Practical Research on Micro-renewal of Old Communities from the Perspective of Ecological Art and Environmental Conservation

Fan Zhou
Shanghai Art & Design Academy

Keywords: Ecology; Sustainability; Art; Community Practice

Abstract: In the late 1980s, forms of ecological art began to appear in Britain, and then gradually expanded into a combination with community movements. Especially after the climate change conference in Copenhagen in 2009, the world began to pay attention to the development of ecological art. In the past two years, due to the aggravation of urban climate change and pollution, people have begun to pay attention to the ecological design of low-impact development and flexible design. This study takes the small environment transformation of Fudan community in Shanghai as an opportunity, and hopes to establish a mutual linkage among various communities, so as to form a "green network" system. Besides, it applies the concept of ecological art to test the utilization and effectiveness of ecological design and designed resident activities within the region. Finally, we can improve the ecological function of green space of the existing community, improve the service efficiency of its ecological art and the health of the landscape.

1. Introduction to Community Background

In the process of urban development, according to the stage and basic needs of economic development, Shanghai has built many communities with 6-storey buildings as the main body. This type of community is expected to provide a plain community that facilitates life and provides common living space for people in the same working environment. This kind of building adopts the most common lattice layout. The community green space is mainly concentrated around the building, and lacks the central green space.

Fudan community is located in Hongkou District, Shanghai, and most of the residents have high cultural level and are engaged in education industry. Thus, the community needs to have the corresponding cultural and artistic characteristics. In contrast, the community green space before transformation only has the function of planting, but lacks the artistic appreciation and residents' participation. The core of Fudan community lies in its activity center, where people (mainly retired teachers and children) have great time for communication and activities every day. Thus, the community hopes to optimize the ecology of the community through this transformation, so that it has more educational significance for children, and that the elderly can participate in more activities in contact with nature, so as to improve the health of the community.

In the process of construction of community ecological art, it should break through the existing ways of being built by the builders, viewed by users and only with viewing functions. Community belongs to everyone who lives here, and community building and construction should involve the extensive participation of community members. As a result, we should pay special attention to the community leadership of the transformation plan. In the process of passing the overall design plan, everyone provides design ideas in their own ways. In fact, before the implementation of the plan, many residents have already practiced "environmental protection" life - planting fruits and vegetables, building small structures with waste materials to provide places for children's activities, etc. Then, the design combines these elements to maximize people's autonomy.

2. Overview of Ecological Art Community

Influenced by the early urban development and construction, especially the industry-based urban development and early urban form, the functions of residential community and other related arts,
education, etc. are almost isolated. With the acceleration of economic and social development and the continuous change of urban form, people's pursuit of the life quality is increasing. They are no longer satisfied with the current situation, and hope to get a better material and spiritual life.

From the perspective of modern medicine, all human life functions including movement, experience, emotions and organs are unified by the brain to become a complete organism \textsuperscript{1}. Hansmann et al. also proposed that environmental quality and experience are positively correlated with human emotions and mood \textsuperscript{2}. In the process of urban ecology, western countries are also promoting the "Biotope Area Factor" (BAF), giving various land surface forms an "ecological effective weight", so as to quantify health of environment \textsuperscript{3}.

Ashihara Yoshinobu also pointed out that the city is too big and messy, and for people living in the city, they need a rather quiet and private space in the community \textsuperscript{4}. What we should emphasize in community renewal includes easy maintenance, ecological rehabilitation, purification of rainwater, provision of leisure and education, a sense of community, and a relationship between man and nature \textsuperscript{5}. From the perspective of the development of community forms at home and abroad, the functions of landscape green spaces are becoming more and more diverse, and the interaction between people and landscapes is also constantly increasing. However, our community, especially the newly built residential area, increasingly emphasizes the comfort of the landscape environment, but ignores the community cohesion between people. A lot of modern design also makes our city lose its own context, and we cannot lose context and regional spirit for the cost of living comfort. In the community, the context, symbols and marks of the city should be completely preserved, so as to provide a foundation for the inheritance of the city.

3. Practice of Ecological Art Community

As a part of the city, the BAF value of urban community is relatively low. The main areas of Fudan community are about 65% for residential use, 7% for traffic, 4% for public and 24% for recreation. Based on the current situation of the community, residents pay more attention to the environment, hope to have more "sustainable" designs related to the environment, and increase the artistry of designs. Based on the current situation of the community, the design principles are determined as follows:

1) Lenong plan: Under the premise of existing green space, residents can participate in planting various crops. Although the area is limited and it is impossible to provide residents with the supply of fruits and vegetables, it can provide urban children with the opportunity to contact crops and give them a clearer understanding of food. In the process of planting, we should give full play to the initiative of community residents. Through the form of volunteer guidance, more young people can participate in the process of “doing it yourself”. In addition, in the activity center, food activities are regularly held at the harvest time to enlarge the effect, so as to stimulate more people's interest.

2) Health, medicine and environment: The introduction of foreign planting species is no longer used in the design. Considering the symptoms of respiratory diseases and allergies caused by modern environmental pollution, we should select the the non allergenic medicinal and local planting resources and make the best use of the planting resources of the original communities. Then people can realize the importance of restoring a good environment to health by making them look at the environment.

3) Carbon reduction action: In the design and production, a large number of waste materials are used for secondary utilization. Except some infrastructure that must use new materials, the rest of them is mainly made of recycled or degradable materials. Young people should be encouraged to participate in the production of biological habitats from waste materials, and excellent works should be rewarded.

4) Art involvement in community: The forms of art are diverse. In order to get involved in the community and make the users feel artistry, art must be closely related to life. Art instructors, in particular, should not simply emphasize the artistry or act as referees, but should act as participants and offer more encouragement and advice to residents. By participating in community activities, we can find problems from these activities and find solutions in the local area. The activity design can
start from the rejection of plastic products, rubbish reduction, painted trash cans and other ways to attract more people to participate.

5) The context of the community: Just like a city, no matter how it changes, it always leaves the mark of history, which is the symbol of a city. Community is like a mini city, in which people's living habits, thoughts and behaviors will affect its development. Thus, transformation is only a short-term action. Designers, in particular, should not destroy the established habits of local residents in the process of transformation. The integration of ecology, art and life is just the purpose of design.

In the case of being unable to change the original BAF, the design should make full use of the original green area and give full play to the residents' autonomy to improve the health of the community environment.

4. Vision for Community Renewal

The sustainable development of ecology is the goal of all designers. In this process, it is no longer just the efforts of eco-engineering workers, but more artistic imagination and bold practice. From the micro-renewal of the community to the practice of ecological art, it is precisely because with the development of social economy, life needs more and more changes in the environment, and people begin to continuously pursue good things.

In the imaginary ecological art community, environmental conservation not only serves humans but serves the entire biosphere. The conservation environment of local planting is inserted in the community, and becomes a protective buffer between the community and the city. The biodiversity protection within the community becomes a conservation center for species, and once each community forms such an ecologically sustainable biological chain in the city, the quality of the whole city can be improved.

Once the ecological renewal of the community is completed, an ecological community network can be formed, which can also solve the problem of rain and flood for the city. In this way, each community forms its own rainwater garden, which guides urban problems into available resources through reusing, and also provides a place for teenagers to learn ecology and experience nature.

5. Conclusion and Problems

At the United Nations Conference on environment and development in 1992, the issue of global climate change was discussed for the first time. In 2006, the "An Inconvenient Truth", which was explained by former US President Al Gore, raised a global carbon reduction campaign. At the moment, the contradiction between the development of our city and the environment is also becoming more and more clear. Taking this as an opportunity, in this community renewal—the practice of the ecological art community, we try to treat the community residents as the leading role, and guide the community renewal design with the combination of art, ecology and life.

In this trying, there must be problems, mainly as follows:

1) Since the world is now led by the culture of "market economy", residents' cognition and understanding of practical art is not enough, and the development process of activities is quite slow.

2) Any ecosystem has complexity, and the human behavior patterns tend to apply to simple things, which is easy to make the construction of ecological environment superficial.

3) The whole process of ecological art community practice is short. Without follow-up activities and the participation of residents, it will only become an ornamental view. Thus, this puts higher requirements on community managers. They should not only make the creation of ecological art an indispensable aid to the construction of ecological community, but also make its sustainable development an inexhaustible source for the creation of ecological art. Only by making carbon reduction action and artistic creation become spontaneous activities of community residents, can the value of ecological art community transformation be truly reflected.
The attempt of the design only provides ideas and suggestions for community renewal. It is hoped that more innovations and attempts can be made in the practice of ecological art community to make the city more special and provide more comfortable environment for residents.

References


