The Influence of Users' Popular Traditions in Residential Design

The Case of Mlalakuwa Settlement in Dar es Salaam City, Tanzania

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Abstract

It is mostly noted that the design for residential purpose is professionally considered universal, distinct and specific. The socio-economic, cultural and traditional aspects which affect the house users' requirements and hence the residential designs seem to be considered by professionals' standpoint as a mere user's ignorance and lack of access to suitable designs. In this respect, the attributes of vernacular and traditional architecture are sought to unpack the intrinsic relevance to contemporary architecture of residential design within the local context. The case study has been conducted in Dar es Salaam city assessing the local residential house owners' requirements aiming to understand the social, economic and cultural factors which impact the architecture of residential designs. The findings show that residential designs and use are dynamic and likely to transform based on the owners' evolving socio-cultural, economic and spatial requirements which highlight the relevance of vernacular and traditional architecture. This trend raises the professional concern on the need for further interrogation of current residential architecture approach. Thus, it has been concluded that professionals perspective should opt for less control of residential requirements and emphasise the recognition of socio-economic and cultural aspects which aspire for flexibility of form, function and spatial organization and facilitate design control by the house owner. Such revelation indicate the validity of vernacular and traditional architectural approach which integrate the local knowledge, optimum utilization of resources, nature and built environment.

Keywords: residential architecture, vernacular architecture, traditional architecture, house form, socio-cultural values, locality

1. Introduction

1.1 Conceptualizing Vernacular and Traditional Design in Contemporary Architecture

The growing professional ego coupled with technological development facilitating flexibility in design and production methods of residential architecture tend to make design professionals such as architects to feel in control of residential designs and its prospective favourable outcomes. The fact that residential architecture is expressed in the everyday lived experience, culture and socio-economic features of the community appear to be ignored by professionals and actors in design discourse. Solutions for residential design, form and construction which concentrate on conventional principles, modern scientific ideals and rationalised outcome of improved residential architecture appear to be out of touch and represent irrelevant residential requirements especially in the developing world. The growing involvement of house owners in design and production of residential spaces utilising both local and modern tools useful and accessible to achieve their socio-cultural requirements call for new approach of understanding of residential architecture in professional circles. It is through such view that deep understanding of contemporary architecture can be understood through the mirror of vernacular and traditional architecture.

Vernacular architecture is considered rooted intuitively to community's tradition, norms, values, taboos, beliefs, experiences and others which encompass all community activities related to built environment where the knowledge and skills utilized for designing and construction of building are less imposed (Carter & Cromley, 2005). Thus, the architectural achievement in dealing with construction technology, functional requirements, site condition, building form, building material, thermal requirements, climatic condition and aesthetics are met effectively without the service of architect or design specialist. Lwamayanga (2008) associate vernacular

architecture with using skills, knowledge and technology evolving within the people within their socio-cultural context. Rapoport (1990; 1969) contemplates that vernacular architecture can be conceptualized as the foundation of built environment due to its intimate connection to human and his natural environment. He note that the folk tradition is the direct and unselfconscious translation into physical form of a culture, values, desires, dreams, and passions of people expressed in buildings and settlements without designer, artist, or architect. He insists that the user's meaning is the most important, and not architects' or critics', since it is the meaning of everyday environment which matter to user and not architect's famous building - historical or modern.

Vernacular and traditional design approach are related due to their affinity to locality, originality and nature although vernacular holds norms, values and experiences free from structured ideals while tradition picks from both structured and unstructured domains to strengthen its identity and enhance its relevance. Hărmănescu *et al* (2016) indicates that to know the tradition means to identify the potential of the vernacular knowledge, through proper application of its value criteria and taking into account the structural foundation elements of the local culture. She adds that vernacular knowledge describe structure of people whose design decisions are influenced by traditions in their culture where the past offer growth recourses for the future through the knowledge gained. In this case, the future should recognize the past value offering identity of those who use and transmit knowledge. To ignore the past, the vernacular knowledge of a place, means to waste resources and knowledge of a place (Glassie, 2000). Hosseini *et al*, (2012) highlights that the concept of traditional architecture holds the central position describing the metaphorical, symbolic and abstract way of approach to originality of architecture. He shows valuable attributes and knowledge of traditional architecture as a source of identification of societies' belief, morality, and ideology, which can be used to contribute relevant insight to contemporary architecture addressing sustainable components of *traditional* and *regional* architecture. Different places have different characters and identities referred by concept called *genius loci* (Note 1) (Hosseini, Mursib, Nafida, & Shahedi, 2012; Heath, 2009). The structure of a place is not a fixed and eternal condition but places usually change. The identity of a place is always defined and redefined due to the ongoing evolution throughout the history. This character becomes sometimes to determine the basic properties of the image of the environment - generating the feeling of belonging to that place. However, due to negligence of traditional architectural knowledge by contemporary architects, the design has mostly culminated to unsustainable architecture (Hărmănescu & Enache, 2016; Parsaee, Parva, & Karimi, 2015; Hosseini, Mursib, Nafida, & Shahedi, 2012; Bourdier & Minh-ha, 1997).

In professional view, architects are considered to be in control of the built environment. However, according to Rapoport (1990; 1969), the work of the designer represents a small portion of the building activity at any given period since the built environment is not entirely controlled by the designer. The designer and user react differently to environmental meaning since their schemata vary as the former react to environment in perceptual terms and the latter in associational terms (Rapoport, 1990). Duque (2002) claims that the house form cannot be the result of any single causal factor such as genius giving form to space. Instead, the most important and defining concerns are socio-cultural issues which are associated with values influencing the decision to build either individually or communally, permanently or lightly. In this respect, cultural factors of built form refer to the cosmic image, ritual orientation and symbolic nature. Users, whom designers incorrectly think they know well, form part of the way life is really lived, the norms, values, culture and customs and the way they affect the built environment. This intimate association of the community, natural environment and cultural context are hardly appreciated by contemporary designers and thus seem insignificant in developing architecture in specific context.

Njoh (2006) note that the lack of sufficient history on African housing history miss the fascinating subject on the way different people of Africa have developed house forms suited to their customs of living, the building material close at hand and to the local climate. He underscores the relationship of culture and development where the former is an instrument of the latter rather than element of it. While Eurocentric culture is rooted mostly on capital accumulation, entrepreneurial attitudes and material wealth, the African culture do not place these attributes on the top of priority ladder, although they are not completely absent. This attitude extends to influence built form and function in African culture contrary to forms based on western culture. Some examples revealed by Nguluma (2003) show the emerging residential house forms based on urbanites' endeavours to meet socio-economic requirements in the city of Dar es Salaam, Tanzania. This contradiction of cultural philosophies poses important questions on ubiquitous embrace of modern architecture among professional bodies in Africa which is highly oriented to Western culture. The strained quality of built environment and hence compromised life condition in most cities in Africa can be viewed as evidence of erroneously presumed models of western architecture as useful solution to African built form. Responding to this perceptual shortfall, Duque (2002) and Rapport (1990; 1969) indicate the danger in applying Western concepts to developing countries, which represent only one choice among the many possible, to the problems of other areas, instead of looking at them in terms of local way of life, specific

needs, and ways of doing things.

Hărmănescu *et al* (2016) focusing on landscape architecture shows that technology does not issue warrant to abandon vernacular attributes. She notes that the technology – as 'result of society's evolution, aiming to satisfy its needs and to increase the comfort and the living conditions' – changes the landscape. The morphology and evolution of the landscape describe the relationship between society and place, the way the man dwells the space. The agrarian and industrial societies lead to specific landscapes associated with amalgamation of the socio-economic nature of its inhabitants and also of historical and cultural foundations. All forms of vernacular knowledge are built to meet specific needs, livelihoods and cultures they produce and are linked directly to the environment, available resources, using local technologies. In this way, current technology can be utilized to address our cultural and traditional needs with the view to develop relevant contemporary architecture.

Oliver (2006) stresses that vernacular as indigenous architecture paint a historical myth of building techniques that can inform the future architecture on identity and tradition of the given community. The tendency to concentrate the value of vernacular architecture based on the form is false. According to Noble (2007), the concept of function and form are central to study of traditional building. However, the notion of 'form follow function' may reach a certain level of truth but on close examination the idea fall short with reference to traditional buildings which are mostly differentiated based on function rather than form. He further note that the function may remain inflexible while the form is quite variable influenced by the climate, available building materials, geographical location and the like. Apart from concentrating on vernacular forms, there are deep lessons on quality of spaces, innovative use of materials, structural principles, details, proportions, climatic solutions, symbolism and other expression of native sensibility which can be replicated in conception of contemporary architecture (Curtis, 1996). In addition, anthropogenic dialogue should become a technological adaptation of the traditional solutions, following a rational and non-invasive use of the natural resources, in the idea of integrating in landscape (Hărmănescu & Enache, 2016; Asquith & Vellinga, 2006; Wines, 2000).

Wine (2000) note that the advocates of green architecture need to look at models of sustainable architecture of ancient times, citing ancient architecture of Italian towns, where buildings of about 600 years old are still in excellent physical condition and active use today. The reason of their longevity are, among others, the exclusive thermally efficient, walls built of regionally available materials, and their interior spaces - uninterrupted by today's inclination for sculptural excess - proven adaptable over hundreds of years of changing uses. Disputing the view that technology is superior to vernacular, Hărmănescu *et al* (2016) seem to approach technology as the result of socio-economic processes which influences the landscape and hence the local built environment. The people's adaptation to evolving built environment due to technological innovation can be built on vernacular values, innovations, experience and knowledge which involve local identity, optimum utilization of resources, respect to nature, recognition of local tradition, and the like. This is related with achieving an ecological balance which maintains the relationship between architecture, natural environment, the availability of resources and their consumption.

2. Method

The research employs the case study method where qualitative and quantitative examination and analysis are involved. Mlalakuwa informal settlement in Dar es Salaam city is selected as case study area since it has fairly consolidated and diversified residential informal development which is part of effort to achieve residential solutions based on socio-cultural norms, values and practices. The social diversity is also contributed by the resident's different tribal backgrounds from different parts of Tanzania of which the socio-cultural differences contributes to vernacular influence of built environment. The settlement is also adjoined with two higher learning institutions of Ardhi University and the University of Dar es Salaam, whose staff form part of diversified residential community. General observations are done through photographic registration, sketching and note taking to assess the built form, space relationship, residential activities and functional organization. In order to triangulate information gathered through observations, random selection of forty residential house owners for interviews is done to acquire information on facts regarding specific essence and meaning of residential design, development and transformation of dwellings. Simple numerical statistics and descriptive analysis are used to extract meaning and suitable explanations of emerging design approach influenced by communal values, norms, vernacular customs and popular traditions.

Figure 1. Mlalakuwa informal settlement and box frames indicating the selection distribution of location of houses by which the observations and interviews with owners were conducted

3. Result

3.1 Socio-Cultural Influence to Residential Design

The influence of culture and local values to residential design are assessed through the attributes of the way plots are acquired; the planning of space use; use of interior space; the outdoor space use; house design and transformation of residential functional spaces.

3.1.1 Plot Acquisition and Use Planning

It is noted that the community in this area consist of tribal diversity affiliated to different regions in Tanzania such as Mbeya, Mara, Iringa, Njombe, Arusha, Kilimanjaro, Kagera, Pwani, Morogoro and the natives of Dar es Salaam region, the Zaramo. It is observed that there is a relation of one's socio-cultural origin and the way one's house is designed, transformed and how the compounds are organized. The time of years by which most respondents migrated to Dar es Salaam city seem to range from 1960's to 2000's. The majority of respondents indicated to have lived in different areas of Dar es Salaam city such as Magomeni, Temeke, Masaki and Mbezi before they moved to settle in Mlalakuwa settlement. It was noted that despite the desire for house owner to maintain their cultural practices such as cultivation, animal keeping and poultry, they were limited by the city condition where plots are small, population density is higher, glazing area are scarce and serious farming is not supported. However, despite such limitations, some house owners could still; at limited level; cultivate, keep animal or poultry at their plots. These agricultural activities were done not only as part of cultural practices but also as a means to supplement food and income for the family.

There are various factors that influenced respondents to buy plots or houses and move to settle in Mlalakuwa area. Eight out of forty respondents were influenced by the availability of community services and infrastructure such as power line, water supply, distributor roads, shopping centre, city bus service, elementary schools and the like. The respondents who chose the area for being close to their working place include eight University lecturers and two soldiers of Lugalo Military base and eighteen business men who considered Mlalakuwa to be close to their business location. Some respondents were attracted by the low price for acquisition of plot in Mlalakuwa area (See Figure 2). It should be noted that land acquisition and plot development mostly take place through informal system as fairly put forward by Bahendwa (2013) and Hasan (1996) that informal system has been able to serve the needs of rapidly expanding cities especially the low income communities since it is compatible with their culture, sociology and economics.
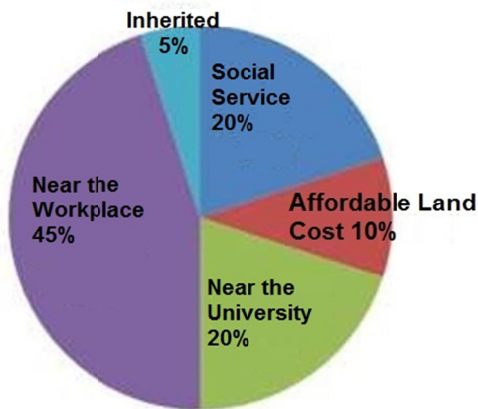
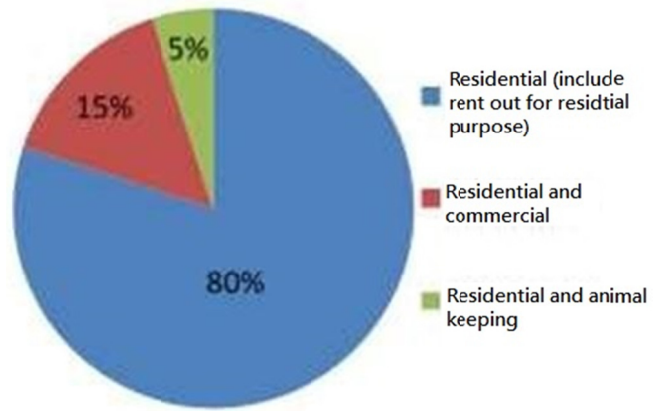Figure 2. Factor influencing settling in Mlalakuwa

Figure 3. The image of plot use condition at the time of interview. Some of the houses in 'Residential' category involve some rooms or houses for rent out for residential purpose

Twenty eight out of forty respondents' houses are planned for residential purpose although as time passes some houses are transformed into mixed use by adopting some commercial uses. It should be noted that the residential category include the rooms or houses for rent out for residential purpose (see Figure: 3). At the time of interview, six responded out of forty use their plot for both living and commercial purposes while other six respondent planned their plot for residential and livestock keeping. However, some house owners had either kept livestock or cultivated or both but could change to other commercial activities. These changes are made to exploit the commercial opportunities presented by the settlement location in the city, the increased population in the settlement, the closeness to two prominent universities and the strategic connection to other parts of the city. In some cases, the plot use through cultural practices and other efforts done to generate income lead to house transformation which may take various turns depending on several factors, for example, one respondent said that:

I had initially kept some cows for milk production, but as the time passed the animals were affected by diseases which led to failure of the project. Then, I decided to build classes for nursery school, as an income generating project, which for some operational and regulatory reasons it was not successful. Finally, I transformed the nursery school classes into small residential houses for rent, the business which I have retained.
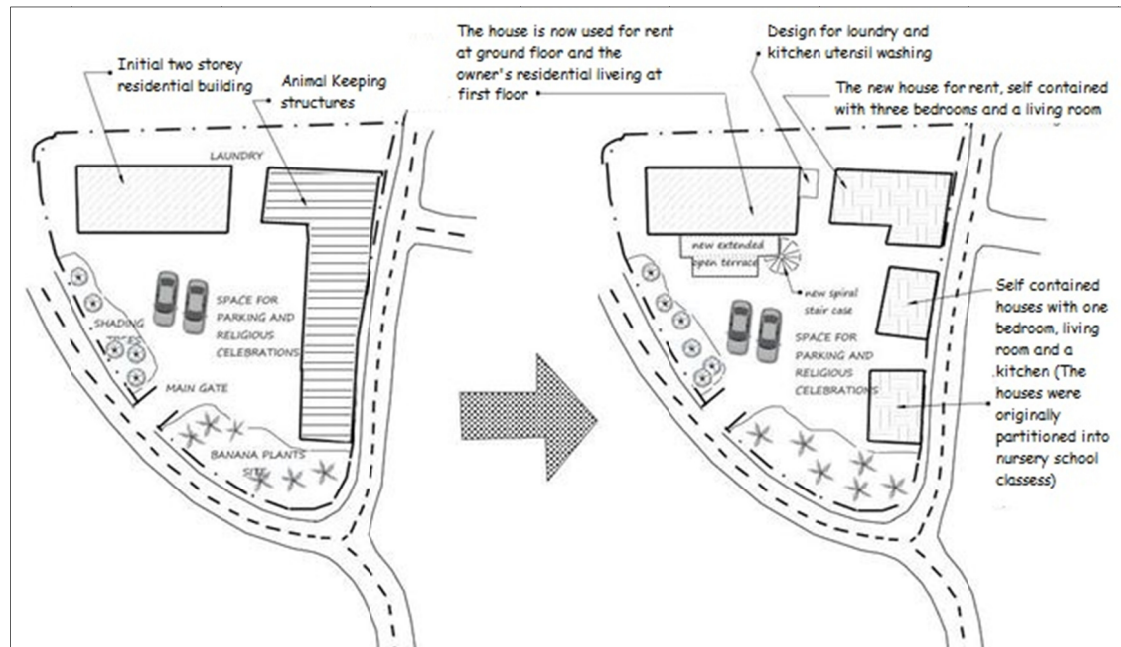
Figure 4. One family has gone through a long period of transforming the house designs, the plot use and the compound organization regarding the strategy to respond to reduced number of family members, practicing cultural norms and exploiting income generating opportunities

The same respondent also owned a two-storey residential house in which he lives on upper floor and he rent out the ground floor rooms which were left by the children who grew up and went away to start their own life. In order to ensure privacy, the house owner had to introduce a spiral stair case to access the upper floor externally without interfering with the tenants who occupied the ground floor (See Figure 4). Some other transformation to plot development are influenced by the culture and tradition of house owners' places of origin, for instance, respondents from Kilimanjaro region would provide spaces for keeping livestock and respondents from Kagera would cultivate banana trees. In this respect, very few houses are found to maintain the functions for which they were initially planned for.
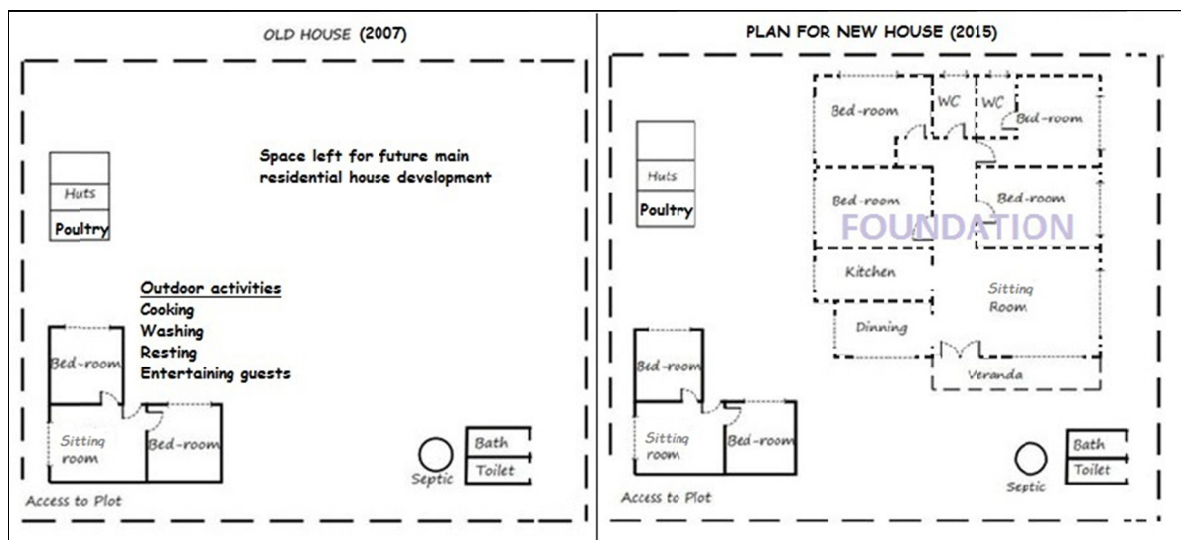

Figure 5. The house owner comes from Iringa region who migrated to Dar es Salaam in 2006

Once he got married in 2007, the couple planned to start with a 2 rooms house and the outdoor washrooms. As the family grew, with one child, they added a third room. This room has been used to accommodate a child as

well as a storage for different equipment's. The sitting room could be used as sleeping room for guests. Cooking, eating, resting and entertaining guest are mostly performed outdoor although they may occasionally take place in the sitting room. Other outdoor activity is poultry keeping for supplementing food and income needs. When another child was born, the demands for the children bedrooms, better living room, dining area and kitchen was considered important. In 2015 the foundation for new house was laid on the ground with all the important rooms as indicated in sketch above.

Since most of houses are designed for residential purpose, it is realised that the initial size of the house is mainly determined by the number of family members. It is observed that the house may grow gradually in size as the number of family member increases (See Figure 5). It is noted in ten families that the early stage family of husband and wife had to start by building few rooms comprised of living room, washrooms and one or two bedrooms. The number of rooms is gradually added incrementally as the number of children increases to fulfil the increased needs with time. It was observed in four families that the extended family members were considered as part of family size in determining the initial design of residential house. It was also noted, in some families affiliated to Mara, Arusha and Kilimanjaro tribes, that male children who get matured had their rooms detached from main house as per their socio-cultural norms (See Figure 6). It was also noted that, when children get older enough to move away to start their own life, most of house rooms are left vacant which make the house owners to reconsider the best alternative use of the rooms where they are mostly turned into rental rooms for residential or commercial purpose. It was noted that turning part of the house room into commercial activities was not only beneficial economically but also gaining social benefits of maintaining significant social interaction in the house after the children have grown up and left. This also sounds socio-cultural oriented where residential house is a social domain which form important unit in the local community.
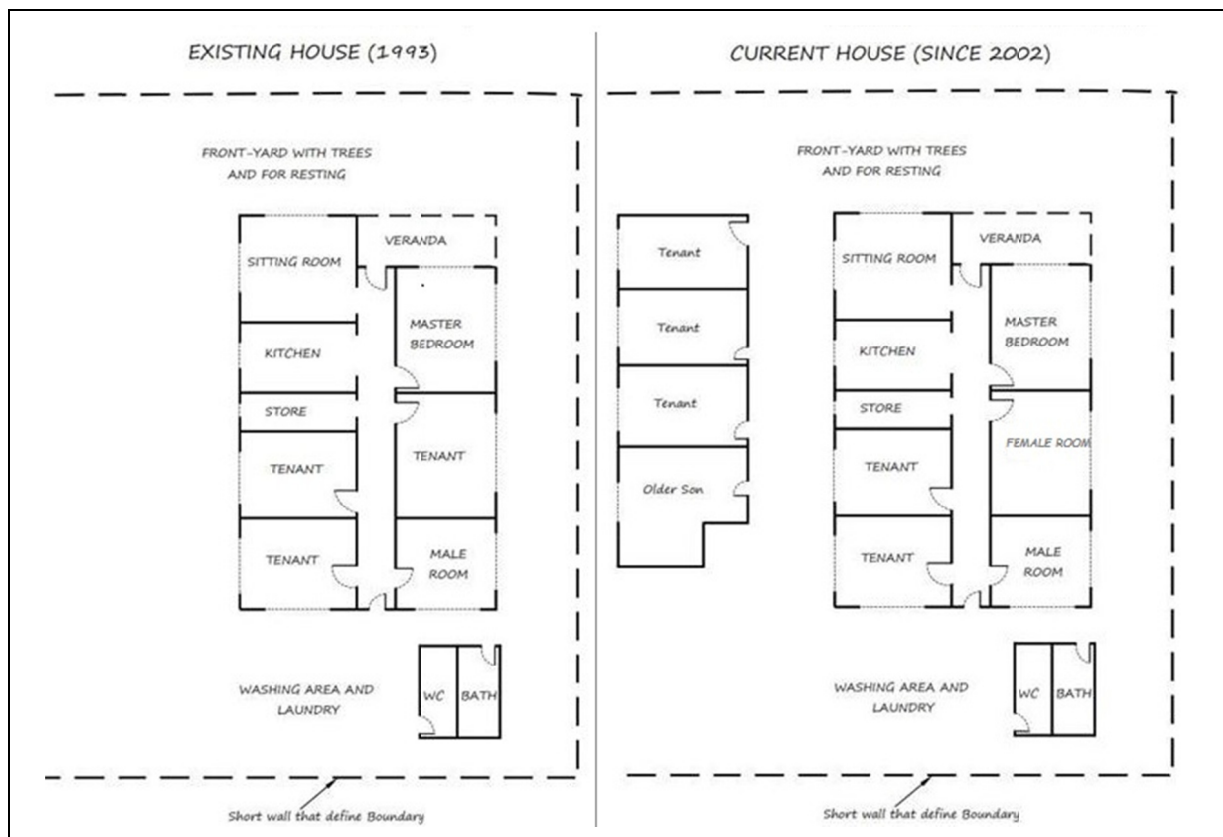

Figure 6. The house owner is a retired soldier from a nearby Lugalo military base

He bought the land in the settlement for being close to workplace and affordable price. The house was constructed in 1993. Currently the family has seven members including three male children, one female child and parents. The house design and construction was done using the services of local artisans who could meet their house requirements at affordable price. The design took into consideration the family socio-cultural requirements, the owner's economical position, income generation and took the Swahili house style where all rooms open to the main central corridor to which front and back exit are located. The corridor is a public space for tenants and the

owner and the rooms are private spaces. Cooking and some limited storage are done on the corridor by the tenants. Front veranda, for men, and the backyard, for women, are important features to Swahili house. The sitting room, kitchen and store rooms are used by the house owner. Washrooms shared by all house dwellers are provided separately on the backyard. In year 2002 a separate house was built to provide separate rooms for grown up male children and addition of rooms for rent to supplement income. The outdoor activities involve cooking, laundry, resting and entertaining guests. The design of this kind of house will keep the house full of people (tenants) even if the children grows up and leave. The rooms left by grown up children can easily be rent out.

3.1.2 The Use of Interior Spaces

It was observed that interior spaces can be planned for specific use but when the house is occupied their uses may evolve. In this regard, living room; in most of the houses is used as a multipurpose space in which it acts as public and, in some cases, semi-public space. The space can be used for resting, entertaining guests, meeting area, TV watching, dinning space, studying area by family students and storage area with some cupboards. The bedroom is used for sleeping, studying, storage, resting and the like. Kitchen is used for preparation of foodstuffs, cooking, eating, washing, storage, meeting area and chatting. In most cases kitchen extend to outdoor or kitchen veranda where some food preparation, cooking, meeting, resting and chatting may take place. Dinning is used for eating, meeting, studying, storage and chatting. It is noted that when the children grow and get dispersed the dinning may not be used regularly and the remaining few family members may also use the living room or the kitchen for eating. It is noted that some of the houses have only one entrance at the front while some have both front and back entrances. The front entrance is directly linked with the living room which is public space. The back entrance at the back yard is directly linked with the kitchen which is private space. The kitchen, its veranda and the backyard is a place where cooking, washing, resting and chatting take place and is mostly dominated by women who spend most of the time in those areas conducting domestic activities (See Figure 7). For security reasons, it is noted that some of back entrances are transformed to main entrance and the front entrances remain locked.
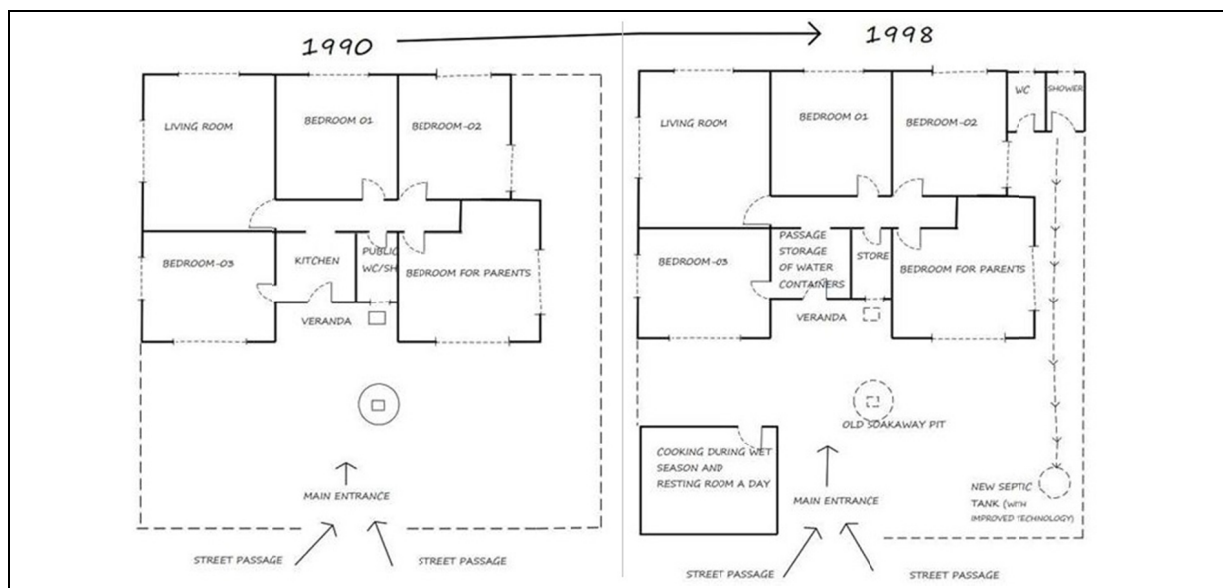

Figure 7. The house owner is the Retired military soldier from Mara region

The house was built in 1990 using the services of local artisans and it was inspired by the common house style of the time. The house with only one exit at the front side is comprised of front verandah, kitchen, store, sitting room, four bedrooms and washrooms. Initially, the kitchen is connected to the main entrance due to its direct relation to the outdoor. Around year 1998, separate structure for kitchen was built to improve its function and the former kitchen was used as storage for water containers, kitchen utensils and other stuff. The washrooms were then built separately on the outdoor using improved hygienic waste disposal technology to eliminate health risks caused by frequent overflow of sewerage from septic tank on front yard during rainy season flooding. The old washrooms were transformed to store room. Outdoor area was used for resting, cooking, washing entertaining guests, laundry and drying. Sitting room was used for entertaining guests, resting, eating, storage and studying area. Given to the nature of limited plot size, the house is built at the plot corner where only one entrance at the front become

convenient.

3.1.3 The use of outdoor spaces

It is noted that there is a close connection between the indoor and outdoor activities. Further, in the hot humid climate of Dar es Salaam, a shaded outdoor space tends to be more convenient for domestic activities for its favourable thermal comfort than indoor space. Respondents use outdoor spaces as per individual needs and in some cases may be influenced by tradition and culture of the house owners' place of origin.
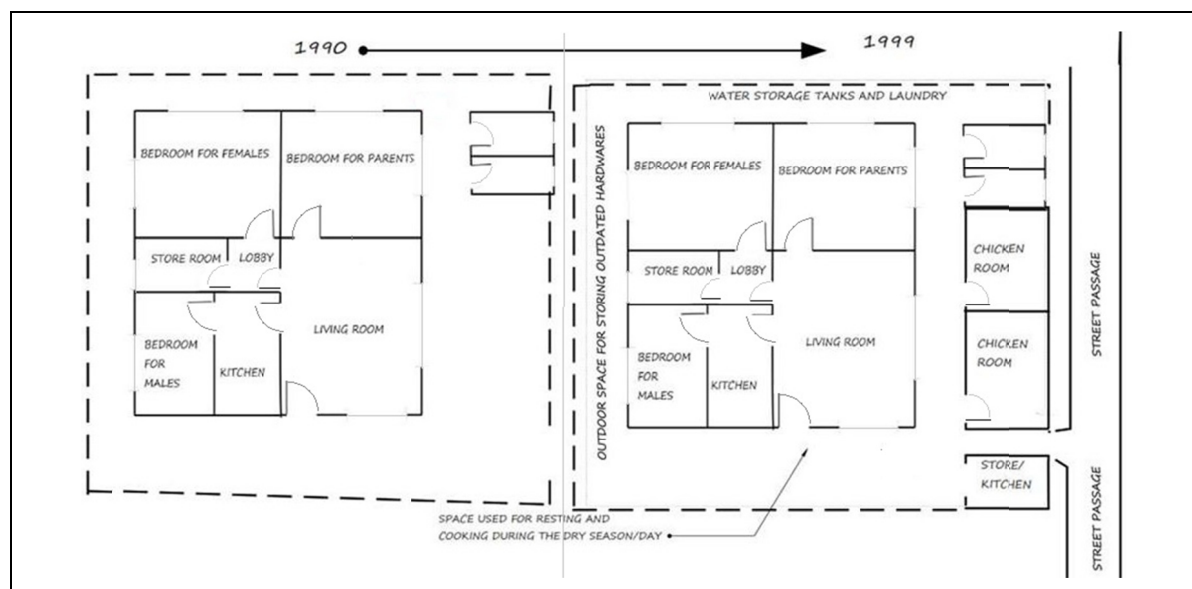

Figure 8. The owner of the house is a teacher from Iringa region who migrated to Dar es Salaam in 1975

He bought a plot in Mlalakuwa Settlement because of its proximity to working place and affordable price. When he married, the couple had the vision to own the house with a lounge, 3 bedrooms, a store, kitchen and washrooms. However, they had to consider the size and type of building which meet their immediate requirements and affordable as per their meagre income. In 1990, they built the house comprised of three bedrooms, living room, store, kitchen and outdoor washrooms. They used the affordable services of local artisans to design and construction of the house. The house is made compact with all room being easily accessible using only one main entrance at the front. The living room is used as multipurpose space for resting, eating, studying, entertaining guests and sleeping area for visiting guests. The front outdoor is used for resting, laundry and preparation of poultry food stuff. In 1999, they started the poultry keeping project for the purpose of generating supplementary income. In that respect they built a separate structure with two rooms for the keeping chicken and one room for storage and cooking. The back yard, where the water storage tanks is located, is used for laundry, drying clothes and storage for used materials.

The outdoor functions may include activities on specific spaces and the activities without specific location on the compound. Some of indoor use which affect the house design may extend to the outdoor within the compound. In the field study, some activities which took place on the outdoor are such as cooking, washing, laundry, drying clothes, children playing, resting, cultivating, garbage collection, home small workshops, car parking, poultry, animal keeping, religious gathering and social events (See Figure 8 & 9). The outdoor can be the extension of indoor kitchen for cooking food as it provides more ample space, fresh air and comfortable environment for food preparation and cooking. The use of charcoal, storage of charcoal and keeping smokes away from the main houses have contributed to the need to use the outdoor space for cooking. Some respondents have built separate structure of kitchen for cooking, storage of charcoal and other stuff.

In most cases neighbours and casual guests may be entertained on the outdoors. Such outdoor activities express a close connection of indoor and outdoor spaces which is usually not addressed appropriately in design. It has been observed that cultivation of banana food, animal keeping and poultry are mostly practiced by the people as a strategy to acquire food product domestically, generate income and, most importantly, practice cultural activity affiliated to their place of origin in Tanzania. Some respondents made specific outdoor space for some specific function, for instance, two respondent created specific front gardens for entertaining guests, holding social gathering or conducting family events (See Figure 9).
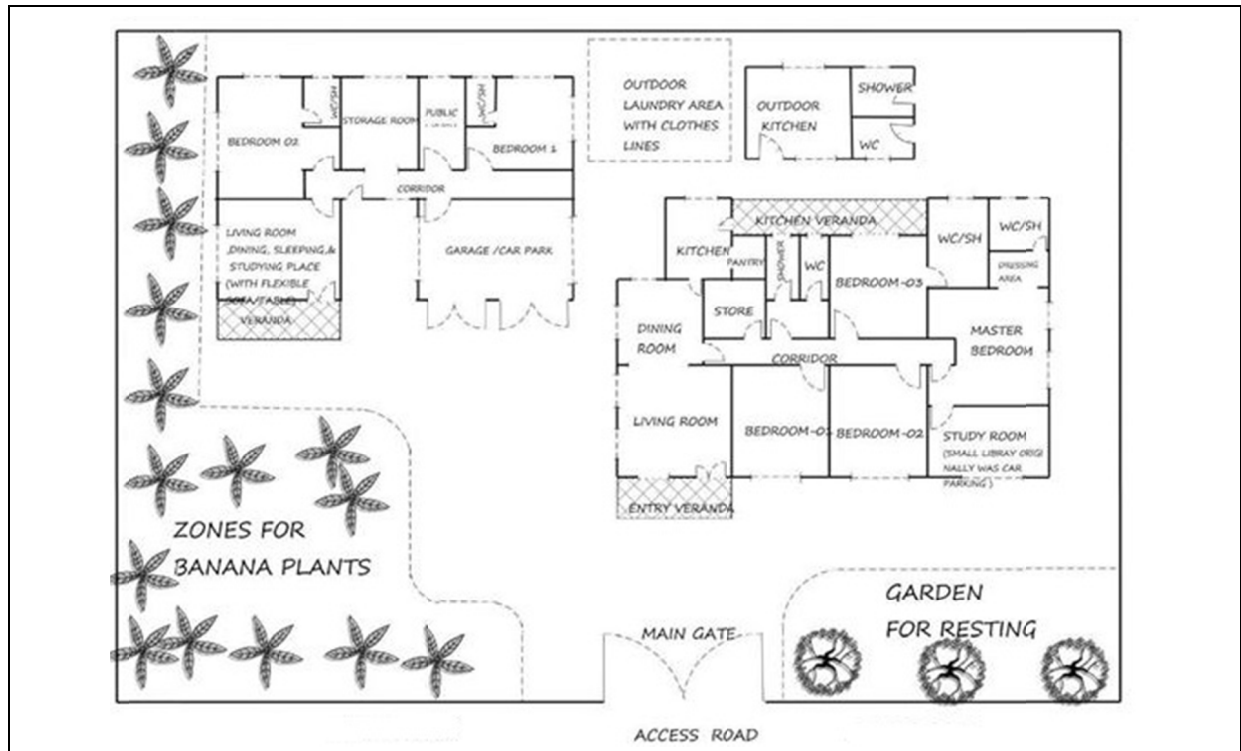
Figure 9. The house owner, a retired university lecturer, comes from Kagera region

Before he and his family moved to Mlalakuwa settlement, he lived at university of Dar es Salaam staff residence. He lived with extended family and thus he designed a larger house with four bedrooms and all other necessary rooms as indicated in Figure 9. The owner used the services of architect to design the house since, as university lecturer, he could afford the service cost. Since the owner have grown children with their families, he has also built a separate smaller house to accommodate the children's families when they visit. He provided an outdoor kitchen for preparation of large amount of food in case of social or family special events. It was noted that it could also be used for normal cooking due to favourable outdoor ventilation especially during a day. Outdoor public wash rooms are provided to be used during social and family special events. Affiliated with cultural background of his place of origin, Kagera region, part of the plot is dedicated for cultivation of banana plants.

3.1.4 House Design and Transformation of Functional Spaces

The user functional requirements are dynamic being influenced by different factors which lead to transformation of house design. It is noted that income level of the house owners may influence on how the house design, construction and transformation is conducted. It is noted that about 70% of house owners use local experienced artisans and building technicians to acquire affordable design and construction services commensurate to their income status and avoid the unbearable formal design and construction professional service cost. About 30% of house owners would use the formal architects' services for design purpose and proceed to use the local artisans during the construction stage. About half of respondents said they would change their design to cope with the new material, function, style and form when they get more money to display their new personality and change of status. However, they acknowledge that transforming their house for display of their gained status only without regard for their local need may lead to unsuitable spaces for some socio-cultural requirements. This revelation indicates the competition between the need for design form which accommodates the socio-cultural requirements and the modern design which concentrate on global culture, material consumption and open market which eventually fail to fit within cultural, social and economic context. The influence of western culture which, at certain level, is embraced by both professional designers and clients for application in local context results to modern designs with less regard to local reality which may lead to artificial western life and frustrate socio-cultural requirements.

3.2 Reflection on Response to Residential Requirements

It is noted that the influence of social, cultural and economic aspects to residential architecture is highly significant. Such aspects are achieved through reorganization of functional requirements while maintaining the original design or reorganizing function through extension and changing the original design to meet specific requirements. This

evidence respond to Rapoport's (1990; 1969) view that architects design influence cannot control the popular architecture resulting from everyday life of the users' norms, values, culture and tradition. The architectural form, function and meaning of residential spaces seem to hold extensive control by the users. This involve the determination of residential house design and size as the factor of family size and culture, and the incremental construction of residential house commensurate to the income, family growth rate and change of function to cater for certain socio-economic and cultural demands which respond to key features of creation of vernacular and traditional architecture as noted by Hermanescu et al (2016) and Hosseini et al (2012). Transformation of residential houses is also made in most cases to acquire new requirements and exploit the emerging city opportunities for income generation. The form, organization and meaning of residential house is likely to change when the family size and structure change, for instance, when the grown up children move out to start the life on their own or, in specific culture, when matured male children have to be accommodated separately from the main house and others which represent cultural values which affect the decision to build as noted by Duque (2002). The residential compound is also seen as the hub for representation of socio-cultural and traditional values of house owner's place of origin in Tanzania countryside which may include space and functional organization, organization of family groups in the compound, farming and animal keeping.

The outdoor spaces on residential compound have important role on accommodating variety of functions and complementing the indoor functions. Referring to socio-economic and cultural values, there is the need to reconceptualize the approach of conventional residential architecture which is oriented on rigid, linear and too defined values in terms of function, form, size, content and its role on site. The study outcome demand the residential architecture which respond to socio-economic and cultural aspects, flexibility which involve form, flexibility of space, incremental construction process, respect for outdoor spaces, interaction of indoor and outdoor spaces and allowance for the user to control the design which refer us to the principles of vernacular and traditional architecture.

4. Conclusion

The study disputes the notion that the residential design is universal and static represented by popular layout of basic domestic functions. Communal norms, values and traditional practices are still important ingredients in creating the knowledge to achieve relevant residential requirements which can improve the residential architecture. The concept of vernacular and traditional architecture which associate the local knowledge of tradition, culture, popular practices, local technology, natural environment and relevant resource utilization to architecture are used as tool to understand how such local communal factors can be replicated in redefining contemporary architecture. Further, social, economic and cultural processes observed in field study influencing the residential design in order to respond to flexibility of residential requirements within the social context is the evidence for the need to reconceptualise the approach of residential design to enhance the professional residential architecture. Thus, the relevant residential design has to respond to local socio-economic and cultural context reflected in form, function and spatial organization where the professional understanding is supplemented with relevant local knowledge.

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Note

Note 1. The concept of genius loci has been recognized from ancient times that the nature and the life, as spirit of a place, quietly support the elements of a whole. The place, therefore, is a concrete manifestation of the living world, and the architecture is the art of the place (Hărmănescu & Enache, 2016; Heath, 2009).

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