Evolution of the 'Modern' expression in African Housing. An investigation of the architectural expression in African residential space using case studies from Eastland's Housing Estates, Nairobi/ Evolução da expressão "moderna" na habitação africana. Uma investigação da expressão arquitetônica em espaços residenciais africanos usando estudos de caso dos conjuntos habitacionais de Eastland, Nairobi

Peter Makachia[1]

ABSTRACT

African colonial urbanism, (in)famous for segregationist spatial practice, was also a laboratory for interrogating African spatiality through housing estates. Although the ensuing spatial qualities remain central to contemporary African urban housing challenges, predominant discourse still dwells on the quantitative deficits disregarding conceptual underpinnings of housing architecture and hence only aggravates the problem. Based on aesthetical qualitative analyses, the paper is anchored empirically in fieldwork of African estates located in Eastlands, Nairobi. The pre-1950s concepts are revisited and though cursorily contrived; they were significant as foundational to novel aesthetic paths for later concepts ensuing in the post-2nd World War-era. The aesthetic expressions traverse an 'African vernacular', a 'European vernacular', and culminating in 'modernist' versions by the Central Housing Board and by a German émigré Architect and CIAM protagonist, Ernst May. These fail because of their modernist reductionist, prescriptive origination that was devoid of a dweller-engaged housing methodology. The

[1] PhD; is a Kenyan based architect (Makro-Space) and a researcher in architecture, housing and urban design. He has taught architecture at university including at University of Nairobi (UoN, 1998-2012) and Technical University of Kenya (TUK, 2012-to date)

inevitability of a bio-political power shift to grassroots' formations is the envisioned prerequisite for better urban space in African cities. A practical and theoretical application is proposed for gentrification strategies of inner-city estates now under discussion.

1 Introduction

Most discourse on housing in today's African cities dwell on quantitative urban housing inadequacies, and often argues that the deficit in the provision of accommodation for the broader population resulted in the emergence of the so-called 'self-help'-city, an increase in slum areas and the informalization of urban space. For Nairobi, for instance, recent surveys indicate that annual deficits amount to 200,000 units, with only 50,000 units being produced (ARVANITIS, 2013). But statistics in contemporary reports of the colonial era suggest that the phenomenon is not new. Indeed, colonial housing policies were as unsuccessful in tackling housing needs as are current ones. Despite more than a century of production of housing units for African urban populations, decent shelter in African cities often remains a mirage for a major part of the population. It suffices to discuss this deficit in terms of numbers, but what if we take a more qualitative perspective?

The paper seeks to investigate the causes of the current problems with housing in African cities like Nairobi in relation to the colonial housing policies and, more specifically, the modernist tenets that underscored them. It has been argued that efforts of the colonial state to provide housing for African subjects were not necessarily geared towards providing comfortable accommodation, but rather that they were deeply intertwined with considerations of domination and cultural 'civilisation' (MITCHELL 1988; MYERS 2003).

In this paper, I shall discuss the legacy of the deficit of colonial housing policies from another perspective by investigating how the housing typologies that were introduced in colonial Nairobi aimed to accommodate the ever increasing African

population can be related to the notion of 'housing', as it was understood within the Western Modern Movement, and more specifically within the circles of the CIAM (Congrès Internationaux d'Architecture Moderne). For the early 20th century modernists the notion of housing was to be defined in terms of 'economic efficiency', 'standardisation', 'rationalisation' (FRAMPTON 1992: 269) as in their opinion only mass production could offer the solution for the then pressing affordable housing needs.

Most notably, late 1920s and early 1930s discussions focused on the notion of the *Existenzminimum*, and these European architects exchanged ideas on how to procure shelter for the largest number but within constrained budgets and space[2]. This modernist thinking on dwelling often sacrificed 'individual needs' of 'social life' as it was primarily oriented towards universal standards and thus the provision of seemingly, 'complete' solutions, leaving little initiative to the inhabitants. These characteristics of the "modern house", as it were defined and propagated by CIAM, parallel those that colonial authorities saw as fundamental to the development of urban housing types for Africans. From the onset, modernist house-types introduced top-down by colonial authorities proved to be ill-suited for the African dwellers, whose living practices were at cross-purposes to the modernists' universal templates. Despite the fact that these housing types were also conceived as 'finished' and 'complete', they have in many cases been significantly transformed over time by their inhabitants in order to accommodate different social practices of dwelling and living together, with varying degrees of success, as we can observe both in in most African cities[3]. Here I will focus on the case of Eastlands; a Nairobi African residential district that during the colonial era witnessed the introduction of a number of varying housing based on varying strategies and styles.

I will first discuss briefly, pre-1950 housing, that differ from this modernist housing solutions and which I label 'African vernacular' and 'European vernacular' respectively,

---

[2] This notion of the *Existenzminimum* was at the heart of discussions at the 2nd CIAM congress, held in Frankfurt in 1929, where architect Ernst May had succeeded in realizing a series of innovative Seidlungen, that were to become key examples of rationally designed, mass produced houses. This topic would also inform discussions at the following CIAM-congress, held in Brussels in 1930.
[3] See Tipple (2000)

in order to illustrate how these typologies, coming to Nairobi from 'elsewhere', performed as shelters for the African occupants. Subsequently, I will turn to housing solutions from the post-WW2 period, focusing first on some projects of the German émigré architect Ernst May, one of the key protagonists of the interwar modernist debates on housing, and, second, on the housing schemes that were developed in the postwar period by the Central Housing Board (CHB), a colonial urban housing institution.

I will illustrate how these later housing solutions are linked to modernist thinking in their aspects of typology, form, construction, and design, yet also start to demonstrate a growing awareness of the limits of the 'complete' housing type. In the concluding part of the section, I will argue that a major cause for the deficiency of top-down housing policies of the colonial, and to subsequent postcolonial government lay precisely in this idea that 'complete' houses needed to be provided for, rather than solutions that allowed for incremental growth and agency of future occupants in shaping their dwelling. These cases illustrate part of the broader scenario in Eastlands as listed in Table 1. The work was undertaken partly as desk study of literature, archival work as well as case study fieldwork in Eastlands. It was predominantly qualitative only with some descriptive statistical base. My earlier experience as an architect practicing in urban housing formed a key motivation as well as the justification to document these historical lessons of African urbanism in the face of concerted gentrification proposals.

2 Pre 1950 Vernacular References

For early inhabitants of the site that would become the city of Nairobi, the first evidence of 'modernization' were the 'tin shacks' used by the camp dwellers of the railway construction teams around 1900. Described as a 'tin town', Nairobi had these early settlers in 'a few corrugated iron houses' which were however 'palatial' in contrast to the 'sticky morass', containing the early African settlement, where the indigenes inhabited informal shacks, 'inferior even to the village huts' (HAKE 1977, 23-24 & 36). Yet, this exposure to modernization, and its related emerging urban 'modernity', was

paralleled with experiences of a clear policy of spatial segregation along racial lines, to which the Bransby-Williams (1907)[4] Report attested.

George Bransby-Williams was commissioned in 1906 to advice on the sanitary conditions of the nascent city and on recognition that the population of Africans was threefold what had been estimated, proposed, among others, the site for a 'new native location' (HAKE, 1977:36) that became Majengo. Located to East of the current CBD, it became the antecedent to Eastlands' (Figs.1&2) where African housing was later erected. This never materialized for decades and the first formally-provided 'housing' for Africans only emerged during the 'economic boom' years of 1927-30. However, this effort was derisory as the 'brick dormitories' erected, were reliant on considerations of 'economic efficiency', and only served to demonstrate the designers' insensitivity towards the needs of the future inhabitants. Highly unpopular, this 'housing' was later converted into cubicles, only to be demolished altogether and thus only demonstrates that early positions on African housing were only perfunctory.

In Eastlands, three pre-1950 African housing strategies in Eastlands require particular attention, as they seem to testify of a serious attempt to confront housing solutions that escape the early reductionist translation of housing. These are: the 'African Vernacular' example found in Majengo scheme, its 'modernization' in Shauri Moyo Estate and a 'European Vernacular' exemplified in the Kaloleni Estate.

They were not all borne out of benevolent duty as the 'African vernacular' in Majengo was rather a 'hands-off' stratagem. For the Shauri Moyo, it was more of crisis management confronted with homelessness after the demotion of Pangani 'native village', and while Kaloleni which bore a benign streak as a 'gift' to African WW2 veterans (SMITH, 2016) yet had the object of 'civilization' of the natives.

2.1 The Swahili African 'vernacular' in Majengo (AV-style)

---

[4] Cited in Hake (1977)

The Bransby-Williams (1907) Report proposed that accommodation was to be provided for around 3,000 people in Majengo[5] in 1906, but it would take more than 15 years to actually implement the proposal, partly because of the exponential growth of the African population (STREN, 1978; HAKE 1977, 129). The houses were constructed within a defined gridded lay-out of plots[6] on over 40 acres land area, serviced with streets and 'communal ablutions and latrines'. The design combined a colonial 'civilizing' agenda with the political of a panoptic planning of surveillance and control (Myers 2003). What makes this project interesting was the use of a particular house typology that in local parlance was referred to as the 'Swahili type' because of it coastal African origins. This choice was made by the then Deputy Commissioner for Native Affairs, Colonel Watkins, who articulated his house-type to be used as follows: '….square, four roomed type; owing to lack of funds they will have to be wattle-and-daub; each should be separate.' Further, he added that the houses would be 'built by people themselves' (HAKE 1977, 130).

In my view, the quotes suggest that the key reason for opting for the Swahili-typology was because its rectangular forms were closer to Western spatial models than the organic circularity of the 'African hut'. That the original 'African hut' typology stood for particular meanings and socio-spatial practices of dwelling and living seemed to be ignored by the colonial officials. Popular amongst the coastal Bantu[7], the Swahili typology (Fig.3& 4) can be described as two rows of (4-6) rooms covered with a single hipped roof, and accessible through a shared corridor. At the front, a recess (*baraza)* (Fig.4), serving visitors and street interaction, was used as a male preserve, while the

---

[5]The location in Pumwani was renamed derisively by Africans as 'Majengo' as this meant 'temporary huts' rather than homes.

[6] Named 'stands' as the rather unique layout allowed an undefined 'corridor' space between the unit locations (fig.5)

[7] Although the Swahili house is used along the East African coast by Bantu-speaking groups, its origins are often contested, as for instance, Donley-Reid (1990) (cited in Nguluma (2003)) vouches for a Persian origin and that its Africanization was a result of trade links with the eastern Africa. Swazuri & Sudi (2012) prefer its endogenous roots, as being an architectural outcome of the coastal hot and humid climate, and thus only incidentally similar to the architecture of North Africa and the Middle-East.

corridor led to a rear courtyard, a female-gendered space for domestic chores as cooking, laundry and female socialization. The toilets, ablution and other ancillary spaces defined the rear edge of the courtyard. These functional characteristics were adhered to only in part in the Nairobi Majengo model. For instance, the courtyard was deleted without alternative female social space, while the *baraza* tended to be converted for an ungendered public kiosk. The common 'ablutions and latrines' blocks were sited along a public central circulation spine, Kisii Street. Accessed communally, these private spaces were distanced from the control of individual unit householders, witnessed in the traditional dwellings in Majengo.

In coastal cities like Mombasa, the typology is advantageous for several reasons, including: its local technology and material-base, environmental suitability, cost-reduction, social appropriateness and flexibility, and these factors have proved handy for low-cost housing(SWAZURI/SUDI, 2012; STREN, 1978). Its transfer to Nairobi proved less promising. Technologically, for instance, most 'local' materials traditionally used (mangrove (*boriti*) poles and palm-leave (*makuti*) roofing) were absent and needed to substitution with concrete masonry walling and Corrugated Iron sheet (*mabati)* roofing, leading to higher costs. To counter such the expense, the units were often roofed with recycled tin cans whose imagery and thermal performance are wanting. These, now brown-rusted roofs define the contemporary aesthetic of today's Majengo. Functionally, what remained of the distribution of spaces, originally geared towards dwelling practices of Muslims, proved rather dysfunctional in Nairobi, as the majority Africans are non-Muslims[8]. Further, this socialization hardly suited un-related independent tenancies that composed the majority[9] of Majengo dwellers. In Nairobi the Swahili House-typology was largely an unsuccessful experiment, and now this is compounded with a stigmatization

---

[8] Hake (1977, p. 137) reports that only one-third confessed Islam as their faith against more half, who claimed Christianity

[9] Mbugua Report (1965),cite in Hake (1977) a demographic survey in the postcolony documented 343 owners (of whom only 161 lived in Majengo) against 3, 043 tenants (Hake, 1977, p. 135). Further, the gender ratio of male: female of 115: 100, was skewed compared to Nairobi's 250:100 in 1962; creating a rather balanced social mix that was odd at the time.

because of reported prevalent crime, illicit brews and drugs, prostitution and international terrorism.

The Majengo experiment predictably mutated into un-mitigated physical and social transformations, and it is unrecognizable (Fig. 6) from its sedate Swahili origins. It attracts negative narrations from fiction authors like Akare's novel, "The Slums" based in Majengo who describes it as:

"…this place has the history of the whole of the town. It is the mother of Nairobi, that's true but some call it a two Shilling city because of these two Shilling women, others Majengo, others Pumwani, Matopeni because of the mud building with brown rusted roofs or Mairungi city or Miraa because of the Khat..."AKARE (1980) cited in (NEVANLINNA, 1995, p. 276)

Otherwise many scholars recognize the positive economic empowerment for womenfolk through 'ownership' of some of the houses in Majengo, now ennobled in the urban space disentangled from repugnant cultures entrenched in native space (Bujra, 1975).   Recent interactions with dwellers attest to a better-managed scheme which unlike the rest of Eastlands bestows some tenure rights thereby creating necessary social capital necessary any gentrification proposals to succeed (see Box 1). Architecturally, the verdict on African vernacular recall in Majengo is varied on several grounds. First, the lack of reference to the majority native cultures that dwelt in other typologies and instead impose a coastal option demonstrates the insensitivity to the users similar to the modernist paradigm later. Secondly, the reductionist application of the Swahili typology by omitting key elements like cultural gendered spaces and services meant it lacked the purity even to its coastal origins. The introduction of common ablutions and latrines also reflected the ill-understood functional relationships of the dwellers. However, in my view, the decree that the houses be 'built by people themselves' was an opportunity missed that would have entrenched African spatial values in colonial urbanism if it was better managed. Indeed, this dweller-empowerment later evolved into the 'site and services' schemes, an anti-modern stance of the postcolony.

2.2 A 'modernized' Swahili house in Shauri Moyo

The seeming demise of the 'African Vernacular' proved premature as in the years of 1934-36, 1,022 of Swahili-informed houses were again used in Shauri-Moyo[10] estate. They were erected to address the housing needs prompted by the demolition of Pangani 'native village'. The unit organization mirrored the Swahili floorplan and consisted of a central corridor for access to 6 rooms, and like Majengo, also lacked the original courtyard. Unlike the Majengo self-building, Shauri Moyo was built by a contractor, and used concrete block masonry walling, and replaced the deep-angled hips with shallow-pitched gable *mabati* roofs. It bore no apologies to individual ownership as all occupants were Council-tenant bachelors, and was a forerunner to Nairobi social housing. Ablution services were shared and sited in the cluster open space, and each block had a shared kitchen (Fig.7). An elevated porch to each block defined the entrance (Fig. 8).

This scheme remains an illustration of an extreme reductionist modernism achieved only through the technology and delivery processes. Further its aversion to space for family living is an example of the alienation of its dwellers. Today the dire remains of this estate, now adorned haphazardly with paint and cloth lines, dark-browned *mabati* roofs, stand as a witness of blatant colonial housing exclusively focussed on economy and savings in utter disregard to social living. Whereas the Majengo experiment failed for its insensitivity to the implicit meanings of Swahili-African spatiality, Shauri Moyo furthered the reductionism with token 'modern' materiality and persisted with the functional incongruence of Majengo. Although, the African-style never became a reference for housing[11], one already sees self-expressive propensities through the redefinition of provided space, and replayed in later strategies.

---

[10] Swahili for; 'sake of the soul', reflecting the anguish they underwent after the demolition of their 'native village' (Hake, 1977)

[11] Majengo' experiments continued in upcountry towns yielding identical outcomes. At Kibera (Hake, 1977, pp. 93, 136), the typology was adopted for predominantly Muslim Sudanese war veterans who predictably adopted it.

2.3 Kaloleni -'European Vernacular'[12] (EV-style)

In that respect, houses of what I call a 'European Vernacular', a third pre-1950 typology I want to briefly address, offers some reprieve. The imagery borrows from the pre-modern European dwelling architecture and used in colonial settler mansions on European farms and suburbs. Referred to as 'stone and tile'-style by Hake (1977), this typology is characterized by the use of often rough-dressed stone masonry walls, gable-ended and/or hipped pitched clay tiled roofs and attention to craft detail for spatial and other elements. The Kaloleni estate, designed by RIBA architect AJS Sutton (OGILVIE, 1946) is an example of how this vernacular came to inform the design and aesthetic of African houses (Fig.10). Its planning had some novelty as it was based on Neighbourhood Unit Concept, advanced for housing in the 1948 Master Plan (THORNTON-WHITE, ANDERSON, & SILVERMAN, 1948). Surrounding a courtyard, the 648 units are mostly semi-detached and types respond to the location within the courts.

Domestic space retained the minimalism (Fig. 9), that was bared to its core and was measured in number of 'rooms' rather than in functions. Although 1-, 2- & 3-roomed units were provided, six design variations were documented in Kaloleni of plinth coverage of 24-to-40M^2 (MAKACHIA, 2010, p. 136). Modern amenities were sparse as the dwellings lacked internal plumbing, had shared toilets and while water supply was provided in a common ablution block located inside a cluster courtyard. Despite this reductionist architecture, and unlike classical modernism, the units were adorned with decorative masonry details and spatial elements like arched arcades (Figs.12), among other details that resemble its European origin. An apt example of the architecture is the Arts and Crafts Movement style of late 19th to early 20th Century, that valued craftsmanship, local materials and the site, yet abhorred excessive decoration (Frampton, 1992, pp. 43-4). The overall impression today is earthy imagery and of

---

[12] The generic use of the 'European' term represents a broad spectrum architecture of non-African origin including material-choice like the undressed stone walls and clay tile roofing that was common in Medieval Europe like in Sweden (Arkitekturmuseet, 2004, p. 17)but also more recent Arts-and-Crafts tradition in England (Frampton, 1992, pp. 42-50); both witnessed in Kaloleni and similar estates surveyed in Eastlands.

structural durability of the original unit, albeit now interspersed with additive transformations (Fig.11). These transformations however employ temporary technologies typified by disposable materials like *mabati*, and creating an objectionable new aesthetic. Spatially, these address the functional deficiencies of the unit provided, and also serve for lodger accommodation and kiosks which supplement household incomes. These are 'temporary' primarily because they remain illegal in the eyes of the administration and imminently face demolition[13].

Indeed, the 'temporary' aesthetic is mostly attributed to the ambivalent[14] and tenuous tenure systems at play in Eastlands'. It however should be noted that although these additions usurp open spaces, they often create many controlled homely spatial environments (MAKACHIA, 2011a, pp. 230-2). Significantly, the original aesthetic of gable-ended or hipped roofs and masonry walling have since been transcribed to African residential imagery country-wide and beyond these inner-city origins to the peri-urban and rural environments. In a way, it testifies to the domestication of European-style architecture by Africans and now defines what is perceived as 'modern' homes. It should not escape notice that despite this aesthetic domestication, many functional transformations have had to be introduced by the dwellers to bridge a paucity of design reflecting their disengagement from the architectural process, as captured in the transformations already alluded to. Sutton's European-style architecture informed African aestheticism only through basic imagery but has remained deficient functionally, now addressed through transformation propensities. In a way, the outcome should be taken as a convergence between the different cultural expressions of European aesthetics and African functionality. It is not the only influence African architectural space as later modernist strategies testify.

3 Post-WW2 'Modern House'

---

[13] See (Barasa, 2004)
[14] Although Council houses, they have assumed pseudo-ownership values creating shadow housing markets.

While most scholars attest that Modernism arrived in East Africa in the 1930s' (SHARP 1983), it only became a source for housing for African in the post-2nd World War era, when colonial housing policies started to shift significantly towards the provision of 'comfort' and 'welfare'. We should of course not forget that this shift in Kenya was, just as it was elsewhere, an official response to the drive towards African self-determination, housing being a key contestation of African nationalism (CAROTHERS, 1954). Similar to what we can see in other colonial territories, new housing-types began to be introduced in Nairobi, the design of which was based on an aesthetics of pure geometry and both a distribution of space and a mode of production that were based on rationalist and scientific considerations of efficiency and economy; the traits of modernism.

3.1 Ernst May in East Africa

A peculiar example of these modern housing solutions in colonial East Africa in this era are the projects of the German-born architect Ernst May. Having been a key figure of the early CIAM and its late 1920S discourse on the *Existenzminimum*, May arrived in East Africa in early 1934, after having fled Germany in the context of the rise of Nazi and having left the Soviet Union where he had also briefly worked. He established a practice in East Africa in 1937 as part of the local colonial establishment and obtained several official and private commissions (OGURA, 2005). Scholars like Gutschow have argued that May's thinking closely aligned with common colonialist thinking, viewing the African continent as primitive and devoid of culture (GUTSCHOW, 2009), and Africa thus provided him with an ideal 'laboratory' for extending his ideas on housing and urban planning. These projects were a means for May to create 'a new society in Africa', with Modernism offering an 'apt model' (GUTSCHOW, 2009, pp. 243-4).

Delamere Flats for junior European civil servants, with their functional interiors that allow for flexible use attest to May's reputed ability (TIVEN, 2013). He also

developed housing solutions for Africans such as the prefabricated, so-called 'hook-on-slab' (Fig. 12) houses which were designed in a context of scarcity typical of the war years. They consisted of one-room structures, made by extruding a set of parabolic standards (Fig. 14), which would be expandable and allow interlocking houses in different configurations.

May's projects, such as the For May the project presented an apt replication in modern materials of the 'traditional African grass hut' (TIVEN, 2013), that would help Africans the 'acculturate to European standards of civilization'. But this is questionable, premised as it is on May's colonialist views of African culture, and indeed, the model is reported as being soundly rejected by Africans (OGURA, 2005). The lesson is the oversimplification of African spatiality by non-Africans as a reductive farfetched reference to the curvilinear form. The closest realization of May's 'hook-on-slab' model is a pilot project employing the concrete technology in two houses in Bahati Estate (Fig. 13).

More interesting from my perspective here is the design of housing projects that seek to allow for incremental growth, such as the 'growing house' (Fig. 13) which May designed as part of a project for an 'African neighbourhood'. Morphologically, this version borrows a curved concrete form from the 'hook-on-slab' model, but the incremental model professed is instructive and novel. While most projects of Ernst May seems to demonstrate that he was not able to escape the technocratic reduction of modernist models that is characteristic of colonial housing policies, the 'growing house' seems different in that it already acknowledges that adequate housing would require dweller-agency and ceding bio-political power to future occupants. As such, this project prefigures some later emancipatory housing policies in Nairobi in the postcolony (SYAGGA, 2003).

3.2 Ofafa-C model and CHB modernism

In order to gain a better understanding of housing policies in postwar Nairobi, we need to turn to the Central Housing Board (CHB), an institution promulgated through the

1953 Housing Ordinance, and with a sole goal 'to help local authorities in their housing problems' and 'to foster provision of adequate African housing throughout the country' (CHB ca. 1960 - brochure). One of CHBs early models, the Ofafa-C model (Fig. 16) used in Ofafa estates[15] in Nairobi is a telling example of the kind of housing schemes that resulted from colonial housing policies based on a reductionist translation of modernist ideas.

Designed as terraced housing, with eight individual two storey units, organized in rows, the architecture of this scheme was extremely austere, consisting of unadorned concrete block masonry walls, painted in pale colours, and covered with shallow pitched asbestos roofs. Conceived for single family houses, spatial dimensions were minimized, echoing the *Existenzminimum*-housing solutions that CIAM had discussed during their interwar conferences: ceiling heights were only 2.5M to reduce costs of building materials, while 12 m² was planned as the single largest living space in area, and bedrooms were only 10 m². The plan attests of a search to eliminate as much circulation space as possible, with the upper level being reached via external staircases, rather than from the inside. Comfort was equally sparse; the ablution room combined a toilet and shower in an area of about 2m²and was accessed on the ground level from the outside. The 4 m² kitchen had a chimney.

Compared to May's designs, these housing types, drawn by CHB architects and conceived to be mass produced, clearly put considerations of economy above those of aesthetics, let alone living quality. Moreover, the C-type housing scheme in Ofafa had been haunted from the very beginning by significant cost overruns, due, among others, to the bad quality of the soil, resulting in excessive sub-structural costs, but also because of the costly import-content of materials used, corruption among the contractors and inexperienced staff to supervise the building site (ANDERSON, 2002). As such, what was intended as a low-cost housing solution, proved a failure in terms of planned savings. Moreover, the 'provider'-strategy that underscored the scheme, and which consisted of building 'complete' houses for future occupants, soon turned out to be very

---

[15] Include Jericho, Jerusalem and Maringo (Table1)

restrictive in practice, testifying, once again, of the deficit of top down implementation of housing schemes by the colonial government, which most often remained insensitive to user-needs.

The Ofafa-C-houses in Eastlands' estates proved unable to deal with the exponential population growth in Nairobi after Kenya's independence. Nor was the model of production sustainable in economic terms, as the 'provider' strategy it was based on relied centrally-provided state/corporate funding. Today, the single family houses host sub-tenant families, through internal sub-divisions and several additive temporary transformations (Fig. 17) being done in what once were front or back yards. Not dissimilar to other strategies, this reflects the reductionist 'modernism' that was applied in African housing. Aesthetically, the model has hardly been replicated by individual home developers in urban and rural Kenyan settings. However, low-cost housing by formal institutions, like the National Housing Corporation[16] (NHC) and civil service housing by the state continue to use the aesthetic.

As a legacy, modernism had less of an impact than expected and it thus remained an official strategy, leaving dwellers to fend for themselves alternately. Like the reductionist aspects of technology remained in privately developed housing like tenement housing in Nairobi (HUCHZERMEYER, 2006). Further, whereas functionally such dwellings, designed for tenants, remain minimalist, aesthetically they offer more aesthetic vocabulary in the urban skyscape. In owned dwellings, these minimalist propensities are less pronounced and there is more evidence of the 'European-style' of Kaloleni than the Ofafa-C model.

4 Discussion

The basic outcome of the colonial housing policies was, as illustrated here, a 'modernization' of the African residential space in urban environments, but consistently in a rather reductive form. Early experiments with vernacular-inspired typologies, such as the Swahili-type, were quickly abandoned for solutions in which considerations of cost

---

[16] NHC is a government corporation that replaced CHB

efficiency, centralized production, minimal size and sparse comfort dominated over questions of aesthetics and user-needs. Most of these interrogations were geared towards generating stock to meet the surging urban populations, regardless of formation of convivial urban communities, and as such hardly valued African spatial values. Equally notably 'lost in translation' were the house imagery and thus aesthetic sensibilities of the dwellers. The former insensibility can be attributed to the quantitative production of space and can be attributed to the tenets of modernist paradigm as defined by CIAM. As for the aesthetic stance, I posit that it was engendered in the suzerain model of defining values of the colonized citizenry. As alluded to here, the imagery was aimed at legitimizing the colonial project as 'civilizing' and hence deemed as benevolent. It is therefore interesting that the European-style typology remains a lasting imagery of African houses. The use of the African housing estate concept, another spatial novelty, furthered another facet of this agenda that legitimized control and surveillance, and was thus in tandem with Foucauldian panopticon space (RABINOW, 1991) as articulated by authors like Mitchell (1988) and Myers (2003).

For me, with these premises of the colonial state, the task of the postcolony was thus vividly defined to address these misconceptions of African space. Was this necessary and desirable? My affirmative response is rooted both in the evidence of the dysfunctional African cities of today, and the understanding of colonial space in African urban habitats elaborated in the paper. Indeed, the postcolony schizophrenically adopted only the quantitative facet and used the tenets of economy of colonialist modernism to address low-income housing problems. By 1970, the government was producing more than 1300 'modern' units a year[17] in Nairobi (HAKE, 1977), and yet no one bothered about their qualities and suitability for the users.

Indeed, Nevanlinna (1995, p. 296) and others have critiqued such postcolonial housing policies, arguing that they applied 'universal' typological solutions, independent

---

[17] Far short of the needed numbers given the postcolonial un-restrictive movement policy

of class or race. However, her position that valorizes[18] the colonial concept of racial segregation – seemingly based on 'cultural responsiveness'- ignores the fact that unlike the others, Africans were never consulted, had these spaces defined and imposed upon them. As demonstrated in the paper, both pre-1950s and post-WW2 strategies were prescriptive and not dissimilar to the postcolonial 'universal' forms. Thus, in spite of the political regime, it is the modernist paradigm that also permeated other facets of development orthodoxy that is blameworthy. Thus, perhaps a more important critique should be that a major cause for the deficiencies being the outcome of such orthodoxy of top-down policies, irrespective of the particular design or mode of production applied, and mirrors what Hamdi (1991) has defined as the 'provider' housing paradigm. Indeed, this came under severe scrutiny towards the end of the 1960s, when the writings of user autonomy by Turner (1977) started to gain recognition and would lead to the more participative strategies in cities like Nairobi (SYAGGA 2003). These involved the direct engagement of the users in the production process of housing and thus a capacity to define authentic aesthetic and spatial values.

Yet, it should not be forgotten that we can recognize some rare earlier traces of alternative notions of the house for Africans, which take into account user needs. The 'growing house' of Ernst May is one, but even within the discourse and thinking of Kenya's Central Housing Board the notion of the notion of the 'complete house' started to dissolve already in the late 1950s. A brochure from around 1960 already defined the CHB's strategy for tackling housing needs along three strands, two of which suggest a quite radical shift from the minimal, 'complete' and 'fully finished' C-type housing scheme in Ofafa discussed above (Central Housing Board, Kenya, c.1960). First, in terms of design, the CHB aimed at no longer providing solutions based exclusively on 'bed-spaces', but was geared towards the definition of qualitative housing types that would provide, through specific attention for the organization of floor-plans, a 'well-planned accommodation for the family unit'. Though still prescriptive, it was socially revolutionary

---

[18] Nevanlinna believes 'domestic architecture' was used as a way of 'promoting reform' which eerily mirrors the colonial 'civilizing' notion

as the policy put the African at par with other races within the city. Thus, accepting the reality of the urbanized African, the CHB aimed to:

> '…encourage permanent urbanizing of the African working classes which provide the labor force in all the main centers of the colony, and to this end it is particularly sponsored the construction of the family accommodation consisting of no less than two rooms with, where possible, indoor water-borne sanitation and ablutions' (ibid, c.1960, p. 11).

Second, in terms of financing, it sought to promote housing tenant-purchase to 'encourage actual home ownership', all the while also being open for scenarios in which a 'lodger' would be allowed to sub-let part of the house, aiding in offsetting the cost of purchase (ibid, c.1960, p. 5,14). Thirdly, the CHB also recognized the fact that housing scenarios could alter over time, developing some schemes which allowed for temporary single room-occupancy 'which can at a later date to family housing' (ibid. c.1960. p.14). One could thus argue that the CHB was in fact starting to work towards a strategy that would prevent their housing designs becoming obsolete, and would rather allow these to evolve in accord with changing demands and needs.

This deviation from the premise that 'complete houses' needed to be procured, can be read as a prefiguration of strategies that would emerge in later decades, such as 'site-and-service' schemes of the 1970s by the NHC (SYAGGA 2003). Its extrapolation into legitimizing, regulating and empowering grassroots' dweller organizations, housing cooperatives and similar groups, is a necessary prerequisite for convivial urbanity. Now engraved in the promulgated Constitution[19] and this local empowerment should aid in mitigating qualitative and quantitative deficiencies in urban place. It not only heralds a new and more humane modernism suitable for African cities, and hence convivial neighbourhoods but also signals an apt architectural expression.

REFERENCES:

Books:

---

[19] Article N° 10 in the Constitution of the Republic of Kenya (2010), reiterates the 'principle of participation'

ANDERSON, D. (2002). Corruption at City Hall: African Housing and Urban Development in Colonial Nairobi. (A. Burton, Ed.) *Azania, 36-37*, 138-154.

ARVANITIS, Y. (2013). African Housing Dynamics: Lessons from the Kenyan Market. *African Economic Brief, 4, 3*. African Development Bank. Retrieved Januay 22, 2016, from Africa Economic Brief:
http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Economic%20Brief%20-%20African%20Housing%20Dynamics%20Lessons%20from%20the%20Kenyan%20Market.pdf

BARASA, L. (2004, February 18). MPs stoned as demolition turns chaotic. *Daily Nation on the Web*.

BUJRA, J. (1975). Women "Entrepreneurs" of Early Nairobi. *Canadian Journal of African Studies, 9*(2), 213-234.

CAROTHERS, J. C. (1954). *The Psychology of Mau Mau.* Nairobi: Government Printer. Central Housing Board, Kenya. (c.1960). *Housing Kenya.* Nairobi, Kenya: Government Printer.

FRAMPTON, K. (1992). *Modern Architecture-A Critical History.* London: Thames Hudson.

GUTSCHOW, K. K. (2009). Das Neue Afrika: Ernst May's 1947 Kampala Plan as a Cultural Program. In F. Demissie (Ed.), *Colonial Architecture and Urbanism in Africa: Intertwined and Contested Histories* (pp. 236-268). London: Ashgate.

HAKE, A. (1977). *African Metropolis.* London: Sussex University Press.

HAMDI, N. (1991). *Housing Without Houses- Participation, Flexibility, Enablement.* London: Intermediate Technology Publication.

HUCHZERMEYER, M. (2006). *Large Scale Private Landlordism in Multi-Storey Districts of Nairobi.* University of Witwatersrand, School of Architecture & Planning, , Johannesburg.

MAKACHIA, P. A. (2010). *Transformation of Housing in Nairobi - Dweller-Initiated Transformations in Formal Housing in Nairobi Estates with Case Studies of Kaloleni and*

Buru-Buru Estates. PhD Thesis, University of Nairobi, Department of Architecture & Building Science, Nairobi.

_____ (2011a). Evolution of Urban Housing strategies and dweller-initiated transformations in Nairobi. *City, Culture and Society*, 219-234.

_____ (2011b). Housing Strategies in Kenyan Towns and Dweller-Initiated Transformations - Case Studies from Nairobi. *IZGRADNJA, 65*(9-10), 535-539.

_____ (2012). *Transformation of Housing in Nairobi.* LAP Lambert Academic Publishing.

MAY, E. (ca.1953). *Planum.* Retrieved November 8, 2005, from http://www.planum.ntmet/archive/may-hou-2.h

MITCHELL, T. (1988). *Colonising Egypt.* Cambridge: Cambridge University Press.
Myers, G. A. (2003). *Verandahs of Power - Colonialism and Space in Urban Africa.* New York: Syracuse University Press.

NEVANLINNA, A. (1995). *Interpreting Nairobi.* Helsinki.
NGULUMA, H. (2003). *Housing Themselves-Transformation, Modernisation and Spatial Qualities in Informal Settlements in Dar Es Salaam, Tanzania.* Stockholm: Department of Infrastructure, Royal Institute of Technology, .

OGILVIE, G. (1946). *The Housing of Africans in the Urban Areas of Kenya.* Nairobi: The Kenya Information Office.

OGURA, N. (2005). Ernst May and Modern Architecture in East Africa. *ArchiAfrica Conference Proceedings: Modern Architecture in East Africa around Independence*, (pp. 81-88). Dar es Salaam, Tanzania. Retrieved February 22, 2015, from archnet.org/sites/publications/4915

RABINOW, P. (Ed.). (1991). *The Foucault Reader- An Introduction to Foucault's Thought.* London: Penguin Books.

SAIDI. (2019, January). Majengo. (P. A. Makachia, Interviewer)

SHARP, D. (1983). The Modern Movement in East Africa - the Work of Amyas Connel (19000-1980) in Tanganyika and Kenya with Reference to the Crisis of Decoration in Modern African Architecture. *Habitat International, 7*(5/6), 311-326.

SMITH, C. R. (2016). *Present Pasts, Uncertain Futures: Materiality and Time in a Nairobi Housing Estate.* PhD Dissertation, University College London, London.

STREN, R. E. (1978). *Housing the Urban Poor in Africa: Policy, Politics and Bureaucracy in Mombasa.* University of California, Institute of International Studies. Berkeley: University of California.

SWAZURI, M. A., & Sudi, W. M. (2012, August). The Survival of Swahili House Design in the Coastal Areas of East Africa. *Africa Habitat Review Journal, 6*(6), 389-99.

SYAGGA, P. (2003). *Integrated, Multi-Sectoral and Sectoral Urban Development Initiatives in Kenya.* DFID. Rugby, UK: ITDG. Retrieved October 20, 2008, from http: www.itdg.org/html/shelter/iuhd_working_papers.htm

THORNTON-WHITE, L. W., ANDERSON, P. R., & SILVERMAN, L. (1948). *Nairobi-Master Plan For A Colonial Capital- A Report Prepared For The Municipal Council Of Nairobi.* London: His Majesty's Stationery Office.

TIPPLE, A. (2000). *Housing Themselves-User-Initiated Transformation of Government-Built Housing in Developing Counties.* Liverpool: Liverpool University Press,.

TIVEN, B. (2013). On the Delight of the Yearner: Ernst May and Erica Mann in Nairobi, Kenya 1933-53. *Nka Journal of Contemporary African Art, 32*, 80-9.
TURNER, J. (1977). *Housing by the People - Towards Autonomy in Building Environments.* New York: Pantheon

Journals:
Arkitekturmuseet. (2004). *Architecture in Sweden - Function, Design and Aesthetic through the Ages.* Stockhom: Arkitekturmuseet

Nairobi Property. (2015, August 14). Retrieved January 22, 2016, from https://cultureafrican.wordpress.com/tag/housing-deficit-in-kenya/

Official Document:
Republic of Kenya. (2010). *The Constitution of Kenya.* Nairobi: National Council for Law Reporting

List of Tables

Table 1: Colonial Housing schemes in Eastlands, Nairobi (author, 2019)

| Estate	No.	Year built	Description	Services	Style
Majengo	68	1919-23	Swahili-type/rooms along a corridor	Ablution block	African
Kaloleni	648	1928-48	Bungalow, 1-3rooms	Ablution block	European
Gorofani	896	1928-50	Walk-ups, 1-2rooms	Shared bathrooms	Modern
Muthurwa	56	1929	Bungalow,Row housing, 1-room	Ablution block	European
Shauri Moyo	1,022	1939-46	Modified Swahili-type	Ablution block	African / Modern
Ziwani	553	1941	Bungalow, Row-housing, rooms/kitchen	Ablution block	European
Starehe	318	1942	Bungalow, Row-housing	Ablution block	European
Ngara	214	1945-58	Flats, 1-2bedrooms	Self-contained	Modern
Mbotela	939	1950-52	Bungalow, Row-housing	Self-contained	European
Bahati	1,965	1951	Bungalow, Row-housing	Ablution block	European
Ofafa Kunguni	1,324	1953	Bungalow, Row-housing	Ablution block	European
Pangani	48	1955	Maisonnettes, 3-bedrooms	Self-contained	Modern
Jerusalem	633	1960	Ofafa-C type	Self-contanied	Modern
Jericho/Lumumba	3,004	1961	Ofafa-C type & bungalows, 1-2bedroom	Self-contained	Modern
Jeeevanjee	214	1945-58	Flats, 1-2bedrooms	Self-contained	Modern

FIGURES:
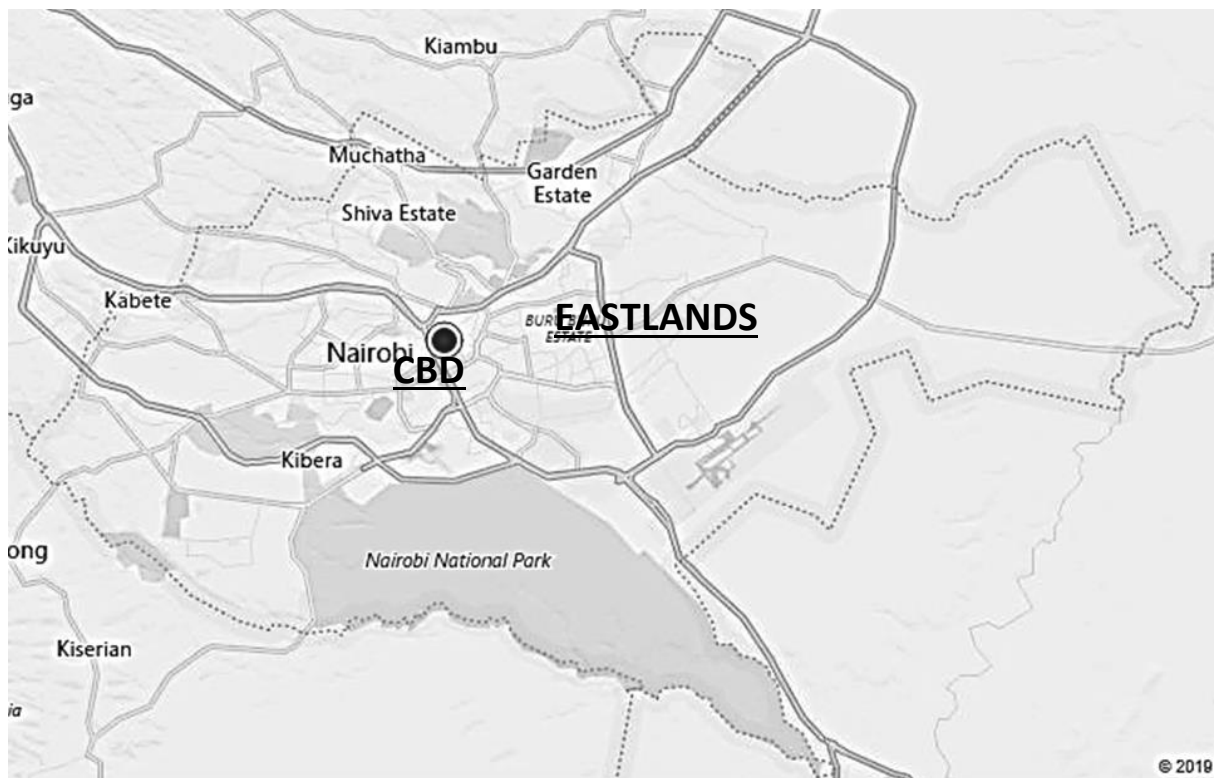
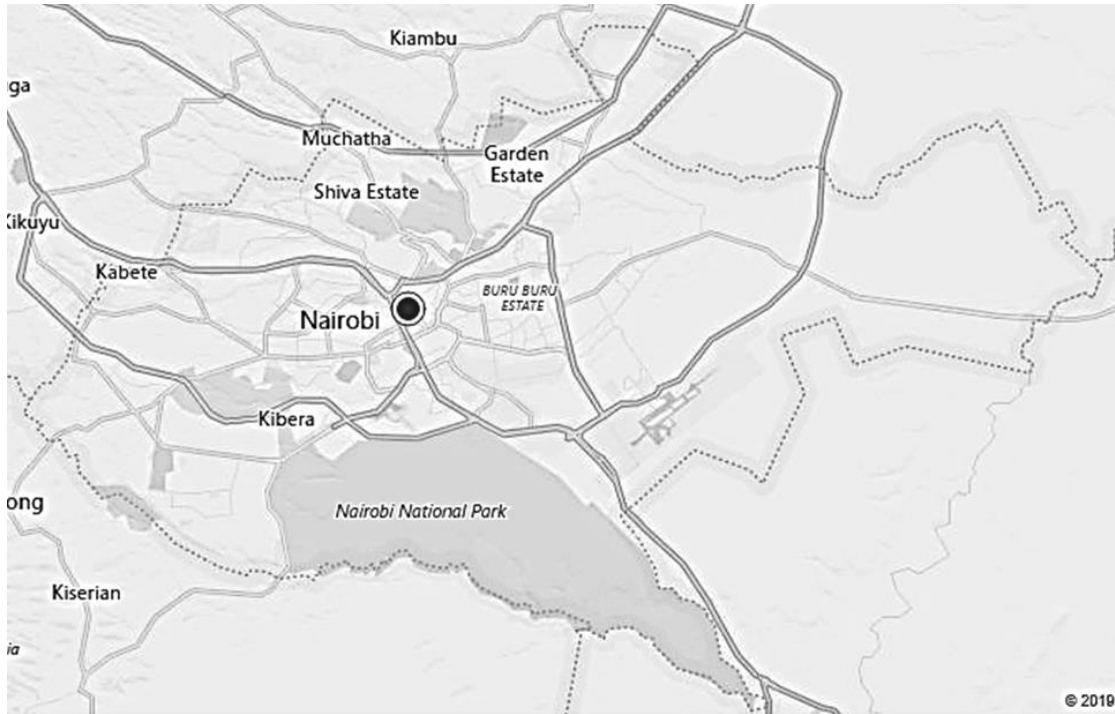Figure 1: Nairobi – Eastlands' now (author, 2019)

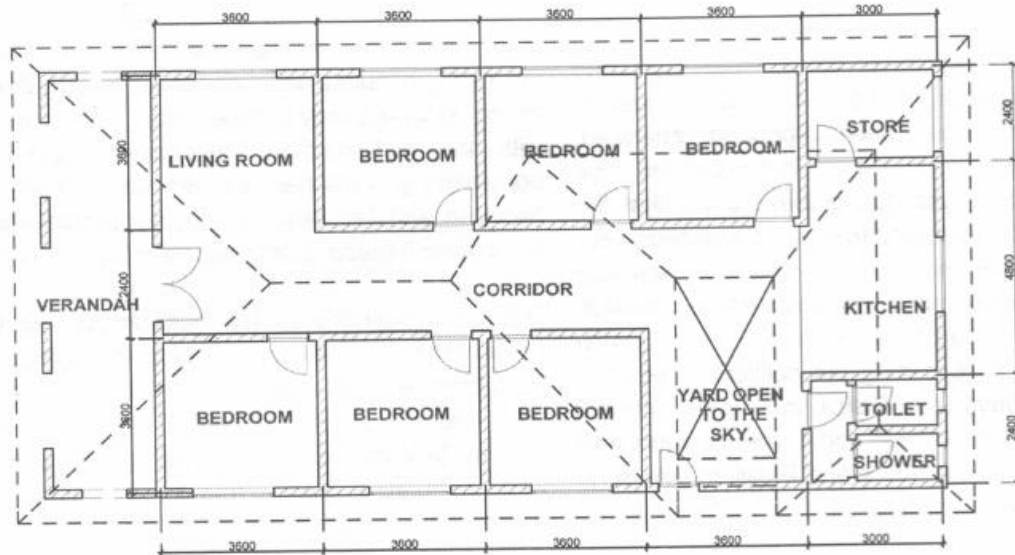Figure 2: Eastlands housing estates (Hake, 1977, pp. 90-91).

Figure 3: Swahili House floorplan (Swazuri & Sudi, 2012)

Figure 4: 'stands' layouts (Nevanlinna, 1995)

Figure 5: Swahili House with 'modern' materials – perspective view (author, 1995)
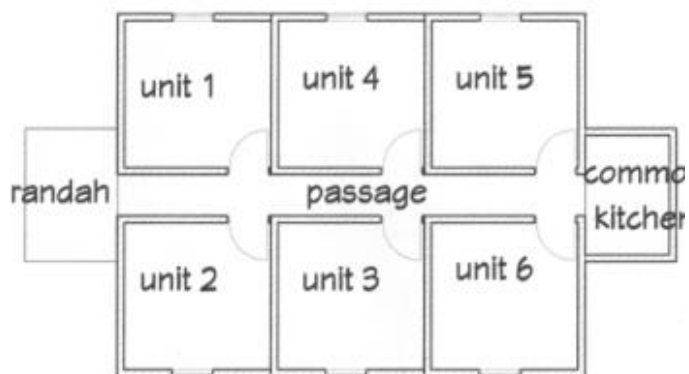
Figure 6: View into Kisii Street, Majengo (author, 2019

Figure 7: Shauri Moyo Floor plan (author, 2015)

Figure 8: View into Shauri Moyo street (author, 2010)

Figure 9: Arched arcade to the courtyard in Kaloleni (author, 2010)
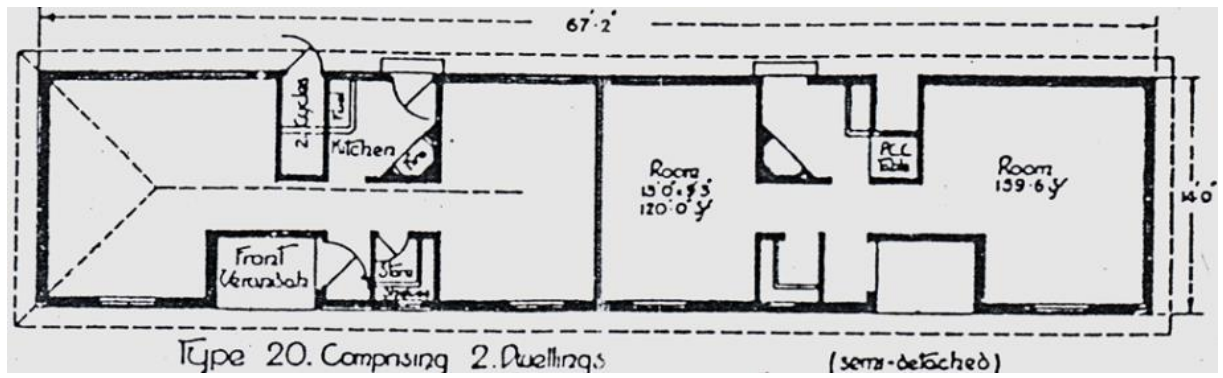
Figure 10: Floor plan of a 2-roomed semi-detached unit in Kaloleni (Ogilvie, 1946)

Figure 11: Perspective of a 2-roomed semi-detached Kaloleni house (Ogilvie, 1946)

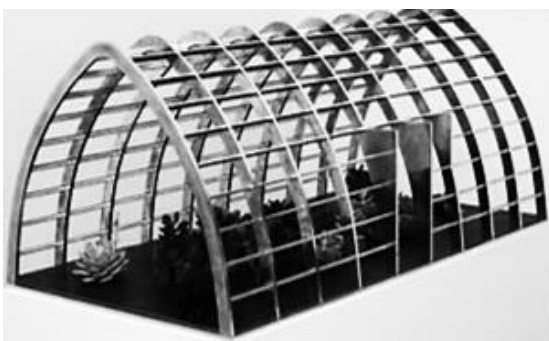Figure 12: Kaloleni unit with additive transformation (author, 2005)

Figure 13: Frame of the 'hook-on-slab' model (Tiven, 2013)

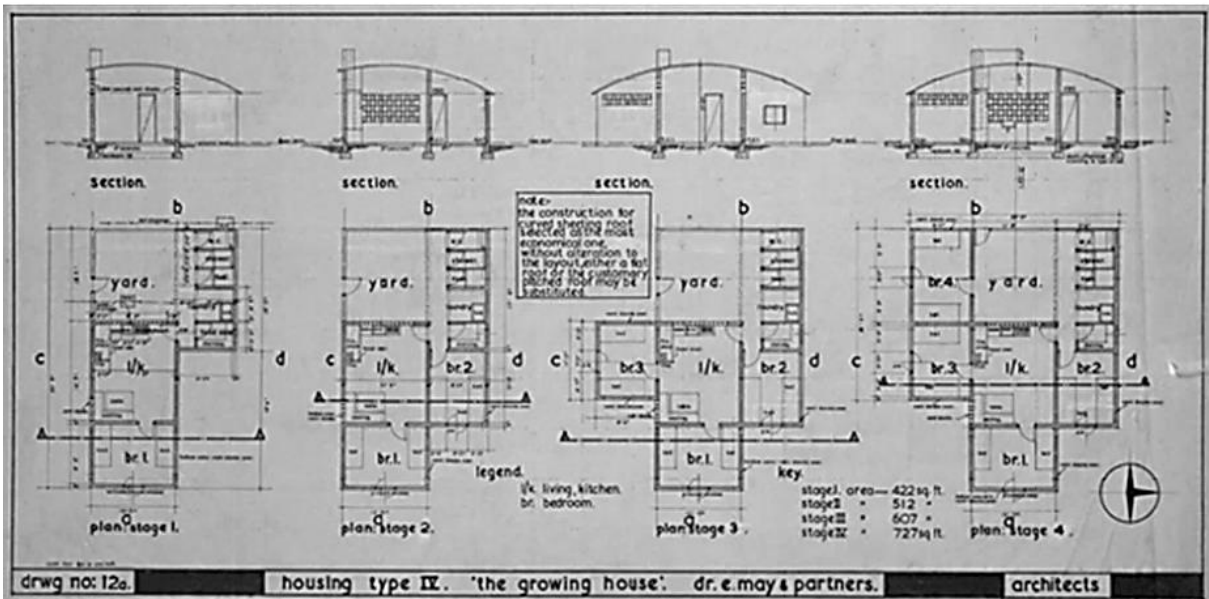Figure 14: Bahati extruded concrete technology houses (author, 2013)

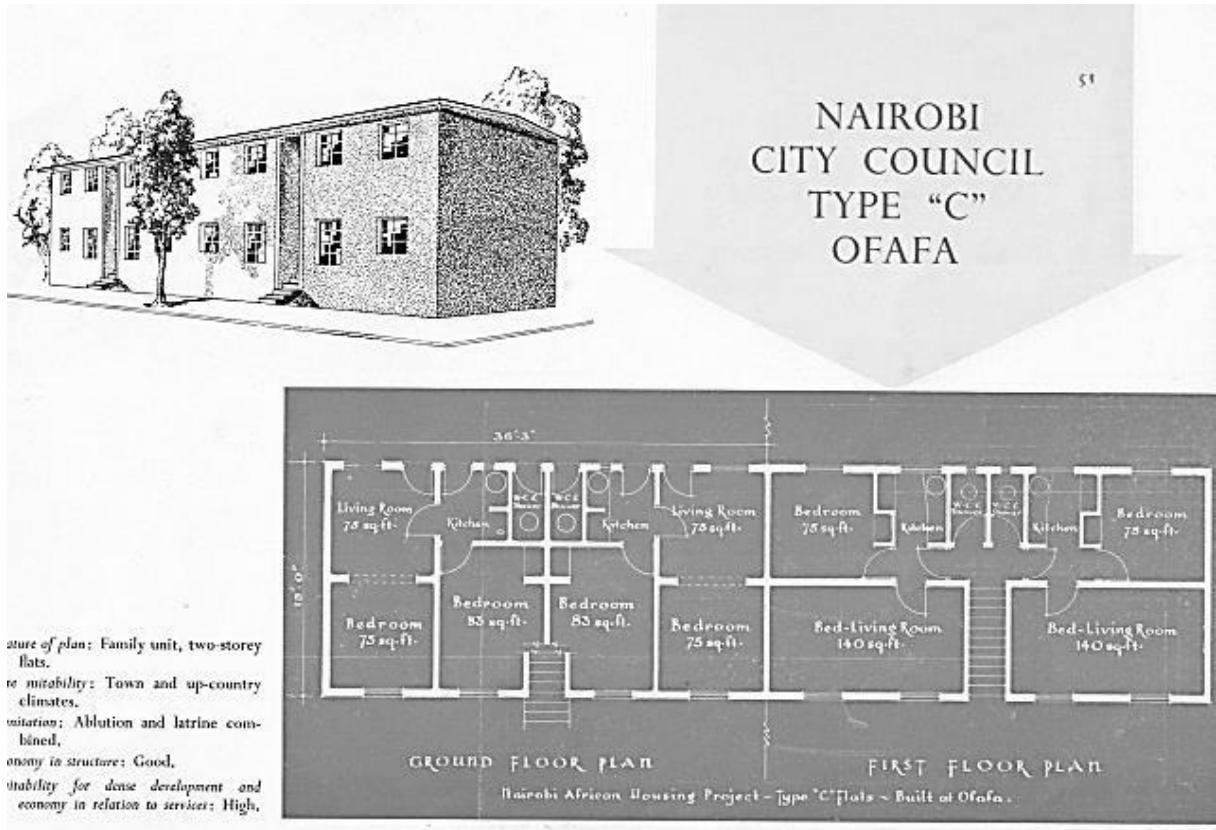Figure 15: Drawings of Ernst May's 'growing house' (May, ca.1953)

Figure 16: The Ofafa-C type (CHB, Kenya c.1960, 51)

Figure 17: Ofafa-C in Jericho estate with extensions (author, 2005)