

The Enlightenment of the Ventilation System in Chinese Traditional Residence to Architecture Design

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Abstract : Nowadays, China's building energy consumption constitutes 25% of the total energy consumption, half of which was caused by air conditioning in both summer and winter. The ventilation system in Chinese traditional residence, which is totally passive and environmentally friendly, works effectively to create comfortable indoor environment. The research on the ventilation system in Chinese traditional residence can provide advancements to architecture design and energy savings to the society. Through field investigation, case analysis, strategy proposing and other methods, it comes out that the location and layout, the structure system and the design of atrium are the most important elements for a good ventilation system. Taking every factor into consideration, techniques are deployed extensively such as the organization of draught, the design of the thermal pressure ventilation system and the application of modern materials. With the enlightenment of the ventilation system in Chinese traditional residence, we can take effective measures to achieve low energy consumption and sustainable architecture.

Keywords : ventilation system, chinese traditional residence, energy consumption, sustainable architecture

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