

Pearse, G.E. (1939)
'Preface' in *Native Housing*, Johannesburg: University of Witwatersrand Press. State Information Office, Government Printers, 1950-51.

SAIRR (1976)
A Survey of Race Relations in South Africa, Johannesburg: SAIRR.

Welsh, D. (1971)
'The Growth of Towns', in *The Oxford History of South Africa*, Vol. II, New York: Oxford University Press.

Wiedenhoeff, R. (1985)
Berlin's Housing Revolution: German Reform in the 1920's, Ann Arbor: UMF Research Press.

Wilkinson, P. (1983)
'Providing 'Adequate Shelter': The South African State and the Resolution of the African Urban Housing Crisis, 1948-1954', in D.C. Hindson (ed.), *Working Papers in Southern African Studies*, Vol. 3, Johannesburg: Ravan Press.

Union of South Africa, *Report of the Department of Native Affairs*, Pretoria: Government Printers.

UG 61/1951 Union Government, Department of Native Affairs (1959) *Report of the Department of Native Affairs for the Period 1st July 1954 to 31 December, 1957*, Pretoria: Government Printers.
- (1951) 'Native Policy in the Union of South Africa' No. 9: 36-61.
- *Report 1950-1951*, Pretoria: Government Printers, UG: 30/53.
- *Report 1951-1952*, Pretoria: Government Printers, UG: 48/55.
- *Report 1949-1950*, Pretoria: Government Printers, UG: 61-51, I and II.

Domiciliating Modern Architecture in Tanzania: the case of Ubungo National Housing Corporation Scheme in Dar es Salaam



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ABSTRACT

In Dar es Salaam, Tanzania, mass housing schemes were built under the influence of modern architecture. Design concepts were imported from abroad and extensively applied in spite of their lack of consideration for local dwelling cultures. Modernist architects expected that users of their buildings would adjust to the same by suppressing their individual tastes in favour of those of the masses. This paper addresses socio-economic and cultural aspects with respect to the reception, use and experience of modern architecture in the context of urban Tanzania, with particular reference to a study conducted at Ubungo National Housing Scheme for low-income earners in Dar es Salaam. The study employed an empirical survey of the scheme in which information on the use of space in relation to local conditions and dwellers' opinions was sought. It was established that local dwelling cultures inherent in low-income societies lead to appropriation of spaces in the housing scheme and immediate surroundings. Contrary to the modernist expectation to completely modify the users' living patterns, it emerged that people still continue to follow traditional ways of living while trying to adopt the modern ones.

INTRODUCTION

In Dar-es-Salaam, Tanzania's earliest capital and most densely inhabited city, a number of housing schemes for government institutions and private individuals were implemented following the 'dictates' of modern architecture. Architects, many of whom were trained abroad, imported design concepts that in turn, were extensively applied in spite of their lack of consideration for local dwelling cultures. They, for instance, ignored the extended family culture, and made no effort to accommodate such an expanded occupancy in their designs. As a result, new tenants often appropriate dwelling spaces to new uses in accordance to their dwelling and material culture. This appropriation often took various forms including, the remodelling of the interiors or physical extensions of the exterior spaces to increase the overall size of the dwelling unit. (Nguluma, 2003: 58-60). These modifications have led to certain consequences, such as overcrowding of functions in

one space, which would for instance; appear to be chaotic in the eyes of the modernist designers.

The above scenario calls for a re-assessment of the appropriateness of modernist principles to local dwelling cultures and patterns, especially in the context of Sub-Saharan Africa. This is the broad concern of this paper. It considers the increasing gap between architectural ideologies and design concepts as applied in architectural practice, and existing realities with regards to the patterns of space appropriation on one hand, and a clash between an economic phenomenon as observed in the lack of space and the way of living, on the other hand, in the context of Tanzania. The paper particularly highlights the interplay between these issues by exploring the way inhabitants use their housing units. By considering the present situation of Ubungo housing scheme in the city of Dar es Salaam, the study considers the extent to which architectural concepts and designs match local conditions including, physical characteristics, economic and social patterns, dwelling and material cultures, among other factors.

INSTITUTIONALIZING 'MODERN' HOUSING IN DAR ES SALAAM: A HISTORICAL PERSPECTIVE

During colonial period, the state provided housing basing on racial segregation in which Europeans were housed in luxurious residential areas in low-density plots, people from Asian origin in medium-density areas and the high-density residential areas were for Africans. It could be argued that zoning areas of residence according to race could be used as an instrument to facilitate control and surveillance over the marginalized African society as Luggala writes:

In several towns, it was quite unusual and, in fact, forbidden for Africans to wander aimlessly in designated European residential areas. Africans likely to be seen in these areas were house servants, gardeners, watchmen, golf-ball boys, and sometimes, cocktail waiters. ...Description of high, medium and low density areas were mere technical terms used in colonial urban planning in order to camouflage or conceal the terms 'African', 'Asian' and 'European'

housing whose application would seem to be more racist (Lugalla, 1995: 15).

While Tanzanian town planners and architects would argue that the planning process is not based on political or ideological inclination but rather on scientific analysis of urban needs and problems, the analysis of the post-colonial master plan of Dar es Salaam in 1968 seems to have perpetuated the ideological aspiration of the state (Lugalla, 1995:37). Planning for residential areas in Dar es Salaam seems to be a new version of the colonial legacy. At this juncture, income replaces racial segregation that the post-colonial state had declared to abolish. The low-density areas are occupied by the minority high-income class whereas the majority low-income class squeeze themselves in the so-called 'low standard' high density areas. Lugalla noted that medium density residential areas are enclaves for middle-income class, mostly working with the government and its parastatal organizations and are sometimes located at the central part of the urban area (Lugalla, 1995: 69).

Soon after independence in 1961, Tanzanian government declared abolishment of housing provision on racial basis and intended to provide 'modern housing to all citizens' (Kulaba, 1981:19). The National Housing Corporation was established in 1962 as a government institution to monitor loans for construction of houses and carry out approved housing schemes. The NHC was responsible for the clearance and redevelopment of squatter settlements as a move to raise the living standards of the areas by demolishing what existed of what was then considered 'worst' houses built with traditional materials (mud and pole with thatched roofs) and replacing them with 'modern' buildings (Kulaba, 1981; Nguluma, 2003). At the early years of its establishment, National Housing Corporation had a clear focus on social housing. Housing programmes for rent and for sale were initiated in various areas of Dar es Salaam and other urban areas in Tanzania to support low-income earners. Use of simple technology and construction methods such as application of gable roofs on linear structures and exclusion of individual tastes were among the tools that were aiming at making the houses as cheap as possible so that they would be affordable by the majority. This minimalist approach on housing resulted into construction of as many as 14,423 units by the year 1975. Mass production of housing was indeed the spirit of the time so as to address the growing population following the rapid urbanization.

When designing for different income groupings in the 1970's, NHC considered various parameters¹. For low-income earners, individual tastes were ignored consistent with modernist attitudes towards mass housing

whereas sharing of facilities was enhanced. With that respect, high density became characteristic of housing for low-income population. Additionally, small size of rooms and low cost finishes were specified in the housing units. These aspects are typical of Ubungo flats. For the middle-income group (and high income group, type of clients on which NHC seems to currently focus), there is a substantial consideration for individual tastes in terms of house layout. Room sizes are larger and there is a wide range of choices of finishes for the units. In addition to individual tastes, high-income group enjoy additional facilities such as laundry and car garage that would not have been provided for the middle-income group. Furthermore, more privacy and spacious outdoor environment are important aspects of design for this group.

UBUNGO NATIONAL HOUSING SCHEME: A CONTEXTUAL FRAMEWORK

Ubungo National Housing comprises of nine blocks of two different typologies: H-type and cross-type blocks. The models were imported from East Germany², Tanganyikan former colonizer and financier of establishment of NHC in joint venture with then the Tanganyikan government. The H-type block has four storeys with a total of 48 units, each having a sitting room, two bedrooms, a kitchen and a washroom. The block is accessed from its shorter facades where two central staircases leading to an access corridor are located. The staircases are located at the sides leaving an open-to-sky void, about four metres wide, between the twin blocks throughout the four stories [fig 1].

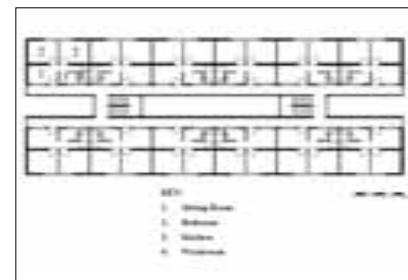


fig 1 Spatial layout of the H-type block at Ubungo. (source: ArchiAfrika, 2005)

The cross type block has also four storeys but with 32 apartments. There are two types of apartments in each floor. The east-west side units have a sitting room, a bedroom, kitchen, toilet and a balcony in a linear organization whereas the north-south side units have two

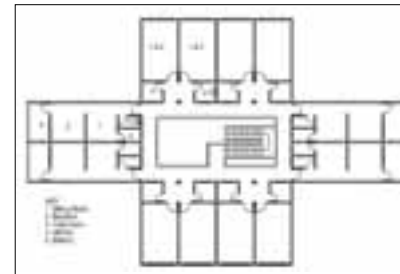


fig 2 Spatial layout of the cross type block at Ubungo. (source: Author, 2005)

identical rooms that can function as bedroom and sitting room respectively, a kitchen and a toilet [fig 2]. There is one entrance at one of the T-junctions that leads to a staircase and corridor within a courtyard from which all units are accessed.

As observed from figures 1 and 2, the block types are generally introverted with all the flats accessed from its inside. The courtyard bound by the two staircases in the H-type and one staircase in the cross type adds to the hybrid character of the block, providing a transitional space between private and public realms. It is a space in which the largest part of social life takes place. At the same time it constitutes an extension of private dwellings, as people tend to privatise parts of the corridor. A sharp contrast between the introverted and extroverted spaces can be observed. Within the former space, strong social ties among neighbours associated with the multiplicity of activities in some spaces could

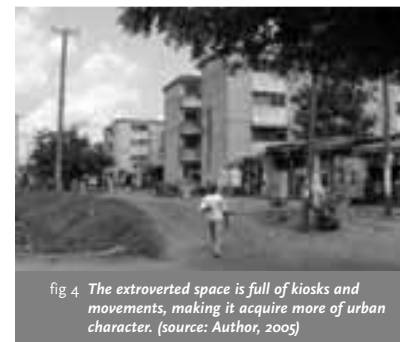


fig 4 The extroverted space is full of kiosks and movements, making it acquire more of urban character. (source: Author, 2005)



fig 3 The courtyard is used for multiple activities. Note that children are playing while cooking activity is conducted on a bare ground. (source: Author, 2005)

be regarded to have brought about the reproduction of the village life [fig 3]. At the extroverted space in which informal activities are scattered all over, more of urban life could be observed as social control is loosening [fig 4].

Additionally, the architectural form of the blocks contrasts with the function it would represent. While the geometry of cubes and concrete slabs, plain surfaces and multi-storey buildings characterizing the scheme would make it appear urban or 'modern' in character, the way of living within the blocks as pointed out earlier may be termed to be of rural or 'traditional' significance.

A REFLECTION ON MODERNITY IN THE PRESENT-DAY REALITIES

A study conducted at Ubungo NHC blocks of flats show that there are attempts by the users to remodel the units in various ways, despite the modernist designers' expectation to completely change and fix the users living patterns within the imposed and fixed structures. Some dwellers have been appropriating these houses by remodelling the interiors and, to some extent, appending physical extensions to the same. However, the design of the low-rise housing typology is not flexible enough to provide for extensive appropriation. The most visible physical extensions are the temporary kiosks for home-based enterprises that are built in the compounds, mostly as an alternative means of income as it has always been the case in the squatter settlements (Nguluma, 2003).

¹ Based on a formal interview conducted at NHC headquarters on 20th July 2005 between the author and Mr. Pius Gogadi, the current NHC Chief Architect.

² According to Mr Kassango, NHC's property manager in a formal interview conducted on 19th July 2005.

Use of Space and Aspects of Housing Transformation

Use of spaces in the NHC schemes can be attributed to ambivalent reading. On one hand there is a limited size of rooms in relation to family compositions and ways of life in which tenants complain on insufficiency of the rooms in terms of number and size. The design of the buildings seems to be neutral in this case though playing a significant role in aspects of units' appropriation as tenants try to confront the size limitation. On the other hand, there appears to be a mismatch between the functional approach of the buildings and non-functional tradition of people's way of living for which the design can be responsible. This can be observed on the multi-use of various spaces in the individual dwelling units and the public spaces at the block level.

Addressing the phenomenon of insufficiency of number of rooms and desire to meet their daily life needs in Ubungo blocks of flats, the tenants have tried various attempts. The two main approaches constitute change of use of space, including intensification of function in a designated space and physical alteration of the same. The most common change has been observed to be that in which a sitting room is converted into a bedroom. This often happens when a visitor has to stay over night or in case of a big family size. In the former circumstance, sleeping arrangement would be influenced by the status of the visitor in the kinship structure. If, for instance, the visitor is a father or a mother-in-law, a brother or a sister of one of the spouses, children depending on sex will have to shift to the sitting room to give space for a visitor in the bedroom. A normal visitor would sleep in the sitting room thereby not interfering with the sleeping arrangement of the family. In any case, a person sleeping in the sitting room has to sleep late, as the room has to be used by all members of the family for chatting and watching television



fig 5 Use of two-level beds in a bedroom. (source: Author, 2005)

before furniture is rearranged for the sleeping function. In case of a big family size, two-level beds are used in the bedrooms and quite often a bed has to be shared by children of the same sex. [fig 5]

Kitchen spaces in Ubungo flats are generally small in size. Most of the tenants opt to cook in the public corridors using charcoal or kerosene stoves. Only a few who can afford to pay expensive bills of electricity use electric cookers. Preparation of food for cooking would be done in a bedroom or a sitting room whereas dish washing would take place at the corridor. As there is no designated space for storage, a kitchen often becomes storage space for cooking utensils and some food. A big stock of food is normally stored in one of the bedrooms. Shopping for perishable foodstuff has to be done regularly for the majority of respondents, as they do not have cold facilities for storage. [fig 6 + 7]

Some tenants have modified the use of a balcony by completely enclosing it with a closed or openable window to make it conducive enough to function as a bed-



fig 6 Kitchen space at Ubungo. (source: Author, 2005)



fig 7 Cooking is often done at the corridor. (source: Author, 2005)



fig 8 Floor layout of one of units at the corner of a cross-block showing a temporary partition (curtain at 3.4) that defines a path to the balcony currently enclosed by windows and used as a bedroom. See also figure 9. (source: Author, 2005)

room. Access to this new room, however, becomes a bit complex. Another partition has to be introduced to the room adjacent to the balcony so as to enhance privacy of the room at the same time giving way to the other one. [fig 8]

In figure 9 can be noted that the enclosed balconies have canopies that could have been added by the tenants for shade and protection from driving rain. The enclosing walls or windows are not only for functional reasons but they are also portraying economic status and personality of the tenants by the kind and application of materials such as glass and timber. Personalization by tenants when transforming their houses is an example of people's confrontation against the modernist idea of suppressing individual tastes to satisfy those of the masses.

The resultant spatial use with regard to the design of the block presents ambivalent interpretation. Conflict of functions as opposed to order that modernist design would often seek to achieve may seem to be a remarka-

ble result in Ubungo flats. On the other hand, the spatial configuration offers flexibility of use as multiple activities can possibly take place in one space. A corridor, for example, as illustrated earlier is a space of myriad activities that sometimes take place at the same time. Cooking, playing by children, washing utensils and clothes, chatting among neighbours are among the functions that seem to have supplemented the primary function of the corridor as a circulation space.

Modernity and Material Culture

Individual tenants tend to identify themselves by displaying elements of material culture in one or more spaces in their houses. Elements such as paintings, carvings, scripts and so forth portray affiliation of the owner to a particular religious belief, aspiration, political party or tribal background. It is common to find, for example, Biblical or Qoran quotations, pictures of Jesus and saints or those of a moon and a star on a frame hung on a wall in a sitting room or a bedroom.



fig 9 A balcony is wholly enclosed by a wall to form a habitable space. (source: Author, 2005)



fig 10 Display of elements of material culture. (source: Author, 2005)

These depict the religious inclination of the believer. Ally Marusu, a tenant in Ubungo NHC block E explains the essence of a picture of a tree in one of his displays at the sitting room:

This is a tree showing the beginning of Islamic religion and the genealogy of Saint Mohammad. I put this picture here for my children to learn and other interested visitors to know where we belong spiritually. I think that is the best position for the display as when you enter you directly face it. Other displays are seen after you have seen the most important one (Ally Marusu, 07/07/2005).

In figure 10, the left side photo shows display of objects that may seem to represent conflicting realms. While a tenant believes in a particular religion, he/she cannot stop enjoying the modern 'luxuries of the earth' that a religion might fight against.



fig 11 A painting of a village in one of the respondents' sitting room. The respondent's origin is Kilimanjaro region where the painting is all about. (source: Author, 2005)

Paintings such as those of traditional tools like spears and shields, cooking pots as well as village scenarios may represent the ethnic origin of the owners. Such a representation can be argued to denote one's nostalgia to an imagined 'real' home. In this case it might mean that the present house is not what they would really want their home to be. Or, they might have fully adopted the present 'new' house to the extent of feeling at home but not completely forgetting the past by, at least, keeping the image of what their fore parents did or of a present environment where they might have come from. [fig 11]

Features of a 'Modern' House

The phenomenon of modernity with regard to the findings of this study is interesting. There emerged various ways of understanding the notion of modernity among the respondents. As a general observation, a modern house is considered by the interviewed inhabitants to be associated with the following main features:

- At least three bedrooms, a sitting room, a furnished kitchen, store, toilet and bathroom (combined or separated) and a study room which should specifically be spacious enough.
- Adequate supply of water, well functioning of the sewerage system and constant availability of electricity.
- Spacious exterior space with flower gardens, privacy through fencing and limited visual accessibility of separated functions and adequate light and ventilation by means of big windows.
- Presence of 'modern' furniture such as sofa sets, dining tables and chairs and; furnishings such as wardrobes and the like.

According to the respondents' contention, features of Ubungo NHC flats suggest to disqualify the scheme to be modern as it lacks the mentioned qualities.

Description of what a modern house should be seems to be of unshared perceptions among the end users of the buildings and the designers. On the part of the end user it appears, to a large extent, that the western life is mirrored though with a bit of exaggeration. The ideal image of what the inhabitants consider to be a modern house is not entirely of a new design. It is rather a larger version of what they have at Ubungo NHC flats. However, this contention does not necessarily mean that their dwelling patterns would exactly fit in the modernist design even if it were large enough. Still, this phenomenon would depend, in my point of view, on the economic status of dwellers in the houses. For the low-income earners, for instance, informal activities for income generation would be integrated in the houses, thereby redefining the functional significance of the spaces from the standpoint of the modernist designers.



fig 12 Spacious sofa sets in a small room and the conception of modernity. (source: Author, 2005)

The large sofa sets in small rooms as found in most of the visited dwellings [fig 12], present what could be regarded as a mismatch between a 'dogmatic' modernism of the existential minimum of housing in the production field and the free interpretation of modernity as realized in the cultural 'consumption' field. The large sofas can depict, among other things, status of the tenants, hierarchy of values assigned to certain spaces for family use and importance that could be associated with hospitality to the guests.

Nuclear and Extended Family Living

The study has revealed that 36% of all interviewed families are extended. Debate on whether a house should be designed to provide for nuclear or extended

family living opened up mixed opinions. There are those that favour the idea of a nuclear family living arguing that it helps to address the challenges of today especially the increasing costs of living by enhancing self-reliance. One respondent had said:

Life is very tough nowadays. Everybody should bear his/her own burden. Houses should be designed for nuclear family living to discourage relatives from crowding into your house once they know there is an empty space thereby finding an opportunity to depend on you (Neema Pangamani of Ubungo block G, 05/07/2005).

Those in favour of extended family dwelling argue that it is a cultural practice to live as such. This practice, as argued by most of respondents, is inevitable in African dwelling culture. Commenting on accommodation problem in Ubungo NHC flats, one of the respondents explains:

These units should have been built according to the African families' way of living bearing in mind that Africans do live together with relatives. In this case, the flats should have at least three bedrooms (Joshua Kihimbi of Ubungo Block G, 05/07/2005).

From the above opinions, it can be argued that nuclear or extended family living has both economic and social consequences. With the high costs of living in urban areas, extended family living, especially that resulting into a large family may lead to, for instance, unaffordability of the family to access health and education facilities due to inability of meeting the costs for the same, let alone the daily life costs. This may happen when the whole family depends on one person for daily living. On the other hand, extended family living seems to be not only a primary way of socializing but also a potential means of reducing the cost of living among the poor societies. In such kind of living, members of a particular clan have an opportunity to closely share social endeavours as they maintain strong ties in confronting an 'alien context', the urban setting that may appear as such to people with a rural background in ways of living. Additionally, the cost of maintaining an extended family and those of building services such as water and electricity may be shared among working members. With this remark it could be argued that housing for a large number of people is both, cultural and economical, thereby supporting extended family living, a phenomenon of which modernist designers would hardly consider.

CONCLUSION

The reception and experience of modern architecture in the field of housing in Dar es Salaam is a complex phenomenon. Undeniably, modernist ideas of mass production have played an important role in reducing the shortage of housing in Dar es Salaam. The housing issue, however, was regarded as a mere technical matter without an extensive consideration to cultural aspects in the everyday realities. The study of the two schemes has established a considerable clash between modernist design concepts and their subsequent application on one hand and the dwelling culture of the users on the other hand. The functional low-rise housing model at Ubungo did not take into account flexibility as to physical appropriation by individuals, as it had earlier been expected that the users would fit themselves into the modern housing by changing their life style (Frampton, 1980: 269). Such a premise has not been the case in Dar es Salaam as the targeted users continue to practice their non-functional tradition of living while trying to cope with the functional-oriented 'modernist' life style. Inhabitants have been appropriating spaces in various ways by imposing different uses to what the designers would stipulate and attempting physical modifications in some spaces wherever possible. Nevertheless, the design of the two models at Ubungo NHC scheme has shown to have remarkably facilitated the cultural practice of dwelling among the low-income societies.

Informal activities have shown to be a reality in outdoor environment of the studied schemes. This is synonymous with the tenants' 'nomadic' use of the 'dogmatic' interior spaces as earlier illustrated. The informal activities occupy what would be the 'formal' spaces designed for specific purposes. To some extent, the cultural practices and economic situation of the low-income families as users of the buildings and the immediate society at large could be responsible for the growing informal sector. With this regard, space appropriation has been a result in not only interior spaces of the modernist buildings but also at the external environment and at an urban scale at large.

REFERENCE

- FRAMPTON, Kenneth
Modern Architecture: A critical History, Thames and Hudson, London, 1980.
- KULABA, S.M.
Housing, Socialism and National Development in Tanzania: A Policy Framework, Occasional Paper, Centre for Housing Studies, 1981.
- LUGALLA, Joe
Crisis, Urbanization and Urban Poverty in Tanzania: A study of Urban Poverty and Survival Politics, University Press of America Inc., Lanham, 1995.
- NGULUMA, Huba
Housing Themselves: Transformations, Modernisation and Spatial Qualities in Informal Settlements in Dar es Salaam, Tanzania, Doctoral Dissertation, Kungl Tekniska Hogskolan Royal Institute of Technology, Stockholm, Sweden, 2003.