

Chapter 3

A Research of Ecological Farmhouse Design Based on the Sustainable Development Needs

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ABSTRACT

To summarize the problems and needs of the current rural life, identify the pathway that suits the sustainable development of rural areas, and propose the design concept and method that meet the current rural ecological design requirements. Use the organized research approaches. This chapter makes a case study of Nanma Village, provides the theoretical and design practice reference for the rural sustainable development in China, and establishes the knowledge and methodology system that meets the requirements of rural sustainable development. This chapter proposes the design concept and method in line with the current requirements of rural ecological design, suggests that the current village design should be adapted to “local conditions,” and indicates that the harmonious development between human and environment will be a new possible direction for the rural sustainable development and design in future.

1. INTRODUCTION

1.1 Research Origins

Thanks to the efforts made over three decades since the adoption of reform and opening up policy, China has become the world's second largest economy, but China's development is unbalanced. The past course of its development focuses on “mega cities” instead of “small villages”. This is supposed to be one of the reasons why the urban development is faster than that of the rural development. The progress and trend of design industry centers on urban life in respect of design practice or philosophy, even modern

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products are commonplace in villages, but is there any real village design? Village design is obviously a tribe that has been forgotten by the design community.

Now the reality is that the social harmony and stability will not be possible without the rural sustainable development (Wen & Zhang, 2011). Mr. Liang Shuming said, “rural construction means the construction of the whole Chinese society rather than building villages, like a campaign of building a new organization for the reconstruction of national society (Pan, Zhang, & Zhong, 2014)”. Following the 18th CPC National Congress and the third plenary session of the 18th CPC Central Committee, the coordinated development of urban and rural areas is prioritized, and the village design has been put on agenda by colleges and institutions.

Despite the gratifying results achieved in the coordinated urban and rural development and the booming of rural economy, all kinds of conflicts and problems exposed in the course of the high-speed coordinated urban and rural development of most villages cannot be concealed. Obvious conflicts and problems include substantial deterioration of living environment, outdated public facilities, fading traditional culture, and obstructed sustainable development.

The need for sustainable development in rural areas constitutes a part of the sustainable development of the whole society. Village design should meet the needs of contemporaries without affecting the ability of the next generations to meet their own needs. The sustainable development underlines the virtuous cycle of the whole society and the economic growth of the human society. The sustainable development of rural areas underlines the urban development and the sustained utilization of resources. Since the availability of resources per capita is not sufficient and the ecological environment foundation is weak, the only way to getting out of dilemma and achieving the harmonious development is to carry out the study of village design based on the sustainable development needs.

1.2 Research Overview

Since the Industrial Revolution, especially from the World WarII, the economic and social conditions of rural areas in European and American countries have drastically changed, and there are conventions specifically for the village construction and design. Earlier in the 1920s -30s, village was introduced to the academic world as an academic notion. Due to the particular social and cultural background and the course of socio-economic development in European and American countries, the study of village design has a long history and cultural tradition. Japan and South Korea as Asian countries have accumulated some experience in the practice of village design and construction. Since the 1970s, Japan has launched the “top-down” village building campaign (Yang, 2007), which not only allows for the self-improvement and development of village, but also achieves the sustainable development needs of village without consuming a large amount of energy and financial appropriations.

With a view to the problems of Chinese villages, Mao Zedong, Yan Yangchu, Liang Shuming, and Chiang Ching-kuo and other important observers and experimenters once engaged in some practices on village problems from different dimensions, at different levels and with different values. This indicates that village problems have been in existence for a hundred years. From the field research at Zouping County and Dingxian County by Liang Shuming and Yan Yangchu in the 1930s, to the exploration on “Southern Jiangsu Model” represented by Fei Xiaotong from the 1980s, a number of scholars have put forward many innovative strategies from the perspective of society, culture or economy.

From the thought of “coordinated urban and rural development” put forward in the report of the “Sixteenth National Congress of CPC” in 2002, to the strategy of “rural areas rejuvenation” proposed

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