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## The inherent thermal comfort provision in mud houses could be regarded as climate responsive vernacular practice of village Mawna at Gazipur district, Bangladesh

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The study is aimed to analyze the thermo climate analysis in different mud houses of village Mawna at Gazipur district near the capital city of Dhaka. For case studies, four different mud houses were selected while thermal comfort has constituted the results of the paper. A micro-climatic survey technique was used to simulate the temperature comfort level for inhabitants while human interaction with surface-atmosphere in the rural environment was considered meticulously. By using the thermal comfort indexes like PMV (predicted mean vote) and MRT (mean radiant temperature) of previous theoretical assumptions, it has revealed that the thermal comfort of mud house displays the PMV values are close to a comfortable level; surely better than any dwelling units in the city. This analysis of thermal comfort and the wind flow also showed how influential was the local environment to incorporate the climatic responsiveness of such architectural feature. To realize the core idea for thermal controlling through the approach of traditional technique, the whole construction process and the spatial quality of mud architecture was reevaluated to find out which decisions had driven the local wisdom for the material selection and space organization in this way. For this, an elaborate literature review has been done to learn and figure out the possible role of architects or other building professionals on the further development of indigenous techniques and include these outcomes in academic curriculum.

### Biography

Sayed Ahmed is a practicing Architect, Academician and Social Activist. He studied Architecture from the first Science and Technology University of that country, SUST, Sylhet. He is now a Lecturer in the Department of Architecture, Bangladesh University, Dhaka; where he conducts art appreciation courses, design classes and seminars and researches as a free Scholar. He specializes in cultural studies, philosophy of art and architectural history. He has published articles on architecture and art in several journals around the globe which includes countries like India, China, UK, USA, Australia, Nigeria and Indonesia. His recent study is published from Australia about the Maxims of Khona and its impact over vernacular architectural practice in Bangladesh.

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