

VERNACULAR PRACTICES: AN APPRAISAL FOR SUSTAINABILITY FOR HOUSING IN UTTARAKHAND AND HIMACHAL PRADESH, INDIA

Karthik Chadalavada & Dr. Ramesh Srikonda

^{1*} Assistant Professor, Department of Architecture, School of Planning & Architecture, Vijayawada, Andhra Pradesh, India

² Professor, Department of Architecture, School of Planning & Architecture, Vijayawada, Andhra Pradesh, India

ABSTRACT

Quality of environment is the basic requirement to achieve sustainable development. The problem of degrading environmental conditions and increasing pressure on land due to the numerous multi-storeyed buildings constructed using contemporary materials and techniques in hill settlements has become a critical concern in India. These settlements are undergoing rapid urbanization and are witnessing environment degradation in the form of climate change, ecological change, loss of vegetation cover, natural drainage pattern change, increase in surface runoff, reduction in recharging of the water table, increase in slope failures, increase in soil erosion and pollution which not only affects the town but also the surrounding regions, the urban environment, the development patterns, existing buildings, open spaces, and infrastructures. Despite the advantages of vernacular practices, they are often not applied in contemporary development. The increasing demand for more space due to population growth and rapid development in construction practices has resulted in the extinction of these architectural practices and hence questions the sustainability of these settlements. This paper explores the vernacular practices of Uttarakhand and Himachal Pradesh, focusing on the traditional knowledge of materials, construction techniques, community involvement, and settlement planning. The significant features in these regions like, structural detailing and materials used in Koti Banal, Kath-Kuni, Mud Wall Structures, and Dry-Stone Structures are considered for the study. Further, there is an investigation of the modifications that have happened over the years in these practices with respect to morphology and materials through a case study of Kumaon and Garhwal regions in Uttarakhand, and, Shimla and Hamirpur in Himachal Pradesh. The paper draws an inference on the existing vernacular practices and modifications required for better planning and designing of settlements at settlement level, cluster level, and site-level that will promote vernacular practices and environmentally friendly development of ecologically fragile hill towns.

KEYWORDS: Construction Techniques, Environment, Hill Settlement, Sustainable Development, Vernacular Practices

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