

# Architectural *metabletica*: Transformation of the Kenyan Luo dwelling unit

\* Anthony Oduor Ralwala

Received on 19<sup>th</sup> July, 2021; Received in revised form 7<sup>th</sup> February, 2022; Accepted on 28<sup>th</sup> February, 2022.

## Abstract

Architectural transformations are a subset of socio-cultural change. Acculturation and adoption of new architectural tastes—due to colonialism and the Christian Missionary effort—introduced significant changes (*metabletica*) to Luo culture and architecture, at the levels of form, materiality, and spatial organisation due to shifts in modes of existence that departed from the pre-colonial model. Such changes are exemplified by absentee fathers in ‘modern’ homesteads, shrinking family units, and lost aspects of Luo culture such as warrior-hood. This study discusses socio-cultural changes, departing from a theoretical perspective of change, as a referential datum and anchor, to highlight transformations that have occurred in the architecture of the Kenyan Luo dwelling unit. Selection of built forms that adequately embody and exemplify these transformations was done critically, at the discretion of the author, from the various options of available artefacts. This method is described by Charles Jencks (1985 [1973]) as the ‘historian’s interpretative licence’. A hermeneutic (subjective) approach to architectural interpretation was adopted. Two Luo dwelling units, in a rural and urban setting respectively, were identified as units of analysis, to reveal architectural changes that have occurred since the traditional rondavel (hut) was largely abandoned by ‘modern’ Luos as a result of acculturation and shifts in architectural tastes. A critical analysis of identified seminal texts and journal articles, as secondary sources, was undertaken to embed the study in relevant theory in the research field of architectural (cultural) transformation. A semi-structured interview was conducted with a key informant, as a primary source, to reveal the architectural intentions in the Paul Achayo residence. Images (drawings) of the dwelling units, as socio-cultural texts, were read (analysed and interpreted) hermeneutic-ally, through critical observation, to describe underlying architectural meanings and transformations within them. A comparative analysis of the two units was undertaken using themes that were generated from the theoretical frame. The study established that the dwelling units had deviated from traditional organisation of interior layouts and adopted a pluralism of taste cultures to yield solidarity, interactive and dialectic materialist transformations. Further research should be conducted on incongruence between emergent typologies of built forms and Luo traditional culture.

**Keywords:** *Metabletica*, Luo, transformation, hermeneutic, dwelling, vernacular architecture

## INTRODUCTION

The term ‘metabletics’ was devised by Van den Berg (Fisher, 1993; Mook, 2007; Romanyshyn, 2008). It was coupled to phenomenology in order to enable an ontological study of reality with regard to anthropological existential changes which were perceived to be participatory, inductive or stimulatory (Romanyshyn, 2008). For Bertha Mook (2007), metabletics is the study of the changing nature of phenomena in human life as lived and experienced. It is thus a historical phenomenology within a given spatio-temporal

context. Significant changes in conceptualisation of built forms and spatial organisation may then be referred to as architectural *metabletica*.

Previously, researchers have viewed African art [and architecture] as “timeless, unchanging and collective”, stifling any presentations of alterations and modifications therein (Omari, 1990). Architectural transformations are mere manifestations of socio-cultural changes. The history of architecture has manifold examples

\*Corresponding author:

Anthony O. Ralwala, Senior Lecturer, Department of Architecture, Faculty of the Built Environment and Design, University of Nairobi, Kenya.  
Email: [ralwalaoduor@uonbi.ac.ke](mailto:ralwalaoduor@uonbi.ac.ke); [ralwalaoduor@gmail.com](mailto:ralwalaoduor@gmail.com)

of how the architecture of widely varying cultures reflected changes in social structures in response to forces emanating from exposure to different internal and external influences. These transformations are outlined, bearing in mind, the stimuli and catalysts, as agents, that initiated and sustained the consequent socio-cultural changes. These include colonisation of Kenya by the British imperialists, the advent of Christianity by European Christian Missionaries, and the struggle for political independence and self governance. The impact of these agents was the inevitable acculturation of the Luo.

Change theory is a referential datum and anchor, for the transformations that have occurred in the architecture of the Kenyan Luo dwelling unit. A discussion of theoretical perspectives of change is initially undertaken in the study prior to discussion of the units of analysis and research findings. For richer interpretation of transformations within Luo traditional architecture, Luo culture is treated as a system in this study, portraying analogy with a “biological organism with many interconnected parts” (Ferraro & Andreatta, 2012), in which a change in one part of the system induces change in other parts of the system.

## RESEARCH METHODS

The selection of built forms that adequately embody and exemplify these transformations was done at the discretion of the author, in a critical manner, from the various options of available artefacts. This method is described by Charles Jencks (1985 [1973]) as the ‘historian’s interpretative licence’. Thus, a hermeneutic (subjective) approach to architectural interpretation was adopted. The technique was deemed to be more fruitful than a strictly scientific or statistical approach, and this manner of presentation is consistent with the hermeneutic premise of this qualitative study. Two Luo dwelling units in a rural and urban context were identified as units of analysis, and discussed to reveal architectural changes that have taken place since the traditional rondavel (hut) was largely abandoned by ‘modern’ Luos as a result of acculturation and shifts in architectural tastes.

The archival method is used to analyse identified seminal publications relevant to the topic. Primary research in the form of a semi-structured interview was conducted with the architect of Paul

Achayo residence to obtain first hand information regarding architectural intentions and concepts as well as background information of the client. The ecosystem method of reading an artefact as an embodiment of ecology of contexts is employed when reading the images (drawings) of the two houses under investigation, as cultural texts, to describe underlying meanings in a hermeneutic (subjective) manner, despite any opposition that may arise. The investigated variables were form, spatial organisation, materiality and construction technology, with regard to goodness of fit with traditional Luo culture and plurality of architectural tastes. Thematic aspects of transformation generated from the theoretical frame were employed in the comparative analysis of the two dwelling units.

## Delimitations and exclusions

No attempt was made to demonstrate isomorphic relationships between the described changes and their stimuli on the basis of the cause-effect concept because the approach would not add any value to the discussion and findings as it is more suited to quantitative research methods.

## THEORY

### Cultural dynamism: change and transformation

According to Ayisi (1992 [1972]), the term social change has been defined, through mutual agreement amongst sociologists, as change “which occur[s] in the social structure of societies”. Such changes create transformations that have architectural implications. New architectural typologies and institutions as well as typological modifications of traditional built forms provide evidence for these transformations. Since the advent of Christianity and the onset of colonialism in Kenya, the architectural character of the Luo cultural landscape has changed significantly. New taste cultures have been adopted as a result of acculturation (Mazrui, 1977; Mazrui, 1980). A significant proportion of the Luo populace has migrated to urban areas leading to rapid urbanisation of Kisumu and its environs (Atieno-Odhiambo & Cohen, 1989; Soja, 1968). Thus ‘slums’ have emerged as a new typology of settlement.

Changes in land ownership from community to individual parcels, has created the desire for more permanent (durable) structures by some members

of the Luo community. New construction materials like corrugated iron sheets (Miruka, 2001), which are perceived to be more 'prestigious' than indigenous thatch are now routinely used for roofing vernacular structures. This is regrettable due to their questionable performance with regard to human thermal comfort. Appropriate technology, in the form of stabilised soil blocks as walling material, can now be observed readily in Siaya County. This is a more 'sensitive' technology that uses the same local material with additional enhancement to suit the emergent architectural typologies for new institutions like churches, schools and factories, which lack historical and traditional precedence in the Kenyan Luo region.

These changes indicate the incongruence of 'alien' Western education systems and the community based indigenous education that was propagated using oral traditions such as *sigendini* (narratives) (Mazrui, 1978; Miruka, 2001). Consequently, traditional Luo philosophy of life, as well as ethos and world views, have been persistently questioned by the Luo. Shifts in power relations and societal control, from the traditional council of elders (Oloo, 1969), to British imperialism and finally to national statecraft and county governments, have taken place.

Economic diversification has resulted in better access to markets and Government extension services. New trends regarding division of labour have emerged. These have arisen from absentee husbands who are engaged in employment in urban areas. Thus, women have assumed hitherto prohibited roles, including taking charge of, and overseeing the process of construction of dwelling units (Atieno-Odhiambo & Cohen, 1989), within Luo homesteads. Traditional warrior culture has been abandoned by the community.

### **Change and Transformation of Vernacular Architecture**

Stea & Turan (1990) proclaim that economic growth is the stimulus for change within the vernacular societies. Such change encompasses the physical expansion of territory due to increased land acquisition, trade, immigration and economic opportunities. These changes are significant to the extent that they can alter the taste culture of individuals in a society, enabling communities to incorporate new technology, techniques, materials, craft and decoration, and may eventually result in

the modification of vernacular forms.

Economic advancement of the rural population in Kenyan Luo-land has resulted in the accumulation of disposable wealth leading to materialistic consumption. To expose their improved economic status, individuals have altered vernacular house forms and geometry to suit their tastes for new materials such as corrugated iron sheets. To a large extent, the rondavel (cone on cylinder hut typology) has been substituted by its rectangular counterpart due to ease of roof construction. These changes have mostly occurred without any architectural input and in some cases, the results have been disastrous.

The inability of the majority of rural Luos to access architectural services can be attributed to the fact that institutionalised architecture has concentrated on the upper echelons of the society. Oliver (2006) observes that corrugated iron sheets have been detrimental to vernacular societies. Problems associated with the use of new materials such as excessive rusting, persistent leakages, undesirable heat accumulation and erosion of external walls can be eliminated by appropriate architectural intervention in the rural set up. Corrugated iron sheets have many virtues and when used properly may facilitate the evolution of a new Luo vernacular architecture. Oliver (2006) outlines some of these virtues as flexibility and strength, ease of replacement, durability, lightness of construction, less consumption of timber, increased speed of assemblage and rain water harvesting.

Fathy (1973) asserts that in future, vernacular architecture must pursue a unity of people and their architecture in an environment that incorporates their local landscape, fauna and flora. However this future must be capable of dealing with emergent challenges of modern existence. Vellinga (2006) identifies some of the expected challenges as conformity with changing planning regulations and standards, engagement with climate change, accessibility of mortgage services and insurance facilities, as well as diminishing resources due to rapid population growth.

Kenyan commercial banks have set precedence by emulating micro-finance institutions to 'deal financially' with the Kenyan rural populace. It is only a matter of time before insurance companies

and building societies begin to package their products to target the domain of vernacular architecture as a profitable business undertaking.

**Theoretical Framework**

The theoretical discussion below generates and provides justification for the thematic comparative analysis that is employed in the description and interpretation of transformations in the two dwelling units that are discussed in this study.

**Socio-cultural change: A theoretical perspective**  
 Society is constantly in a dynamic state of flux,

and the consequent changes may be perceived, arguably, as progressive or regressive, although Heraclitus—a Greek pseudo-philosopher—insisted on a decadent trajectory (Ayisi, 1992 [1972]). However, for Auguste Comte—a sociologist and philosopher—societal change occurs in an evolutionary tripartite sequence of increasing complexity, ranging from the theoretical or fictive stage, to metaphysical-philosophical stage, and eventually into the scientific or positive stage (Ayisi, 1992 [1972]; Ralwala, 2013). **Table 1** is a synopsis of the Comtean change theory:

**TABLE 1**  
 Comtean change theory

STAGE OF CHANGE	ATTRIBUTES	ARCHITECTURAL IMPLICATIONS
Fictive	Simple existence limited to strategies of survival relating to bio-physical constraints and opportunities.	Simple built forms derived in a pragmatic manner from the context. ‘Primitive’ architecture resonating with hunting, gathering activities.
Metaphysical	Development of philosophy and ethos of life, including rational world views.	Iconic structures synonymous with vernacular architecture, indicating a sustained fit with local culture.
Scientific	Science enables freedom (liberation) from superstition bondage.	Multiplicity of taste cultures and pluralism of architectural expression is realised through advanced <i>techne</i> .

**Source:** Adapted from Ayisi, 1992 [1972]

The limitations of the Comtean model of societal change arise from its predictive nature with regard to a linear progression of transformation, ignoring the possibilities of sudden changes (known as *metabletic* shifts) or alternative permutations of evolution. Comte does not address the need for a stimulus or catalyst to initiate and anchor such transformations. Possible stimuli and catalysts could arise from the interaction of neighbouring communities through trade and intermarriage, as was the case for the Kenyan Luo during their migration and settlement into their present homeland, or the advent of Western missionaries into Luo-land, as well as the impact of British imperialism. The theme: ‘Nature of change’ is derived from Comtean theory. It is categorised

into ‘Metaphysical change’ which focuses on goodness of fit of an architectural artefact with Luo culture; and ‘Scientific change’ which is linked with pluralism of architectural taste cultures. For the anthropologist Emile Durkheim, changes in societies could be attributed to the nature of solidarity [cohesiveness] within a particular community, and this solidarity could be characterised as mechanical or organic (Ayisi, 1992[1972]). Durkheim’s model, like Comte’s is an evolutionary theory and although it was formulated in relation to Law, it may be co-opted into architecture to understand transformations within built forms. **Table 2** highlights the Durkheim theory of change:

**TABLE 2**  
 Durkheim's model of societal change

SOCIAL COHESION	ATTRIBUTES	ARCHITECTURAL IMPLICATIONS
Mechanical solidarity, as the initial societal stage of progress.	Strong collective conscience, antithetical to Law, because of community regulation of behaviour, beliefs and action.	Luo built forms and typologies in the pre-colonial period. Uniformity of culture expressed in similarity of construction technique, materiality and architectural typologies.
Organic solidarity, as the culmination of societal progress.	Prevalence of contractual organisation systems, evident in specialisation of skills and division of labour, within an interdependent community that lacks a collective conscience.	The emergence of architects' architecture amongst the Luo in counter position to 'architecture without architects' now categorised as rural or indigenous Luo vernacular architecture. The introduction of new built forms and typologies: churches, factories, schools and offices are suitable exemplars.

**Source:** Adapted from Ayisi, 1992 [1972]

The theme of 'Solidarity transformation' is derived from the Durkheim theory. Solidarity changes can be categorised into 'mechanical change' which indicates consistency without extensive deviation from pre-colonial Luo architecture in works that are domiciled in 'architecture without architects; and 'organic change' which indicates acceptance

and entrenchment of architect's architecture. For the German sociologist Max Weber, the progress of societal change can be rationalised in a historic manner, based on the "rejection of magical ideas", as a result of increasing knowledge and understanding within a community (Ayisi, 1992 [1972]). This is outlined in **Table 3**

**TABLE 3**  
 Weberian model of societal change

SOCIAL GROUPING	ATTRIBUTES	ARCHITECTURAL IMPLICATIONS
Gemeinschaft group	A primary level of social interaction based on frequent face to face communication systems. This is anchored on traditional leadership codes.	Promotes traditional systems of architectural production. Specialised craft and artisan skills are propagated through well established and delineated apprenticeship systems that are regulated by the community, including traditional beliefs, norms and rituals.
Gesellschaft group	A secondary level of interaction that fosters a charismatic leadership that is both legal and rational.	Promotes architectural innovation that sustains enduring change. New architectural technologies, typologies, stylisation and institutions are adopted in pursuit of 'modernisation' of traditional systems yielding permanent change.

**Source:** Adapted from Ayisi 1992 [1972]

Thus, the Weberian theory indicates "how tension between tradition and innovation produces enduring change" (Ayisi, 1992 [1972]), and this should be discernible in the built forms and their disposition within the Luo cultural landscape. The theme of 'Interactive transformation' can be discerned from Weberian theory. Interactive changes may be categorised as 'Systemic change' which indicates deviation from traditional systems of construction including craftsmanship and apprenticeship; and 'Innovative change' that is discernible from the adoption of new construction technologies and 'alien' architectural styles.

Karl Marx developed a dynamic theory of societal change that can be categorised as a conflict theory that raised controversy and achieved praise in equal measure, indicating its potency as a means of comprehending socio-cultural change within communities. According to Raymond Firth (in Ayisi, 1992 [1972]), Karl Marx took the position that conflicts did not occur randomly but were "specific outgrowths of the structure of society". Marx utilised the Hegelian dialectic [binary oppositions] method of analysis to argue that "the only way in which social conflict could produce structural change was by revolutionary upheaval"



(Raymond Firth in Ayisi 1992 [1972]), attracting constant debates, oppositions and refutations. The Marxist model is described by Firth as 'a materialistic interpretation of history'.

The trajectory of Marx's model departs from primitive existence through feudal societies, followed by industrial societies to culminate in ideal socialist or communist types of societies that are devoid of societal stratification into classes. The feudal and industrial types of society are incompatible with the Kenyan Luo, based on their historical migration and communal system of land ownership prior to colonisation of Kenya. However the 'primitive' aspect may describe pre-colonial existence due to the rudimentary technology that was applied in the construction of buildings. It may also be argued that the communal existence both before and immediately after colonisation portrayed aspects of communism or socialism. This has been previously described as African Socialism or Negritude (Kwame Nkrumah in Ayisi, 1992 [1972]; Ochieng', 1995; Mazrui, 1977). The theme of 'Dialectic materialist transformations' is derived from the Marxist theory. This theme focuses on tangible manifestations of interconnectedness and interdependence of existence pertaining to dwelling units of the Luo community. The changes are discussed at the levels of 'traditional communal-ism' and 'modern individualism'.

The transformations within Luo architecture, as *metabletica*, may thus be understood from the evolutionary theories of Comte, Durkheim and Weber, as well as from the conflict theory of Karl Marx, especially with regard to political marginalisation of the Kenyan Luo, post-election violence and general antagonisms and disagreements between Luo political leaders and post-independent Kenyan Governments of Jomo Kenyatta, Daniel Arap Moi, Mwai Kibaki and Uhuru Kenyatta. Such marginalisation has confined the majority of urban Luos to existence in informal settlements.

Socio-cultural changes may be categorised as structural or organisational (Ayisi, 1992 [1972]). Transformations within the components of a socio-cultural system, including the sizes of family units and extent of kinship, are considered as structural changes. However, a "new way of doing things" is referred to as organisational change, including how these manifest themselves economically,

politically, technologically and through shifts in religious beliefs (Ayisi, 1992 [1972]). Both structural and organisational changes are described collectively, as transformations that pertain to cultural manifestation and spatial organisation within Kenyan Luo architecture.

## RESULTS

### The David Odhiambo residence in Sakwa, Bondo, Siaya County

This residence is an example of a transformative 'bottom-up' dwelling unit that was realised in Luo-land, in 2016 (**Figures 1 to 6**). The client did not consult a trained architect, but liaised with architectural technicians who developed the drawings for the project on the basis of verbal dictations from the client. Thus, the building has not been subjected to any interpretation or influence by an architect. This makes it suitable for analysis as a 'pure' intervention of a modern Luo in the Luo cultural landscape. The owner, Mr. David Ochieng' Odhiambo, belongs to the Luo community. Odhiambo works for the Co-operative Bank of Kenya, Bondo Branch, in Siaya County. He currently resides in the building and commutes daily to his place of work in the nearby Bondo Town. Odhiambo is married, with a young daughter who attends a primary school in the local neighbourhood. The plot (L/R) no. of the site is North Sakwa/ Nyawita/ 5848-BONDO DISTRICT. The building is located on flat topography within Odhiambo's father's homestead. The physical context of the building is rural and residential.

The project was financed through a 'soft' loan from the same bank where Odhiambo works. For Odhiambo, the completion of the dwelling unit is a big achievement that demonstrates his *Nyadhi* (ceremoniousness). The drawings of the building were obtained courtesy of the author's colleague at the University of Nairobi, Qs. Belis Ochieng'. Qs. Ochieng' provided quantity surveying consultancy services for this project and is therefore familiar with the client's background as well as architectural intentions. However, the drawings do not include a site plan due to its unavailability. This is indicative of the inferior quality of service that results when architects are not consulted in a project of this nature. These drawings are presented in their original form to show the conception of the building from an architectural technician's perspective.



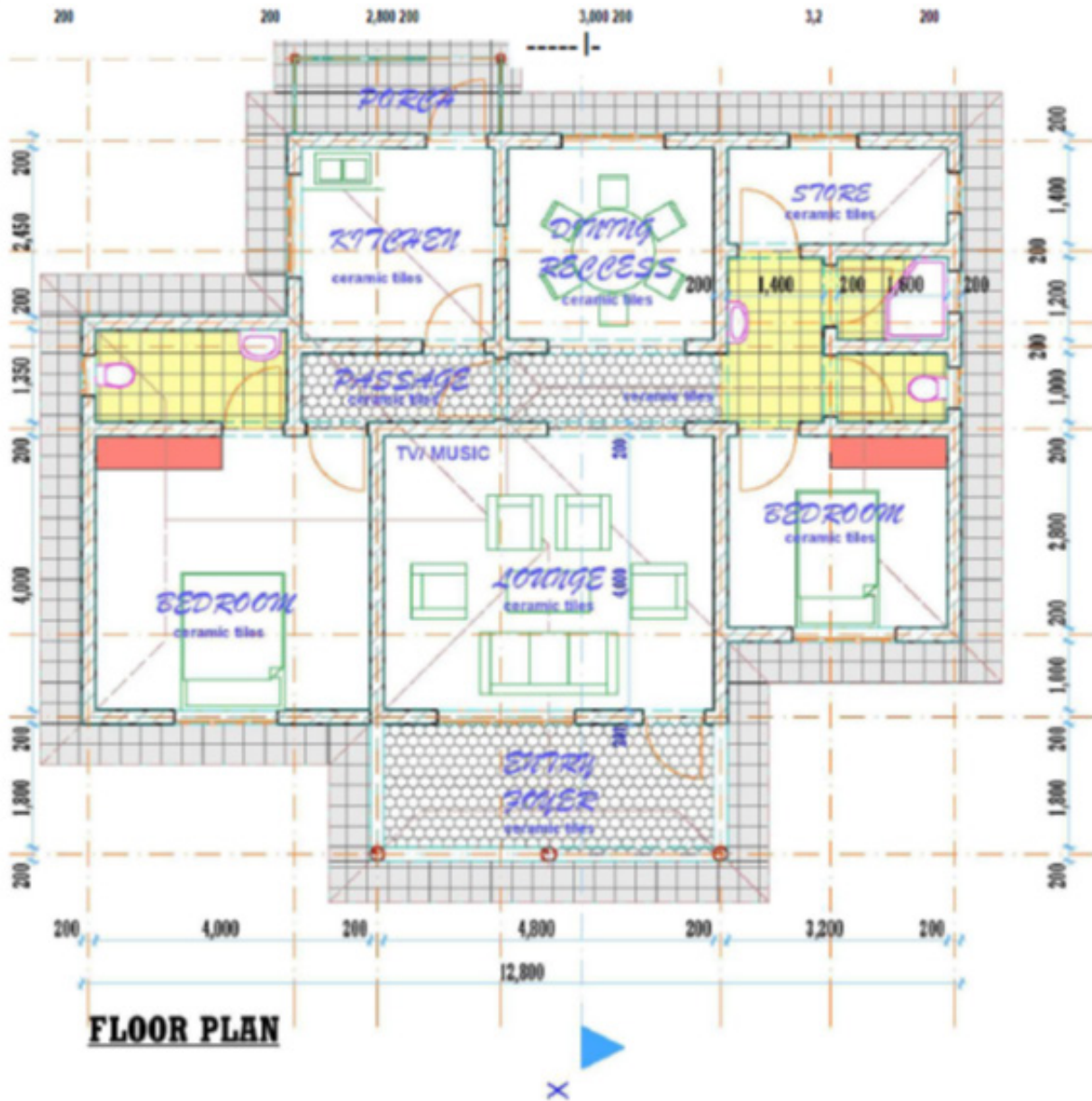
**FIGURE 1**  
Front view of the Odhiambo residence, Sakwa  
**Source:** Qs. Belis Ochieng', 2017



**FIGURE 2**  
View of the Odhiambo residence Sakwa  
**Source:** Qs. Belis Ochieng', 2017



**FIGURE 3**  
Rear view of Odhiambo residence, Sakwa  
**Source:** Qs. Belis Ochieng', 2017



**FIGURE 4**  
 Ground floor plan of Odhiambo residence, Sakwa  
 Source: Qs. Belis Ochieng', 2017



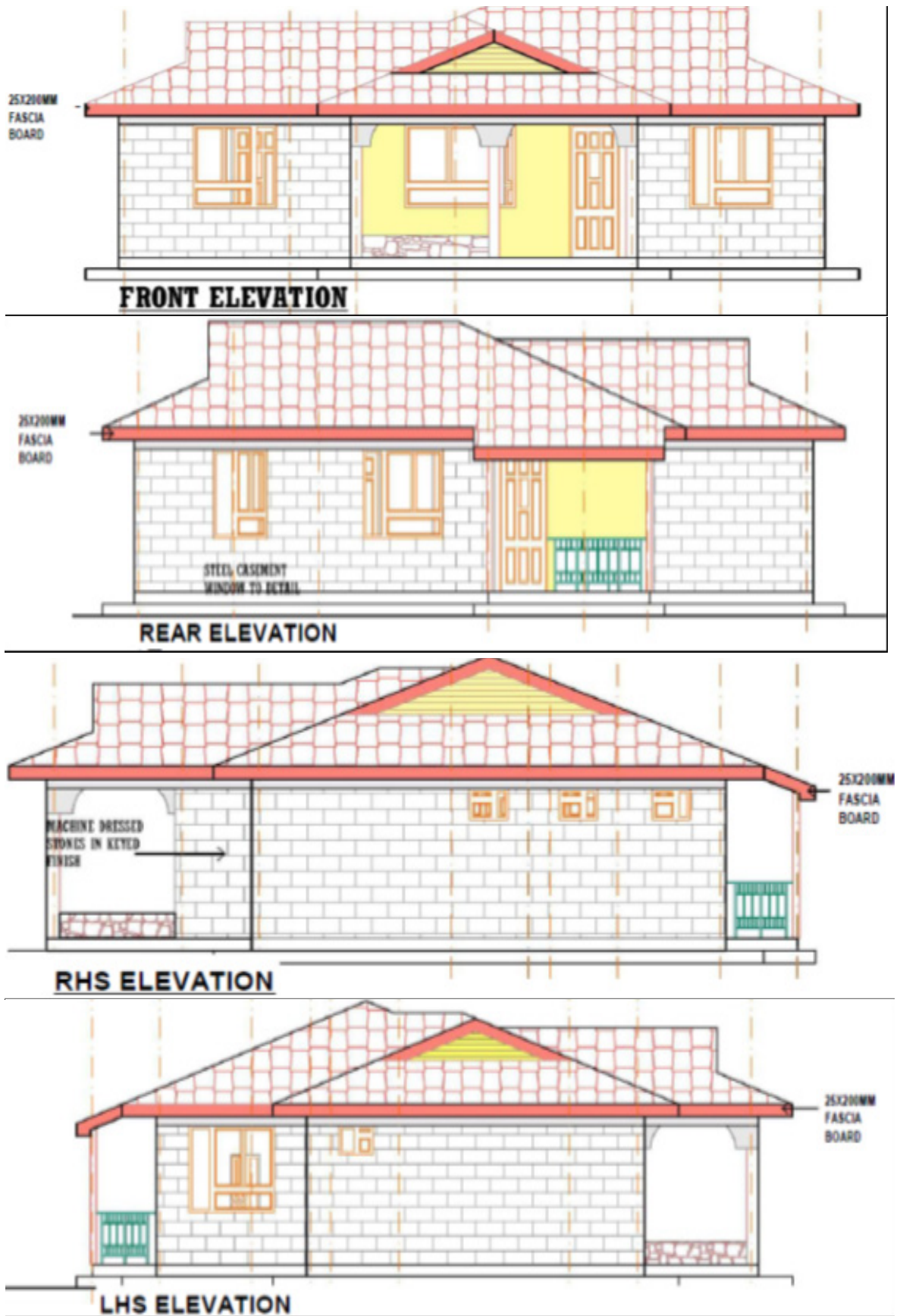
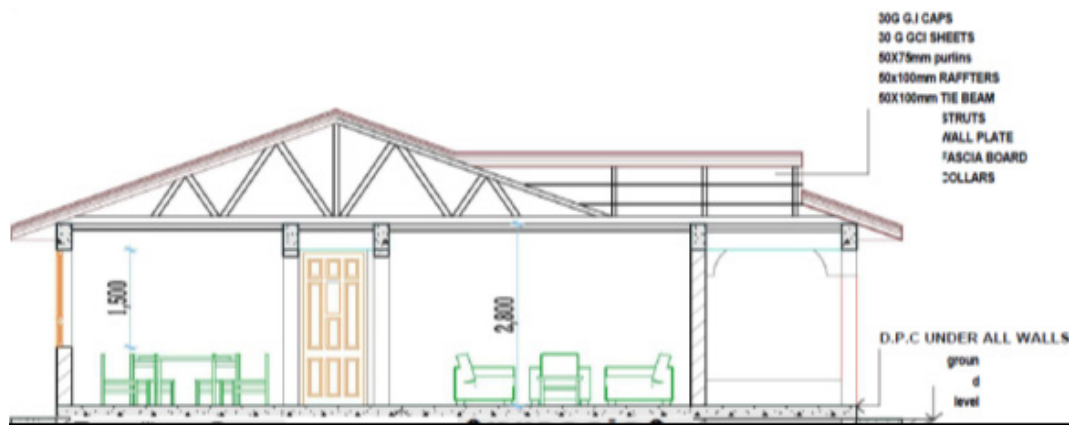


FIGURE 5  
Elevations of Odhiambo residence, Sakwa  
Source: Qs. Belis Ochieng', 2017



**FIGURE 6**  
Section of Odhiambo residence, Sakwa.  
Source: Qs. Belis Ochieng', 2017

In **Figure 1** the large water storage tank symbolises self-sufficiency. The traditional storage tank, *dag pi*, was internally located within a traditional Luo hut. It has now been replaced by huge plastic external water storage tanks, which indicates the 'modern' social status of Mr. Odhiambo.

The drawings can be critiqued on the basis of competence of their author and designer (architectural technician). Their shortcomings indicate the need for 'modern' Luos to consult architects who would be more capable of providing professional interpretation of their desires with regard to built forms.

**Form:** The building is a bungalow with hipped roofs and an arched entry porch. The orthogonal footprint is antithetical to the circular footprint of the traditional rondavel. The broken hipped roof does not make any attempt to recall the conical roof of the rondavel. The section through the building does not reveal the traditional gap (space) between the ring beam and the roof. This gap was vital for maintaining the mandatory link with Luo ancestors as well as aerodynamic ventilation of the dwelling unit. 'Modern' cooking methods that do not generate smoke also render the space 'irrelevant' in 'modern' Luo houses. Moreover, the absence of this space is a clear indication of diminished status and significance of the Luo ancestors for 'progressive' modern Luos. This provides evidence for the acculturation of the house owner. Moreover, the spaces within the house are now clearly specialised and function specific, unlike the traditional spaces which were often used spontaneously, with organisations that changed in the course of the day, consistent with

the requirements of Luo culture.

**Spatial Organisation:** The spatial organisation is informed by the requirements of modern existence rather than continuity with Luo traditions. The spaces do not function well from an ergonomic perspective. The lounge is too small and its spatial quality is destroyed by circulation through it. The kitchen is too small and not multifarious. It is only designed for cooking and seating. The passageway (corridor) is an interior street that provides opportunity for interaction amongst the members of the household. However, this 'street' is neither naturally lit nor ventilated. As the plan (**Figure 4**) reveals, the house is organised to provide a central public and semi-public space that starts from the entrance lobby, through the lounge and finally to the dining area. The private functions (bedrooms and bathrooms) are located on the 'wings'. Thus, the house utilises a cruciform plan, in an intuitive rather than deliberate manner, for interior spatial organisation. This house attempts to continue certain aspects of Luo traditional architecture. These include the anthropocentric scale of construction; the use of the entrance lobby as transition space, in a manner that recalls the traditional Luo *Lar*; and kitchen activities flow outward. The lounge (living room) is the new *Duol* that faces the entrance. This lounge is still a focal point from which any person orients themselves to other spaces within the house. There is a deliberate separation of the children's bedroom from the master (parents) bedroom. This is consistent with the separation of parents' and children's sleeping zones that was enforced in Luo traditional architecture. Despite all the internal bathrooms, a pit latrine is still included

in the compound, indicating the reluctance of the owner of the house to share his private bathrooms with both neighbours and kin. However, the house also reveals aspects of incongruence with Luo culture. Nearly all the activities of the house are concentrated internally, portraying introversion, unlike in the pre-colonial set-up. This sense of individuality is further emphasised by the modern furniture, lack of traditional Luo cultural artefacts in the interior and individualistic rather than communal form of dwelling.

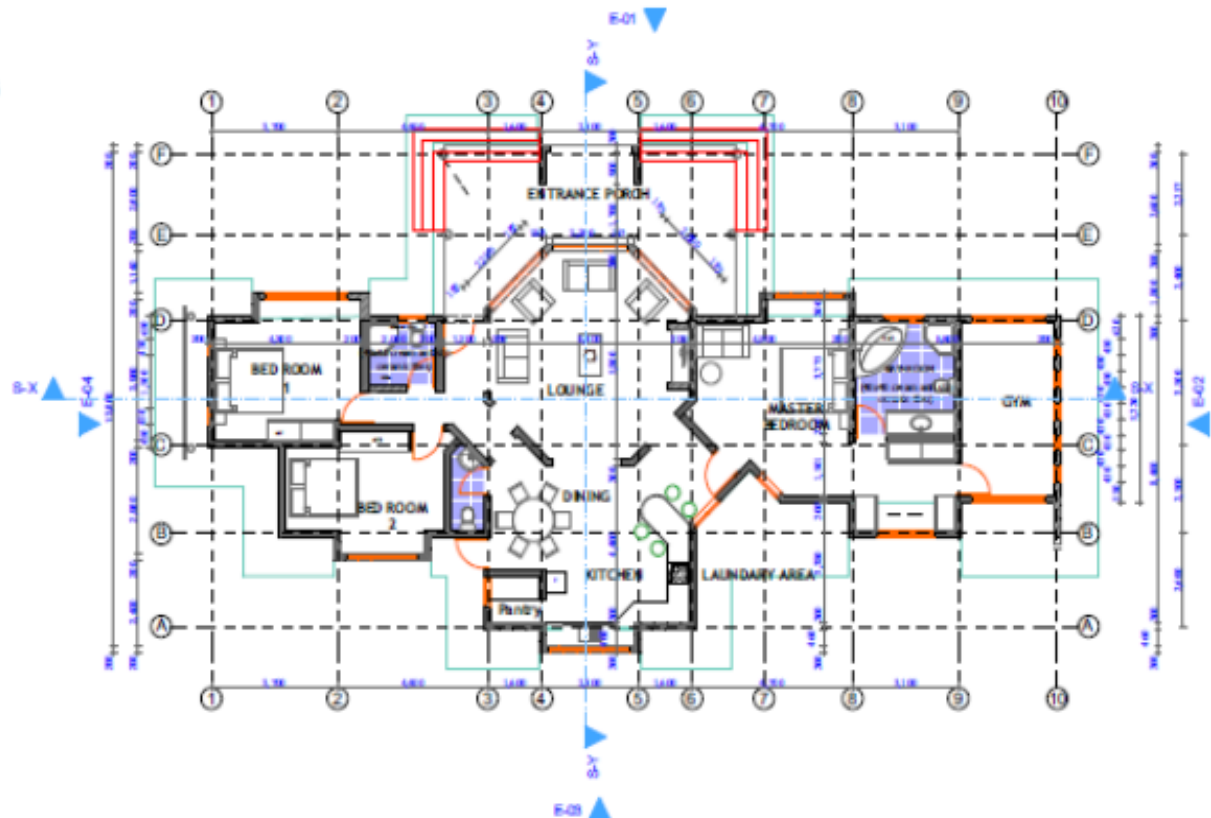
**Materiality:** The materials employed in the construction of the house are ‘modern’ and ‘progressive’. These materials include dressed natural stone, steel casement windows, and ceramic tiles in all the habitable spaces, corrugated iron sheet roofing, and timber trusses, rafters and fascia.

**Construction Technology:** Figure 6 above shows the post and lintel construction system and the modern furniture used by the owner of this residence. The walls are load bearing elements. Interior supports were absent in traditional dwelling units of the Luo. Here, the ‘modern’ spatial

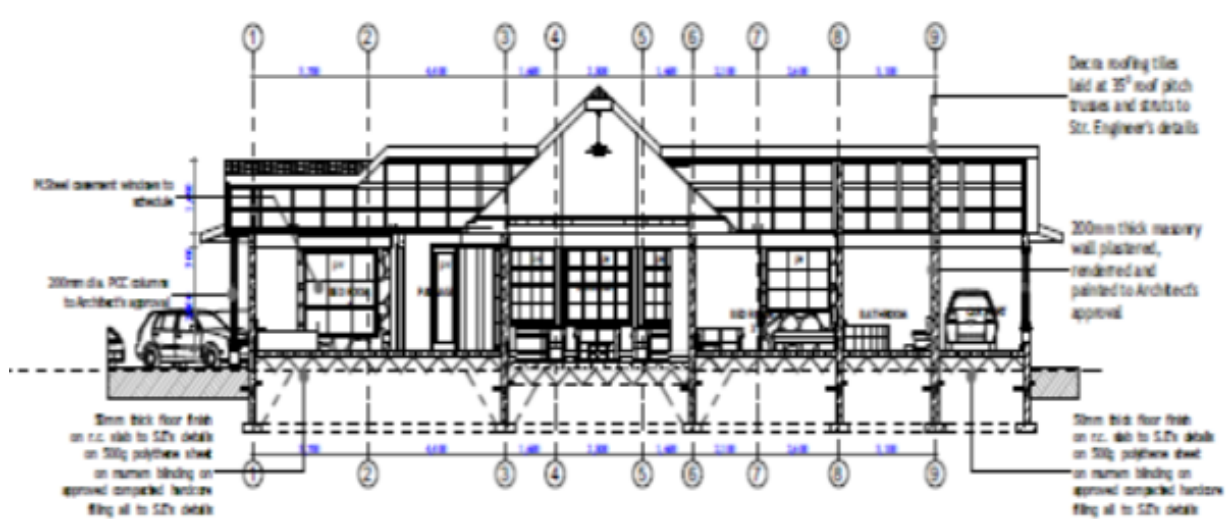
organisation, its structural requirements and span limitations of the construction material demand abutment at specified intervals. Piles of sand and aggregate that were left over after construction remain visible, an indication of inefficiencies of the modern construction process when compared to the traditional counterpart that did not leave any surplus material, as wastefulness was not condoned. Gum poles that were used as scaffolding during construction have been salvaged, possibly for use as firewood.

**The Paul Achayo residence, Kisumu suburbs.**

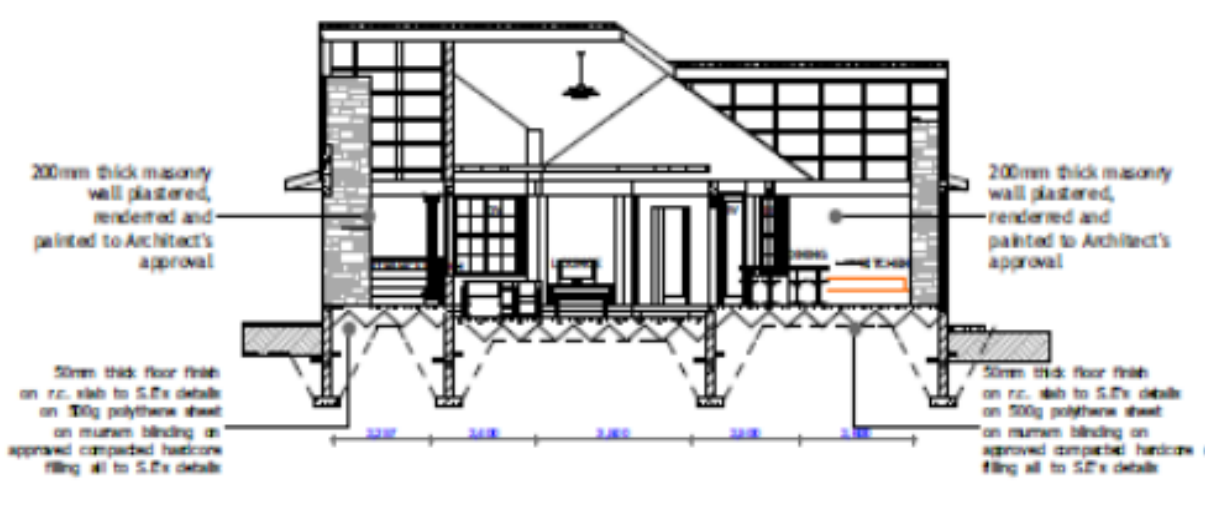
Like Odhiambo, Paul Achayo is a ‘modern’ Luo. However, Achayo is a much more powerful and wealthier individual compared to Odhiambo. Achayo is a prominent local politician who was a member of the County Assembly of Kisumu, representing Migosi Ward from 2013 to 2017. The drawings and images of **Figures 7 to 14** were obtained from the project architect himself, Arch. Phillip Okello Ochieng’, a lecturer at Jomo Kenyatta University of Agriculture and Technology (JKUAT), Department of Architecture. Arch. Okello belongs to the Luo community. Mr. Achayo is married, with two children.



**FIGURE 7**  
Ground floor plan of Achayo residence, Kisumu  
Source: Arch. Philip Okello, 2017

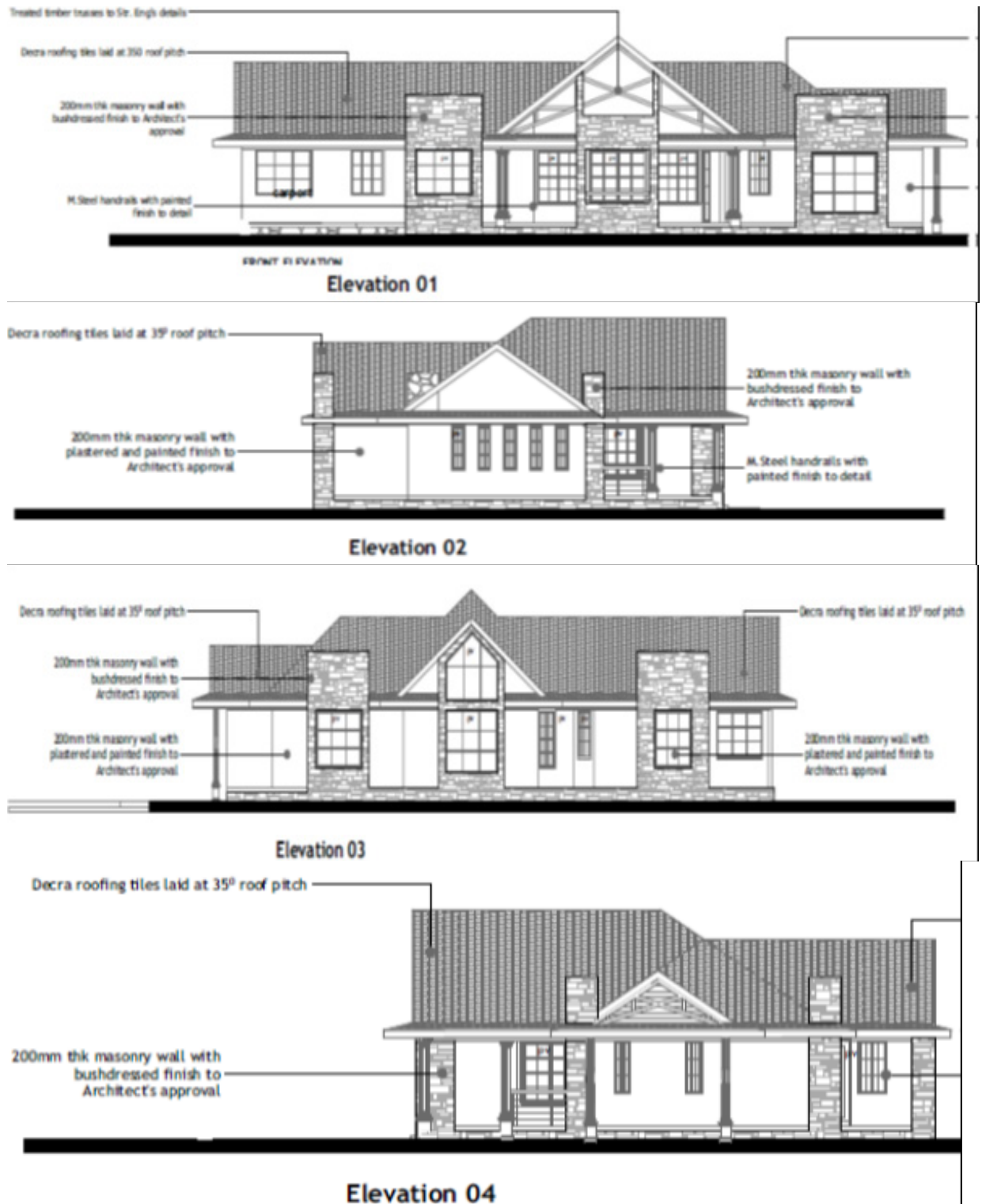


**FIGURE 8**  
 Section X-X through Achayo residence  
 Source: Arch. Phillip Okello, 2017



**FIGURE 9**  
 Section Y-Y through Achayo's residence, Kisumu (  
 Source: Arch. Phillip Okello, 2017





**FIGURE 10**  
 Elevations 01, 02, 03 and 04 of Achayo residence, Kisumu  
 Source: Arch. Phillip Okello, 2017



**FIGURE 11**  
Architectural rendering of the front view of Achayo residence, Kisumu  
Source: Arch. Phillip Okello, 2017



**FIGURE 12**  
Architectural rendering of a rear view of the Achayo residence, Kisumu  
Source: Arch. Phillip Okello, 2017



**FIGURE 13**  
Architectural rendering of a rear view of the Achayo residence, Kisumu  
Source: Arch. Phillip Okello, 2017

Figures 8 and 9 shows that cars are now the trendy prized possessions, and have replaced cattle as architectural spatial determinants. Cattle were the wealth yardstick in traditional Luo architecture. The competence of an architect in the design of the elevations is discernible in Figure 10. The grand entrance is clearly articulated as shown in Figures 11, 12 and 13. The objective of the inclusion of Achayo residence in this study was to provide a balanced presentation of dwelling units of the modern 'affluent' Luos, who proceed to build their homes (residences) with or without architectural consultation. The architect-designed Achayo residence exhibits adequate and functional spatial organisation from the perspective of user requirements, utility and ergonomics. However, the in-house gym is not accessible to other family members. This accessibility deficiency may be explained by the fact that Mr. Achayo's children are still quite young and do not therefore need to use the gym.

**Form:** According to the project architect, the client did not particularly insist that aspects of Luo culture be incorporated into the design solution (Okello, 2017). However, the residence was to exhibit the political might of its occupant, which was to be expressed in a bold and elegant manner as an architectural form (Okello, 2017). The architect responded by providing a grand entry porch which was articulated in plan, elevation and overall form. The building has an accentuated entrance. The high pitch of the roof emphasises the status of the house occupant, as Luo *Nyadhi*. The level change at the stepped entry, the large volume of the entrance lobby, and the use of columns with ribbed shafts dramatise the experience of entering the house. This feature is an architectural re-interpretation of the traditional Luo *alap* that was in front of the *Duol*. The *alap* is now presented in a modern context. The grand nature of the dining area is also highlighted in terms of the larger window and 'gabled' portion of the roof (Figure 13).

**Spatial Organisation:** As can be seen from Figure 7 the organisation of Achayo residence portrays similarities with the organisation of Odhiambo residence. The plan of the house depicts a fusion of modern spatial organisation with privacy requirements of Luo culture, as well as the personal requirements and tastes of the owner, Mr. Achayo. Moreover, the architect achieved spatial separation of parent's and children's bedrooms

(in a similar manner to Odhiambo residence) while catering for the client's demand for spatial requirements that promote 'modern' existence. This is exemplified by the provision of a walk-in closet area within the master bedroom to which a 'modern' gym is attached. The adjusted cruciform plan is evident in the organisation of both Achayo and Odhiambo residences. This is, perhaps, indicative of an emergent typology of the modern dwelling unit in Kenyan Luo-land.

However, the cruciform is employed intuitively once again, and not on the basis of the occupant's affiliation with Christianity as a religion or way of life. The porous nature of this lounge recalls the porosity of the traditional *Lar*. Within the Achayo residence, the lounge activities flow externally to the outdoors. This interior-exterior relationship holds true for kitchen and dining activities as well, and this indicates an intuitive desire for outdoor spatial activities that were accommodated in traditional Luo architecture. The dual synthesis is also expressed in the open nature of the lounge, dining and kitchen areas when compared to the compartmentalised bedroom, bathroom and gym areas. Thus, a clear distinction is achieved between public and private areas within the Achayo residence, in continuity with pre-colonial Luo traditions.

**Materiality:** In this building bush dressed natural stone masonry walls, plastered and painted wall surfaces, and the meticulous balance between solid and glazed surfaces are discernible. The building has steel casement windows, steel handrails on the balustrades at the entry porch, ceramic tiled flooring, white painted timber fascia boards, and red Decra roofing tiles. Soft landscape is evident in the manicured lawns and the shrubs that are used for boundary demarcation. Hard surfaces can be seen in the paved walkways and tarmacked driveway.

**Construction Technology:** The octagonal plan of the lounge (*as Duol*) seems to be an architectural interpretation of the traditional *rondavel* that acknowledges the 'difficulty' in reviving the *rondavel* through the use of natural stone construction. The post and lintel construction system is employed coupled with the use of walls as load bearing elements. Pre-cast concrete columns and timber trusses are used to support the large gable roof over the entry porch.



TABLE 4

A comparison of transformations in Odhiambo and Achayo Residences

THEMATIC ASPECT	DAVID ODHIAMBO RESIDENCE	PAUL ACHAYO RESIDENCE
Nature of change	Metaphysically, the building is isolated as an expression of individuality, in opposition to traditional communal Luo existence. The floor plan exhibits spatial compartmentalisation which promotes mono-functional spaces that are incompatible with traditional multifunctional dwelling units, an indication of 'scientific change' resulting from a plurality of taste cultures.	Metaphysically, the anthropocentric scale of the dwelling unit is evident, consistent with the scale that was employed in Luo traditional architecture. Dressed natural stone, painted plastered walls, the red tiled roof and the play of light and shadow continue the rhythm and harmony of seasons and time of day, characteristic of traditional Luo architecture. The collage of materials as 'scientific change' creates a pluralistic aesthetics, reflecting the owner's multiple identities.
Solidarity transformation	The design departs from 'mechanical solidarity' of pre-colonial architecture as it is a work of architecture without architects.	The design exhibits clear, well resolved architectural intentions, indicating the deliberate entrenchment of architect's architecture as 'organic solidarity'
Interactive transformation	The use of columns is not new to Luo architecture. However, 'innovative change' is evident in the arches on the entry porch, indicating a new 'superior' architectural language and taste, consistent with the acculturation of the owner. 'Systemic change' can be seen from the electricity pole in the compound which is compatible with the new cultural artefacts within the house (TV and music stereo). These electrical gadgets have replaced traditional artefacts such as the spear, shield and animal horns.	The design exhibits significant 'systematic change' as it deliberately ignores local craft aesthetics and specialisations and their attendant apprenticeship systems. A modernist aesthetic system which is devoid of traditional ornamentation is adopted. This exemplifies 'innovative change' as a <i>metabletic</i> shift in conceptualisation of modern dwellings. A post-modernist collage of building materials, incorporation of concrete columns to bear structural loads and modern gadgets of comfort, including the in-door household gym indicates the acceptance of the 'new and alien' form.
Dialectic materialist transformation	'Modern individuality' is evident in the isolated nature of the building within the site. The chain link perimeter fence is a harsh modern intervention that has replaced the traditional porous euphorbia fence. It isolates the building from curious, intruding 'unwanted' neighbours. 'Traditional communal-ism' is evident as the chickens in the compound demonstrate the dual unresolved and ambiguous identity challenges of the owner: a 'modern' Luo who cannot completely abandon traditional agricultural and livestock keeping practices.	'Modern individuality' is expressed through affluence. Luo <i>Nyadhi</i> is evident in the grand design which takes into account the many cars that belong to Achayo and his guests. However, the deliberate attempt to exclude the context indicates self-sufficiency and independence of Achayo, which result from the acculturation of 'modern' Luo elite. This is antithetical to the 'traditional communal-ism' which was characteristic of pre-colonial Luo existence. Emphasis on tangible changes in sensorial perception indicate continuity of tactile architecture, through rusticated bush dressed natural stone rather than rough textured cow dung plastered walls.

Source: Author, 2022



### **A thematic comparative analysis of transformations in Odhiambo and Achayo Residences**

The thematic aspects that were generated from the theoretical framework are now employed in the comparative analysis of Odhiambo and Achayo Residences as shown in **Table 4**.

## **DISCUSSION**

### **Proposals for the future of Luo vernacular architecture**

The transformations that were outlined in this study have revealed that Luo architecture is incompatible with the derogatory perception of African vernacular architecture as “generic, timeless, unchanging and collective” (Omari, 1990), in both representation (appearance), as well as content. Thus, the many facets and aspects of Luo architecture and the irreversible changes that have been experienced within them dispel any marginalising perception of incompatibility of Luo built forms with transformations that are imposed by external stimuli and agents. Though replication of traditional forms has been minimal in modern contexts, inspiration and re-interpretation are evident in built forms in the region. It must be noted, however, that the pre-colonial architecture of community fortification, such as *Thimlich Ohinga* and *Gundni Buche*, (Ralwala 2017), is now obsolete and has been replaced by individuality (in the form of standalone dwelling units) due to capitalistic forces, that are ensured and protected by the ‘system’ (national political administration and governance).

Fathy (1973) declares that architectural “change is a condition of life”, and is therefore inevitable. Suha Özkan (2006) laments at a decadent type of change that occurs without any reference to contextual forces, leading to unsuitable architecture. Beneficial change and transformation within Luo architecture may be perceived as “development oriented adjustment” (Lang’o, 1997), which is progressive both for the Luo individual and the Luo community at large. Its efficacy may be assessed from the extent to which “the people themselves see it as useful in improving their day to day life” (Lang’o, 1997). Such changes, especially in the domain of housing, should occur, preferably, in a gradual manner that allows Luo people (as users of these ‘modern’ built forms) “to cope with it” (Lango, 1997).

Güvenc (1990) perceives the future of traditional [Luo] vernacular architecture as a dichotomy of change and continuity rather than survival or revival, indicating that cultural romanticism is perhaps not the best approach that would yield meaningful Luo architecture, in the future. Furthermore, Güvenc (1990) argues that such changes within the vernacular paradigm should represent dynamic continuity, which is characterised by an “evolution of the established”. Thus, breaking with the past is not an option for future Luo architecture, which must use the past as a vital reference and origin upon which a new regional reality may be constructed.

For Fathy (1973), changes within the [Luo] traditional (vernacular) architecture paradigm could not have been initiated by the general populace, despite their desire for change, due to their inability to select and retain the positive aspects of their culture and tradition. Acculturation, as a result of Western influence, portrays western lifestyles as superior to Luo traditional customs, rituals and wisdom. Mitigating against acculturation calls for urgent and long term architectural intervention within Luo architecture, in its contextual setting, in order to prevent its evolution into unsuitable and inappropriate form that is incomprehensible to members of the Luo community. This intervention has the potential to halt the advent of architecture without meaning, in Luo-land, through the erection of the requisite “cultural barricades” (Fathy, 1973).

Similarly, Fathy (1973) appeals for architectural “change with constancy” and this involves the adoption of ‘regressive’ change, which should depart from existing traditions. This should result in the restoration of cultural pride and revival of native craft. Fathy (1973) predicts that such regeneration will initiate the resurgence of refined vernacular forms that will enable communities such as the Kenyan Luo, to comprehend the architectural ‘deceptions’ induced by exotic (Western) cultures. Therefore, meaningful transformation of Luo vernacular architecture, which demands adequate comprehension of Luo culture (history and tradition) must be an overarching concept, and this may enable future architects to extract the beneficial principles of the paradigm that can be continued (or propagated) into future built forms within Kenyan Luo-land.

This includes the possibility of fusion of Luo built forms with other global architectural paradigms, even beyond the ‘fashionable’ Modernism and Post-modernism. This will then “stimulate [the] Luo to ‘read’ the physical world and understand for themselves the nature of change in their realm” (Atieno-Odhiambo and Cohen, 1989).

The proposed approaches to change resonate with Julius Nyerere’s (in Ndisi, 1974) proclamation that “we shall draw sustenance from universal human ideas and from the practical experience of other people; but we [shall] start from full acceptance of our African-ness [sic] and belief that in our own past there is much which is useful for our future”. This proclamation applies to future architecture in Kenyan Luo-land.

## CONCLUSION AND RECOMMENDATIONS

Changes in vernacular architecture in Kenyan Luo-land were discussed to expose the salient transformations that have taken place within the cultural landscape. Significant socio-cultural changes, as *metabletica*, were anchored in the research field of change theory which was presented in outline from a critique of archival publications on the perspectives of Auguste Comte, Emile Durkheim, Max Weber and Karl Marx. Changes and transformations in Kenyan Luo vernacular architecture were outlined in the ‘modern’ residences of David Odhiambo and Paul Achayo, and described from a hermeneutic reading of drawings of the two residences that were treated as socio-cultural texts. A synthesis of these transformations was presented through a thematic comparative analysis of the two residences.

In a similar manner to Arch. Philip Okello’s design for Achayo Residence, architects who will be working in Luoland, in the future, should use traditional Luo architecture as their point of departure irrespective of whether the client demands it or not. This will ensure that architectural changes that are introduced to the region are done in a ‘piecemeal’ and gradual manner, rather than from the ‘shallow’ basis of stereotype and fashion. In this way, planned changes that will respect the interaction between buildings and their socio-cultural contexts, without extensive disruption of the social fabric will prevail. These changes will then direct the evolution of Luo vernacular architecture towards an ‘architecturally sustainable’ future.

The study recommends that the incongruence between ‘alien’ architectural typologies—such as factories, churches and office buildings—and Luo traditional architecture be studied to reveal paradigmatic shifts in architecture within Kenyan Luo-land. The incongruence with Luo culture will also be evident when the Luo informal settlements in Kisumu City are also investigated.

## CITED REFERENCES

**Atieno-Odhiambo, E.S. & Cohen, D.W. (1989).** *Siaya, the historical anthropology of an African landscape*. Ohio: Ohio University Press.

**Ayisi, E.O. (1992 [1972]).** *An introduction to the study of African culture*. Nairobi: East African Educational Publishers.

**Fathy, H. (1973).** *Architecture for the poor. An experiment in rural Egypt*. Chicago: The University of Chicago.

**Ferraro, G. & Andreatta, S. (2012).** *Cultural anthropology, an applied perspective*. Wadsworth: Cengage Learning.

**Fisher, R.C. (1993).** A paradigmatic teaching of architectural history, *Acta Academica*, 25 (1), 1-14. Retrieved June 17, 2020 from <http://hdl.handle.net/2263/7824>.

**Güvenc, B. (1990).** ‘Vernacular architecture as a paradigm-case argument’ in Turan, M. (ed.). (1990). *Vernacular architecture*. Avebury: Gower Publishing Group.

**Jencks, C. (1985 [1973]).** *Modern movements in architecture*. London: Penguin Books.

**Lang’o, D.B. (1997).** *Household structures and social relations among the Luo of Ndhiwa Division, Homa-Bay District*. (Unpublished master’s thesis). University of Nairobi, Nairobi

**Mazrui, A.A. (1977).** *Africa’s International Relations*. Colorado: Westview Press.

**Mazrui, A.A. (1978).** *Political values and the Educated Class in Africa*. Los Angeles: University of California Press.

**Mazrui, A.A. (1980).** *The African Condition: A*

*political diagnosis. The Reith Lectures.* London: Heinemann Educational Books.

**Miruka, O. (2001).** *Oral literature of the Luo.* Nairobi: East African Educational Publishers.

**Mook, B. (2007).** The changing nature of childhood: A metabletic study. *Collection du Cirp.* 1 (1), 137-159. Retrieved September 15, 2020 from <http://www.cirp.uqam.ca/documentspdf/collectionvol.1/8.Mook.pdf>.

**Ndisi, J.W. (1974).** *A study in the economic and social life of the Luo of Kenya.* Uppsala (Lund): Berlingska Boktryckeriet.

**Ochieng', W.R. (1995).** Structural & political changes in Ochieng', W.R. & Ogot, B.A. (eds). (1995). *Decolonization and Independence in Kenya.* Nairobi: East African Education Publishers.

**Okello, P. (2017).** Informal interview with the author regarding conceptualisation and aesthetic formulation of the Paul Achayo Residence in Kisumu suburbs.

**Oliver, P. (2006).** Raising the roof in Asquith, L. & Vellinga, M. (eds). (2006). *Vernacular architecture in the twenty first century. Theory, education and practice.* Oxford: Taylor & Francis.

**Oloo, P.A. (1969).** *History of settlement: The example of Luo clans of Alego (1500-1918).* (Unpublished Bachelor's dissertation). Nairobi University, Nairobi.

**Omari, M.S. (1990).** Response by Mikelle Smith Omari in National Museum Of African Art, Washington DC. (ed.). (1990). *African art studies: the state of the discipline.* Papers presented at a symposium organized by the National Museum of African Art, Smithsonian Institution. September 16, 1987. USA: Smithsonian Institution.

**Ozkan, S. (2006).** Traditionalism and vernacular architecture in the twenty-first century in Asquith, L. & Vellinga, M. (eds.). (2006). *Vernacular architecture in the twenty first century. Theory, education and practice.* Oxford: Taylor & Francis.

**Ralwala, A.O. (2013).** *Towards a relevant framework for establishing the semiology of architecture in Kenya required for architectural*

*dialogue in the creation of a Critical Regionalist Kenyan architecture.* (master's dissertation). University of Pretoria, Pretoria.

**Ralwala Anthony Oduor. (2017).** *Architectural reconstruction and re-interpretation of Thimlich Ohinga and Gundni Buche archaeological relics of the Luo cultural landscape, Africa Habitat Review Journal* 11 (1), 1061-1083.

**Romanyshyn, R.D. (2008).** *The despotic eye: an illustration of metabletic phenomenology and its implications, Janus Head,* 10(2), 505-552. Retrieved September 5, 2020 from <http://www.janushead.org/10-2/Romanyshyn2.pdf>.

**Soja, E.W. (1968).** *The geography of modernization in Kenya. A spatial analysis of social, economic and political change.* New York: Syracuse University Press.

**Stea, D. & Turan, M. (1990).** A statement on placemaking in Turan, M. (ed.). (1990). *Vernacular architecture.* Avebury: Gower Publishing Group.

**Vellinga, M. (2006).** Engaging the future. Vernacular architecture studies in the twenty-first century in Asquith, L. & Vellinga, M. (eds.). (2006). *Vernacular architecture in the twenty first century. Theory, education and practice.* Oxford: Taylor & Francis.