

Resources, Process and Challenges of User-Initiated Transformation of Public Housing Units in Lagos, Nigeria

Dr. Kolawole O. MORAKINYO¹ Dr. Adetokunbo O. ILESANMI² Arc. Olusola A. ASA¹

1. Department of Architectural Technology, School of Environmental Studies, The Federal Polytechnic, Ede, Osun State, Nigeria

2. Department of Architecture, Faculty of Environmental Design and Management, Obafemi Awolowo University, Ile-Ife, Nigeria

Abstract

The literature on user-initiated transformation (UIT) of housing suggests the actuality of the phenomenon as an apparent trend in public housing estates in developing countries, despite the legal and planning implications, and the often negative official attitude towards it. Studies also highlight the significance of economic motivation in UIT. This paper therefore examines the resources for UIT in terms of the sources of finance, cost, and duration, as well as the process and challenges encountered. Systematic sampling method was employed to select 315 housing units from 8938 units in 3 purposively selected low-income estates (the largest) for questionnaire administration. Findings revealed that the main sources of finance for UIT were individual savings (36.8%) and Cooperative societies' loans (35.8%); while 49.5% of respondents expended N400,000-600,000 to transform to their housing. There was also a significant relationship between cost of UIT and income level. More than 64% of the transformations were completed within 1 year and 34% within the second year. Much of the UIT (65.3%) was by direct labour and 32.3% using contractors. Respondents' perception of desired spaces not provided emphasized the need for shops, storage, guest room and visitor's toilet. Insufficient finances and unavailable materials were the key challenges encountered in the transformation process. The study concluded on the need to review the legal, planning, policy and financial frameworks for public housing, to encourage users' participation and incorporate design guidelines that are sensitive to residents' socio-economic realities and aspirations as reflected in UIT, through a more acceptable and coordinated approach.

Keywords: challenges, process, public housing, resources, user-initiated transformation

Introduction

User-Initiated Transformation (UIT) is a phenomenon observed world-wide in public housing schemes. User-initiated transformation (UIT) has been defined as "an alteration or extension involving construction activity and using materials and technology in use in the locality" (Tipple 1991:4). Housing transformation is seen as a form of behavioural pattern highly influenced by satisfaction, attitude to housing and needs where inhabitants in one way or the other find satisfaction in altering their housing forms including their immediate environment. The practice of transformation as observed is so popular that it may be reasonable to ask whether transformation is a universal phenomenon wherever it is allowed either actively or passively. Our observation is that it certainly seems to be very widespread throughout the developing world where housing the low-income earners is one of the major concerns.

Dwellers in public housing sometimes engage in alteration and extension activities aimed at adapting the dwellings to better suit their needs, or as a means of refurbishing housing in poor condition (Tipple et al, 2000; Kallus & Dychtwald, 2010). Understanding this phenomenon is a prerequisite to any attempt to provide more satisfactory housing environments and to improve living conditions in existing ones. Public housing represents a notable proportion of the housing stock in many developing countries (Sengupta & Tipple, 2007; Tipple, 2000a). Its shortcomings have been identified and examined in an attempt to investigate the possibilities of improvements in future projects (Mukhija, 2004; Turner et al, 2009). Habraken (1975) suggested that public housing may not satisfy the needs of the occupants because they are normally built without consulting the future occupants and it is unlikely for people to live satisfactorily within a fixed environment in which they had no input. Moreover, it is often difficult to pre-determine the totality of occupants' requirements, as these would only become apparent through their activities in the dwellings. Perhaps due to this failure, in many instances, of public housing to respond to users' needs, it is usual to see residents engage in informal transformations within the formal housing sector, through a variety of modifications – user-initiated transformation (UIT) – carried out in government-built housing projects (Sibley-Behloul, 2003). User-initiated transformation (UIT) contrasts with interventions in the form of Government-initiated neighbourhood renewal programmes to improve housing conditions and urban infrastructure (Elazar & Marom, 1992). As Salim (1998) observed, it is common for owner-occupiers, through their own initiatives and efforts, to alter or extend their houses in order to improve their housing conditions or meet the growing needs of their households. Tipple (2000a) notes that housing transformation in developing countries often involves modifications and extensions of the external and internal parts of dwelling units. Much of the transformation is done either by the residents themselves or by small-scale

hired contractors and artisans using locally available materials and labour, and is often so extensive that the original dwelling units could hardly be recognized (Tipple, 2000b). Such user-initiated changes can provide useful models for future policies on public housing (Ward & Peters, 2007). It is therefore imperative to examine the modalities and motives behind UIT of dwelling units in public housing estates. This study is considered pertinent as it will increase the understanding of why and how some people effect alterations, extensions, modifications or additions to the original forms, extent, spatial configuration or uses of their housing units, and in some cases, their immediate environment. The main aim of this study has been to analyze the process by which houses built as complete units by the public sector in Lagos, Nigeria are being transformed by the dwellers through their own initiatives and efforts.

This paper proceeds in four sections. The first is the review of literature on housing transformations and theoretical clarification, followed by discussion of the method used in conducting the research. Next is the presentation and discussion of study findings. The paper ends with some concluding remarks, including implications of the study. It is expected that this study will bridge some gaps in the literature, inform housing policy and design practice as well as urban planning in Nigeria.

Literature Review and Theoretical Clarifications.

Meaning and Conceptualization of User-Initiated Transformation

Transformation of a dwelling has been defined as “an alteration or extension involving construction activity and using materials and technology in use in the locality” (Tipple, 1991:4). Alterations refer to “internal changes to the layout of the units without increasing the overall net floor area”; while extensions involve built additions, which add at least one functional component per unit (Tipple, 1991:20). UIT describes any change to the original form or spatial configuration of a dwelling unit by the occupants in order to meet current needs and future expectations (Salama, 1999; Kallus and Dychtwald, 2010). Manalang et al. (2002) view UIT as self-built improvement, which helps in understanding the adjustment behaviours of residents, and also indicates how they have augmented for the deficiencies in their current residences. Kim et al. (2005) describes transformation as the remodeling of completed buildings resulting in a change in the appearance or character of the building, its envelope or components. These activities have in some cases resulted not only in an increase of the actual housing stock, but in changing entire housing environments into dynamic, mixed-use developments, where maximum use of the available space and resources is made. Although attitudes to transformation vary, Tipple and Ameen (1999) argued for a change in the often negative official attitude to the phenomenon.

The conceptual basis for UIT resides in the principles of ‘self-help’, such as: ‘the freedom to build’, ‘housing as a verb’, ‘housing as process’, ‘housing by people’ (Turner, 1976). It may be conceptualized as a form of self-help housing, which Harris (1999) views to be valuable in providing inexpensive dwellings and coping with housing deficits in developed and developing countries. Tipple (2000a) and Tipple et al (2000) posit that self-help strategies are useful not only for new-built housing, but also for user-adaptation of government-built housing. Transformation of public housing may take the form of attaching informal developments to the most formally developed neighborhoods (Sibley-Behloul, 2003). It could also be in the alteration of the original internal spatial arrangement of a house to accommodate more spaces, as evident in some low-income public housing. Although many studies on UIT focus on the more intensive, tangible and visible phenomenon of ‘outward extension’, Popkin et al. (2012) describes housing transformation to include activities ranging from the rearrangement of internal furniture and painting a room, to structural amendments such as addition of more rooms or even demolition of parts of some housing units.

The benefits of UIT have been suggested to include: allowing residents to adapt their home environment according to their personal needs and expectations (Sibley-Behloul, 2003); and enabling them to remain in their community rather than move elsewhere, thereby preventing neighbourhood deterioration (Carmon, 2002b). UIT cuts across societal strata, tenure forms, and types (Carmon, 2004). The basic implication however, is that housing transformation is often an initiative of home-owners or occupants who seek to improve their housing conditions or provide more spaces to accommodate changing or increasing household needs. Tipple et. al (2000) based on a four-nation comparative study, affirm that governments and citizens have more to gain by encouraging, rather than preventing transformation. This buttresses the enduring advocacy for responsive public housing (Carmon and Oxman, 1986).

Research Method

This study is part of the wider research project that was conducted to analyze user-initiated transformation of public housing in Lagos, Nigeria. The study adopted a quantitative approach using the survey research method, and collected both primary and secondary data. Primary data were obtained from a field survey of the study area conducted between September and November 2013. The survey involved the use of structured questionnaire, complemented by researcher observation and documentation. The majority of public housing estates in Lagos State were constructed and provided by the Lagos State Development and Property Corporation (LSDPC), the

government agency in charge of housing provision, mainly during the mass housing era (1979 – 1983) of the then socialist oriented civilian administration. The three (3) largest of twenty (20) identified low income public housing estates in Lagos were purposively selected, namely: Abesan, Isolo and Iponri low income housing estates. In addition, the choice of these three selected estates was based on the result of a preliminary survey which revealed that apart from providing housing for the low income people, these three shared similar physical characteristics and also had obvious manifestations of housing transformation. The sample frame of the 3 estates comprised of 1261 blocks of flats with 8938 housing units. Using systematic random sampling, one housing unit from every 4th block was selected, amounting to 156 housing units from Abesan, 128 units from Isolo, and 31 units from Iponri housing estates; giving an overall sample size of 315 housing units (See Table 1).

Table 1: List of Selected Low-Income Public Housing Estates

Selected Housing Estates	No. of Units	No. of blocks	One unit in every 4 th block
Abesan	4272	624	156
Isolo	3664	512	128
Iponri	1002	125	31
Total	8938	1261	315

Source: Authors' Fieldwork, 2017

The questionnaires were administered on the household heads in the housing units to elicit information on their socio-economic and household characteristics, housing characteristics, patterns and process of, and reasons or motivation for housing transformation. Two-hundred and ninety-five (295) questionnaires, representing 93.6% of the 315 units, were retrieved for analysis. The primary data were subjected to descriptive and inferential analysis. Secondary data in the form of drawings, maps, and reports on the housing estates, were obtained from the LSDPC and analyzed qualitatively.

The questionnaire instrument used in data collection had four sections based on the main research issues addressed in the study: (A) respondents' socio-economic and housing characteristics; (B) forms and patterns of transformation of the housing units; (C) the resources, process and challenges of UIT; and (D) reasons and factors responsible for the transformation. The aspect reported in this paper relates specifically to the resources, process and challenges of UIT. The analysis of issues related to sections A, B & D is outside the scope of the present paper. The variables in Section C of the questionnaire consisted of a checklist of possible processes for UIT as derived from the review of literature, to which residents were required to respond in evaluating their housing transformation contexts. These included information with information such as, main sources of finance for the physical transformation made, amount expended to get the apartment/house transformed to desired level or taste, how the transformation was carried out most of the time, time taken to complete the transformation (i.e. duration) and the problems or challenges encountered before and during the process of housing transformation. Findings from these analyses are explained in the next section and summarized in the accompanying tables.

Data Analysis and Discussion of Findings

Respondents' Perception of Desired Spaces not provided against Intention to add or remove from their house during the Transformation Processes

The result in Table 2 below summarizes the results of respondents' perception of spaces not provided against intention to add or remove from their house during the transformation processes in the selected housing estates surveyed

S/No.	Spaces not provided		Do you still intend to add or remove from this house			Total
			Yes	No	I am not sure	
1	Space for shop	Freq.	32	59	13	104
		%	25.8%	10.9%	4.1%	
2	Storage spaces	Freq.	30	112	44	186
		%	24.2%	20.7%	13.9%	
	Visitors toilet	Freq.	29	115	88	232
		%	23.4%	21.2%	27.8%	
3	Guest room	Freq.	31	129	87	247
		%	25.0%	23.8%	27.4%	
4	Laundry	Freq.	2	127	85	214
		%	1.6%	23.4%	26.8%	
Total		Freq. Total	124	542	317	983
		% of Total	12.6%	55.1%	32.2%	

Source: Field Survey, 2017

Note: Percentages and totals are based on responses. There were a total of 983 responses from 315 respondents as a result of multiple responses.

Examination of the result reveals that the cross tabulation of respondents' perception of spaces not provided against intention to add or remove from their house show that respondents' perception of spaces not provided in the housing units is not responsible for their intention to further modify or add or remove from their houses. Out of a total of 983 responses from 315 respondents, only 12.6% (124 out of 983 responses) indicate willingness to modify or add or remove from the houses as a result of respondents' perception of spaces not provided in the housing units while 55.1% (542 out of 983 responses) indicate respondents do not intend to further modify or add or remove from their houses a result of their perception of spaces not provided in the housing units.

Out of a total of 124 responses which indicate willingness to modify or add or remove from the houses as a result of respondents' perception of spaces not provided in the housing units, 25.8% (32 out of 124) indicate shop spaces are not provided in the housing units, 24.2% (30 out of 124) indicate storage spaces are not provided, 23.4% (29 out of 124) indicate visitors' toilet are not provided, 25.0% (31 out of 124) indicate guest rooms are not provided while 1.6% (2 out of 124) indicate laundry spaces are not provided in the housing units. Housing transformation is believed to be a way to achieve the desire for more habitable space within and around a household. This study shows that this is not always the case.

Sources of Finance for the Transformation Process

Table 3 below summarizes the results of residents' responses to the sources of finance for the transformation processes in the selected housing estates surveyed

S/No.	What is the main source of finance for the extension of Housing Units?	Selected Housing Estates							
		Abesan		Iponri		Isolo		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Individual saving	53	36.8	10	33.3	81	63.8	144	47.8
2	Cooperative societies	51	35.4	15	50.0	43	33.9	109	36.2
3	Loan from bank(credit)	40	27.8	5	16.7	3	2.4	48	15.9
	Total	144	100.0	30	100.0	127	100.0	301	100.0

Source: Field Survey, 2017

The sources of finance for the execution of transformation by the Low-Income earner are multifaceted as they tend to put in all manner of efforts together to accomplish their aim. It is interesting to find out the many ways and processes the Low-Income earner go through in sourcing for funds but the out-come of this variable will even further broaden the understanding of the nature of the present residents of the estates in terms of their economic status. One of these efforts is through their accrued personal savings The result of multiple response from the selected estates surveyed shows that, majority of 47.8% of the transformers sourced for fund through personal savings while lending of money from cooperative societies to finance transformation was an option which did not receive much consideration as only 36.2% of the respondents patronized them for sponsorship. The least proportion (15.9%) sourced their funds as loans from banks that are willing to come to the aid of those financially inadequate particularly the low-income earners.

Cost Implications of the Transformation Process

Table 4 below summarizes the results of residents' responses to cost implication for the transformation processes in the selected housing estates surveyed

Source: Field Survey, 2017

S/No.	How much did you spend to get this apartment/house to your desired taste?	Selected Housing Estates							
		Abesan		Iponri		Isolo		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Less than ₦200,000	20	13.8	11	37.9	14	11.4	45	15.2
2	₦ 200,000 - ₦ 400,000	35	24.1	9	31.0	2	1.6	46	15.5
3	₦ 400,000 - ₦600,000	54	37.2	6	20.7	87	70.7	147	49.5
4	₦ 600,000 -₦ 800,000	20	13.8	1	3.4	13	10.6	34	11.4
5	₦ 800,000 and above	16	11.0	2	6.9	7	5.7	25	8.4
	Total	145	100.0	29	100.0	123	100.0	297	100.0

The result of this study shows that the cost of carrying out transformation for each household in the surveyed housing estates differs according to the taste, type and the magnitude of transformation. A fairly rough idea of how much transformers spent was given in ranges to enable one present a detailed information on the cost implication of the transformation residents may have embarked on mainly through their own efforts and initiatives. Almost half (49.5%, 147 out of 297 respondents) in all the selected housing estates expended between N400, 000 and N600, 000 to get their apartment transformed with respect to taste, type and magnitude of transformation. Those who spent less that N200, 000 accounted for a lower percentage of 15.2% and almost an equal number (15.5%) of the residents said they spent between N200,000 and N400,000 on their transformation

exercises. It was observed that considerably smaller percentage more people spent above N 800,000 and above to get their houses transformed in the selected estates.

Method of Execution of Transformation Process

Table 5 below summarizes the results of residents' responses to how the transformation was carried out most of the time, in the selected housing estates surveyed

S/No.	How did you carry out this extension and alteration (physical transformation) most of the time?	Residential Zone							
		Abesan		Iponri		Isolo		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Self-help (You built it directly by yourself)	5	3.5	1	3.3	0	0.0	6	2.0
2	Contractor	60	41.7	9	30.0	28	22.2	97	32.3
3	Direct labour (separate tradesman)	78	54.2	20	66.7	98	77.8	196	65.3
	Total	144	100.0	30	100.0	126	100.0	300	100.0

Source: Field Survey, 2017

The informal sector process for the transformation activities is generally carried out by direct labour (by hiring separate trademen). There are several methods of construction techniques ranging from self-help method to the use of advanced construction techniques. Hence household characteristics are therefore important determinants of the choice of implementers of the extension process. The Low-Income group in the society as expected may be limited to methods which they can conveniently afford particularly in terms of finance. Sometimes, time is not a yardstick as they tend to carryout transformation at their own pace and as dictated by the inflow of the required cash and material resources. Knowledge of the methods adopted by the resident to effect transformation will enlarge the understanding of step by step stages that were involved in turning the estates to what it is today. The direct labour system of execution had the highest patronage of 65.3% as the predominant method in the surveyed housing estates. This practice involves the direct engagement of the different artisans and work men separately under completely different agreements with all geared towards achieving the same end result. This was followed by those (33.2%) who carried out their transformation by engaging the services of contractors. This arrangement away every burden from the house owner and ensures a smooth and tidy execution of the project but one must have the money to pay. Results indicates that while most of the transformers who engaged other methods of execution, a negligible proportion of them (8.7%) busied themselves with the "do it yourself method" of self-help.

Duration of Transformation Process

Table 6 below summarizes the results of residents' responses to time taken to complete the transformation-extension and alteration of housing units (i.e. duration) in the selected housing estates surveyed

S/No.		Selected Housing Estates							
		Abesan		Iponri		Isolo		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Less than 1 year	90	61.6	23	76.7	83	65.4	196	64.7
2	1-2yrs	51	34.9	7	23.3	43	33.9	101	33.3
3	2 -3yrs	3	2.1	0	0.0	0	0.0	3	1.0
4	4 - 5yrs	0	0.0	0	0.0	1	0.8	1	0.3
5	Ongoing	2	1.4	0	0.0	0	0.0	1	0.6
	Total	146	100.0	30	100.0	127	100.0	303	100.0

The knowledge of the duration a UIT process takes to be accomplished provide an insight into the actual process involved in transformation. The duration may vary from one household to another depending on issues bordering on funding, extent and type of transformation, technique or method of implementation as well the quality expectation of the transformation itself. Thus, the lack of constant appreciable cash flow for the implementation often tend to drag over a period of time for the exercise to be completed. The results from the study as shown on table 34 further buttresses these realities on ground with 64.7% of the respondents spent less than 1 year get their houses transformed and for a duration of between 1 and 2 years, it was 33.3 % of the transformers, while lower percentages like 1.0%, 0.3% and 0.6% stood for those who spent between 2 and 3 years, 4 and 5years and those who still have their transformation on-going but may have begun utilizing them respectively.

The Problems or Challenges Encountered in Transformation Process

Housing transformation, whether by moving, improving or a combination of both, seeks to obtain a more satisfactory habitat. However, housing transformation is not without its challenges which sometimes question whether the process is worthwhile. Some of the challenges encountered before and during the process of housing

transformation are; harassment by miscreants and street urchins, imposition of undue levies, bribery and corruption by government officials taking advantage of the process etc.

Table 7 below summarizes the results of residents' responses to the problems or challenges encountered before and during the process of housing transformation in the selected housing estates surveyed

S/No.	What are the challenges encountered before and during the process of transformation of your house?		Selected Housing Estates			Total
			Abesan	Iponri	Isolo	
1	Area boys and thugs	Count	3	0	0	3
		% within location	1.2%	0.0%	0.0%	
		% of Total	0.5%	0.0%	0.0%	0.5%
2	Harassment from officials	Count	0	1	0	1
		% within location	0.0%	1.5%	0.0%	
		% of Total	0.0%	0.2%	0.0%	0.2%
3	lack of sufficient fund/finance	Count	109	23	81	213
		% within location	44.1%	34.3%	33.5%	
		% of Total	19.6%	4.1%	14.6%	38.3%
4	No action	Count	36	15	46	97
		% within location	14.6%	22.4%	19.0%	
		% of Total	6.5%	2.7%	8.3%	17.4%
5	Forced a change in what was built.	Count	20	4	49	73
		% within location	8.1%	6.0%	20.2%	
		% of Total	3.6%	0.7%	8.8%	13.1%
6	Unavailability of building materials	Count	76	23	66	165
		% within location	30.8%	34.3%	27.3%	
		% of Total	13.7%	4.1%	11.9%	29.7%
7	Penalty demand in monetary terms	Count	2	1	0	3
		% within location	0.8%	1.5%	0.0%	
		% of Total	0.4%	0.2%	0.0%	0.5%
8	Others	Count	1	0	0	1
		% within location	0.4%	0.0%	0.0%	
		% of Total	0.2%	0.0%	0.0%	0.2%
Total		Count	247	67	242	556
		% of Total	44.4%	12.1%	43.5%	100.0%

Source: Field Survey, 2017

Note: Multiple responses were allowed for this research item. Percentages and totals are based on responses

Overall, an appreciable proportion (38.3%) and (29.7%) of the transformers indicated that lack of sufficient fund/finance and unavailability of materials were the key challenges encountered in the transformation process respectively in all the housing estates surveyed. The next ranked challenges was a negligible proportion (17.4%) of the residents have not had any challenge while embarking on transformation. it was a double edged challenge as the issue of lack of fund was further compounded by the incessant harassments received from this same area boys accounted to be (0.5%). But as observed, other forms of problem highlighted included that of Harassment from government officials (0.2%), forcing a change in what was built (13.1%), penalty demand in terms of monetary terms (0.5%); which in some cases led to complete stoppage of work or slowed down the pace of work during transformation process.

Conclusion

Motivated by the need for a paradigm in public housing estates in Nigeria, this study sought evaluated the resources, process and challenges of User-Initiated Transformation (UIT) in Public Housing Estates in Lagos, Nigeria, through a survey of three purposively selected public housing estates. The study explored explanations for the phenomenon of owner-initiated transformation of public sector low cost housing particularly in the developing countries context with a view to understanding the adjustment behaviours of the residents. It reported findings from respondents' assessment of processes public housing transformation in the selected estates, using a set of identified and derived from the literature. This study attempts to make a case for the process of housing transformation as carried out by low-income households to their dwellings. It explains the implication of practice on general housing issues and how it concerns the individual transformer. Using descriptive statistics, it presented summary of the processes of UIT in the study area.

The implication of this study for sustainable housing development is premised on the finding that people engage in UIT of dwellings in an array of ways and for varied reasons, including the need to make the home more aesthetically pleasing, more suitable for their needs, for qualitative improvement, and for economic reasons. Thus housing providers should pay closer attention to the spatial and related characteristics of specific activity areas in order provide houses that meet users' needs. Housing should be viewed as a process of constant transformation and endless variation, rather than a static artifice or product; and UIT as an unfolding, continuing open-ended process. These could provide information that would enhance effective policies and implementation of housing delivery systems, and more responsive public housing.

The study has therefore contributed to the body of knowledge on housing transformation, which may enhance the maintenance of existing housing estates and policies on new developments, especially public housing delivery for the low income earners. It thus provides information that could assist policy makers in effective public housing delivery and a template to replicate such researches in other cities of the developing world. The study underscores the need to consider relevant determinants emanating from the end-users for the overall housing improvement and development in Nigeria.

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About the Authors:

Dr. (Arc.) Kolawole O. MORAKINYO (Ph.D.) is a Registered Architect with the Architects Registration Council of Nigeria (ARCON), and a Lecturer in the Department of Architectural Technology, The Federal Polytechnic Ede. He is currently the Substantive Head of Department, at the Department of Architectural Technology, Federal Polytechnic, Ede. He currently teaches Advanced Architectural design, Specification Writing, Application of Building Materials, Introduction to Human Settlement at the Federal Polytechnic Ede, Osun State Nigeria. He is also a member of Polytechnic Research Committee of Federal Polytechnic Ede. He is a Member, Association of Architectural Educators in Nigeria, (M-AARCHES). He has also taught at Osun State College of Technology Esa – Oke, Osun State and Caleb University, Lagos Nigeria. He specializes in urban design, housing and urban studies, and has researched, published and provided advisory services on areas such as Housing Policy, Urbanization etc. His current interest is on Affordable and Sustainable housing, Urban Studies, Housing and Culture, Building Evaluation and Architectural Education, and Iconic Architecture. The outputs from his research works exist in several local and international publications.

Dr. (Arc.) Adetokunbo O. ILESANMI (Ph.D.) is a Registered Architect, and an Associate Professor of Architecture. He is currently the Head of Department of Architecture at Obafemi Awolowo University. He is a Member, Association of Architectural Educators in Nigeria, (M-AARCHES). He is a corporate member of the Nigerian Institute of Architects (MNIA), and also a corporate member of Architect Registration Council of Nigeria. He teaches Building Component and Methods, Housing & Urban Renewal and Research Methods at Postgraduate Level. His research and teaching interests include various aspects of Housing and Urban Studies, Building evaluation, Urban design and Urban Development Studies, Sustainable Housing and Architecture, and architectural education. He has published extensively in scholarly journals. He has attended many conferences and published in journals both local and international.

Arc. Olusola A. ASA is a Registered Architect with the Architects Registration Council of Nigeria (ARCON), and a Principal Lecturer in the Department of Architectural Technology, The Federal Polytechnic Ede. He was formerly the Substantive Head of Architectural Technology Department, Federal Polytechnic, Ede, and also formerly Director of Physical Planning Unit at the Federal Polytechnic Ede. He is a corporate member of the Nigerian Institute of Architects (MNIA) and also a Member, Association of Architectural Educators in Nigeria, (M-AARCHES). He has also taught at The Federal Polytechnic Ado-Ekiti, Ekiti State before he joined the service of Federal Polytechnic Ede. He currently teaches Advanced Architectural Design, Building Materials,

Construction Drawings, Construction Technology and housing at the Federal Polytechnic Ede, Osun State Nigeria. His research interests include Housing and Sustainable Development, Housing and Culture, Design Studio Pedagogy, Functional Architecture and Construction Technology. He has published extensively in scholarly journals. He has attended many conferences and published in journals both local and international.

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