

MFM HRDU 1702

TECHNICAL STUDY NO 2

DWELLING UNITS IN PUBLIC LOW COST HOUSING

VOL 1: INTERIM ANALYSIS AND REPORT

Per Houlberg

Architect, Research Fellow

HRDU  
RUDC  
728.1  
HOU.

HOULBERG, Per  
Dwelling units in public low cost  
housing, vol. 1: interim analysis  
and report by Per Houlberg.  
HRDU, University of Nairobi, 1970.  
38p.

Acc. 83/3850 Unpublished monograph.

1. Shelter. 2. Low cost housing.

29

HRDU  
RUDC  
728.1  
HOU  
**HRDU**  
**RUDC**  
**728.1**  
HOU

HOUSING RESEARCH AND DEVELOPMENT UNIT  
FACULTY OF ARCHITECTURE DESIGN AND DEVELOPMENT  
UNIVERSITY OF NAIROBI  
P.O. BOX 30197, NAIROBI. TEL: 27441 - 315

1.00 INTRODUCTION

Republic of Kenya, Development plan 1970 - 74  
paragraph 19.7:

"The shortfall of up to 75000 urban dwellings a year has been met by individual families themselves, who has squatted on public and private land and built whatever poor form of shelter was within their means..... where even this was not possible, they have doubled up or tripled up with other families.

..... a partial survey in 1962 showed that in Nairobi some 100,000 persons were living in only 28,387 rooms, and two households out of every three had an occupancy rate of four or more persons per room. Overcrowding is now even more severe ....."

paragraph 19.22:

"The prime objective of government policy in housing is to move towards a situation where every family in Kenya will live in a decent home, whether privately built or state sponsored, which provides at least the basic standards of health, privacy and security."

1.01 GENERAL

The present shortage of dwellings may not be overcome within the life-span of the dwellings we build today. Low cost dwellings will be subject to overcrowding until enough dwellings are available, and it has become necessary to take this into consideration also in the detailed planning of the dwelling types, which are to be produced in larger and larger numbers.

Permanent dwellings, not likely to be renewed for 2 - 3 generations, should be able to be transformed from overcrowded dwellings, by need, profit motive or pressure from households relatives, into differentiated one family dwellings, as soon as the families have the wish and ability to do so.

A large part of the low cost dwellings built in Kenya in the last decennium are designed for the family situation only and do not cater for the extended family or for initial sharing by more households. Others seem to cater well for sharing but may, for other reasons not.

The possibility, as well as the urge, with regard to improvements, must be present to avoid the development of slums.

Before the time comes for large scale industrialized building in Kenya, standards must be developed to secure such possibilities.

1.02 OBJECTIVES

This study is based on a collection of 67 type drawings of low cost dwellings designed or sponsored by public bodies in Kenya in the period 1958-69.

It consists of two parts:

vol. 1: recordings (individual dwelling types in scale 1:100, with all relevant data.)

vol. 2: analysis

The objectives of the study are:

1. to investigate needs for future coordination in design of low cost dwelling types in Kenya,
2. to investigate needs for development of new dwelling types,
3. to identify design principles and details of value for future development of housing design standards, and
4. to identify existing prototypes and unofficial standards as a means of increasing the efficiency of further research.

### 1.03 SAMPLES

The samples of dwelling units compiled, can be said to represent the main stream in East African, publicly funded, permanent low cost housing: dwellings, mostly detached or semidetached, built in one storey, compensating lack of internal space by the use of the cheaper spaces outdoor, rectangular shaped or arranged around a courtyard and erected in what has become the second East African building tradition:

- i concrete block walls and foundation,
- ii cast concrete floor,
- iii roof or corrugated iron, aluminium or asbestos,
- iv wooden purlins on simple trusses or on loadbearing crosswalls,
- v windows with glass in standard steel frames or glass louvres,
- vi ledged, braced and battens doors, and
- vii kitchen fittings cast in concrete.

The sources for obtaining the samples were, for practical reasons, limited to:

- a) National Housing Corporation (N.H.C.), Kenya
- b) Ministry of Works (M.O.W.), Kenya
- c) East African Railways and Harbours (E.A.R.H.)
- f) Nairobi City Council (N.C.C.), and
- j) Menezes & Partners, Nairobi (commissioned by N.H.C. and N.C.C.)

From these sources we have taken whatever typedrawings and information were given to us.

Excluded from the samples are:

- 1) One roomed units without extension possibilities, as design of such units, since May 1969, are abandoned in Kenya.
- 2) Such units which, due to equipment and detailing, classify themselves far above the average.
- 3) A few examples involving untraditional building methods which, together with other, recent, examples are being compiled for a separate study.

Not excluded from the samples are such dwelling types, other than one roomed, which, because of the development of new types or for other reasons, are out of production today.