Hand made houses for ex-Kamaiyas: a pattern language for the production of low-cost self-help housing in western Terai regions of Nepal

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Kamaiya is a system of Nepalese agriculture bonded labor. In typical wage labor, one can enter or withdraw from the labor market as an independent agent; in the case of bonded labor, however, a worker cannot control his or her labor power. The Kamaiyas were liberated by the Nepalese government in 2000, and promised land to build houses. Without enough money for construction, however, many of these “ex-Kamaiyas,” as they are now called, are without housing or live in sub-standard units.

This thesis examines the housing possibilities for the ex-Kamaiyas and aims at creating basic guidelines for planning and designing low-cost, self-help housing. The thesis is an attempt to design affordable and environmentally responsive housing that draws on Nepalese vernacular traditions but incorporates some modern materials and construction methods. The research and designs are based on interviews with ex-Kamaiyas living in the Nepalese villages of Tesanpur, Janatanagar, and Bhuri Gaun. The thesis serves as a guide for non-profit organizations working to provide housing for the ex-Kamaiyas and consists of guidelines, termed “design patterns,” for laying out ex-Kamaiya neighborhoods and for designing and constructing individual houses. The thesis also provides step-by-step construction guidelines for building the houses. The thesis’s last chapter evaluates the proposed housing system and identifies strengths and weaknesses.

Keywords: Self-Help; Low-Cost; Housing; Ex-Kamaiyas

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The demand for low cost housing in urban areas has been critical since the 1960s, with relatively little efforts made to produce a sufficient supply. Although residential construction costs are extensively dependent on the choice of building materials, the dissemination of low cost alternatives has been very slow. 1.3 Aim. The main aim of the thesis is to analyse the slum upgrading situation in the Nairobi region, from a structural engineering perspective. Low-cost modular housing that can become a viable to not only homeless people but can also help cut down the cost of proposed infrastructure by optimizing resource utilization and minimizing cost. This paper also contributes to provide a novel solution to urban problem of systems and are produced on a large scale through mass production. This mass production technique employs assembly line industrial approach from factory to site, in order to form cost of construction. For optimizing cost and delivering low cost housing these modules can be produced on a large scale and as (Badir, Kadir, & Hashim, 2002) suggested that even though development and establishment of module fabrication industries may require large.