Evaluating Users' Household-Size and Housing Quality in Osogbo, Nigeria
Jiboye Adesoji David.

Abstract

The non-consideration of relevant socio–cultural parameters by Agencies responsible for housing provision has been identified as one of the major reasons for the housing inadequacies and poor quality in most developing countries - Nigeria inclusive. Significantly, this phenomenon has produced housing misuses, wastage of scarce resources and the creation of an apathetic citizenry.   Premised on the foregoing, this paper examines the effect of users' household-size – a socio-cultural parameter, in the determination of qualitative housing in Osogbo, Nigeria. Information on housing quality and households' characteristics was provided by heads of households from 406 housing units, in three residential zones of Osogbo. Data analysis was by descriptive statistics and analysis of variance (ANOVA).The result showed that the Yoruba ethnic group constitutes the majority (97.5% of the households), over other ethnic groups (Hausa, Igbo etc), while 70.9% of the households in the study area had an average household-size of six (6) or more persons. From the ANOVA test result (F=10.76; P=0.000), the study revealed a significant relationship between household-size and housing quality in Osogbo. The study further showed that the quality of housing in the city's core area is poor compared with other residential areas in the town.The need to consider users' household-size, among other relevant socio-cultural parameters in the design and development of qualitative housing in Nigeria is emphasized.
Keywords: Housing quality; household-size; socio-cultural parameters; Osogbo; Nigeria.

Introduction

It has been asserted that large scale housing deficiencies and poor social and residential environments in the forms of slums and squalors characterize most urban centres in the emerging nations of Africa, Asia and Latin America. A UN-Habitat (2006) estimate had indicated that more than one billion of the world's city residents live in low quality housing, mostly in the sprawling slums and squatter settlements in developing countries. Other similar estimates also indicate that almost a billion people already live in slum conditions characterized by insecure tenure, inadequate housing, and a lack of access to water or sanitation around the world; and that slums are growing dramatically within the world's poorest cities, particularly, in Sub-Sahara Africa and Asia (UNDP, 2005; UN-Habitat, 2007).

Although, many studies have attributed the causes of these housing deficiencies to the rapid urbanization and population growth in many parts of the developing world (Onibokun, 1985; Olanrewaju, 2003; Satterthwaite, 2001; Ravalin, 2007). Several others have however traced it primarily to the absence or non-consideration of peoples' socio-cultural differences among others, inherent in the various subcultures (Gyuse, 1993; Agbola, 1998; Olayiwola et al., 2006; Jiboye, 2009b). Rather than identifying relevant parameters upon which housing could be developed, the planning practices and urban rehabilitation strategies adopted reflect those of the western culture. This constitutes a major reason for the failure of such renewal and housing projects from achieving its objectives (Onibokun, 1985; Dawan, 1994; Olayiwola et al., 2006; Jiboye, 2009b).

In Nigeria for instance, the houses built before the pre-colonial period were noted to be crude, primitive and lacking geometric precision; yet they provided some levels of shelter desirability, comfort, convenience and socio-cultural relevance to the users. Then, the concept of housing and the relevance of socio-cultural factors, as portrayed by Rapoport (1969), Muller (1984), Gyuse (1993), Gur (1994), Godwin (1997) and others, was quite appreciated as people built to satisfy their households' peculiarities. Unfortunately, the nature of most urban housing in the present day Nigeria could not justify these realities; rather, it is characterized by numerous inadequacies in the forms of slums and poor quality dwellings. A scenario described by Godwin (1997) as "sub-human and sub-standard".

In spite of the pathetic housing situation experienced in Nigeria, attempts by the various housing professionals including architects, planners and government agencies to improve the quality of housing have not yielded any desirable result. Rather than providing a culturally determined as well as user's responsive dwellings, most housing developments have been based on planners' standard. Attention is paid to what the

*Department of Architecture, Obafemi Awolowo Univesity,Ile – Ife, Nigeria adconsul@yahoo.com

buildings look like and not how they will be used in practice and their cultural fit. While appearance is important, houses must serve the everyday needs of the people for whom they are designed (Muller, 1984; Gyuse, 1993). However, it has been affirmed that adequate and good quality housing provides the foundation for stable communities and social inclusion, and that housing should reflect the cultural, social and economic values of a society as it is the best physical and historical evidence of civilization in a country (Onibokun, 1985; Foster, 2000). In its entirety, housing is thus connected with the essence of life as it affects the whole of life in every way.

Whereas, previous studies have underscored the need to improve the quality of housing, only a few of them, if any – within the Nigeria context had actually examined and stressed on the specific impact and relevance of households' socio-cultural attributes on housing quality. This study is thus a contribution in this direction. Using Osogbo Township as a case in point, the main objective of this study is to examine the effect of household-size, a socio-cultural parameter, in the determination of residential quality in Nigeria. To achieve this, the study provides a null hypothesis that "there is no significant relationship between users' household-size and housing quality in Osogbo. (Household-size as applicable here is the number of persons living together, either as a nuclear or extended family unit within the same house and sharing common facilities). The input of studies such as this will provide relevant feedback that could guide housing technocrats in the development of qualitative as well as users' responsive dwellings in Nigeria.

Socio-cultural Issues in Housing

Culture, as defined by Taymurr (1992) and Gur (1994) is a holistic, synergetic, complex and dynamic phenomenon, when combined with the built form, both change in space and time. In explicit term Rapoport (1969) asserts that 'house form is not simply the result of the physical forces or any single casual factor but is the consequences of a whole range of socio-cultural factors seen in broadest terms – the specific characteristics of culture – the accepted way of doing things, the socially unacceptable ways and implicit ideals – needed to be considered since they affect housing and settlement form'. Significantly, the human dwelling is one such tangible thing

imbued with cultural identity. Globally and traditionally, the house has always evolved based on both physical and socio-cultural considerations (Osasona, et al., 2007). Thus, every civilization produces its own house-forms, highly reflective of the historically prevalent cultural values and objectively conditioned by the structural system of social organization (Awotona et al, 1994).

Available studies have shown that certain cognitive factors such as experience, socio-cultural and economic background affect the level of human perception of their housing environment (Firey, 1945; Anderson and Tindel, 1972; Francescato and Mebane, 1973; Jiboye, 2008). Also, according Onibokun (1985) variables such as family patterns, tenure system and social status are relevant factors in social and cultural issues. Furthermore, others factors such as age, sex, cultural influences, values and needs of the people could also affect human perception of their housing (Encyclopedia Britannica, 1993). However, Rapoport (1976) and Lawrence (1987) had affirmed that traditional values and house patterns among others are relevant determinants of quality in housing. Considering the foregoing, Olayiwola et. al (2006) conclude that the socio-cultural attributes of man are very important parameters in the determination of suitable housing. There is therefore the need to consider its relevance in the evaluation and determination of qualitative housing in Nigeria.

Indicators for evaluating Housing quality

Housing is however an issue that touches on the life of individuals as well as that of the nation; a great importance is therefore ascribed to the role it plays in engendering human comfort by both nature and society. This is why Eldredge (1967) concludes that housing represents a bundle of goods and services which facilitate and enhance good living; and a key to neighborhood quality and preservation. Likewise, Agbola (1998) concludes that housing is a combination of characteristics which provide a unique home within any neighborhood; it is an array of economic, social and psychological phenomena. In other-words, housing could be seen as a multi-dimensional package of goods and services extending beyond shelter itself. The need to appreciate the relevance of a habitable (qualitative) housing therefore, requires an

understanding of the concept of 'quality' which according to Onion, cited in Afon (2000), "is a mental or moral attribute of a thing which can be used when describing the nature, condition or property of that particular thing". Mccary, cited in Jiboye (2004), noted that reaching a definition of quality depends not only on the user and his or her desires, but also on the product being considered. In essence, quality is a product of subjective judgment which arises from the overall perception which the individual holds towards what is seen as the significant elements at a particular point in time (Anantharajan, 1983; Olayiwola, et al, 2006).

In assessing the quality or suitability of housing, previous qualitative studies have identified some criteria as relevant indicators for quality evaluation in residential development. Among such is Abloh (1980), who noted that housing acceptability should take into account, type of construction, materials used, and amount of space, services and facilities, condition of facilities within and outside dwelling, function and aesthetics among many others. Ebong (1983) identified aesthetics, ornamentation, sanitation, drainage, age of building, access to basic housing facilities, burglary, spatial adequacy, noise level within neighbourhood, sewage and waste disposal, air pollution and ease of movement among others, as relevant quality determinants in housing. However, Hanmer et al. (2000), conclude that qualitative housing involves the provision of infrastructural services which could bring about sustainable growth and development through improved environmental conditions and improved livelihood.

In determining the quality of residential development, the Scottish housing Standard stipulates five basic criteria which provide that housing must be in compliance with tolerable standard, free from serious disrepair, energy efficient, provided with modern facilities and services, and that it must be healthy, safe and secure (Neilson (2004). Also, the Housing Corporation of Britain (HC, 2007), outlined three basic indicators in determining quality of any housing development. These are; location, design and external environment of the house. These indicators consist of variables such as; access to basic housing and community facilities, the quality of infrastructural amenities within housing neighbourhoods, spatial adequacy and quality of design, fixtures

and fittings, building layout and landscaping, noise and pollution control as well as security, among many others. There are however indications from these various studies that a single variable may not be sufficient to assess the qualitative nature of residential development; therefore, housing acceptability and qualitative assessment should also take into account type of constructions, materials used, amount of space, services, spatial arrangement and facilities within dwellings, function and aesthetics, among others (Olu-Sule and Gur, cited in Jiboye, 2004).

Previous studies have indicated that a more appropriate method of evaluating the quality of the built environment is through the affective responses based on the user's assessment (Weldemann and Anderson, 1985; Ilesanmi, 2005). In this study therefore, qualitative evaluation will be based on user's assessment of the physical criterion of housing. This will consider among other variables identified above, the quality of housing in terms of adequacy of basic infrastructures, suitability of the building design; integrity of the building elements, as well as that of fixtures within the dwellings.

In Nigeria, and other third world nations, the need to provide qualitative housing based on user's responsive and culturally determined considerations - particularly for the vast majority of the urban population is central to the achievement of sustainable cities and human development. Nonetheless, the use of relevant information evolving from human values in housing development has been negligible. Yet, they are critical in guiding housing improvement and development. Perhaps, this study could bridge this gap by providing explanations for the relevance of users' household-size in residential quality development in Nigeria.

The Study Area

Osogbo is situated on latitude 7.7^0 N and longitude 4.5^0 E of Greenwich Meridian. It was founded in the late 18th century and originated as a traditional as well as cultural town which derives its name from the proclamation by the goddess of Osun River. The town is known for her very rich arts and cultural heritage (Adenaike, 1991; Awe & Albert, 1995; Wikipedia, 2010). Following the creation of Osun State in 1991, Osogbo assumed the status of a State capital, having two local governments which are Osogbo and

Olorunda. Its population, based on 1991 census was 189,733 and the total land area was about 2,875 square kilometers before it became the State capital (Akanji, 1994; Akinola, 1998; Osun, 1992).

Over the years, Osogbo has witnessed tremendous growth both spatially and in population. The establishment of a railway station is perhaps the most important single factor in the growth of Osogbo. Apart from the railway, postal and telecommunication, NEPA regional station, road network and some small as well as large-scale business exist. Osogbo thus became a major trading and distribution center for people within and outside its immediate environment.

In recent times, the location of Osogbo as a state capital coupled with other factors mentioned earlier has led to the influx of people from other towns and villages, thus giving it the status of a twin city, exhibiting both traditional as well as modern characteristics. (Adenaike, 1991; Egunjobi, 1995). Its current population is estimated to about 845,000 (Wikipedia, 2010).

Physical Characteristic and Pattern of Spatial Development of Osogbo

Osogbo has a considerable variation in its physical pattern and growth. The Oba's palace and the traditional market (Oja Oba) acts as a central focus (Ojo, 1966). This is surrounded by residential districts which form the core of the city. This area comprises of buildings and development dated back to the pre-colonial period. Building types here comprise of the traditional compound, extended family dwellings, some of which have now been modified into contemporary house types. The area is inter connected by network of roads, albeit most of them in bad condition. Most of the buildings and infrastructure in the interior part of Osogbo are already very old and in need of rehabilitation.

Next to the core area is the intermediate zone (between the core and the new area/periphery). This zone is made up of buildings and development which existed from between 1935 and 1960. Then the town had expanded to cover an area of about 580 hectares of land. Most of the dwellings here are of the contemporary types. This zone is followed by the periphery and the newly developed area. The houses here are of better quality than those of other zones. It consists of modern building development interspersed by

few traditional and contemporary house types. It is however noted that development in Osogbo is noticed as one moves from the interior towards the outskirts while most of the business districts are interwoven with residential districts (Egunjobi, 1995).

Despite the provision and availability of some basic infrastructures like water, electricity, telecommunication and road networks in Osogbo, the level and condition of these facilities are still very inadequate and deplorable considering the rate of urbanization and population growth witnessed in the town in recent times.

Methodology

The study area, Osogbo consists of three residential zones identified based on the pattern of city growth - the traditional core area, (zone A), intermediate area (between the core and the outskirts (zone B) and the periphery/newly developed area (zone C).

Housing samples were taken from a total of 4,110 housing units identified within these zones in Osogbo. These units were stratified into 200 equal quadrates based on the housing concentration in each residential area. These produced a total of 12 quadrates consisting of 80 housing units each in Zone A, 15 quadrates consisting of 60 units each in Zone B, and 173 quadrates consisting of 13 housing units each in Zone C. Altogether, there were 960, 900, and 2,250 housing units in zones A, B and C, respectively. Ten percent (10%) of these units were selected in each zone through stratified sampling method (see Berry and Baker, cited in Jiboye, 2009c). Consequently, 411 housing units, consisting of 96, 90 and 225 units were drawn for sampling from the core area, intermediate area, and the outskirts of the study area, respectively. Out of these figures, only 406 respondents in the houses selected (i.e 99% response rate) returned their questionnaires for analysis (see Table1). The data were analyzed by frequency distribution and one-way analysis of variance (ANOVA).

The main instrument for data collection was a questionnaire containing both personal and socio - cultural attributes of the respondents and their households. The remaining items were questions relating to the quality of housing in Osogbo (See Table 2). The attributes were selected from both the literature (Anantharajan, 1983), and through

structured questionnaire employed in other previous works by the author.

The respondents were asked to rate the quality of housing from the selected attributes on a five-point rating scale (see, Potter and Cantarero; 2006, Hur and Morrow-Jones, 2008). This indicates that very poor quality = 1; poor = 2; fair = 3; good = 4; and very good quality = 5. The respondents were first treated as a group within the entire Osogbo Township. Also, they were classified and treated according to the three residential zones in Osogbo. The analysis and results are presented below.

Results and Discussion

Available data from the survey indicates that the Yoruba ethnic origin predominates over all other ethnic origins residing in Osogbo. This accounts for 97.5% of the respondents treated as a group. In the zones, it accounts for 99% in zone A, 100% in zone B and 95.9% in zone C. These figures indicate that zones A and B – which are the core and intermediate areas, have more respondents of the Yoruba socio-cultural origin than zone C (the newly developed area). Considering the size of households in Osogbo, the result indicates that 70.9% of households have an average of six (6) persons or more per family. This value accounts for 77.3% in zone A (core) 80.9% in zone B (intermediate) and 64.1% in zone C (periphery). The values show that zones A and B, which are primarily inhabited by the indigenes and traditional people of Osogbo had larger proportions of household size than zone C which is occupied by people from diverse ethnic origins. This result essentially provides the basis for the polygamous and extended family structure, typical of the traditional Yoruba ethnic group in Nigeria. A structure opposed to the nuclear family structure of the western culture - where a household consists of the father, mother and an average of two children. This finding thus substantiates earlier assertions by Goffman (1959) and Muller (1984), indicating the level of importance attached to the extended family structure among the Yoruba ethnic group in Nigeria.

With regards to quality assessment, Tables 3 and 4 provide the results of the survey for Osogbo. These however, suggest that the quality of housing amenities and infrastructures is generally poor and falls below the expected standard. This is indicated by 95.5% of the respondents sampled. On the contrary, the results show that the quality of building elements, designs and fixtures are relatively fair, as indicated by 53.2%, 70.4% and 69% of the respondents sampled. Just 40.2% considered the building elements to be good. (See Table 2 for list of variables). The results as shown on the Tables further indicate that the quality of housing in the outskirt (zone C) is higher than that of the core (zone A) and intermediate (zone B) areas of Osogbo.

In determining the relationship between household-size and overall housing quality, the proposed null hypothesis stating that "there is no significant relationship between users' household-size and housing quality in Osogbo was tested using the Analysis of Variance (ANOVA). By comparing the mean values for these variables, the test yielded an F-ratio of 10.76 at less than 0.05 level of significance (*i. e, P = 0.000*), (see Table 5**.** This result indicates that household-size has a significant influence on the overall housing quality in Osogbo. Significantly, this finding rejects the null-hypothesis and validates the hypothesis that there is a significant relationship between household-size and housing quality in Osogbo. While substantiating Muller (1984), Dawan (1994), Jiboye (2009b) and several others, on the imperativeness of socio-cultural parameters to housing, the finding justifies the need to consider the structure of families and size of households of the different sub-cultures when deciding on qualitative housing provision in Nigeria.

Summary and Conclusion

This study has shown that the majority of residents in Osogbo belong to the Yoruba socio-cultural ethnic origin, with particular inclination towards polygamous and extended family structure, typical of most African society (Muller, 1984) The study has also shown that the average household size is six (6) persons or more. This structure is prevalent within the traditional core and intermediate areas of Osogbo, where the indigenous people reside, unlike at the periphery where most of the residents belong to diverse socio-cultural backgrounds.

The finding on the assessment of housing quality indicates some disparities among the zones identified in Osogbo; with zone C – the outskirt, apparently demonstrating a higher level of housing quality compared to zones A and B. This is expressed

in terms of the quality and adequacies of infrastructural facilities, building designs, elements and fixtures rated in the study. However, these variations, according to Akinola (1998), were caused by factors such as; time of development, age of buildings, lack of maintenance of buildings and absence of adequate physical planning in the affected area. Generally, the age of buildings and period of development was highest at the core area and decreased to the periphery of the city. Similarly, the decay and deterioration of housing amenities and public infrastructures were more pronounced and critical at the core than elsewhere in the city. Incidentally, housing density with high occupancy ratio is higher at the core and reduces outwardly to the periphery.

Despite noticeable disparities in housing quality amongst the three zones in Osogbo, household–size had significant influence on the overall housing quality. This finding thus rejects the null hypothesis that "there is no significant relationship between users' household-size and housing quality. In other words, the finding confirms that the quality of housing or residential development in Osogbo is influenced and determined by the size of household among other related factors.

This study has examined the effects of users' household-size on housing quality in Osogbo, Nigeria. By highlighting the results of the survey of 406 households in three residential zones in Osogbo, the study has established that the absence or non-consideration of the relevant users' socio-cultural parameters in housing development will produce a house which lacks relevance and originality. The importance of socio-cultural factors in the evolution of spatial structure in Osogbo housing districts has implication for residential planning in Nigeria. While conceptualizing housing design in terms of the physical character, planners and developers must organize their thinking and design concept to accommodate people's diverse socio-cultural preferences and peculiarities. In this way, house owners and users would have access to the much desired qualitative housing. Failure to include relevant socio-cultural parameters indicates an ignorance of the fact that while appearance is important, houses must also serve the everyday needs of the occupants. Hence, design must aim at merging beauty with utility.

Significantly, adequate housing contributes not only to national development but also determines the health, security, sanitation and socio-cultural and physical wellbeing of the individual, the community and the nation at large (Onibokun, 1985; Foster, 2000; Gilbertson et al, 2008). It is of necessity therefore, that attention is paid to ensuring qualitative housing provision for the people. Also of necessity is the need to improve existing housing stocks within the urban areas.

References

Abloh, F. A. (1980), *A concise in Basic Sociology for Community Designers.* Department of Housing and Planning Research, University of Science and Technology, Kumasi, Ghana.

Adenaike, F. A. (1991), "The Pioneers". Osun State of Nigeria.

Afon, A. (2000), Use of Residents Environment Quality Indicator (EQI) Data in a residential Housing improvement. In Effective Housing in the 21st century, Nigeria. The Environmental Forum, F.U.T.A pp. 115 – 122.

Agbola, T. (1998), The Housing of Nigerians ''A Review of policy Development and Implementation'' Research Report 14, Development Policy Centre, Ibadan, Nigeria.

Akinola, S. R. (1998), "The Pattern of Housing Quality in Osogbo, Osun State". *Ife Journal of Environmental Design and Management,* 109-120.

Anantharajan, T. (1983), "Evaluation of Residential Development through User's Rating and Ranking of Environmental Attributes". Proceedings of the IAHS Congress on Housing. NW 7 – 12 Miami Florida. Ural, E. D. (ed.). pp 73 – 84.

Anderson, J. and Tindall, M. (1972), *The concept of home range. New Data for the study of Territorial Behaviors.* In Mitcvhell, W.J. (ed). Environmental Design: research and practice. Los Angeles. University of California EDRA 3

Awe, B and Albert, O. (1995), Historical Development of Osogbo. In Model of Growing African Town. Adepegba, C.O. (ed.). Institute of African Studies University of Ibadan. Nigeria.

Awotona, A., Ogunshakin L., Mills-Tettey, R. (1994), Multi-habitation and Cultural Structures.Experiences from Nigeria. *A Book of Readings*. Department of Architecture, Obafemi

Awolowo Unversity, Ile-Ife Nigeria and CARDO Newcastle, U.K.

Dawan, P. D. (1994), Urban development and population relocation in Abuja, Nigeria. *Ekistics*, **366**, 216-219.

Ebong, M. O. (1983), "The Perception of Residential Quality: A case study of Calabar, Nigeria". *Third World Planning Review*, **5** (3), 273-285.

Egunjobi, L. (1995), *Osogbo: Aspects of Urbanization, Physical Planning and Development.* In Osogbo: Model of Growing African Town. Adepegba, C.O (ed.). Institute of African Studies, University of Ibadan, Nigeria, Pg. 13 – 28.

Eldredge H.W. (1967), *Housing and Community in Taning Megalopolis* Vol. I. Anchor Books edition.

Encyclopedia Britanica (1993), Perception Vol. 25: U.S.A.

Fiery, W. (1945). Sentiment and Symbolism as Ecological Variables. *American Sociological Review*, **10**, 140 – 148.

Foster, A. (2000), Putting your house in order: evaluating tenants' satisfaction with improvements to social housing. www.hmtreasury.gov.uk/media/092FE/239.pdf.[15, May, 2004]

Francescato, D. and Mebane, W (1973), How citizens view two great cities. Milan and Rome. In Down, R.M and Stea, D. (eds). Image and Environment. Chicago Aldire Pp. 98.

Gilbertson, J., Green, G., Ormandy, D., and Thomson, H. (2008), Good housing and good health? A review and recommendations for housing and health practitioners. A Sector Study Housing Corporation. UK. Available at http://www.health_housing_20060816144328.pdf. [Accessed, March, 2009].

Godwin, J. (1997),   "The House in Nigeria. An exploration". Keynote Address in the conference on the House in Nigeria. Department of Architecture and Conference Centre, Obafemi Awolowo University, Ile – Ife Nigeria, pp. 9 – 12.

Goffman, E. (1959),   "The presentation of self in everyday life (Garden City, N. Y. Doubleday).

Gur, S. O. (1994), House preferences of Users at different phases of acculturation, Ekistics, 366, May/June 1994, 367, July/August, 1994, Pg. 176 – 181.

Gyuse, T. T. (1993), Socio-cultural Dimensions of Public Housing in Urban Development in Nigeria Planning, housing and land policy. Edited by Robert W. Taylor (1993). Montclair State, New Jersey, U. S. A. Published by Ave Burry, U. S. A. Pg. 154.

Hanmer, L., Booth, D. and Lovell, E. (2000), Poverty and Transport: A Report prepared for the World Bank in collaboration with DFID, Overseas Development Institute.

Hur, M. and Morrow-Jones, H. (2008), Factors that influence residents' satisfaction with neighborhoods. *Environment and Behavior*, **40**(5), 619-635.

Housing Corporation (H.C), (2007), Housing quality Indicators (HQI). Version 4. (For NAHP 08 – 10). April. Available at: HQIForm4_April_2007.pdf. [Accessed, November, 2009].

Ilesanmi A. O. (2005), An Evaluation of Selected Public Housing Schemes of Lagos State Development and Property Corporation. An unpublished Ph.D Thesis. Department of Architecture, O.A.U. Ile-Ife, Nigeria.

Jiboye, A. (2004), A Assessment of the influence of Socio-cultural factors on Housing quality in Osogbo, Nigeria. Unpublished M.Sc. Thesis. Department of Urban and Regional Planning. Obafemi Awolowo University, Ile-Ife, Nigeria.

--------------(2008), A Study of Public Housing Satisfaction in Lagos, Nigeria. An unpublished Ph.D Thesis. Department of Urban and Regional Planning, Obafemi Awolowo University, Ile-Ife, Nigeria.

------------ (2009b), The Significance of Households' Characteristics on Housing Quality in Nigeria. *Journal of Geography and Planning Sciences,* **2**(2), 1-10.

------------ (2009c), The Relevance of House-form to Housing Quality in Nigeria. *International Journal of Sustainable Development*, **2**(3) 29-36.

Lawrence, R. J. (1987), What makes a house a home? *Environment and Behavior,* **19**(2), 254-168.

Muller, M. S. (1984), Traditional Cultural Identity in new dwellings of urban Africa. *Ekistics,* **307**, 355 – 360.

Neilson, M. (2004), Scottish housing quality Standard (SHQS). Scottish Executive Development Department. Available at www.scotland.gov.uk

NPC, (2006), National Population Commission. Official Gazette. Abuja, Nigeria.

Olanrewaju, D.O. (2003), "Sustainable environment and the poor. A keynote Address". Proceedings of the 11th National Conference on *Challenges of Environmental Sustainability in a Democratic Government*. Organized by Environment and Behavior Association of Nigeria (EBAN). Held at the Federal University of Technology, Akure, Nigeria.

Olayiwola, L.M. Adeleye, A. and Jiboye , A. D. (2006), "Effect of Socio-cultural factors on Housing quality in Osogbo, Nigeria". International Symposium on Construction in Developing Economies: New issues and challenges. Santiago, Chile. January, 18-29.

Onibokun, P. (1985),   Socio-cultural Constrains on Urban Renewal Polcies in Enmerging Nations. The Ibadan Case. In Housing in Nigeria. A Book of Reading (NISER), Ibadan, pp. 393 – 405.

Osasona C. Ogunshakin L. and Jiboye A. (2007), The African Woman's right to security through

sanitation. From the dwelling unit to the neighbourhood. Conference proceeding on Right to Live in Africa. Trieste, 9 – 10 November.

 Osun, 1992; State of the Living Spring. Publish by Ministry of Information.

Potter, J. and Cantarero, R. (2006), How does increasing population affect resident satisfaction? A small community case study. *Environment and Behavior*, **38**(5), 605-625.

Rapopport, A. (1969). *House-form and culture*. Englewood Cliff, N. J. Prentice Hall.

Rapopport, A. (1976): *Socio-cultural aspects of man and Environmental Studies*. In Rapopport, A. (ed.). The Mutual Interaction of people and their Built Environment, The Hague: Monton.

Ravallin, M. (2007), Urban poverty, *Journal of Finance and Development*. 15 - 17.

Satterthwaite, D. (2001). Urban environment. Microsoft Encarta Encyclopedia.

Teymur, N. (1992), A theory of change in Architecture" Socio-environmental Metamorphoses, IAPS 12, International Conference Proceedings. Marmaras, Chalkidiki, Greece. **2**,101-113.

UNDP. (2005), Investing in development. A practical plan to achieve the Millennium Development Goals. Overview. UN Millennium Project. Pdf Version.

UN-Habitat. (2006), Regulatory Framework and Strategic Urban Planning and Management. Conference Paper on Housing and Urban Development. Nairobi, 3 -4 April. Available in www.unhabitat.org. (Assessed, October, 2008).

UN-Habitat, (2007), *Milestones in the Evolution of human settlements policies.1976-2006. State of the World cities. Report 2006/2007.*The MDGs and urban sustainability. 30years of shaping the Habitat Agenda. Earsthcan. pp. 156-161.

Weidemann, S. and Anderson, J. R. (1985), A Conceptual Framework for Residential Satisfaction". In Altman, I. and Werner, C. (eds.). Home Environment, Human Behaviour and Environmental Advances in Theory and Research. Vol. 8. Plenum Press.

Table1: Distribution and selection of samples in Osogbo

Residential Areas or Zones	No. of quadrates	No. of housing unit per quadrate	Total units per zone	No. of samples retrieved per zone(10%)
Core area (A)	12	80	960	96
Intermediate Area (B)	15	60	900	90
Outskirt (C)	173	13	2249	220
Total	200	153	4109	406(99%)

Source:-Author's Field Survey, 2008.

Table 2: List of selected Housing quality Variables

(a) Housing Amenities	(b)Building-designs, elements, and fixtures
1. Road network 2. Electricity supply 3. Water supply 4. Refuse disposal 5. Market/Shopping Area 6. Restaurant 7. Bank 8. Cinema 9. Post Office 10. Play ground 11. Health Centre/Clinic 12. Community center 13. Place of worship 10. School	Spatial adequacy Floors Windows Wall finishes Ceiling Walls Roofs Ventilation Privacy Lighting Kitchen, toilet, and bath fixtures

Table 3: Quality of housing amenities and infrastructures

Ratings	Zone A		Zone B		Zone C		Overall	
	Freq	%	Freq	%	Freq	%	Freq	%
Very poor	-	-	-	-	-	-	-	-
Poor	92	95.8	85	94.4	20.9	95.0	386	95.1
Fair	3	3.1	4	4.4	11	5.0	18	4.4
Good	1	1.0	1	1.1	-	-	2	0.4
Very good	-	-	-	-	-	-	-	-
Total	96	100	90	100	220	100	406	100.0

Source: Author's Field Survey, 2008.

Table 4. The quality of building elements, designs and fixtures.

Ratings	Zone A		Zone B		Zone C		Overall	
	Freq	%	Freq	%	Freq	%	Freq	%
a. Designs								
Very poor	-	-	4	4.4	-	-	4	1.0
Poor	-	-	-	-	2	0.9	2	0.5
Fair	78	8.3	68	75.6	140	63.6	286	70.4
Good	18	18.8	15	16.7	30	13.6	103	25.4
Very good	-	-	3	3.3	70	31.8	11	2.7
Total	96	100.0	90	100.0	220	100.0	406	100.0
b. Elements								
Very poor	-	-	-	-	1	0.5	1	0.2
Poor	1	1.0	-	-	3	1.5	4	1.0
Fair	64	2.2	65	72.2	87	39.6	216	53.2
Good	24	26.7	24	26.7	110	50.1	163	40.2
Very good	1	1.1	1	1.1	19	8.9	22	5.4
Total	96		90	100.0	220	100.0	406	100.0
c. Fixtures								
Very poor	1	1.0	2	2.2	3	1.4	6	1.5
Poor	3	3.1	3	3.3	5	2.4	11	2.7
Fair	8	84.4	58	64.4	141	64.1	280	69.0
Good	5	5.2	14	15.6	36	16.3	55	13.5
Very good	6	6.3	13	14.4	35	16.0	54	13.3
Total	96	100.0	90	100.0	220	100.0	406	100.0

Source: Author's Field Survey, 2008.

Table 5: Relationship between Household-Size and Overall Housing Quality in Osogbo.

Source of Variation	Sum of Squares	Mean Square	df	F	P
Between Groups	2620.68	873.56	3	10.76	0.000*
Within Groups	32626.54	81.16	402		
TOTAL	35247.22		405		

*Significant ($P < 0.05$)