

## Research and Design of Functional Mixed Community: A Model Based on the Construction of New Districts in China

**Authors :** Wu Chao

**Abstract :** The urban design of the new district in China is different from other existing cities at the city planning level, including Beijing, Shanghai, Guangzhou, etc. And the urban problems of these super-cities are same as many big cities around the world. The goal of the new district construction plan is to enable people to live comfortably, to improve the well-being of residents, and to create a way of life different from that of other urban communities. To avoid the emergence of the super community, the idea of "decentralization" is taken as the overall planning idea, and the function and form of each community are set up with a homogeneous allocation of resources so that the community can grow naturally. Similar to the growth of vines in nature, each community groups are independent and connected through roads, with clear community boundaries that limit their unlimited expansion. With a community contained 20,000 people as a case, the community is a mixture for living, production, office, entertainment, and other functions. Based on the development of the Internet, to create more space for public use, and can use data to allocate resources in real time. And this kind of shared space is the main part of the activity space in the community. At the same time, the transformation of spatial function can be determined by the usage feedback of all kinds of existing space, and the use of space can be changed by the changing data. Take the residential unit as the basic building function mass, take the lower three to four floors of the building as the main flexible space for use, distribute functions such as entertainment, service, office, etc. For the upper living space, set up a small amount of indoor and outdoor activity space, also used as shared space. The transformable space of the bottom layer is evenly distributed, combined with the walking space connected the community, the service and entertainment network can be formed in the whole community, and can be used in most of the community space. With the basic residential unit as the replicable module, the design of the other residential units runs through the idea of decentralization and the concept of the vine community, and the various units are reasonably combined. At the same time, a small number of office buildings are added to meet the special office needs. The new functional mixed community can change many problems of the present city in the future construction, at the same time, it can keep its vitality through the adjustment function of the Internet.

**Keywords :** decentralization, mixed functional community, shared space, spatial usage data

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