

Research on landscape pattern characteristics and ecological adaptability of rural settlements in low mountain and hilly regions of Chongqing

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Abstract: This paper takes the traditional rural settlements in low mountain and hilly regions of Chongqing as the research object, analyzes its agricultural ecological value system from the perspective of landscape pattern characteristics and ecological adaptability, and discusses its enlightenment to the planning and construction of human settlements in modern villages. Studies have found that the landscape pattern of rural settlements in Chongqing's hilly landforms is characterized with "trees, fields, ponds, and houses" and the spatial pattern with "distribution around Chongtian". The "pond-Chongtian-pond" water ecosystem driven by the potential energy of the height difference also provides a guarantee for the ecological environment of this region. In terms of adapting to topography, natural resources, climate and disasters, traditional rural settlements also demonstrate good ecological adaptability. This traditional rural settlement model has important implications for the construction of modernized villages, including scientific and reasonable site selection, following ecological laws, making full use of agricultural wisdom, and highlighting the local characteristics of rural areas.

Key words: Hilly landform in Chongqing, rural settlements, landscape pattern, ecological adaptability, agricultural ecological value

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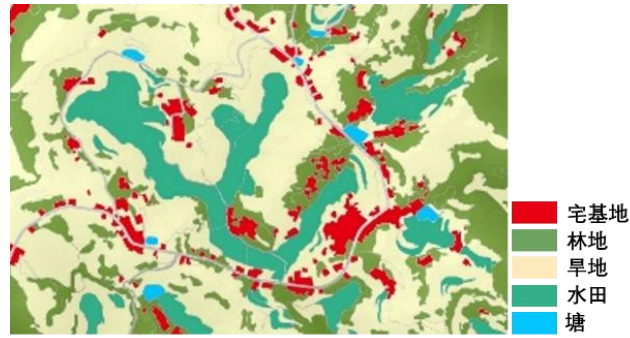


Photo 1: Distribution map of human settlement environment land for “trees, fields, ponds, and houses”



Photo 2: Typical Pond-Chongtian Landform: Duzhu Village, Zhong County, Chongqing City



Photo 3: Pattern diagram of settlement space pattern of “distribution around Chongtian”

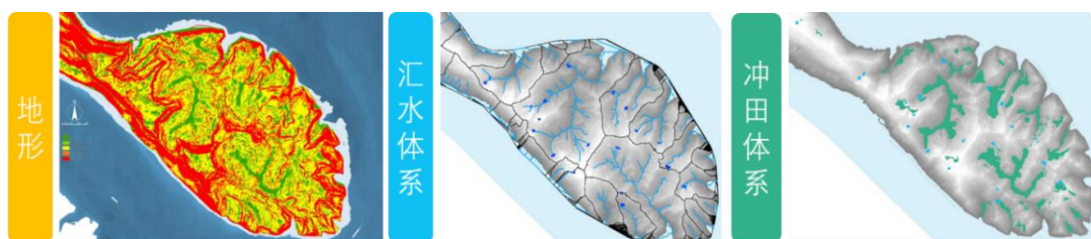


Photo 4: Comparison of the relationship among topography, catchment system and Chongtian system



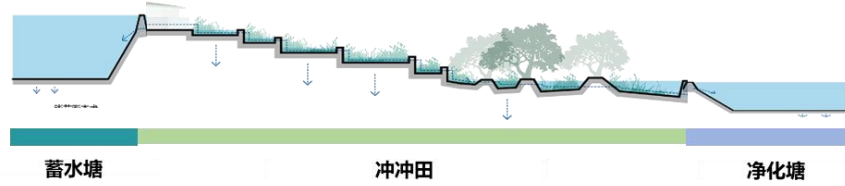


Photo 5: Vertical distribution diagram of “pond-Chongtian-pond” system

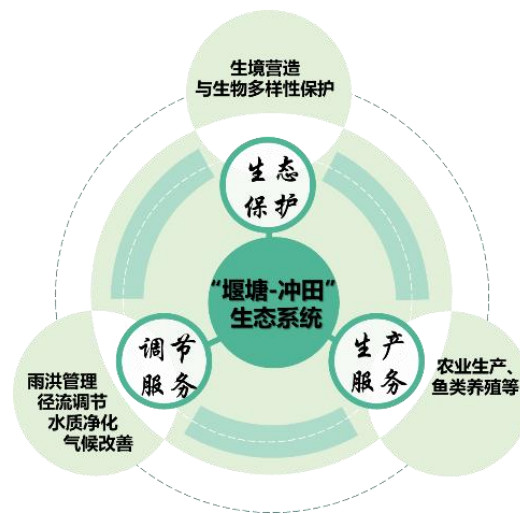


Photo 6: Structural diagram of the agricultural ecological value system of traditional rural settlements in the hilly landform of Chongqing



