

RESEARCH ARTICLE

MORPHOLOGICAL TRANSFORMATION IN PAROCHIAL HUMAN SETTLEMENTS – A CASE OF BUILDINGS IN MSIMBAZI - DAR ES SALAAM TANZANIA

¹Henry Rimisho and ^{2,*}Livin Henry Mosha

¹Assistant Lecturer, Department of Architecture, School of Architecture, Construction Economics and Management (SACEM), Ardhi University, P.o.Box 35176, Dar es Salaam, Tanzania

²Associate Professor, Department of Architecture, School of Architecture, Construction Economics and Management (SACEM), Ardhi University, P.o.Box 35176, Dar es Salaam, Tanzania

ARTICLE INFO

Article History:

Received 09th August, 2017
Received in revised form
28th September, 2017
Accepted 07th October, 2017
Published online 30th November, 2017

Keywords:

Human settlements,
Morphology,
Transformation,
Msimbazi,
Tanzania.

ABSTRACT

This research addresses various pertinent aspects which impacts morphological transformation in parochial human settlements. It has been observed that parochial human settlement premises are drastically changing from the core religious missions to other non-religious activities resulting to unknown and undefined parochial human settlement morphology. Basically morphological transformation is the science of building form related to architectural aesthetics of built environment. The other aspect of this study is the transformation which is largely the process of change from one state to another. It is a norm in architecture that building form follows its function. That is, the form of a church is different from that of a prison or hospital because of their varying functions. The form of a transformed parochial human settlement is different from that of a virgin parochial human settlement. Case study research strategy was employed to carry out the study and Msimbazi parochial human settlement was selected to be an investigation window for this research inquiry. It was found out that parochial human settlements are transforming because of societal social systems, population, culture, economy, life styles and spatial planning policies. Professionals and policy makers in the fields of spatial planning, architecture, engineering, sociology and the allied disciplines are urged to learn lessons drawn from Msimbazi parochial human settlement case study to be able to monitor and guide envisaged human settlement morphological transformation from neighbourhood to city level.

Copyright©2017, Henry Rimisho and Livin Henry Mosha. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The term “morphology” may be defined as “*the study of shape or building*” which is used in architecture and urban design, as well as in other fields of study to explain the structural interrelation between physical elements of form. Carmona et. al. (2003) argues that buildings are the most important element in defining and explaining the morphology of a place. In general, morphology is a systematic study of the form, shape, structure and functions of the built fabric of cities, and of the origin and the way in which this fabric has evolved overtime (Louis, 2003). Louis (ibid) noted that some physical structuring elements of urban morphology are resistant to change over a long period. However, urban morphology can be used as a tool of classifying and understanding urban form through its evolution and transformation throughout its history.

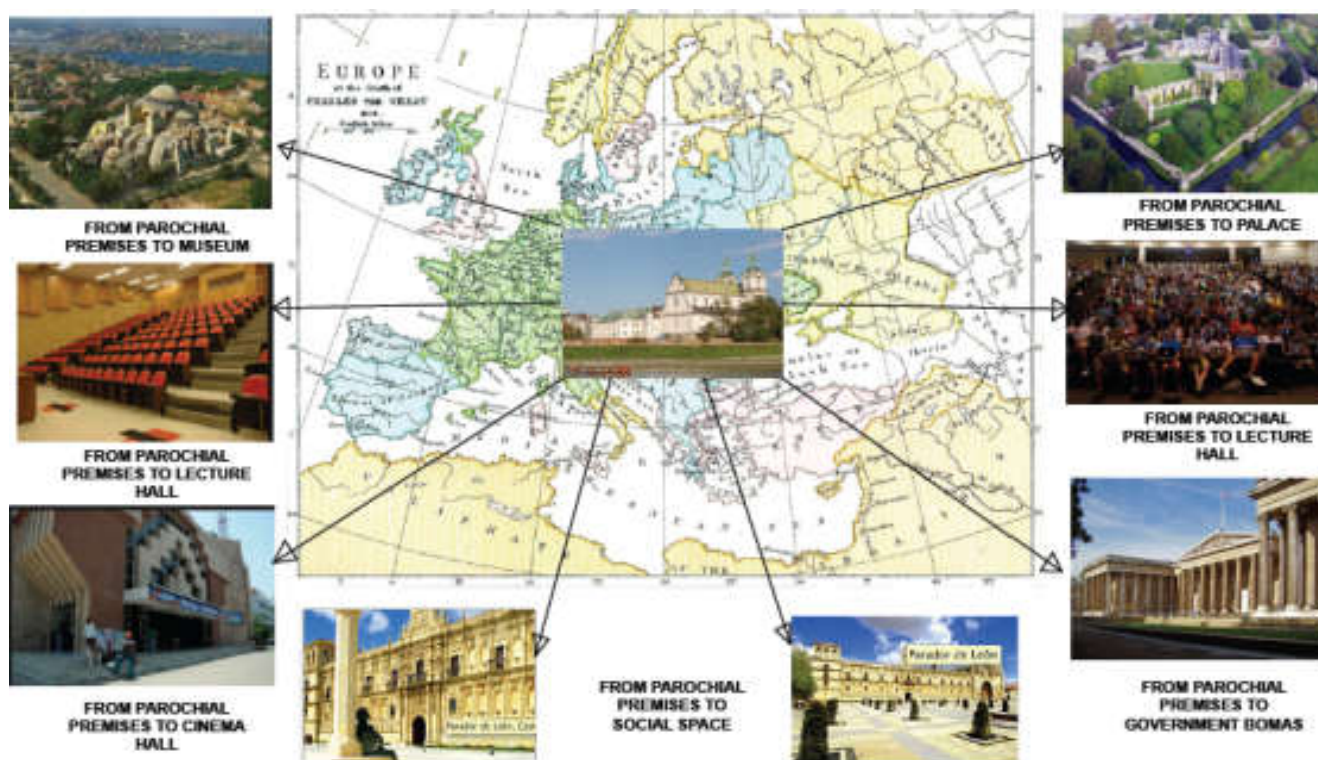
*Corresponding author: Livin Henry Mosha,

Associate Professor, Department of Architecture, School of Architecture, Construction Economics and Management (SACEM), Ardhi University, P.o.Box 35176, Dar es Salaam, Tanzania.

The word morphology comes from Greek word *morphos*, which means form and *logos* means science. Therefore morphology literally means the science of forms. The second important terminology in this study is the transformation. A term which comes from two key words, namely “*trans*” and “*formation*”. *Trans* refers to “*on the way*”, and *formation* refers to “*the process of changing*”. Therefore, Transformation literarily means *changing on the way*. In architecture, transformation refers to changes of forms or functions of a certain space or built object. Whilst, in religious studies changes occur in diverse aspects of religious life, ranging from social to economic, cultural, and inter-religious denominations views as well as physical and spatial qualities in religious institutions. In practice, transformation and change are often used interchangeably. The time dimension is an essential component that should be taken in studying and analyzing morphological transformation, regardless of how long it stretches (Bobic, 1990). Transformation also connotes results of actions taken to achieve certain goals when introduced and directed by the people (Bambang, 2001).

Over the course of time, Roman Catholic parochial premises have undergone many transformations with both positive and negative impacts. Religious people are culturally stable to learn and assimilate peoples’ demands. For instance, the urban parochial human settlements started to experience morphological transformation in Europe when religious buildings started to transform into non-religious arenas because of deterioration of God’s faith. As a result parochial churches are transformed to other societal needs and demands such as museum, lecture halls, social halls, cinema halls and administration offices as shown in fig. 1. On the other hand religious faith in Tanzania is sustainably growing to the satisfaction of Christian believers of the modern times but also experiencing building morphological transformation for social and economical reasons. The process of transformation of parochial human settlements in many cases is almost identical in all African countries and it is commonly influenced by same factors, namely economical, political and socio-cultural aspects. Lefebvre (2011) asserts that industrialization is a powerful point of departure in urban morphological transformation of a place and community and consequently it has a great impact on religious communities. Mohammad (2010) ascertains that places of industrial production are regarded as the primary “workplaces” for the surrounding societies.

public social infrastructural services such as education, health, water supply, electricity, housing and recreational facilities to mention a few. The church has entered in a new era of science and technology of which it should be part and parcel of contemporary challenges from evolution of transformed parochial human settlement morphology. The term morphology is increasingly used in architecture and urban design, particularly when referring their physical state of built structures or cities. In Tanzania for example, city morphologies are essentially influenced by colonial urban structures and functions. However, Hassan (2011) reminds that colonial cities were planned and designed to satisfy colonizer’s tastes, wishes and interests. Germany administration was the first colonial administration in Tanzania whose policies had great impact in the physical land use, buildings, urban structure, and formal government administration. The German missionaries came along with their architectural concepts and kept some of European features. Good examples are the use of sharp pointed windows with rounded arches at Ocean Road Hospital (Fig. 2) in Dar es Salaam Tanzania, which was the architectural style of the Roman Empire. Another example is the gothic architecture as shown in St. Joseph Cathedral (Fig. 3) in Dar es Salaam with the characteristic of pointed arch, ribbed vault and the flying buttress which are typical for cathedrals in Europe.



Source: Rimisho 2014

Fig. 1. Morphological Transformation of Human Settlements

Theoretical Framework of Architecture on Parochial Human Settlements and Buildings

Today’s everyday architecture experiences human materialism overweighting religious endeavors. We must analyze the extent at which general contemporary local human settlements becomes part of God’s world and hence an arena of God’s missionary activities. This is especially true in cities where the church seemed to lose taste of believers due to the inadequate

The gothic architecture and other international styles of ancient times were imported to Tanzania and many other African countries during German and British occupations. Kiondo et. al. (2016) ascertains that religious buildings and palaces are the dominant elements of city morphology. Kiondo (2017) doctoral research discovered that the architectural morphological impression of St. Anthony Cathedral in Mbeya city which is located in the Southern zone in Tanzania has a

significant contribution to Mbeya city morphology because of its unique architectural fascades and values. Bambang (2001) specified two major sources in explaining urban morphology firstly, as a social system which is composed of population, economics, activities and organizations and secondly, the physical-spatial system of the built environment. Each system influences the other. Moreover, Mostavi (2016) argues that multiplicity of social systems of economies and cultures in our modern times brings disequilibrium to both local and global social societies. For instance on 11th December 2016 the world witnessed bombardment of human settlements by massive terrorist attack at Coptic Cathedral in Cairo Egypt leaving 29 dead and 47 Christian worshipers seriously injured. Furthermore in April 2017, 44 Christians were killed while celebrating Palm Sunday mass and more than 100 people deadly injured.



Source: 2017 Field work

Fig. 2. Ocean Road Hospital in Dar es Salaam Tanzania with sharp pointed windows and rounded arches



Source: 2017 Field work

Fig 3: The Gothic Architecture of St. Joseph Cathedral in Dar es Salaam Tanzania

Culture is a big drive to urban morphological transformation. The word “culture” is ambiguous and dynamic. It is commonly used in sociology, anthropology, and social psychology. These are social sciences related to physical environment to observe the mutual interplay between people, culture and environment. Culture is understood as ways of behavior, which are encoded in social, political and economic institutions.

More specifically, in architecture and urban design culture is used as foundation of relationship between environment and human behavior. Mosha (2011) explains that in African traditional culture, people view religious places as holy and prestigious to identify with. The architectural form of Bujora Church (fig. 4) built in 1958 in Mwanza Tanzania which is similar to that of local people’s traditional house (fig. 5) was a powerful tool which was tactfully used by European religious missionaries to convince local people, the Sukuma that the Almighty God is living in their local houses from the fact that the architectural form of Bujora Church resembled exactly to that of their traditional houses. With this in mind, the local people easily accepted Christianity. Hence, the architectural form largely assisted to convert local people’s indigenous faith to Christian faith!



Source: Mosha 2011

Fig. 4. Bujora Church in Mwanza Tanzania



Source: Mosha 2011

Fig. 5. Sukuma Local Peoples’ Traditional Dwelling House in Mwanza Tanzania

Understanding socio-cultural transformation is necessary to be able to observe culture as continuous process of a particular society in responding to the challenges encountered in a particular society. Angus (2012), states that the change of cultural homogenization has been used to criticize the phenomenon of imposition of cultural norms and practices by stronger social actors on weaker one. The growth and development of Dar es Salaam has been guided by comprehensive plans commonly known as master plans, which are designed to cover a period of more than 20 years and indicate the anticipated growth direction of the city through land use planning with development standards and controls. A number of scholars have argued that there are number of

problems in urban human settlements which are largely associated with rapid and uncontrolled spatial development that have an impact on the environment, structures and city morphology in general. Burian (2003) ascertains that rapid growth of cities has resulted into shortage of buildings, inadequate urban infrastructure and services, and a deteriorating environment. Kreibich (2007) argues that land-use patterns in urban areas are such that CBDs continue to attract more commercial activities without sufficient development controls from local authorities. Furthermore, Habraken (2000) indicate that a place under control is territorial and fundamental to inhabit the earth. Territorial control is the ability to close a place to restrict entry.

METHODOLOGY

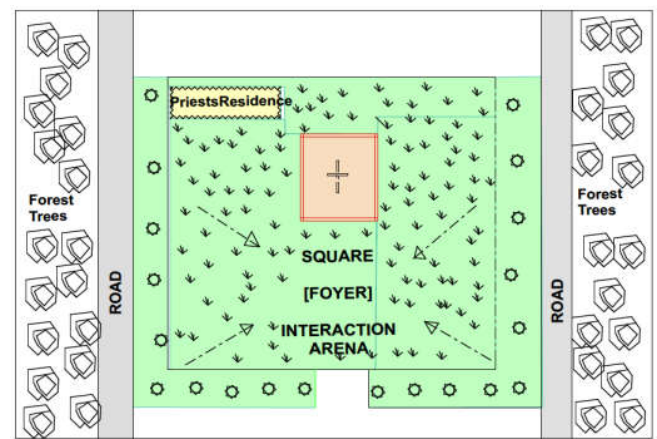
This research employed case study strategy to explore issues surrounding morphological transformation of parochial human settlements. Msimbazi parochial human settlements was selected to be a window of studying morphological changes that have occurred over a length of time through literature review and empirical field studies. Msimbazi parochial human settlements is considered to be rich of information related to research issue on changes of space use and building structures. Msimbazi parochial human settlements was found to contain remarkable historic link from pre- colonial to contemporary parochial settlements of the modern time in Roman Catholic religious sphere. It provided enormous wide range of information from cattle field to a pure parochial built environment to a transformed morphological complex currently consisting other buildings not related to religious functions per se. Major data collection tools used in this study included literature review, interviews, participant observation and photographic registration. Collected data and information were then compiled, analyzed and reported to achieve intended research objectives. These research tools were found to be reliable because the output of this research is suitable, applicable and true reflection of morphological transformation to other parts of the world with similar parochial human settlement situations.

RESULTS AND DISCUSSION

The study has shown that building morphology are transforming spontaneously. The prevailing morphological transformation processes and results of parochial human settlements in Tanzania have background and influence from Europe and Asia. It has been observed that, since the arrival of colonial missionaries in Dar es Salaam in 18th Century, some of parochial human settlement plans have drastically transformed due to the pressure of the parochial needs. Few parochial human settlement plans were established in various parishes in Dar es Salaam but many of these plans were not implemented in accordance to initial intended objectives, and they underwent significant morphological transformation. Most of these spatial plans were not followed because of financial difficulties and social reasons.

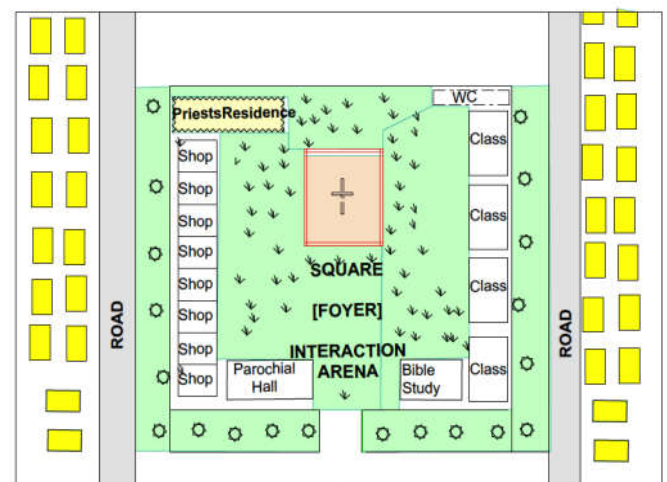
Msimbazi Parochial Human Settlements as a Show Case of Morphological Transformation

European Capuchin came to Msimbazi human settlements in 1920.



Source: Rimisho 2014

Fig. 6. Schematic sketch of Msimbazi Human Settlement Before Morphological Transformation Processes

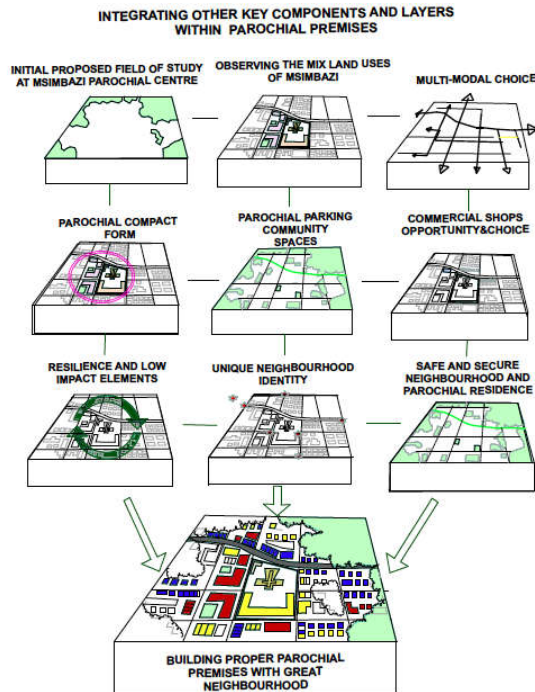


Source: Rimisho 2014

Fig. 7. Schematic Sketch of Transformed Msimbazi Parochial Human Settlements

Msimbazi by then was, a large field of cattle feed and consisted few indigenous houses for pastoralists. Establishment of Msimbazi parochial human settlement centre in 1921 was followed by Kurasini parochial human settlement in Dar es Salaam. Construction of buildings at Msimbazi parochial human settlements started with a chapel and priests' residential house as shown in fig. 6, followed by nun's house in the middle of 1930s. The construction of boarding schools for girls and boys in 1940s occupied a huge space and continued to grow within Msimbazi parochial human settlements. The seminary for female teachers was inaugurated in 1952 to increase the number of teachers so as to cope with the increased students' enrollment of the time. Orphanage house was constructed later in 1953 and a primary clinic buildings in 1960 under the Benedictines fathers. The present church was built in 1952. In 1960, Msimbazi parochial management decided to extend social services to the surrounding local communities. These social services included three hostels for boys, two hostels for girls, shops, canteen, bar, library, bookshop, performing art theatre, social halls, bible study rooms, classrooms and conference rooms. Thus Msimbazi parochial human settlement morphology is gradually transforming as shown in Fig. 7 and 8.

Mbiku (1985) positive outlook of parochial human settlement transformation stated that the main purpose of parochial morphological transformation is to ensure retention of coherent buildings such as the church, open spaces, trees, fencing pattern and features of religious values which represent the values, aspirations and achievements of the past Christian generations.



Source: Rimisho 2014

Figure 8. Schematic Sketch of Msimbazi Human Settlements – From Emptiness, Spiritual to Business Transformation



Source: Rimisho 2017k

Figure 9. Msimbazi Church built in 1952

Msimbazi parochial human settlements is a good show case and have retained some of its historical features such as spiritual axis and the colonial heritage of the Franciscan character. Place's morphology is a powerful tool to express historical values and development of different times for different places. Major buildings at present Msimbazi human settlements include Msimbazi Church (fig. 9), bank, hostel, library, social halls, shops, dispensary, orphanage, fathers' residence, cemetery, playground, and schools. However, many

contemporary buildings within Msimbazi parochial human settlements are constructed with little or no regard to the historical and architectural conservation of old buildings. Most of current buildings are product of modern architecture and business motives. Louis (2003) argues that postmodern architects regards contemporary buildings as complex and abstraction of the modern life styles in the world. Number of buildings at Msimbazi human settlements have been transformed from original morphology and are replaced by new buildings designed by modern architectural principles.

Conclusion

All parochial human settlements were initially planned and designed for religious undertakings but are now transformed to different functions and morphologies. In architectural concepts the form of a building must follow its function. That is, in layman's language, the outlook of a church and/or a mosque for worshipping should be different from that of a school for teaching or that of a prison for inmates, or hospitals for patients. If a function of a building has changed it is automatic that the form and ultimately morphology has to change. The morphology of a pure parochial human settlement cannot have the same morphology as that of transformed parochial human settlement. The architecture of parochial human settlement has significantly disappeared in the world as discussed in this study with the show case of Msimbazi. Parochial human settlements built during colonial periods had no fence-walls but contemporary parochial human settlement premises are enclosed with massive walls in Tanzania. Older buildings were naturally ventilated, cool and pleasant, but massing and densification of other structures such as shops, social halls, banks, dispensary, nursery school, and various other functional spaces have transformed into questionable built environment causing poor human thermo-comfort to end users. Massing of modern buildings must be planned to enhance related public and private domains activities. Morphological transformation must foster inter-generational heritage of buildings and spaces between them. Old and new architectural concepts of buildings should be skillfully integrated by professionals so as to be able to monitor and guide morphological transformations of parochial buildings, human settlements and the city at large.

REFERENCES

- Angus, I. 2012. The Anxiety Concerning Cultural Homogenisation, in: *Homogenisation of Representations*, Aga Khan Award for Architecture, Geneva.
- Bambang, H. 2001. Transformation of Jalam Malioboro, Yogyakarta, Morphology and Dynamic of a Javanese Street. Faculty of Architecture, Building and Planning, The University of Melbourne, Melbourne.
- Bobic, M. 1990. The Role of Time Function in City Spatial Structures: Past and Present, Avebury, Aldershot.
- Burian, W. 2003. Transforming Qualitative Information: Thematic Analysis and Code Development, Sage Publications, Thousand Oaks.
- Carmona M., Heath T., and Tiesdell S. (2003): Public Places, Urban Spaces: The Dimensions of Urban Design. Architectural Press, London.
- Habraken, N. 2000. The Structure of Ordinary, Form and Control in the Built Environment, MIT Press, London.

- Hassan, S. 2011. Some Reflections on Colonial Modern/Postcolonial Realities and the Architecture of the Muslim World. In: *Implicate & Explicate*, Lars Muller Publishers, Baden.
- Kiondo, M. and Mosha, L. 2016. Analysing the Dynamics of City Morphology with an Overview of Mbeya City in Tanzania. In: *Online journal of Social Sciences Research*, Vol. 5, pp. 1-5.
- Kiondo, M. 2017. *Architectural Layering of Cities: The Case of Buildings in Mbeya City, Tanzania*, Unpublished Doctoral Thesis, Ardhi University, Dar es Salaam.
- Kreibich V. 2007. *Guiding informal Urban Growth with Trunk Infrastructure*, Dortmund University, Dortmund.
- Lefebvre, H. 2011. *The Production of Space*; English translation in Malaysia.
- Louis, J. 2003. *The Church in the Changing City, Research in the Apostolate (CARA)*, New York.
- Mbiku, D. 1985. *The History of Archdiocese of Dar es Salaam*, Benedictine publications, Peramiho.
- Mohammad, A. 2010. *Workplaces, The Transformation of Places of Production*, Istanbul Bilgi University Press, Istanbul.
- Mosha, L. 2011. *Architecture of African Dwellings; Policy Influence Towards Rural Urbanism in Tanzania*. LAP Lambert Academic Publishing.
- Mostavi, M. 2016. *Architecture and Plurality*, Lars Muller Publishers, Zurich.
- Rimisho, H. 2014. *Morphological Transformation of Space in Roman Catholic Religious Built Environment, The Case of Msimbazi Parochial Centre in Archdiocese of Dar es Salaam, Tanzania*, Unpublished Masters' Thesis, Ardhi University, Dar es Salaam.
