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ABSTRACT

The worldwide phenomenon of climate change and global warming has had impacts on nature, animals and human life. Finding appropriate responses and adaptations are increasingly urgent. Vernacular architecture is well known as a typical example of energy saving and environmentally friendly design. Moreover, it also reflects cultural identity and social context of the location where it was built. The principal purpose of this study is to investigate the underlying climate responsive strategies of vernacular housing design on the aspect of building physics. The research process includes in-situ survey, analysis, and summarization. Some studies in passive design in the architecture field, as well as vernacular architecture, have been used as references. The result of the research can increase our understanding of applying passive design in modern housing.

This paper presents a qualitative evaluation of factors that impact on microclimate conditions in vernacular houses in Hoi An - a coastal city in Central Vietnam. The results of this study indicate that vernacular housing in Hoi An is creatively adapted to the local natural conditions and uses various climate responsive strategies. Also, the most frequently used strategies and their effectiveness were derived.