5)

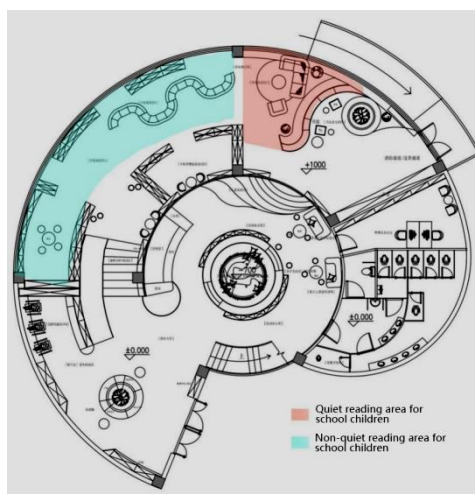


Figure 5. Quiet and non-quiet reading areas for school children



Figure 6. Open reading space for school children

Tall bookshelves made from acoustic materials separate the school children area from noisy preschool children, which is the solution to their requirement for individual privacy. They are able to learn, do their homework and discuss there. (See Figure 6)

5. Conclusion

For the safety of kids, streamlined design has been applied to the project. Fewer inflexible segments in the large space of library encourage the creativity of children. Diversified colors with high color intensity can attract children and make them interested. Sufficient lighting creates a bright environment for children to read. Ergonomic facilities in the library are fitted for children. Private space for independent learning and semi-private space for group discussion will satisfy both. Low saturation colors in school children area create a quiet environment for learning.

Besides the environment created through design, the effort of library staffs is also important for attracting children to read and cultivating their reading habits. Staffs should direct children to learn, and give them suggestions of right books to read. Community library should also regularly organize events like family activities, book reviews and promotions for latest books, to attract more children to start reading and love reading at an early age.

The service for children's library should focus on both readers and services, in order to provide child-oriented service and to satisfy children's requirements as much as possible.

References

- [1] Z.hu dan,Community Library; *Overview, Evaluation and reflection.Library research*,12(2010)
- [2] M.ei hong,*Individualized Service of American Community Library based on user demand orientation,Library research*,86(2015)
- [3] W.u zhi nan,F.eng jia,*Public Library in Modern Public Culture Service system,Journal of Chinese Library*,41(2015)
- [4] W.ang zi zhou,,*The rise and Development of Public Reading Space in China,Library and information knowledge*,02(2017)
- [5] X.u huan,,*Study on the Establishment of Public Reading Space and the Development of Modern Library in China,Library construction*,01(2010)
- [6] H.uang man li,,*Research on the Service Innovation of Children's Library readers,Science and Technology and economy in Inner Mongolia*,18(2014)