

**THE IMPACT OF EARTH TECHNOLOGIES ON THE PROVISION OF HOUSING TO  
THE URBAN POOR: THE CASE OF EAST AFRICA**

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**2006**

## Abstract

The shelter crisis in the developing world is indisputable. Housing stocks in towns and cities in the South, in particular, are under considerable pressure from rapid urbanization. This situation has been shown to be most critical with regard to low-cost housing. Consequently, a number of strategies have been discussed and attempted in order to assuage associated shelter problems. The foremost of these strategies has entailed, *inter alia*, research, development and demonstration of affordable, easily obtainable and easy-to-use materials for the design and construction of satisfactory low-cost housing. While documented research in this area shows promise, actual construction is somewhat dormant. The effects of earth as a material on city form and spatial quality, in particular, and urban design, in general, are not documented. It is these seemingly inherent discrepancies in earth construction for low-cost housing that the study herein explores. Man's use of earth construction for shelter is described by several protagonists as ubiquitous. Earth is, supposedly, a material that is accessible, versatile, easy to use, structurally satisfactory, and affordable the urban poor. It therefore, potentially, performs satisfactorily as a material employed to avail adequate shelter to the urban poor. This study uses case studies to comparatively assess the challenges, assumptions and successes of the use of earth in two variant East Africa contexts; Nairobi and Kampala. The general objectives of the study are to establish the contextual feasibility of earth as a material for low-cost housing in East Africa's towns and cities and to analyse the concomitant urban forms and their spatial qualities. The study finds several oversights that characterize the promotion of earth as a construction material. It explores usually disregarded but critically concatenated aspects of earth construction and subsequently reveals potent reasons for the discrepancies between research and implementation. It then makes

objective recommendations governing the use of material in residential projects in order to achieve quality urban design.