EFFECTS OF DETERMINED SOCIO-CULTURAL HOUSE FORMS ON HOME ACTIVITIES AMONG NATIVE OCCUPANTS IN ADAMAWA STATE

BY

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M.Ed/EDUC/4717/2009 - 2010

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ZARIA – NIGERIA

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF EDUCATION (M.ED) DEGREE IN HOME ECONOMICS (HOME MANAGEMENT)
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ZARIA – NIGERIA

OCTOBER, 2012

DECLARATION

I Shall, Merinda Phanuel hereby declares that the work in this Thesis titled "EFFECTS OF DETERMINED SOCIO-CULTURAL HOUSE FORMS ON HOME ACTIVITIES AMONG NATIVE OCCUPANTS IN ADAMAWA STATE" has been undertaken by me in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria. The information derived from the literature was duly acknowledged in the text and a list of references provided. There is no part of this Thesis that was previously presented for another degree at any university.

_____ _____

Shall, Merinda Phanuel Date

M.Ed/EDUC/4717/2009 - 2010

CERTIFICATION

This Thesis titled: "EFFECTS OF DETERMINED SOCIO-CULTURAL HOUSE FORMS ON HOME ACTIVITIES AMONG NATIVE OCCUPANTS IN ADAMAWA STATE" was written by Shall, Merinda Phanuel to meet the regulations governing the award of the degree of Masters in Education (M.Ed) (Home Economics) of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to Almighty God, my late mother, Alsabatu Joel, my beloved husband Phanuel J. Shall and to my children Hyellamada, Ana'aticha, Morhyel and Mekindani.

ACKNOWLEDGEMENTS

To God be the glory for everything He has done in my life in the course of this study. May His name be highly exalted forever in Jesus name. The researcher wishes to express profound gratitude to God for His blessings, guidance, protection, mercy and inspiration for a successful completion of this work despite all obstacles and stress.

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ABSTRACT

The research was to determine the effects of determined socio-cultural house forms on home activities among native occupants in Adamawa State. Five objectives and five research questions were formulated with five related null hypotheses. Survey research design was employed for the study. The population for the study was fifteen thousand, one hundred (15,100) native occupants from the twenty-one (21) Local Governments Areas of Adamawa State. The sample size was three hundred and ninety- nine(399) respondents drawn from the population. Simple random sampling and proportionate random sampling techniques were used for the selection of the sample size. Frequencies and percentages were used to analyze the bio-data. Mean and standard deviation were used to answer the research questions while Multiple regression statistical analysis at 0.05 level of significance was used to test the null research hypotheses. Hypotheses 1, 3, 4 and 5 were rejected on the fact that there is significant relationship that exist between socio-cultural house forms and meal preparation, house sanitation, storage and clothing maintenance activities among occupants in Adamawa State. Hypothesis 2 was retained which revealed that there is no significant relationship that exist between socio-cultural house forms and leisure activities among occupants in Adamawa State.ome recommendations were proferred on how to improve the socio-cultural house forms in order to accommodate the various home activities with ease.

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DEFINITION OF OPERATIONAL TERMS

Socio-Cultural Forces: These are ideas of a community on house forms about what they believe to be good, desirable and beautiful. They are cultural practices confined to values, norms, knowledge, beliefs and other practices that conform a community to adapt to a particular type of house form.

House Forms: These refer to the shape and size of a house which are either rectangular or circular house forms It includes the physical appearance of the house, the contents, the spatial arrangements of the contents and the space distribution within the house. However, the forms can be modified by some forces like socio-cultural forces basically to suit the lifestyle of the occupants.

Home Activities: This is the total household work in the home. The work can further be broken into sub-units called home activities. The activities are reflected to the different areas in the house as they are carried out. The different activities highlighted in this research work are meal preparation, leisure, sanitation storage and clothing maintenance activities. The activities are co-ordinated and performed by the family members to enhance their standard of living.

Wet room: This refers to the toilet, bathing and laundry areas in the house.

Culture: This is the pattern of behaviour and thinking that people living in social groups learn, create and share. Culture distinguishes humans from others. A people's culture includes their beliefs, rules of behaviour, technology, art, economic systems and forms of social organisation.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Shelter has always been one of human basic needs. People need shelter for protection, comfort and security. Throughout history, human being has tried to reshape his immediate environment so as to provide himself with a means of cover and protection from external elements. Masnick (2002) postulated that the house and building forms created by so doing becomes a physical expression of human cultural and social system. Jiboye (2004) opined that house form is not simply the result of the physical forces or any single causal factor but the consequence of a whole range of socio-cultural factors seen in their boldest terms. According to him, the specific characteristics of culture, the accepted way of doing things, the socially unacceptable ways and implicit ideals are needed to be considered since they affect housing and settlement form.

Cultural structures are integrals of civilization manifested in a system of behaviours, activities, parix and lifestyles at the individual and collective levels of the society. In sociological terms, every civilization produces its own housing forms highly reflective of the historically prevalent cultural values of the society and objectively conditioned by the structural system of social organization (Lau, 2006).

The socio-cultural value of every man is known to vary from one society to another and have both direct and indirect influences on man's inhabitation. A typical example is in Nigeria where the predominant traditional house form is the compound house forms, which vary in pattern with the different ethnic settings that made up the country – Yoruba, Ibo and Hausa. These variations are the products of the socio-cultural factors and values peculiar to the different ethnic groups. Charles (2001) opined that a man's position, the society, occupation, the different home activities and other resources also tend to affect the house he builds for himself because the house is seen as an important investment.

The term housing refers to more than just a dwelling but includes all that is within the dwelling. It is a creation of a special environment in which people live and grow. Nihal (2004) added that the house is perceived as the space that we can call our own that gives us privacy, that shelters us from the weather and above all from the intrusion of unwanted people. Nabeel (2004) asserted that the life of man has its natural setting in what happens in around and from his house. Housing therefore is connected with the essence of life. In line with this statement, Pradhan (2008) opined that it is not too much to say that housing is of the greatest investment because it affects the whole of life in every way like health, security and culture. It is related to human life day-in and day-out and it is the most important basis for development of the total human personality in society.

The relevance of culture in the determination of housing form cannot be overemphasised. Olayiwola, Adeyele and Jiboye (2006) defined culture as "the acquired or cultivated behaviour and thoughts of the individual within the society as well as the intellectual, artistical and social ideas which members of the society profess and to which they strive to conform". This implies their worldview, principles of social organisations such as family structure and their social behaviour as reflected in the daily cycle of home activities.

The reasons for the great number of house types not easily understood in the context of relatively few climatic types, limited number of materials or other physical factors became much clearer if viewed as expression of ideal environments reflecting different world views and ways of life. A house is a human fact constraints and limited technology which man has built in ways so diverse that they can be attributed only to choice, which involves cultural values. Rapoport (1999) observed that even though socio-cultural forces have effect on the built form, there are two important features to be considered when designing and building houses for the population at present living condition. In the first instance, the house must have enough rooms to enable the inhabitants to sleep inside without either violating customary regulations or causing inconveniences. Secondly the house must be designed in such a way as to facilitate expansion by addition of rooms as the household increases in size and children grow up. http://

www .org. wikipedia/ wik/com. The houses designed must be extensible not only to meet the demands of the developing families but to accommodate occupants and their activities.

The circular and rectangular house forms are always modified to suit the social behaviours of the people in a particular community. The social behaviours are manifested in the way the various activities in the house are carried out by the occupants. Such activities like cooking, storage, leisure, sanitation and clothing maintenance are done on daily bases and should be done effectively to enhance the living condition of the occupants. Mathias(1992) observed that if specific areas are allocated for each activity in the socio cultural houses they would be conveniently performed by the occupants without overlapping. He further maintained that socio cultural houses in Adamawa State are clustered compounds with limited space within the rooms which makes the household activities uneasy to perform. Space for the performance of the activities is not the priority of the indigenous community planners and the occupants when designing settlement forms. Li (2005) maintained that space is essential when performing home activities so that the worker can move freely. She further pointed out that meal preparation in particular is not suppose to be done in the sleeping room because the space there in is tight and the whole is dangerous to health.

Housing is 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. Moffat (2007) concluded that housing represents a bundle of goods and services, which facilitate and enhance good living and is a key to neighbourhood quality and preservation. It is a combination of characteristics which provide a unique home within any neighbourhood. It is an array of social and psychological phenomena. In other word, housing could be seen as multi-dimensional package of goods and services extending beyond shelter itself.

1.2 Statement of the Problem

The typical cultural organization of the structures, under one roof, several things are kept and many activities take place. Such activities include sleeping, relaxation, storage and cooking. This may constitute problems among the native occupants in Adamawa State because no consideration is given for such household activities in terms of space, when designing cultural house forms.

Though the effects of socio-cultural house forms have significance in the lifestyle of the people, they hamper the smooth running of home activities. The meal preparation that is done in the sleeping room or in the porch is normal to the house occupant, but the activity becomes cumbersome because the space is tight. Li (2005) pointed out that enough

space is essential in meal preparation to ensure free movement and easy access to the kitchen equipment.

Toilets and bath rooms are not provided in such houses due to a common belief that they attract flies and cockroaches. People go the bush to defecate and go to the stream or ponds to bath and wash. This has effect on the leisure activities of the family members especially their privacy. Privacy is also compromised as the female children sleep with the mothers in the same room. Ukpore (2006) stressed that the children need privacy and independence as they grow up.

The rooms in the compound are closely clustered for easy maintenance and easy communication in the family, but in the actual sense the space enclosed in the compound is not sufficient to accommodate the home activities with ease. The granaries built outside or inside the rooms signify show of wealth by the occupants, but this practice tightens the space in the compound and in the rooms making movement so difficult when performing the house activities. Fresh air does not circulate freely in the rooms also. The problem statement of this study therefore is whether socio cultural house forms have effects on home activities among native occupants Adamawa State.

1.3 Objectives of the Study

The main objective of the study was to establish the effects of determined socio-cultural house forms on home activities among native occupants in Adamawa State.

The specific objectives were to:

1. establish the effects of determined socio-cultural house forms (social status, family structure and level of income) in relation to meal preparation activities among native occupants in Adamawa State;
2. identify the effects of determined socio-cultural house forms (social status, family structure and level of income) in relation to leisure activities among native occupants in Adamawa State;
3. determine the effects of determined socio-cultural house forms (social status, family structure and level of income) in relation to house sanitation activities among occupants in Adamawa State;
4. establish the effects of determined socio-cultural house forms (social status, family structure and level of income) in relation to storage activities in the home among native occupants in Adamawa State and
5. determine the effects of determined socio-cultural house forms (social status, family structure and level of income) in relation to

clothing maintenance activities among native occupants in Adamawa State.

1.4 Research Questions

The following research questions were set for the study:

1. What are the effects of determined socio-cultural house forms in relation to meal preparation activities among native occupants in Adamawa State?
2. What are the effects of determined socio-cultural house forms in relation to leisure activities among native occupants in Adamawa State?
3. What are the effects of determined socio-cultural house forms in relation to house sanitation activities among native occupants in Adamawa State?
4. What are the effects of determined socio-cultural house forms in relation to storage activities among native occupants in Adamawa State?
5. What are the effects of determined socio-cultural house forms in relation to clothing maintenance activities among native occupants in Adamawa State?

1.5 Research Hypotheses

The following null hypotheses have been formulated for the research study:

HO1 There is no significant effect of determined socio-cultural (social status, family structure and level of income) house forms in relation to meal preparation activities among native occupants in Adamawa State.

HO2 There is no significant effect of determined socio-cultural (social status, family structure and level of income) house forms in relation to leisure activities among native occupants in Adamawa State.

HO3 There is no significant effect of determined socio-cultural (social status, family structure and level of income) house forms in relation to house sanitation activities among native occupants in Adamawa State.

HO4 There is no significant effect of determined socio-cultural (social status, family structure and level of income) house forms in relation to storage activities among native occupants in Adamawa State.

HO5 There is no significant effect of determined socio-cultural (social status, family structure and level of income) house forms in relation to clothing maintenance activities among native occupants in Adamawa State.

1.6 Significance of the Study

The study findings will be of immense benefit to the native occupants of Adamawa State as the lumped activities of the home will be separated to be carried out in the area specified for each in the house. It is believed that when a space is allocated for each activity in the house, the activities are easily carried out without stress on the worker.

The findings will be useful to students, teachers and curriculum planners of Home Economics Department as they will be taught the importance of space for each activity when organizing the interior of the house as a home maker.

Finally the findings will also be useful to the indigenous community planners as they will improve on the socio-cultural house forms to accommodate the different home activities of the house. By so doing, the cultural building specifications will relate to the modern designs of house forms.

1.7 Basic Assumptions

The basic assumptions for this study are as follows:

1. Home activities are not carried out effectively if space is not allocated for each in the house.
2. The performance of home activities will be enhanced when the socio-cultural forces that affect house forms are improved upon.

1.8 Delimitation of the Study

This study was covered the effects of determined socio-cultural house forms in Adamawa State. It is delimited to the various home activities such as meal preparation, leisure, sanitation storage and clothing maintenance that are carried out daily by the occupants. It is also delimited to the adult native occupants of the socio cultural houses who are in one way or another involved in performance of the activities in the house in Adamawa State.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter the related literature were reviewed under the following sub-headings:

2.1 Conceptual Framework

2.2 House Forms

2.2.1 Spatial Organization of Circular House Forms

2.2.2 Spatial Organization of Rectangular House Forms

2.2.3 Typical Traditional Compound of Adamawa State

2.2.4 Courtyard Planning of Adamawa State

2.2.5 Building Materials

2.3 Socio-Cultural Forces and House Forms

2.3.1 Social Status

2.3.2 Family Structure

2.3.3 Level of Income

2.4 Home Activities

2.4.1 Meal Preparation Activities

2.4.2 Leisure Activities

2.4.3 House Sanitation Activities

2.4.4 Storage Activities

2.4.5 Clothing Maintenance Activities

2.5 Empirical Studies

2.6 Summary

2.1 Conceptual Framework

One important point in this preliminary discussion is the concept of housing delivery, which refers to the erection of a roof over supporting walls or columns or post or pillars and the process of development control. The house could be of either circular form or rectangular form. The land delivery system and site service, the production of building materials, financial arrangement and investment, all with the aim of providing shelter for the people. However the house forms are modified by the acceptable lifestyle of the people.

Housing is the process of providing a shelter for someone to live in with respect to its community, the physical setting and facilities which enhance occupants, socio-cultural and economic interaction. Hence, house should be a planned environment with provision for infrastructural and social facilities. Hall (2000) maintained that housing is a shelter which is necessary to everyone and the problem of providing adequate housing has long been a concern to individuals. Thus the history of housing is inseparable from the social, economic and political development of human kind.

Housing is a critical component in the social and economic fabric of all nations. No country is yet satisfied that adequate housing has not yet been delivered to the various social groups that make up its populace. Thus, most nations in one form or another continue to claim a housing problem

especially in managing space for the various activities in the house. Nigerian Bulletin (2000) http //dfi.ca.gov/ publications/bulletin. Housing is an indispensable social infrastructure whose quality and quantity serve as an instrument for measuring the standard of living, the level of technological advancement, culture and civilization of a nation. Wasember and Goegeluk (2005) postulated that good house is essential for human dignity and self-fulfilment. It provides the physical framework in which human social and cultural resources are realised, enriched and integrated. In spite of the expense, the building of houses is an attractive proposition because houses are facts which can be pointed out as an example of the magnanimity of the government. But unless the houses are of suitable design, and have a sufficient number of rooms and enclosed space, they will not achieve the main purpose of accommodating all the various activities of the house.

The basic elements comprising a house are a room providing adequate protection from elements, intruder and wild animals in which people can keep warm or cool and dry when asleep. Such room is also necessary for safekeeping of immovable possessions. The elements do not have to provide such an all-round protection against weather, thieves and animals, but people must have as a minimum privacy and protection from public view for bathing and defecating. Cooking can be done in the open

space in suitable weather conditions although a roof to keep off sun and rain is considered to be essential in most cases.

http://www.an.gov.en/zzcy/ml /040904.doc.

Culture as defined by Teymur (1992) is a holistic, synergetic, complex and dynamic phenomenon when combined with the built form both change in space and time. In explicit term Rapoport (1999) asserted that house forms is not simply the result of the physical forces or any single causal factor but is the consequences of a whole range of social 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 from. Significantly, the human dwelling is one such tangible thing imbedded with cultural identity. Globally and traditionally, the house is always evolved based on both physical and socio-cultural consideration (Osasona, 2007). Thus every civilization produces its own house forms, highly reflective of historically prevalent cultural values and objectively conditional by the structural system of social organization.

Most of the people of Adamawa State had their traditional settlement on the mountains except for the Mbochama, Mbula and Bata who settled on the lowlands along the River Gongola. However, because of the modern civilization and the need to be accessed by the government for development has caused resettlement of Adamawa people to flat lowlands of today, even

though there are still some that live on the mountain up to date. Places like Madagali and Ganye still have people living on the mountains. The main occupation of Adamawa people is farming, animal rearing, fishing and blacksmithing.

Adamawa State is located at the North-Eastern part of Nigeria. It shares boundary with Taraba State in the South and West, Gombe State in the North-West and Borno to the North. It has an international boundary with Cameroon Republic along its eastern boarder. Yola is the capital of the state. Adamawa State comprises of numerous ethnic groups up to 78.

In 1978 this area was invaded by Fulbe headed by Adama Modibo and he overtook the various ethnically based politics who hitherto were not only politically segmented but also culturally different. Among the indigenous peoples with whom the Fulbe first came in contact was the Bata who were most culturally and numerically significant. The Fulbe culture assimilated deep into them and today they form the core of the state capital dominantly with Islamic culture and are called the Fulanis. There are numerous other groups speaking languages related to Bata or who have Bata antecedents, but who now go by their local names and culture. Such include Marghi, Bura, Kilba, Gisiga, Gudu, Malabu, Holma and many other tribes (Adebayo, 2006). It was after the name of Adama Modibo that the former Adamawa Province and the present state, Adamawa State were named.

Housing is a combination of characteristics which provide a unique home within any neighbourhood capable of accommodating the different activities taking place in the house. Gyuse (1993) maintained that home activity is a multidimensional package of goods and services. The need to appreciate the relevance of a habitable housing therefore requires an understanding of the concept of housing and the different activities taking place in the house. Anyakoha and Eluwa (2000) identified that activities are not actually carried out individually in the home, there is constant overlapping among them and it is this that affect house forms. Some activities suggest a need for the highest degree of privacy, which also affect house form. The different activities include meal preparation, leisure, storage, and house sanitation and clothing maintenance activities.

Mathias (1992) viewed that very few of the basic elements of houses in Nigeria, for instance can be used for more than one purpose with perhaps the exception of the bedroom or sleeping room which is also used for storing valuables such as clothes, money radios, clock and knick-knacks. Most of the villagers in Northern part of Nigeria use wood fires and clay or stone fireplace to cook. This method requires a floor area enough for the fire place. Awotona and Agunsakin (1994) emphasized that if there are several married women living in one house each must have her own cooking place. This is because cooking takes up the entire yard in those

houses that have them. Houses without enclosed yards tend to spread their activities over the inter-house area and surroundings.

There are activities which have a daily routine like sleeping, cooking, eating and bathing. There are number of seasonal and occasional activities which are best carried our at home also. Agbola (1998) explained that it is quite possible that during the course of a year all the activities in the house may take place in a single yard. Thus to design a specialized place or room ideal for one of them would inhibit the carrying out of the others, since the nature and type of processes vary considerably. He further stressed that the most flexible arrangement possible is probably the one which most villagers have worked out for themselves.

2.2 House Forms

Housing fulfils the desire of a man to be able to provide a lodge for himself. Smi (2010) said that house form is a state where the man has a feeling of achievement from owning a place he can use personally and develop to his taste and for his satisfaction psychologically. The form and structural construction of a house depends on the area and what is in vogue at the time.

Types of House Forms

In the past, houses were built to provide the barest necessities for the family and forms were simple and plain. In recent years, owing to advances

in technology, designs have altered greatly and forms have become more complicated.

Dwyer (1981) pointed out that there are two types of house forms. The rectangular and the circular house forms may be an enclosed type or detached type. He further stressed that forms can only be modified by factors like, socio-culture, climate, economic and technology of the environment and the people.

Rectangular house form: This starts from the plot which is rectangular down to the spatial arrangements of the structures. The space distribution is also rectangular. Toronko (2007) maintained that the rectangular house form is conformed to the urban areas where housing construction regulations and architectural designs are observed. Dwyer further stressed that in urban areas the rectangular forms reflect urban settlements which is either spontaneous or linear type. He stressed that the rectangular form has been modified into modern house forms like bungalows and storey buildings as a result of advancement in technology with much emphasis on appropriate space distribution for the different activities carried out in the house. Chea (2010) stated that now the modern structural forms are intriguing and contains all the comforts necessary for the family members.

Circular house form: This type of house form is much related to the rural dwellers who do not observe housing construction regulations. The land is vast and free that the house owner design structures by themselves

according to the approval of community. The shapes of the houses are mostly circular. The spatial arrangements of the rooms are in circular shape Anyakoha and Eluwa (2000) viewed that space distribution is not the priority of the rural house owners. They continued by saying that as a result of the undefined space for each activity in the house, there is overlapping of how to carry out the activities. Comfort is not derived from the way activities are carried out.

2.2.1 Spatial Organization of Circular Forms

In typical traditional round hut of Adamawa State, the radius is three metres and there in many activities is carried out. Sometimes in addition to the rigid fittings like granary inside the hut, movable fittings like pots are used for storage and in this case, the space becomes limited. The structures are closely clustered together, but no sharing of common wall though by common belief, it is easy to maintain and communication is easy among in the family. Hall (2000) pointed out that space utilization is experienced when organizing circular forms. He further maintained that circular form tends to waste space externally and conserve space internally. This is to say therefore that to arrange circular buildings adjacent to each other requires more space.

With traditional system of roofing, there is difficulty in having two different buildings to share a common wall if they are circular in form. There are always space in between rooms but not convenient for any

activity and this makes the traditional compounds of Adamawa State to have scattered rooms. Mathias (1992) commented that this type of organization makes security difficult to achieve. However, he further maintained that in terms of fire out break, it is easy to control.

Circular forms are also made in modern buildings but basically meant for only one activity. Ukpore (2006) maintained that around room with thatch is cool and comfortable for relaxation.

2.2.2 Spatial Organization of Rectangular Building Forms

The use of rectangular form in traditional architecture especially as regards to residential buildings can be considered in recent development. It started as a result of interaction with the Hausas and the colonial influence in the 19th century. (Akau, 1992). Although Adamawa people admit the idea of using rectangular form, the roof construction is not in any way Hausa oriented. They do not use mud flat roofs as typical of Hausa but rather they construct pitched roofs made of thatch.

Other rectangular form used in Adamawa State architecture is the porch. It is a temporary structure usually put for drying agricultural products like guinea corn, maize, bean and bambara nuts. The building materials involved are wood poles, special matted straws, thatch and rope, but no mud is involved. Ilesanmi (2005) pointed out that the rectangular form offers a more compact planning than circular form, because adjacent rooms can share a common wall unlike the round hut. The courtyard system

of planning is seen in most compounds and where rectangular building exists, it forms part of the fencing of the compound.

2.2.3 Typical Traditional Compound of Adamawa State

In a typical village settlement of Adamawa State, there is no restriction as to the size of plot of land a man use for his residential compound. Being the architect of the whole planning process involved and the building and all works, the man just started to build his house at his own desired dimensions and spacing to form his dream compound according to the values of the community. Mathias (1992) pointed out that a typical traditional compound of Adamawa people consist of the head of house room, wife/wives rooms, with porch in front used for meal preparation, male children room, animal pans, granaries for each wife and may or may have bathing area. No toilet and laundry spaces. The female children sleep with the mother. In some compounds, the mother of the man live with them and in such cases they are given one room together with her grandchildren. Female guests sleep with the men. The compound may be fenced with matted straws or piled stones or left unfenced. This is typical of Marghi and Higgi compounds. In other compounds some thorny planted shrubs are used for fencing.

Synder and Cantonese (1999) postulated that horizontal buildings are larger because no storey building is involved whereby the space will be minimized. It is only the last three decades that vertical developments

started to evolve as a result of instruction of modern building materials like cement, steel and reinforcing bars into the traditional building circle. It is now a rare sight to see a compound completely built in traditional style with local materials. While the planning style and forms are traditionally maintained, the modern materials and techniques of construction are frequently used. In many traditional settlements of Adamawa State, there are many bungalows and many of duplex storey buildings now found.

2.2.4 The Courtyard Planning

The courtyard planning can be said to apply generally because there is no single compound that does have courtyard. The only question there is that does the courtyard accommodate all the outdoor activities with convenience. Jiboye (2004) observed that even though circular forms have spaces in between, but the conserved spaces are not convenient to carry out all the household activities with ease. The fact is that any house design that does not incorporate courtyard can be considered a failure since most of his culturally valued like habits are seriously tempered with by the absence of a courtyard. Chilton (2001) viewed that rectangular forms are more convenient to create larger courtyard than the circular form because two or more rooms can have common walls. He stressed that in modern buildings, the rectangular form is mostly used because it is easy to manipulate spaces for the different activities of the house.

2.2.5 Building Materials

Tradition was refined over generations, usually through trial and error and human ingenuity and in the geographical location. Homes were built to fit the unique socio-cultural and ecological needs of a specific group. The use of suitable materials to protect the home builders from the weather and the use of design to achieve healthy indoor constitutions reflected the ingenuity of the society. http://www.answers com/topic/cultural factors. The characteristics of a house often depend on the areas, cultural factors such as a group's references and values or individual owners, social status, personal taste and financial resources (Burchel, 2009). Ideally the building is in harmony with the environment, both physically and aesthetically.

The materials used to build these homes are usually nearby and are almost as varied as their locations, ranging from mud or wattle and daub to straw to leaves to stones to modern manufactured materials such as brick, concrete and steel or even materials made from recycled plastic and newspapers: urban based factories usually supply these materials but rural-based industries also supply these materials (Risley, 2001). Urban-based residents in developing areas often have greater wealth and a greater variety of materials available to them. Glass, steel and steel reinforced concrete are standard in urban home construction although such materials especially brick, concrete and metal framed windows and doors are becoming more

prevalent in rural areas of developing countries. Home constructed of manufactured materials are studier. These new materials also permit designs that improve ventilation and light and control dampness of the interior of the home, all of which contribute to the better health of occupants. http://www.wikipedia.org.ng.com/culture.

In rural and developing societies, many people still build their own houses, but generally constructors are becoming more and more important. Whether self-built or contractor-built, owners value the appearance (form and style) and agreement (activity spaces) of their homes (Habraken, 1998). Other people around the world choose the size and finishing touches for their homes based on cultural traditions and values. Some Muslims paint pictures on their houses to symbolize that they have made the trip to Mecca.

2.2.5.1Walls

Types of walls

Mud wall: Mud is a common building material in some parts of Nigeria. In some areas, it is just used for the walls and in others it is also used for roofing. Mud houses are not usually suitable for low lying ground, or riverine areas that are easily flooded. Mud houses are usually cool in the dry season and warm during the rain season. They are suited for the Northern parts of the country because the foundation is shallow. Anyakoha and Eluwa (1999) explained that mud houses in northern part of the country like Kano, Kaduna, Sokoto and others have mud roofs and walls decorated

artistically. The roof can be used for drying foodstuffs such as grains. They further explained that in the southern part such as Anambra and Imo, mud houses usually have thatched roofs. However, there are thatched roofs in many parts of the north, Adamawa and Borno states inclusive. Mud is used for building both circular and rectangular house forms.

Burnt Mud Brick Wall: The soft elastic mud can also be made into brick and dried in the sun. The dry bricks are further hardened or made stronger by firing them in kiln. The mud bricks are used for building walls of houses (Wasember and Goetgeluk, 2005). They are thinner and smoother than the ordinary mud walls. The bricks can be used in building either the circular room or rectangular room. However, it is easy to manipulate in the rectangular building form than the circular form. Akau (1992) pointed out that a walls built with burnt mud brick are stronger to withstand dampness than the ordinary mud walls.

Bamboo and wood wall: Bamboo and wood form the walls of many cultural houses in tropical and sub-tropical regions. In the riverine areas, bamboo stems, trunks of palm trees and reeds are used for building houses. Such houses are constructed on top of slits standing in water. The materials used for building bamboo walls are usually readily available in the areas where they are used. Such houses abound in some places of Lagos, Rivers and Bendel (Burchel, 2009). Bamboo walls are usually rectangular in

shape. In the Northern part of Nigeria, wooden poles are used for construction of walls.

Porches and kitchens are constructed using wooden poles especially in old settlements of Adamawa State. Nelson (2004) observed that such walls do not last long because the poles can either decay or be invaded by termites. The woods can be used in construction of both circular and rectangular rooms.

In the northern part of Nigeria, while the wood poles form the pillars of the walls, matted straws or cornstalk are put round the poles to form a privacy and protection. Awe and Albert (1995) opined that matted straws cannot stand as a wall, but it must have support or else it will fall.

Stone Wall: This is a cultural type of wall usually in rocky areas where stones are available especially in the southern part of Adamawa State. The stones are piled and mud is used to fill in the spaces. This type of wall is very durable. Gungse (1989) opined that the spaces in between the stones are best filled with concrete to ensure uniform strength with the stones. In Adamawa State both rooms and fence can be constructed using stones in rocky cultural settlements. The round rooms are the ones mostly constructed in this area.

Walls of Modern Houses: In modern house forms the walls are constructed with concrete blocks which are made by mixing cement, sand and water of correct proportion. This is moulded into blocks which are left

to dry slowly. Water is sprayed on them to obtain strength and to prevent cracking (Rosenou, 1999). Due to the advancement in technology, the modern houses are mostly in rectangular forms. The houses are either bungalows or storey buildings. Akau (1992) observed that the cultural designs of house forms are now improved upon to reflect the modern designs of house forms whereby space distribution is considered.

2.2.5.2 Floors and Plasters

Traditional cultural floors are made using the material within the reach of the dwellers. In the northern part of the country in areas like Kano and Zaria, locust beans fruits peels are used to make floor and plaster. The extract is mixed with mud to floor a room. This extract gives it a strength and shiny surface.

Types of Floors

Indigenous stem of shrubs (Sunga'a): The stem of this special shrub is cut and pounded fresh. Water is added to extract the juice which is very drowsy. The extract is mixed with special white mud which is used to plaster and floor rooms. This gives it a glossy and smooth surface. This practice is common among Kilba, Marghi and Bura of Adamawa State.

Cow dung: This is specifically used to plaster the outside of the wall because water cannot penetrate the dung easily if dried. This is so common throughout Adamawa State.

Shell of sea foods: The shell of sea foods is mixed with mud which is used to make floor. The shells are so strong that they serve as concrete floor. This is also common in traditional riverine settlement areas like Port Harcourt and Lagos.

Modern floors and plasters: Modern floors and plasters are made in different ways using different materials like concrete, wood, vinyl tiles or terrazzo. The apartments are floored using the appropriate floor material and the choice of the house owner.

2.2.5.3 Roofs

There are different types of roofs people make in Nigeria.

Mud roof: In the northern parts in places like Kano, Kaduna, Gombe, others, mud roofs are used. The mud rood can be used for drying foodstuffs such as grains.

Thatch roof: Thatch roofs are equally used in the southern states like Anambra and Imo and in all the northern states. (Bell and Bryan, 2004). Olanrenwaju (2003) observed that the nomadic Fulani tents are made of poles and branches that are covered with animal hides in the dry season and polythene sheets in the rainy season. These are easily dissembled and transported and reasonable in a new location.

Dome structure: This is either a circular or a rectangular form, but the roofing is done with mud in a conical shape. In most houses, animal pans are roofed in such a way but a few of residential rooms are roofed in such a

way in Kulinyi District of Hong Local Government Area of Adamawa State.

Modern roof: Roofs of modern buildings are made with corrugated iron sheets, cement tiles, ardex roofing sheets or asbestos sheets. The choice depends on the socio-cultural values of the area and individual interest. Foster (2000) maintained that to ensure comfortability and durability in roofing, one should choose insulated roofing material like cemented tiles or asbestos.

2.2.5.4 Ceilings

In typical traditional houses of Adamawa State, ceilings are not considered. This is because the roofs are made with thatch which does not demand for insulation. However, some decorations are made on the roof which is used for keeping some items. This decoration is made of ropes interwoven to form a surface that can hold things.

With the use of corrugated iron sheets and aluminium sheets for roofing used by most people nowadays, some techniques have been discovered as ceilings.

Cartons and polythene sheets: These are used as ceiling to insulate the roof for comfortability purpose. Cartons are spread out and fixed as ceiling using batons and nails to hold them in position. The same thing is done with polythene sheet.

Matted straws: Matted straws can be used in place of cartons and polytechnic sheet. The outstanding disadvantage of using carton and matted straws is that termites can easily invade them. Insecticides must be applied before fixing the carton or the matted straws. This practice is so common in the northern states.

Modern ceiling: Ceilings of different kinds are used the area depending on the interest of the house owner. Chilton (2001) identified different ceiling materials as plywood, DBC, asbestos, plastic and P.O.P that could be used in modern buildings.

2.2.5.5 Doors and Windows

The doors and windows of traditional cultural house is not of standard anywhere. The traditional doors of Adamawa State are mostly very low compared to the standard height of doors which is 6 feet. One has to bend before entering such rooms. The types of doors fixed are mostly corrugated iron sheet put on frame of plunks. The windows have the same case. They are very small. In some rooms, it is just a hole made and in some I feet square window is made and in one direction with the door. Agbola (1998) pointed out that ventilation in such rooms is very difficult. Agbola further maintained that the standard measurement for a door is 6 feet by 3 feet while window is 2 ½ feet by 3 feet. Chilton (2001) pointed out that to ensure enough fresh air in a room the ventilation must cross. He added that the windows must be fixed in opposite directions so that fresh air can come

in and cross. This is the practice in modern houses which is built based on the regulations of town planners and architects.

2.3 Socio-Cultural Forces and House Forms

The assemblage of structures and spaces are similar throughout a region and forms the cultural landscape of a people. The architecture of a house and building materials are similar throughout a cultural area. Jaloaso (2001) observed that cylindrical or round wattle and daub with conical roofs of thatch is customary in Africa, South of Sahara, Nigeria inclusive.

There are certain cognitive factors such as experience, socio-cultural and economic background that affect the level of human perception of their housing environment. Akau (1998) stressed that variables such as family patterns tenure system and social status are relevant factors in social and cultural issues. Other factors such as age, sex, cultural influences, values and needs of the people could also affect human perception of their housing. Gyuse (1993) affirmed that traditional values and house patterns among others are relevant determinants of quality in housing. Olayiwola et al (2006) concluded 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 relation to home activities.

2.3.1 Social Status

In a typical settlement, the houses of the well-to-do Brahmans and Nayars stand apart, each in its own compound loosely grouped around temples and ceremonial bathing tanks. Potter (2006) maintained that huts of the low caste artisans form one or more separate hamlets, while those of the agricultural labourers are scattered among the paddy fields. Government and administrative buildings located in the capital cities of African colonies had an important role in conial architecture. Built to reflect colonial power and prestige, such buildings were large and impressive. (Olayiwola et al, 2006).They included various durable materials such as stones and hard woods that were meant to last for a long time.

Hall (2000) pointed out that in Polynesia, the chiefs are generally of great significance and their houses are large and fine as much as 150 – 300 feet long and 75 – 150 feet wide built on wide stone platform. He added that the majority of people live in mud circular or rectangular huts. Chief's houses are built by specialists while the others are built by inhabitants. The case is the same in Nigeria whereby traditional rulers' houses are large and fine Akau (1992) pointed out that the house of the Lamido of Adamawa is so large with twenty sub-divisions in the compound.

In contrast to poor people who often built their homes, wealthy people have magnificent hundred of year's royalty. Jiboye (2004) stated that Aristocracy have demonstrated their power and position by 100

hectares park and formal garden surround the 1,300 room palace of Vasaile in France built in late 17th century for King Louis. He added that palaces and mansions are often built in proximity to more modest homes and reflect the uneven distribution of wealth and power in the society.

2.3.2 Family Structure

Although the family is basic, there are great differences in family structure which are significant in relation to house forms which differ equally as much. Even when the basic types of family structure are described, there may still be various forms that result. Jiboye (2004) pointed out that the extended family group courtyard is a cluster of long house of California whose arrangement is not clear from the plan and can only be seen once the names of the families are known.

Even though the basic family structure are monogamous, polygamous and extended family setting is a cluster courtyard which is prominent especially among the Hausa settlements, Fulani settlements and other minority tribes of Northern Nigeria. (Olanrewaju, 2003). Ukpore (2006) suggested that the size of a house should be large enough to accommodate the size and the living habits of the family. She pointed out that a newly wedded couple (beginning family) and contracting family may live comfortably in a two bedroom house, but more space is needed as soon as babies are born and children start to grow hence increasing the activities of the house. The number of the collection of group of persons living in a

place together and their activities matter in the design of a dwelling and it has always been a major consideration. Toronka (2007) mentioned that western culture generally has been monogamous and has its built dwellings for the occupancy by such family size, while in African tradition, polygamy is accepted and quite a different form of multi family dwellings are built. Hur and Jones (2008) therefore maintained that family size is a major consideration in housing designs as they affect house forms whereby sample space should be provided for each member of the family to perform their chosen activities.

Okeke (2009) suggested that large family will need a large house with many rooms in relation to safety and comfort of the members. The adult people will feel secure in the privacy of their rooms. Knowledge of household activities that take place in the home determines the patterns of space requirements of that house. Design requirements are considered from the point of view of these activities because although most houses represent a collection of rooms, what goes on in a specific room varies greatly among different families. Biddulph (2007) pointed out that activities are not actually carried out individually in the home, there is constant overlapping among them and it is this that affects house forms. On the other hand, some activities suggest a need for highest degree of privacy, which also affect house form.

2.3.3 Level of income

During the late 1800s, Brazil, a former colony of Portugal lent its own flavour to colonial architecture in West Africa. Charles(2001) postulated that wealthy class residents of Africa and Brazilian ancestry built lavish dwellings with the ground floor devoted to business and the upper stories for living quarters. They featured highly decorated facades building fronts that proclaimed the wealth of the occupants..According to Synder and Cantonese (1999), the influence of kinship and caste as the prime social influence can be seen in Cochin, south India. The arrangement shows the importance for manual work which could not exist in primitive cultures with their lack of specialization and which are rare in peasant cultures. Only the gods and rich landlords have substantial houses. Lower classes and farmers live in simpler houses of mud bricks while labourers live in one or two huts of mud, bamboo, palm leaves or straw. Foster (2000) viewed that among the Brahmans, the compound is divided into four sections. The east and the south blocks open the court and only there are visitors and guests received.

American village adobe is first used for public buildings then for dwellings of high status individuals, then for all dwellings. Materials were used to differentiate between front and back and generally materials and ordering systems are related to status and even ethnicity. Thus the organization of houses along a grid and the use of manufactured materials

such as file, brick and concentre indicate high status. While irregular arrangements and natural materials such as thatch, earth, wattle and so on indicate low status. A similar distinction is communicated in Nigeria by the differences between the two-storey and one-storey building belong to highly placed individuals based on educational attainment, political, business wise. Nigeria. Nigerian Bulletin (2000) http://wwwdf.ca.gov. publication com.

2.4 Home Activities and House Forms

The description of a house functions present of dichotomy between that which is physically possible and which is socially acceptable, a dichotomy between the purely rational and the sociological and the two must be blended together within the constraints of available finance and acceptability by intended inhabitants. http://wwwhmtreasury.gov /uk/media /09ff/239.pdf.15. Adenaike (1991) argued that there is no rational why a household of twenty people should not all sleep in the same room provided the floor area is big enough. He continued by saying that to build such room would be much cheaper that it would be to build for rooms with same total floor area. However, he argued that sociologically such sleeping arrangements are unacceptable in Ghana, but not everywhere. Awe and Albert (1995) pointed out that in past researches in Nigeria, sociologically in most cases, the number of rooms in each house is directly related to the number of kinship groups permitted by custom to marry excluding children

under the age of puberty. According to them, they emphasised that this principle appears to hold true for both the matrilineal and patrilineal societies found in the area. The second principle is that people of the same sex may sleep in the same room with certain exception. This second principle is very common in Nigeria especially among the societies of Adamawa State.

As children grow up, so they may have to separate rooms after they reach puberty. Awotona and Ogunsaki (1994) postulated that brothers and sisters can no longer share rooms, nor can persons who stand in certain relations to one another, such relationship exist between persons who are prohibited from marrying, e.g. males and their mothers' sisters daughters or father's sisters or brother's daughters. He added that married women cannot practice sleep in the same room with their grown daughters whether they are married or single. Although there is no customary law prohibiting the co-residence of mothers and daughters, there are definite proscriptions against women living with their husbands' mothers and against men living with their fathers-in-law (Akinola, 1998).

There are two important features to be considered when designing and building houses for the population at present living generation. In the first instance the house must have enough rooms to enable the inhabitants to sleep inside without violating either customary regulations or causing inconveniences. The second instance is that the house must be designed in

such a way as to facilitate expansion by addition of rooms as the household increases in size and the children grow up and household activities increase.

2.4.1 Meal Preparation Activities

The major activities that take place in the kitchen are food storage, cooking, washing of plates and eating. Bedrooms and living rooms are always considered the main space for a domestic home. Chilton (2001) maintained that Nigerian homes are usually provided with south-facing orientation for maximum access to sunshine and ventilation which leaves the kitchen and bathroom with an inferior orientation, usually north-facing. Very often the kitchen is placed near the entrance of an apartment to make travel distance as short as possible and to avoid the contamination of domestic spaces by uncooked or raw food. For the same reason, in some living units, the kitchen has its own entrance. Jongewaard (1993) opined that many more homes appliances are now found in the kitchen including microwave ovens, intelligent refrigerators, automatic dishwashers and even ultra violet sterilizers for utensils. He added that besides the appliances, it is common to find water supply and drainage as well as pipes in the interior of the kitchen to allow for easy maintenance access. This means that a target kitchen should be built so that all the kitchen utensils, appliances and activities can be conveniently carried out. There is a service balcony connected to the dining area which is used as laundry space and which also houses the water heater.

Living in the tropical areas and facing south is not only the requirement for a better indoor environment but also a demand for living. Living culture refers to the specific preference for living under the sun or prevailing wind for natural ventilation (Li, 2005). This south-orientation preference is a strong one irrespective of geographical localities all across Nigeria. People in Adamawa pay much attention to sunlight. They prefer to dry under the sun and especially like to air their bed-quilts and bed-sheets outdoors under the sun even during raining season or harmattan periods. When there is not enough space residents simply air their quilts and bed-sheets at the curb-side of adjacent pavements (Lau, 2006).

Kitchen type: There are two types of kitchen, the enclosed type and the open kitchen.

i. Enclosed kitchen: This is the most popular type of kitchen in most modern house forms. Fanti (2005) opined that the interpretation of an enclosed kitchen is a solution to the problem of excessive oil fumes from cooking which pollutes the air and harm health. It also reduces the risk of fire spread to other rooms. The enclosed kitchen can be attached to the main building or built separately in modern house forms. Local enclosed kitchen is also used in cultural house forms.

ii. Open Kitchen: This is much related to rural cultural house forms. In some houses, porch is made in front of the wife's room and there meal preparation is taking place. The kitchen is just a portion of the open court of

the house where cooking is done. Chilton (2001) stressed that this type of kitchen is not continent during rainy season and hot weather. The cooking has to be done somewhere in order to avoid the rain and the hot weather.

Kitchen arrangements: The arrangement of the kitchen in modern house forms takes the shape of either in the U-shape, L-shape and corridor type. Anyakoha and Eluwa (2000) pointed out that the shape arrangement of the kitchen means the shape the arrangement of the equipment in the kitchen has taken. The traditional cultural arrangement does not have formal shape, but done to the taste of the homemaker.

Fireplace: The open kitchen and the culturally enclosed both calls for fireplaces. Okeke (2006) pointed out that there are three types of fireplaces that can be used. The three stone fireplace, the three moulded mud fireplace and the tripod. These fireplaces can either be used in the open kitchen or in the culturally enclosed kitchen. Since firewood is used in these types of fireplaces, the firewood is tired and hanged on the wall of the kitchen during raining season. Where there is no kitchen, cooking can be done in the bedroom.

Cooking ranges: used in the modern house forms include gas cooking range, electric cooking range and kerosene cooking range. It is used in the enclosed kitchen and takes the shape of modern kitchen arrangement such as U-shaped, L-shaped and the corridor type. When the kitchen is arranged in this manner, space can be created for free movement by the worker.

Dining area: In cultural house forms dining area is not identified. Iyoti (2007) maintained that food is eaten in cultural house forms either in the kitchen, outside in the open yard of the house or even in their rooms. The husband's food is normally taken to his room. He further continued that meals are served and eaten in the dining area only in the modern house forms. The eating habit adopted in most cultural house forms is that wife/wives eat their own together in the same container; the male children eat in the same constrainer and the female children in the same container. When there is rain the wife/wives and the female children eat in the kitchen while the male children eat in their sleeping room. This is typical of Kilba culture in Adamawa State.

2.4.2 Leisure Activities

These activities include games, relaxation, hobbies and gardening. Masnick (2002) opined that leisure activities are not given priority in cultural house forms as such spaces are not defined for these activities. He further identified that relaxation is the only leisure practiced in that the members can enter their sleeping rooms and relax. Privacy is not given priority in cultural house forms. Hadjiyanni (2002) pointed out that the female children sleep together with the mother while the male children may have a separate room. The father is the only person having a room to himself and the wife/wives visit him in turn. The members go to the bush to defecate and go to the stream to bath. Chea (2010) maintained that in

modern house forms, privacy is observed. The parents have a room to themselves. They may have separate toilet and bathrooms as well.

Gardening and Playground: There is no space allocated for gardening and playground in socio-cultural house forms. The children either play in the open yard of the house or go to public playground. General farming is done all around the house. Olayiwola, Adeyele and Ogunsakin (2005) viewed that in modern house forms, space is allocated for play and gardening. Children go out to play in the playground and vegetables gardens are made at the backyard of the house.

Hobby and Relaxation: Members of the family sit together in the open court of the house or in the central porch or under a tree listening to elders telling folks stories. The members can engage in doing one hobby or the other like unshelling of groundnuts, egusi, curving calabashes, plating while the males are either spinning cotton wool, or curving wood. (Rapoport, 1999).

In modern house forms an area is allocated for hobby and relaxation activity in the house. Anyakoha and Eluwa (2000) stressed that relaxation and hobby activities can be carried out in the sitting room. These can include watching films, knitting and crocheting by female members.

2.4.3 House Sanitation Activities

Sanitation is a way of promoting healthy and hygienic condition in a home and community. Chilton (2001) maintained that the basis of good

hygiene in all communities include proper use of toilets and bathrooms, good drainage system and proper disposal of refuse. Improper method of refuse disposal can lead to disease through contamination of water supplies.

Type of toilet: In most rural cultural house forms, the pit toilet and the bucket type are used. The bucket type is commonly used in the riverine areas where water level is too close. In some houses there is no toilet at all due to the common belief that toilet in the house attract cockroaches and flies. The members go to the bush to defecate or dig a hole outside in the farm and burry the faeces for manure purpose. Members go to the stream to bath or make privacy with grass and use for bathing place (Olayiwola, *et al*., 2005).

While it is so in cultural house forms, the case is different in modern house forms. The types of toilets used are water closets and the bathroom can either be together with the toilet or separate. This type of toilets and bathrooms are attached to the main building. Water is used to wash away the waste (Jiboye, 2006).

Drainage system: This is a way of disposing liquid waste from the house through the walls to the outside of the house by a pipe. Okeke (2009) viewed that there are two types of drainage systems: The free drainage system and the concealed drainage system. She continued by saying that the free drainage system is not planned and the waste water is discharge on the ground outside the house. This is reflected to cultural house forms. The

liquid is either soaked in the soil or become water logged. Anyakoha and Eluwa (2000) maintained that concealed drainage system is common with modern house forms. They explained that it is a well planned drainage whereby large pipe collects the excreta and wastewater from the building. Waste water from the kitchen is disposed properly to ensure good kitchen and food hygiene.

Disposal of refuse: In Lau (2006) observed that refuse in cultural houses forms are discarded just around the house especially in rural areas where agriculture is cherished. He continued by saying that they do so for compost reason, but the ill side of it is that waste are created for spread of disease. This is very common in detached house forms where the refuse can be thrown out of the house in any direction. This is not the case in modern house forms. Refuse are disposed properly by providing a dustbin in the house. The refuse are collected and burnt in a drum or in an incinerator (Jiboye, 2006).

2.4.4 Storage Activities

Storage of food and other household items need adequate care so that spoilage and wastage can be avoided. Food should be protected from pest attack and contamination Pomeranz and Meloan (2004) stressed that perishable foods like meat, fish, vegetables, fruit and others spoil easily because they contain water. In modern house forms such foods are stored in refrigerators and freezers or near the water pot especially vegetables. Non-

perishable foods like flour, cereals, beans, sugar and salt are stored in air-tight jars and kept on the shelve, cupboards or cabinets.

Store is a place for storing food items and other household belongings. Foods in large quantities are stored in bags and arranged in the store for future use.

Alais and Linden (1999) pointed out that in some cultures especially in the northern part of Nigeria; foods are kept on the mud roofs to dry during the dry season. Granaries are the common storage facilities used. These granaries are built either inside or outside the room with spatial arrangements. There is the practice also whereby the sleeping room is a store as well for both men and women. This is common among the Kilba people of Adamawa State. Every belonging is stored in the sleeping room. There are no special storage facilities at all. In some cultural house forms, pots constructed iron containers and woven grass containers are used for storage. In some, an apartment is made in the roof for storage of important belongings. Arthey and Ashurst (1998) stressed that produce that is to be stored for more than a few days should be kept in a cool room specifically designed for the purpose.

2.4.5 Clothing Maintenance Activities

The major activities involved in clothing maintenance are wardrobe planning, garment construction, renovation and laundry. Carpenter (1994) maintained that wardrobe planning is the process of planning for the

clothing needs of the family members, because every individual wants to have the right clothes for all occasions. Garments need necessary care and repairs in order to keep looking their best.

Garment construction and sewing: This is a process of producing the fabric and making an article out of it. Fabric production involves the use of loom. To sew a garment out of it the dressmaker must make use of sewing machine and sewing equipment. Ideally, either in a modern house or culturally sensitive house, there should be separate places where the loom, the sewing machine and the sewing equipments are kept. In cultural house forms local looms are normally kept outside where the workers can access plenty of space, while the sewing machine is kept anywhere light is accessible. In essence, there is no space allocated for garment construction and sewing. Sewing is normally done with hand, however a few household own sewing machines.

Family washing Is an important routine of every household. Weber (1990) viewed that in all forms of household tasks, careful planning and organization will save time and energy. In modern house form, laundering area is allocated. In cultural house forms, no special laundering area, but washing can be done any where in the compound or can be washed in the stream. Washed clothes are either hanged on the fence (zana mat) or on ground or on shrubs. Clothes are not ironed on average, but for those that do, charcoal iron is normally used and the ironing board is a mat spread on

the ground. There is no wardrobe in cultural house forms; instead the clothes are stored in boxes all the time. In typical cultural houses pots and woven grass boxes are used for storage. Hangers and bags are also used for storage.

2.5 Empirical Study

Researches have been conducted by many researchers on the effect of socio-cultural factors as they affect housing designs. All these studies were focused on the forms of house that are culturally designed and the social life of the dwellers.

Lau (2006) conducted a research on the socio-cultural factors in housing design: reconsidering the utilitarian and social roles of kitchens due to lifestyle changes in metropolitan Shanghai. The study emphasised on the lifestyle of young working class people demonstrated a change in attitude and expectation in the role of home and space usage. Four hundred (400) respondents were used as sample size for the study. The statistical tool used by the researcher was SPSS. Experimental research design was used using kitchen space as a control subject of the study, the researcher proposed that there are two new plans in young working families: One that favours open plan kitchen and another that favours separate kitchen. Discussion of the implications on design and space usage due to these opposite preferences revealed that there is a need for re-structuring the design paradigm of the kitchen and its role in a home. The analysis pinpointed socio-cultural factor

as a significant influence for designing buildings by the example of kitchen, more so than those physical parameters such as daylight provision for the kitchen. The analysis was done of 0.05 of level of significance.

This ongoing study is related to Lau's work because he revealed that there is need to restructure the design of socio cultural kitchen to suit the roles it plays while this study is investigating how conveniently meal preparation activities can be done in socio cultural houses. Furthermore the parameters will be used to determine the relationship of the house farm to the activities that take place in the house.

Tutuko (2004) conducted a study on vernacular pattern at human settlements of productive house, a case study of "Tempe" Industrial Centre of Sanan, Malang. The emphasis was on the interrelationship between physical environments of human settlement with its society, each other influence. Human settlement as environment of dwelling and place of activity supporting life is one of its elements as a house. Productive house and the human settlement support Kanpong people thus experience of change of dwelling of pattern influenced by development.

The research method used was historical and developmental research. To get the expected result, the researcher used to study productive house development using development theory of Silas (1993). The result showed that the dwelling pattern in Kanpong will in turn help to determine house development direction at the 0.05 level of significance.

The ongoing study is related to this work because the researcher considered the place of home activity in a house as supporting life. In the same vein the present study considers home activity as being the major elements of a house. The present study and this study observed that social and cultural factors in designing a house may change gradually in the same place with passage of time.

Aderibigbe (2010) conducted a study on the relationship between psychological indices, family lifecycle and choice of housing among Oyo State families. The study stressed the relationship between income, occupation and material status, family lifecycle and the choice of housing among Oyo State families. The researcher observed that this calls for concern in that young families with two or no children are found to dwell in three bedroom apartments or flat houses with more rooms where the problem of maintenance comes in.

The researcher used the population of 8237. The simple random sampling was used to select the sample size of 330 respondents from the population of 8237 family members. The researcher used survey research design and structured questionnaire was used to collect data from respondents. Likert scale was used for the respondents to indicate their degree of satisfaction. The data collected was subjected to statistical analysis. The statistical tool used was Pearman's Product Moment Correlation at 0.075 levels of significances. The result revealed that income

of families could be considered as a factor that determines family choice of housing. Material status and family lifestyle can as well be considered as factors to determine the choice of housing. This present study is related to Aderibigbe's work because all the variables investigated are all components of socio-cultural factors which affect or determine the type of design to be adapted as a house occupant.

David (2010) conducted a research on evaluating user's household-size and housing quality in Osogbo, Nigeria. The researcher identified one major reason for conducting this research as the non-consideration of relevant socio-cultural parameters by Agencies responsible for housing provision as the housing inadequacies and poor quality in most developing countries – Nigeria inclusive. This phenomenon has produced housing misuses, wastage of scare resources and the creation an apathetic centenary. This study examines the effect of user's household-size-cultural parameter in the determination of qualitative housing in Osogbo, Nigeria.

The heads of households as respondents from 406 housing units, in three residential zones of Osogbo were drawn from the population of 4,110 housing units using stratified random sampling technique was used as sample size. The researcher used survey research design and structured questionnaire based on four points Likert Scale.

The result was subjected to statistical analysis at 0.01 level of significance. ANOVA was the statistical tool used and the result revealed

that F=10.75 which means that there is a significant relationship between household size and housing quality in Osogbo. This is to say that the need to consider user's household-size, among other relevant socio-cultural parameters in the design and development of qualitative housing in Nigeria is emphasized.

The relationship of this ongoing study with David's work is that the study revealed that for a house to be culturally qualitative it must accommodate the number of households living inside. The present study is also investigating on the forms of socio cultural houses in relation to leisure activities within which privacy is emphasized.

2.6 Summary

The literature related to this study therefore were reviewed as conceptual framework, house forms, organization of circular house forms, organization of rectangular house forms, traditional compound of Adamawa State, courtyard planning, building materials, socio cultural forces and house forms, home activities and empirical studies. The literature reviewed was explicitly on socio cultural house forms as they relate with the various activities in the house like meal preparation, leisure, house sanitation, storage, and clothing maintenance activities.

CHAPTER THREE

METHODOLOGY

This chapter explains the methodology and procedures used in the study as follows:

3.1 Research Design

3.2 Population for the Study

3.3 Sample Size and Sampling Technique

3.4 Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

3.1 Research Design

Survey research design was used for the study. The design involved gathering data from the accessible population at a particular period. Olayiwola (2007) stated that survey research design involves a clear definition of the problem and objectives, collection of relevant and adequate data, careful analysis and interpretation of the data and skilful or professional reporting of the findings. A survey research design was selected because it involves the total population to whom the findings can be generalised and a carefully selected sample having the same traits and characteristics of interest.

3.2 Population for the Study

The entire population for this study comprised of all the adult house occupants including personal and rented native houses in Adamawa State. There are 21 local government areas in the state and they fall within the three senatorial political zones in the state. The total population of registered house occupants were 545,165. The occupants under the three senatorial political zones were:167,586 in the five local governments areas of Northern senatorial zone, 195,105 in the seven local government areas of Central zone and 182,201 in the nine local government areas of Southern zone.

Table 3.1: Population of House Occupants under the three Senatorial Political Zones of Adamawa State

S/N	Senatorial Zones	No. of LGAs in each Senatorial zone	No. of House occupants in each LGAs
1	Northern zone	5	167, 586
2	Central zone	7	195,105
3	Southern zone	9	182,201
	Total	**21**	**545, 165**

Source: Ministry of Works and Housing Yola, Adamawa State, 2011

3.3 Sample Size and Sampling Technique

The sample size for the study was 399 respondents. In order to have a comprehensive view of the area of research, the researcher used simple random sampling and proportional random sampling methods. This is in line with Yalams and Ndomi 000) who postulated that sample selection is best done by randomization which will ensure that every element in the population has equal chance of being selected to obtain unbiased sample for the study.

The local government areas in the three senatorial zones were stratified into two local governments each from the three senatorial zones of the State by using simple random sampling by means of hat drawn method. The names of the local government areas in each senatorial zone were written on pieces of papers, folded and shuffled together. The folded papers for each zone were kept separately in a container and the hat drawn method was adopted to select two local government areas from each of the three senatorial zones. The assistance of an independent person was employed to

do the picking. At the end, the six picked pieces of papers were unfolded and the following local government areas were picked as strata from which the sample size was randomly selected.

From Northern senatorial zone, Mubi North with 2400 and Maiha with 2500 occupants were selected. Central zone – Hong with 2600 and Yola North with 3,000 occupants were selected. Southern zone – Numan with 2,100 and Lamurde with 2,500 occupants were selected. These altogether gave the total of 15,100 occupants in the six randomly stratified local government areas.

The number of house occupants in each of the six randomly stratified local government areas were used from which the sample size of 399 respondents were selected using proportional random sampling, Ndagi (1999) advocated that a sample of 500 from 3,500,000 can be selected using proportional method. To this effect therefore, the researcher selected the proportionate number of respondents as follows: Mubi North 64, Maiha 65, Hong 69, Yola North 80, Numan 56 and Lamurde 65. These, altogether gave the total of three hundred and ninety-nine (399) respondents.

Table 3.2: Method of Selecting a Sample of 399 Respondents from stratum using proportional Random sampling

Characteristics of Samples	Adult House Occupants						
Stratum	Mubi North	Maiha	Hong	Yola	Numan	Lamurde	Total
Proportion of each stratum	2,400 / 15,100	2,500 / 15,100	2,600 / 15,100	3,000 / 15,100	2,100 / 15,100	2,500 / 15,100	
	0.16	0.17	0.18	0.2	0.15	0.17	1.03
Number of sample in each stratum	0.16 x 400	0.17 x 400	0.18 x 400	0.2 x 400	0.15 x 400	0.17 x 400	
	64	65	69	80	56	65	399

3.4 Instrument for Data Collection

The instrument that was used to collect data for this research was a self designed questionnaire developed according to the research questions of the study. The instrument was divided into two sections; Section A was the biodata consisting of seven (7) items. Section (B) were items to answer the research questions and to test the null hypotheses. It consisted of (24) items with sub-questions under each number.

The questionnaire items were responded to based on 4 points rating scale as:

Strongly Agreed - SA

Agreed - A

Disagreed - D

Strongly Disagreed - SD

This is in line with Yalams and Ndomi (2000) who postulated that any item with a mean equal to or higher than 2.5 indicates high mean score meaning agreed while items with a mean less that 2.5 is regarded as low mean score meaning disagreed.

3.4.1 Validity of the Instrument

The items on the questionnaire for this study were given to experts in the field of Home Economics in the Department of Vocational and Technology Education, Ahmadu Bello University, Zaria to vet the face and content validity. Two experts in Home Economics section validated the instrument and ensured that the instrument will measure accurately what it intends to measure. The corrected questionnaire was used for pilot study to ascertain the reliability coefficient of the instrument.

3.4.2 Pilot Study

Pilot study was conducted in Zaria and Sabon Gari Local Government Areas of Kaduna State. This is because they have almost the same cultural background with Adamawa State. The aim of the pilot study was to determine the reliability coefficient of the instrument and to a certain any difficulty that the researcher may encounter when carrying out the main study. A total of 20 copies of the questionnaire were administered to the subjects under the supervision of the researcher. All were filled and collected and subjected to statistical analysis.

3.4.3 Reliability of the Instrument

The data thus collected from the pilot study were analyzed for the purposed of reliability co-efficient. Spearman-Brown reliability coefficient was used. Consequently, reliability coefficient of alpha level of .856 was obtained. According to Spiegel and Stevens (1999) an instrument is considered reliable if its reliability coefficient lies between 0 and 1, and that the closer the calculated reliability coefficient is to zero, the less reliable is the instrument, and the closer it is to 1, the more reliable is the instrument.

3.5 Procedure for Data Collection

The administration of the questionnaire took the duration of three weeks. It was done by the researcher with the help of trained assistant through the ward heads who helped to reach the occupants in the various communities. Three hundred and ninety-nine (399) copies of the questionnaire were distributed to the respondents but 390 copies were retrieved duly completed. The researcher read the items with the help of the assistant to make sure the respondents understood the items and to make sure that the responses were not mere guesses. After completion, the questionnaire were collected immediately in each community and subjected to statistical analysis.

3.6 Procedure for Data Analysis

Data collected was analyzed using appropriate statistical tools. Frequencies and Percentages were used for the Bio data. Mean and Standard deviation were used to analyse the research questions while Multiple Regression was used to test the null hypotheses at 0.05 level of significance. This was to determine the relationship between the effects of determined socio-cultural house forms on home activities. This is in line with Durkwa and Bassi (2006) who explained that Multiple Regression is an appropriate statistical tool to use to find out relationship among three variables.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

This chapter presents the analysis of data collected to determine the "Effects of Socio-cultural forces on house forms in relation to home activities among occupants in Adamawa State". A total of number 399 copies of the questionnaire were distributed and 390 respondents successfully responded to the instrument. The first section of this chapter analysed the biodata of the respondents using frequencies and percentages. The second section analysed the research questions through mean and standard deviations based on 4-points rating scale. The third section presented the interpretation and discussion of research hypotheses by means of inferential statistical method through Multiple Regression statistical analysis at 0.05 level of significance. The fourth section presented the summary of major findings.

4.1 Distribution of Respondents bio data in relation to their house forms and residential settlement

This section presents the bio data of the respondents in terms of types of house forms and residential settlement. In Table 4.1 a total of 390 respondents from different houses from the randomly selected local government areas of Adamawa State were involved in the study. The biodata variables selected in association with house forms and residential settlement were age, education, income, social status marital status, family

structure and number of people in the house. These variables were tabulated in frequencies and percentages responsively in tables.

Table 4.1.1: Distribution of Respondents by Age

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Age Range	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
31 – 35	43	44	87	22.3	80	7	87	22.3
36 – 40	43	0	43	11.0	40	3	43	11.0
41 and above	174	86	260	66.7	131	129	260	66.7

Table 4.1.1 was the distribution of respondents by age. Age range of 31–35 showed that 43 respondents live in circular house forms and 44 respondents live in rectangular house forms with frequency of 87 representing 22.3%. In the same vein 80 respondents live in rural settlement and 7 respondents live in urban settlement with frequency of 87 representing 22.3%. Age range of 36 – 40 indicated that 43 respondents occupy circular house forms and none occupy rectangular form and had the frequency of 43 representing 11.0%. Within the same range 40 respondents live in rural settlement and 3 in urban settlement with frequency of 43 representing 11.0%. Age range 41 and above had 174 respondents occupying circular forms while 86 occupy rectangular forms with frequency of 260 representing 66.7%. There are131 respondents live in rural settlement and 129 live in urban settlement with frequency of 260 representing 66.7%. Going by this data it signified that age range 41 and above are more conformed to circular houses and live in rural settlements. It can also mean that they are more

comfortable in circular forms because it is the most accepted forms in most rural areas.

Table 4.1.2: Distribution of Respondents by Level of Education

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Level of Education	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
HND/1st Degree	40	41	81	20.7	20	61	81	20.7
OND/NCE	41	122	163	41.7	122	41	163	41.7
SSCE/TC II	70	50	120	30.7	50	70	120	30.7
Primary Education	61	15	26	6.9	17	9	26	6.9

Table 4.1.2 showed the distribution of respondents by level of education. It revealed that 40 respondents with HND/1st Degree occupy circular house form, 41 in rectangular house forms with frequency of 81 representing 20.7%, while 20 respondents live in rural settlement and 61 live in urban settlement with frequency of 81 representing 20.7%. 41 respondents with OND/NCE occupy circular house forms, and 122 occupy rectangular forms with frequency of 163 representing 41.7%. In the same level 122 live in rural settlement and 41 live in urban settlement with frequency of 163 representing 41.7%. SSCE/TC II had 70 respondents occupying circular house forms and 50 in rectangular house forms with frequency of 120 representing 30.7%. There are 50 respondents with SSCE/TC II live in rural areas while 70 live in urban areas with frequency of 120 representing 30.7%. Primary education had 11 respondents occupying circular house forms, and 15 occupying rectangular house forms with frequency of 120 representing 6.9% while 17 respondents live in rural settlement and 9 live in urban

settlement with frequency of 120 representing 6.9%. This implies that high number of respondents with higher qualification live in both circular and rectangular house forms. This would probably be associated with their working places whereby the occupants observe the norms of the community in terms of building.

Table 4.1.3: Distribution of Respondents by Level of Income

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Level of Incomes	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
High income earner	8	80	88	22.5	30	58	88	22.5
Middle income earner	43	130	173	44.4	130	43	173	44.4
Low income earner	120	9	129	33.1	100	29	129	33.1

Table 4.1.3 indicated the distribution of respondents by level of income. 8 high income respondents occupy circular house forms, 80 respondents occupy rectangular house forms, 30 live in rural settlement and 58 live in urban settlement with frequency of 88 representing 22.5% respectively. Middle income respondents had 43 occupying circular house forms, 130 in rectangular house forms, 130 live in rural settlement and 43 live in urban settlement with frequency of 88 representing 44.4% respectively. Respondents by low income had 120 occupying circular house forms, 9 in rectangular forms, 100 living in rural settlement and 29 live in urban settlement with frequency of 129 signifying 33.1% respectively. This implies that when the income is high occupants prefer the rectangular house forms

which conform to the modern housing specifications and more so it is more economical in terms of space to carry out home activities.

Table 4.1.4: Distribution of Respondents by Social Class

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Social Class	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
Royal Class	6	82	88	22.5	11	77	88	22.5
Landlord	10	76	86	22.1	43	43	86	22.1
Labourer	43	44	87	22.3	80	7	87	22.3
Farmer	120	9	129	33.1	121	8	129	33.1

Table 4.1.4 showed the distribution of respondents by social class. 6 respondents royal class occupy circular house forms, 82 occupy rectangular forms, 11 respondents live in rural areas and 77 live in urban areas with frequency of 88 representing 22.5% respectively. Respondents by landlord had 10 occupying circular house forms, 76 in rectangular circular house forms, 43 living in rural areas and 43 in urban areas with frequency of 88 signifying 22.5% respectively. Respondents by labourer had 43 occupying circular house forms, 44 in rectangular forms, 80 living in rural settlement and 7 in urban settlement with frequency 87 representing 22.3% respectively. Farmers had 120 respondents occupying circular house forms, 9 in rectangular house forms, 121 living in rural areas and 8 respondents live in urban areas with frequency of 129 representing 33.1% respectively. It can be deduced here that most of the royal class live in urban settlements and occupying rectangular forms, while most farmers and labourers live in rural areas occupying circular house forms. This could likely be associated with their influence in the society. They have enough space in the house that can

be allocated for each of the home activities. Farmers and labourers are always underrated occupying the circular house forms which seem inconvenient in terms of activity performance.

Table 4.1.5: Distribution of Respondents by Marital Status

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Marital Status	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
Married	86	218	304	77.9	173	131	304	77.9
Unmarried	80	6	86	22.1	70	16	86	22.1

Table 4.1.5 revealed the distribution of respondents by marital status. Married respondents had 86 staying in circular house forms, 128 in rectangular house forms, 173 respondents live in rural settlements and 131 in urban settlements each having the frequency of 304 representing 77.9%. Unmarried respondents had 80 staying in circular house forms, 6 in rectangular house forms, 70 respondents live in rural settlement and 16 in urban settlement each with frequency of 86 representing 22.1%. This implies that most married people stay in rectangular house forms in which home activities can be facilitated due to the way the rectangular house forms are modified with space within.

Table 4.1.6: Distribution of Respondents by Family Lifecycle

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Family Lifecycle	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
Monogamous family	43	44	87	22.3	77	10	87	22.3
Polygamous family	43	131	174	44.6	42	132	174	44.6
Extended family	86	43	129	33.1	100	29	129	33.1

Table 4.1.6 was the distribution of respondents by family lifecycle. This result revealed that 43 monogamous families occupy circular house forms, 44 in rectangular house forms, 77 respondents stay in rural areas and 10 in urban areas with the frequency of 87 representing 22.3% respectively. Polygamous family had 43 respondents staying in circular house forms, 131 in rectangular house forms, 42 respondents live in rural areas and 132 in urban areas with frequency of 174 representing 44.6% respectively. Respondents by extended family had 86 occupying circular house forms, 43 in rectangular house forms, 100 respondents stay in rural areas and 29 in urban areas both with frequency of 129 representing 33.1%. This means that if the family is polygamous, rectangular house forms are more convenient and they prefer to live in urban areas so that some social amenities would be found which would facilitate the performance of activities in the house.

Table 4.1.7: Distribution of Respondents by Number of people in house

N=390

	TYPES OF HOUSE FORMS				RESIDENTIAL SETTLEMENT			
Number of people in house	**Circular**	**Rectangular**	**Frequency**	**Percentage**	**Rural**	**Urban**	**Frequency**	**Percentage**
1 – 5	155	41	196	50.2	190	6	196	50.2
6 – 10	70	6	76	19.5	38	38	76	19.5
11 – 15	9	11	20	5.1	13	7	20	5.1
16 – 20	6	84	90	23.1	9	81	90	23.1
21 and above	2	6	8	2.1	4	4	8	2.1

Table 4.1.7 revealed the distribution of respondents by number of people in the house. Respondents within 1–5 range had 155 stay in circular house forms, 41 in rectangular house forms, 190 respondents reside in rural settlements and 6 in urban settlements. This range had frequency of 186 meaning 50.2% respectively.

Range 6- 10 had 70 respondents occupying circular house forms, 6 in rectangular house forms, 38 reside in rural settlements and 38 in urban settlement having the frequency of 76 representing 19.5% respectively. Range 11–15 had 9 respondents staying in circular house forms, 11 in rectangular house forms, 13 respondents reside in rural areas and 7 in urban areas each with frequency of 20 signifying 5.1%. Range 16–20 had 6 respondents staying in circular house forms, 84 in rectangular house forms, 9 respondents live in rural areas and 81 in urban areas each with frequency of 90 representing 23.1%. Range 21 and above had 2 respondents staying in circular house forms 6 in rectangular house forms, 4 respondents live in rural settlement and 4 in urban settlements each indicating frequency of 8 representing 2.1%. This implies that when people are less in the house circular house forms are preferred and such category prefer settling in rural areas may be due to the fact that house activities are less. When the number increases, occupants prefer rectangular house forms because more space can be created for various activities in the house.

4.2 ANSWERS TO RESEARCH QUESTIONS

Research Question 1:

Table 4.2.1: Opinion of respondents on the effects of determined socio-cultural house forms in relation to meal preparation activities among native occupants in Adamawa State

S/N	Items	Response Category				Mean	S.D	S.E
		SA	A	D	SD			
1	Cooking is done in the sleeping room.	130	86	174	-	2.8872	.8767	.0444
2	Cooking is done in the porch	174	216	-	-	3.4462	.4977	.0252
3	Cooking is done in the courtyard	130	217	43	-	3.2231	.6283	.0318
4	Cooking is done in the kitchen	88	86	173	43	2.5615	.9593	.0485
5	The type of fire place used in the house is three stones	173	217	-	-	3.4436	.4974	0.251
6	The type of fire place used in the house is three moulded mud	303	87	-	-	3.7769	.4168	.0211
7	The type of fire place used is iron	44	43	174	129	2.0051	.9458	.0478
8	Movement is so tight in the sleeping room when preparing meal	87	260	43	-	3.1128	.5669	.0287
9	Standing grinding stones are built in the wife porch.	217	129	44	-	3.4436	.6882	.03448
10	There is not enough light and fresh air in the room when cooking is done inside.	131	259	-	-	3.3359	.4729	.0239
11	It is the culture to eat in the kitchen.	173	86	131	-	3.1077	.8774	.0444
12	It is the culture to eat in the open courtyard.	304	86	-	-	3.7795	.4151	.0210
13	It is the culture to eat in the sleeping room.	-	216	87	87	2.3308	.8180	.0414

Table 4.2.1 revealed that most of the respondents had high mean score above 2.5 and standard deviation above .4. The culture to eat in the open courtyard has the highest mean response of 3.7795 with standard deviation of .4151 as the highest effects of socio-cultural forces on house

forms in relation to meal preparation activities. Details showed that 304 strongly agreed and 86 agreed. The next item was cooking is done in the porch which had the mean response of 3.4462 with standard deviation of .4977. Details revealed that 174 respondents strongly agreed while 216 agreed. This implies that the occupants eat in the open courtyard so that they can get enough space for all the members. They also cook in the porch since there is no specific area meant for a kitchen.

Table 4.2.2: Opinion of respondents on effects of determined socio-cultural house forms in relation to leisure activities among native occupants in Adamawa State

S/N	Items	Response Category				Mean	S.D	S.E
		SA	A	D	SD			
1	Mothers live in the same room with their female children.	173	200	17	-	3.4136	.49745	.0251
2	Small wall is built inside the sleeping room for privacy.	43	304	43	-	3.0000	04701	.0238
3	Members of the family interact in the open courtyard.	172	199	19	-	3.4036	.4971	.0250
4	Members of the family interact in the central porch.	260	120	10	-	3.5692	.4710	.0238
5	Members of the family interact under a tree outside the house.	200	170	16	4	3.4538	.4972	.0252
6	Children play in the open courtyard of the house.	174	216	-	-	3.4462	.4977	.0261
7	Children play in front of the house.	170	212	-	8	3.4001	.4977	.0351

Table 4.2.2 revealed the effect of socio-cultural forces on house forms in relation to leisure activities among occupants in Adamawa State, is that members of the family interact in the central porch. This item attracted the highest mean response of 3.5692 and standard deviation of .4710.

Details on this item showed that 260 strongly agreed, 120 agreed while the rest 10 disagreed with this item. This was followed by children play in the open courtyard of the house and it attracted the mean response of 3.4462 with standard deviation of .4977. Details on this item showed the 174 strongly agreed and 216 agreed. This signifies that since there is no sitting room where the occupants can interact, they interact in the central porch and children play in the open courtyard.

Table 4.2.3: Opinion of respondents on the effects of determined socio-cultural house forms in relation to house sanitation activities among native occupants in Adamawa State

S/N	Items	Response Category				Mean	S.D	S.E
		SA	A	D	SD			
1	The type of toilet used in the house to pit latrine.	-	6	304	80	1.8794	.4152	.0310
2	The type of toilet used in the house to bucket latrine.	-	10	40	340	1.2128	.3166	.0161
3	The type of toilet used in the house to water closet.	8	2	80	300	1.1100	.2110	.0211
4	The type of toilet used in the house to no toilet.	173	1170	4	43	3.2279	.9217	.0466
5	My culture does not allow toilet in the house because it attracts cockroaches and flies.	130	173	43	44	2.9974	.9471	.0479
6	Bathing is done just behind the room.	300	40	46	4	3.7972	.3167	.0180
7	Bathing is done in the stream.	87	250	44	9	3.1003	.5697	.0288
8	Bathing is done in bathroom.	29	44	217	100	1.7800	.6301	.0319
9	There is no drainage in the house as such sewage water runs inside the house.	130	173	87	-	3.1103	.7386	.0374
10	There is no drainage in the house as such water logs inside and outside the house.	130	216	44	-	3.2205	.6313	.0319
11	Proper drainage.	44	88	172	86	2.2308	.9199	.0465
12	Refuse is discarded around the house.	303	43	42	2	3.6441	.6706	.0339
13	Refuse is discarded in the farm.	174	190	16	10	3.4322	.4979	.0352
14	Refuse is burnt in an incinerator.	-	47	300	43	1.9897	.3236	.0158
15	Refuse is discarded and packed by the LGA.	-	2	130	258	1.3559	.4719	.0239

Table 4.2.3 revealed the opinion of respondents on the effect of socio-cultural forces on house forms in relation to house sanitation activities among occupants in Adamawa State. According to the table, bathing is done just behind the room attracted the highest mean response of 3.7872 with standard deviation of .3167. Details showed that 300 strongly agreed, 40 agreed, 46 disagreed and the rest 4 strongly disagreed with this item. This was followed by refuse is discarded around the house which attracted the mean response of 3.6441 with standard deviation of .6706. Details showed that 303 respondents strongly agreed while 43 agreed, 42 strongly disagreed and 2 disagreed.

Going by this result, it showed that the occupants regard bathing as private matter as such they take bath behind the room since there is no bathing area defined in the house. The occupants are not mindful of the havoc it will cause when refuse is discarded around the house but they care much for the manure it will make for their farms.

Table 4.2.4: Opinion of respondents on the effects of determined socio-cultural house forms in relation to storage activities of the house among native occupants in Adamawa State

S/N	Items	Response Category				Mean	S.D	S.E
		SA	A	D	SD			
1	Storage facilities for food available in the house is food store.	-	174	87	129	2.1154	.8749	.0443
2	Storage facilities for food available in the house are barns.	87	216	87	-	3.0000	.6688	.0338
3	Storage facilities for food available in the house are bags.	131	130	86	43	2.8949	.9944	.0503
4	Storage facilities for food available in the house are sheds.	131	216	43	-	3.2256	.6294	.0318
5	Storage facilities for food available in the house are pots.	174	172	44	-	3.3333	.6700	.0339
6	Storage facilities for food available in the house are heaped on the floor inside the room	87	86	130	87	2.4436	1.0686	.0541
7	Storage facilities for food available in the house are wardrobe.	-	1	130	259	1.3359	.4729	.0239
8	Storage facilities for clothing in the house are boxes.	-	1	174	215	1.4489	.4980	.0252
9	Storage facilities for clothing in the house are shelves.	-	87	130	173	1.7795	.7871	.0398
10	Storage facilities for clothing in the house are boxes.	18	200	87	85	2.4385	.8164	.0413
11	Storage facilities for clothing in the house are straw baskets.	130	173	87	-	3.1103	.7386	.0374
12	Storage facilities for clothing in the house are ropes.	160	100	30	-	3.5567	.4721	.0239
13	Building of granaries in the sleeping room is a sort of decoration and show of wealth.	217	130	40	3	3.4452	.6847	.0349
14	Building of granaries in the sleeping room makes the room congested.	130	260	-	-	3.3333	.4720	.0239
15	Dried leafy vegetables stored in guinea corn leaves and hung up in the roofs.	173	130	87	-	3.2205	.7871	.0398
16	Onion is preserved in guinea corn.	130	216	40	4	3.2104	.7772	.0399
17	Onion is preserved near the water pot.	174	210	6	-	3.4460	.4976	.0262
18	Onion is preserved on sand in the porch.	130	129	131	-	2.9974	.8191	.0414

Table 4.2.4 showed that the highest mean response of 3.5567 was that storage facilities for clothing in the house is the rope with standard deviation of .4721. The outcome showed that 260 of the respondents strongly agreed, 100 agreed while the rest 30 disagreed with this item as the highest effect of socio-cultural effect on house forms in relation to storage facilities among occupants in Adamawa State.

In addition, onion is preserved near the water pot. This item with the second highest mean response of 3.4460 is another strong effect of socio-cultural forces on house forms in relation to storage facilities with standard deviation of .4976. Details show that 174 of them strongly agreed, 210 agreed and the rest 6 strongly disagreed with this item. Next was building of granaries in the sleeping room is a sort of decoration and show of wealth which had the mean of 3.4452 with standard deviation of .6847 as strong effecting of socio-cultural forces on house forms in relation to storage activities. Details revealed that 130 strongly agreed while 260 respondents agreed.

The implication here is that when ropes are used for storing their clothes, they can be liable to stains, dust and insects because they are not enclosed. The granaries built in the sleeping room are normal to the occupants but in the real sense it makes the sleeping room congested thus making movement uneasy. The sleeping room that is supposed to be

comfortable now becomes uncomfortable because there is not enough space and ventilation.

Table 4.2.5: Opinion of respondents on the effects of determined socio-cultural house forms in relation to maintenance activities of the house among native occupants in Adamawa State

S/N	Items	Response Category				Mean	S.D	S.E
		SA	A	D	SD			
1	Local weaving takes place in the central porch.	216	87	80	7	3.3306	.8180	.0414
2	Local weaving takes place in special shades made for the work.	87	259	40	4	3.1101	.5697	.0288
3	House washing is carried out on the open courtyard of the house.	300	3	87	-	3.5518	.8336	.0422
4	Household washing is carried out outside the house.	128	44	175	43	2.6614	1.0530	.0533
5	Household washing is carried out in the stream.	174	129	7	80	3.0100	1.1584	.0588
6	Washed clothes are spread on the fence of the house.	170	20	20	-	3.4406	.4975	.0252
7	Washed clothes are spread on the grass or shrubs outside.	304	43	40	3	3.6682	.8856	.0337
8	Washed clothes are spread on a line.	7	253	87	43	2.228	.5669	.0287

The outcome of Table 4.2.5 showed the level of responses on the effect of socio-cultural forces on house forms in relation to clothing maintenance activities among occupants in Adamawa State. According to the table, the item with the highest mean response of 3.6682 and standard deviation of .6656 was that washed clothes are spread on grasses or shrubs outside the houses. Details of responses to this item showed that 304

strongly agreed, 43 agreed while 40 disagreed and 3 strongly disagreed with this item. This was followed by the item that household washing is carried out in the open courtyard of the house with the mean of 3.5518 with standard deviation of .8336. Details revealed that 300 respondents strongly agreed, 3 agreed and 87 disagreed.

The emphasis here is that the washed clothes that are spread on grasses and shrubs can get stained, or eaten by insects. This happens due to the fact that there is no laundry line for drying. When specific area is defined for washing, washing in the open courtyard do not arise. This practice can make the house dirty.

4.3 TESTING OF RESEARCH HYPOTHESES

Hypothesis 1: The null hypothesis stated that there is no significant effect of determined socio-cultural house forms in relation to meal preparation activities among native occupants in Adamawa State

Table 4.3.1(a): Multiple regression analysis to test the effect of determined socio-cultural house forms of social class, family structure and income level in relation to meal preparation activities

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	39.448	1.269		31.083	.000
social class	.009	.238	.006	.036	.971
Family structure	.991	.133	.759	7.439	.000
level of income	-.474	.309	-.223	-1.534	.126

The Multiple Regression in Table 4.3.1(a) revealed that there is no significant effect socio cultural forces of social class on house forms in relation to meal preparation. This is because the calculated P-value of .971 is greater than the 0.05 level of significance. However there are significant effects of family structure on house forms in relation to meal preparation because the calculated P-value of .000 is less than 0.05 alpha level of significance. There is also no significant effect of level of income on house forms in relation to meal preparation because the calculated P-value of .126 is higher than the 0.05 alpha level of significance.

Table 4.3.1(b): Regression Analysis to determine the strength of the effect of determined socio-cultural house forms in relation to meal preparation activities among native occupant

Model	R	R square	Adjusted R square	R square change
	.571	.326	.320	.601

Table 4.3.1(b) indicated the strength of the effect of socio-cultural forces on house forms in relation to meal preparation activities among occupants in Adamawa State was very strong. This is because the calculated R-square, adjusted R and R-square change values .571, .326 and .320 respectively was higher than .4 indicating a very strong relationship between the meal preparation activities and the effects of socio cultural forces on house forms.

Hypothesis 2:The null hypothesis stated that there is no significant effect of determined socio-cultural house forms in relation to leisure activities among native occupants in Adamawa State

Table 4.3.2(a): Multiple regression analysis to test the effect of determined socio-cultural house forms of social class, family structure and income level in relation to leisure activities

Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	24.000	.927		25.904	.000
Social class	.000	.174	.000	.000	1.000
Family structure	.000	.097	.000	.000	1.000
level of income	.000	.226	.000	.000	1.000

Outcome of the regression analysis statistics in Table 4.3.2(a) revealed that there is no significant effect of cultural forces of house forms of social class, family structure and income level in relation to leisure. This is because the calculated P-value of 1.000 in each case is greater than the 0.05 level of significance. Hence, the null hypothesis which stated that there is no significant effect of socio-cultural forces on house forms in relation to leisure activities is hereby accepted and retained.

Table 4.3.2(b): Regression Analysis to test for the strength of the effect of determined socio-cultural house forms in relation to leisure activities among native occupants in Adamawa State

Model	R	R square	Adjusted R square	R square change
	.000	.000	.000	.0946

Independent variable: socio-cultural forces(social status, family structure and level of income) on house forms
Dependent variable: leisure activities

Table 4.2.2(b) revealed the strength of the relationship of socio-cultural forces on house forms in relation to leisure activities. The R square and the adjusted R square and R change have very low values of .000, .000 and .000 respectively indicating a very weak relationship.

Hypothesis 3: This null hypothesis stated that there is no significant effect of determined socio-cultural house forms in relation to sanitation activities among native occupants in Adamawa State

Table 4.3.3 (a): Multiple regression analysis to test the effect of determined socio-cultural house forms of social class, family structure and income level in relation to house sanitation

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	29.615	2.290		12.932	.000
social class	.925	.430	.345	2.150	.032
Family structure	-3.092	.240	-1.199	-12.858	.000
level of income	6.109	.558	1.455	10.953	.000

Table 4.3.3(a) revealed that there is strong effect between socio cultural forces of social class on house forms in relation to house sanitation because the calculated P-value of .032 is less than 0.05 level of significance. There is also a strong effect between socio cultural forces of family structure in relation to house sanitation because the calculated P-value of .000 is less than 0.05 level of significance. In the same vein there is also a strong effect between socio cultural forces of level of income in relation to house sanitation because the calculated P-value of .000 is less than 0.05 level of significance. Consequently the null hypothesis which states that there is no significant effect of socio-cultural forces on house forms in relation to house sanitation was rejected

Table 4.3.3 (b): Regression Analysis to determine the strength of the effect of determined socio-cultural house forms in relation to house sanitation activities among native occupants in Adamawa State

Model	R	R square	Adjusted R square	R square change
	.661	.436	.432	.000

Independent variable: socio-cultural forces (social status, family structure and level of income) on house forms
Dependent variable: house sanitation activities

Details of Table 4.3.3(b) showed that there is very strong relationship between socio-cultural forces on house forms and sanitation activities. This is because the regression .661 R square .436, adjusted R

.432 were all very high and close to 1. Therefore, the strength of relationship was very strong as such the model was fit.

Hypothesis 4: This null hypothesis stated that there is no significant effect of determined socio-cultural house forms in relation to storage activities among native occupants in Adamawa State

Table 4.3.4 (a): Multiple regression analysis to test the effect of determined socio-cultural house forms of social class, family structure and income level in relation to storage facilities

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	11.408	4.984		2.289	.023
Social class	7.460	.937	1.531	7.965	.000
Family structure	.374	.523	.080	.714	.476
level of income	9.713	1.214	1.273	8.001	.000

Multiple Regression Table 4.3.4(a) revealed that there is strong effect between socio cultural forces of social class on house forms in relation to storage activities because the calculated P-value of .000 is less than 0.05 level of significance. However, there is no significant effect of socio-cultural forces of family structure in relation to storage activities because the calculated P-value of .476 is higher than the 0.05 alpha value of significance. There is also a strong effect between socio cultural house forms and level of income in relation to storage activities because the calculated P-value of .000 is less than 0.05 level of significance. Therefore

the null hypothesis which states that there is no significant effect of socio-cultural forces on house forms in relation to storage activities, was rejected

Table 4.3.4(b): Regression Statistics Analysis to determine the strength of the effect of determined socio-cultural house forms in relation to house storage activities among native occupants in Adamawa State

Model	R	R square	Adjusted R square	R square change
	.538	.192	.185	.670

Independent variable: socio-cultural forces (social status, family structure and level of income) on house forms
Dependent variable: storage activities

Outcome of Table 4.3.4(b) revealed that the relationship of effect of socio-cultural forms and storage activities among occupants in Adamawa State was very strong implying that the model for the prediction of the relationship or effect between the two variables was strong. The calculated R square value of .538 is greater than .05 and close to 1 confirming a strong relationship.

Hypothesis 5: The null hypothesis stated that there is no significant effect of determined socio-cultural house forms in relation to clothing maintenance activities among native occupants in Adamawa State

Table 4.3.5(a): Multiple regression analysis to test the effect of determined socio-cultural house forms of social class, family structure and income level in relation to clothing maintenance

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	54.799	1.782		30.755	.000
social class	-5.911	.335	-2.500	-17.654	.000
Family structure	-3.922	.187	-1.725	-20.964	.000
level of income	-3.566	.434	-.963	-8.218	.000

Table 4.3.5(a) revealed that there is strong effect between socio-cultural house forms of social class, family structure and level of income in relation to clothing maintenance. This is because the calculated P-value of 0.000 in each comparison is lower than the 0.05 level of significance. Therefore the null hypothesis which states that there is no significant effect of determined socio-cultural house forms in relation to clothing maintenance is hereby rejected.

Table 4.3.5(b): Regression Statistics Analysis to determine the strength of the effect of determined socio-cultural house forms in relation to house clothing maintenance activities among native occupants in Adamawa State

Model	R	R square	Adjusted R square	R square change
1	.749	.561	.558	.171

Independent variable: socio-cultural forces (social status, family structure and level of income) on house forms
Dependent variable: clothing maintenance activities

Table 4.3.5(b) indicated that the relationship between the effects of socio-cultural forces on house forms in relation to clothing maintenance was weak signifying that the model is not very fit. This is because the R-values of calculated R, R square, adjusted R square and R square change were .749, .561, .558 respectively each higher than .4 limit. The null hypothesis was rejected and the strength of relationship was very strong.

4.4 Summary of Major Findings

The study was conducted to establish the effects of socio-cultural house forms in relation to home activities among native occupants in Adamawa State.

Hypothesis one in Table 4.3.1 revealed that there is strong significant relationship that exist between the effects of socio-cultural forces (social class, family structure and level of income) on house forms among occupants in Adamawa State. Occupants cook in the porch and eat

in the open courtyard had the highest mean scores of 3.774 and 3.4462 respectively.

Hypothesis two in Table 4.3.2 indicated that there is no significant relationship between the effects of socio-cultural forces on house forms. The null hypothesis was retained even though the result revealed that members of the family interact in the central porch and children play in the open courtyard had highest mean scores respectively.

Hypothesis three in Table 4.3.3 signified that there is significant relationship that exists between the effects of socio-cultural forces on house forms and house sanitation activities, thus the null hypothesis was rejected and alternative confirmed. Occupants discard refuse around the house and bath behind a room had the highest mean scores.

Hypothesis four in Table 4.3.4 revealed that there is significant relationship that exists between the effects of socio-cultural forces on house forms in relation to storage activities. According to the finding the null hypothesis was rejected and alternative hypothesis retained. The result revealed that clothes are stored on the line had the highest mean score followed by belongings are stored in granaries and onions stored near the water pot.

Hypothesis five in Table 4.3.5 revealed that there is significant relationship that exists between socio-cultural forces on house forms in relation to clothing maintenance activities. The null hypothesis was

rejected. Occupants spread their washed clothes on grasses and shrubs had the highest mean score followed by occupants wash their clothes in the open courtyard of the house.

4.5 Discussion

This study was undertaken to establish the relationship between the effects of determined socio-cultural house forms in relation to home activities among native occupants in Adamawa State. From the analysis of data collected for this study, it had been established that there is significant relationship that exist between effects of determined socio-cultural house forms and the various home activities among native occupants in Adamawa State. These activities are meal preparation, leisure, sanitation, storage and clothing maintenance activities which constituted the specific objective and research questions for the study.

Objective one was to establish the effects of determined socio-cultural house forms of social class, family structure and level of income) on house forms in relation to meal preparation activities among native occupants in Adamawa State. Table 4.3.1 revealed that there is significant relationship that exist between effects of family structure on house forms and meal preparation activities because the calculated regression R-value indicated that the model is strong. If the family is a monogamous type, the occupants do not need large kitchen because the activity of meal preparation is not much. The amount of cooking is just small and

conducively the circular kitchen form can be convenient for them. Fanti (2005) opined that when the family size is small, a smaller kitchen is appropriate. The result also indicated that if the family is either a polygamous or extended family; the number of the occupants is higher as such a larger kitchen is needed. As the number of people increase in the house, so also meal activities increase and demanding specific area for doing them. Preferably the rectangular kitchen form is better for these family structures as rectangular forms create more space and easy to organise. However, the result revealed that effects of social class and level of income on house forms relate with meal preparation activities. Meal preparation activities must take place regardless of the social class and income level of the occupants. The result also indicated that the occupants cook in the porch and eat either in the kitchen or in the open courtyard which is a normal cultural practice by the occupants even though there is exposure.

Objective two was to identify the effects of determined socio-cultural house forms social class, family structure and level of income in relation to leisure activities among native occupants in Adamawa State. Table 4.3.2 revealed that the model is not suitable as the calculated R-value of 0.000 is lower than .4 average levels. This therefore, indicated that there is no relationship since the level of leisure cannot be measured by either forces of social class, family structure or level of income on house forms.

Family members interact in the porch and children play in the open courtyard are being done so not because of the social class of the occupants, their family structure or their income level, but it could be due to other forces which are not part of this study. This is in line with Masnick (2002) who postulated that leisure activities are not given priority in socio-cultural house forms as such areas are not defined for them. Occupants taking bath behind the room or discarding refuse around the house has nothing to do with the house forms.

Objective three was to determine the effects of determined socio-cultural house forms of social class, family structure and level of income on house forms in relation to house sanitation activities among native occupants in Adamawa State. Table 4.3.3 revealed that the model is strong because the R-value of .661 calculated is greater than the .4 average level and calculated P-value 0.000 was lower that 0.05 alpha level of significance.

This implies that as family structure is a modifier of the house forms and so sanitation commences accordingly. In a monogamous family the organization of the house form is simpler due to the fact that people are not much in the house. Sanitation is easier and the house looks neat and more organized. But if the family is either polygamous or extended family, the case is reversed. The house becomes more congested with many activities and it becomes very difficult in keeping it clean. Drainages become a

problem to care for and as a result water logs in the house. Since there is no defined area for the sanitation activities the occupants bath behind the room and discard their waste around the house.

Prominent people, landlords, chiefs or royal class people may have privacy in the house to bath since they have the money to do so, but the labourers, farmers and low income earners do not have the means. While the high social class and the high income earner live in rectangular house forms made with sophisticated materials, the low class and low income earners live in circular house forms of mud and thatch (Jiboye, 2004). They bath behind a room and discard refuse around their houses because they cherish their farms more than their health.

The fourth objective was to establish the effect of determined socio-cultural house forms of social class, family structure and level of income on house forms in relation to storage activities among native occupants in Adamawa State. The outcome of Table 4.3.4 indicated that the calculated R-value of .438 was greater than .4 average level was considered strong to measure the strength of relationship. The calculated P-value of 0.000 was less than 0.05 in the case of social class and level of income indicating significant relationship exists. Family structure indicated P-calculated of .438 greater than 0.05 level which meant there is no significant relationship.

This entails therefore that both high class occupants and rich occupants use granaries for storage inside the rooms and in the compound

to signify wealth. There in the granaries farm produce and important belongings are stored. This practice however makes space in the rooms and in the compound to be limited. This is in line with Alais and Linden (1999) who postulated that a house without granaries signifies either a house of a labourer, a farmer or low income earner because they don't have much to store.

The result also revealed that whether it is a monogamous, polygamous or extended family, it does not signify granaries being scatted in the compound. Nevertheless occupants store onions generally near the water pot. They all keep their clothes on the rope.

The fifth objective was to determine the effects of determined socio-cultural house forms social class, family structure and level of income on house forms in relation to clothing maintenance activities among native occupants in Adamawa State. Table 4.3.5 indicated that calculated R-value of .749 was higher than the average .4 level which makes the model very strong. The result also revealed that there is significant effect of socio-cultural forces of social class, family structure and level of income in relation to clothing maintenance activities. This was because the calculated P-value of 0.000 level in each comparison was lower than 0.05 level of significance.

The outcome of this result signifies that even though there is distinction between the house form of high social class and a farmer, rich

and poor, they all spread their washed clothes on grasses or on shrubs. This is so because neither washing area nor laundry lines are provided in either of the socio-cultural house forms.

It cannot be overemphasized also that the lesser the number of people in the house, the less washing takes place. As a result of too much washing, the occupants wash their clothes anywhere in the house which contribute in making the house dirty. This statement is in line with Weber (1990) who stressed that in most cultural house forms, no special laundering area is allocated, but washing is done anywhere in the compound or in the stream and washed clothes spread on grass or on fence of the house. It can be deduced here that occupants are rather servants to the culture regardless of the problem that could be experienced if clothes are spread on grasses or on shrubs or pouring dirty water in the house.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study titled effects of determined socio-cultural house forms in relation to house activities among native occupants in Adamawa State was presented in five chapters hereby summarized.

The first chapter introduced and presented the general background of the study as well as statement of problem. The research objectives were outlined in this chapter including the research questions and statements of research hypotheses to be tested at 0.05 level of tolerance.

The second chapter comprehensively discussed the relevant literature related to the study including some empirical studies related to the on-going research.

Chapter three presented the various research methodology adopted in the study. The sample size was 400 selected from 15,100 occupants of houses in Adamawa State. The structured questionnaire was the research instrument used with the survey design method. The proposed data analysis involving Multiple Regression statistical method to determine effects of the dependent variables in relation to the several independent variables was stated.

Chapter four presented and discussed the seven bio-data variables distributions by means of frequencies and percentages. Answers to the

research questions were analysed using mean and standard deviation responses to the items. Multiple Regression statistics was used to test the null hypotheses as the effects of the independent variables in relation to the dependent variables: if there is significant effects of socio-cultural house forms (independent variable) (social status, family structure and level of income) exist in relation to meal preparation activities, house sanitation activities, storage activities, leisure activities and clothing maintenance activities (dependent variables).

Chapter five presented the summary of the study as summary, conclusion and recommendations.

5.2 Conclusion

The following conclusion can be deduced from the study:

It cannot be overemphasized that occupants have realised that rectangular house forms have more space and easy to manipulate. As such occupants are gradually retiring from circular house forms and conforming to the rectangular form which can facilitate easy allocation of space for executing the various home activities.

The socio-cultural house forms have significant relationship to home activities among occupants in Adamawa State in that the activities are performed in line with the socio-cultural behaviours of the occupants and the way the houses are designed culturally. It can be rightly said that if the various activities in the house are not allocated specific areas where they

can be performed, then there would be stress on the worker and the work become bored and ineffectively done.

Leisure activities do not have significant relationship with socio-cultural houses in Adamawa State. It can be deduced that house sanitation activities can be carried out effectively regardless of whether areas are defined for them in the house or not.

5.3 Recommendations

The following are recommendations offered, as a result of the outcome of the study:

1. Specific area should be allocated for cooking and eating and be well ventilated as lack of ventilation prevents many occupants to cook inside the sleeping room instead they cook in the open courtyard.
2 The porch should be made conducive with windows and doors so that all members of the house can interact there in.
3 Health workers should create awareness in the occupants on the need to discard refuse properly so that it will not have hazards on their health.
4 Occupants should be encouraged on the use of store for their farm produce as this will help in decongesting the sleeping room and the compound thus creating more space for the effective performance of the home activities. .

5 Awareness should be created in the occupants on the use of line for spreading clothes as spreading on the grass or on shrubs can cause damage to the clothes.

5.4 Suggestions for Further Studies

The following are suggestions for further studies in the related:

1. Effects of socio-economic factors on house forms in relation to home activities among native occupants in Adamawa State.
2. Comparative study of cultural house forms and modern house forms as they relate to home activities in Adamawa State.
3. Assessment of the performance of home activities among native occupants o of socio house forms in Adamawa State.

5.5 Limitation for the Study

The population for the study was very large being all native houses in Adamawa State. Not all the house occupants were literate; as such the questionnaire had to be interpreted to them by the researcher. The ward heads had to follow the traditional protocols before the exercise begun and this made the exercise stressful.

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APPENDIX I:

INTRODUCTORY LETTER

DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION
AHMADU BELLO UNIVERSITY, ZARIA NIGERIA
FACULTY OF EDUCATION

Telephone: 069-51755, 50692
Vice Chancellor: Professor. Abdullahi Mustapha B.Sc. (Hons) Pharm(ABU), Ph.D (London) FPSN
Head of Department: Dr. I. M Haruna PGDE, (ABU), MSc (Bulgaria)

Your Ref: M.ED/EDUC/4717/09-10
Our Ref: _____

Date: 5th March, 2012

LETTER OF IDENTIFICATION
SHALL MERINDA PHANUEL – M.ED/EDUC/4717/09-10

This is to certify that the above mentioned name is a Postgraduate student (M.Ed Home Economics) in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria carrying out a research topic: ***Effects of determined socio-cultural house forms on home activities among native occupants in Adamawa State.***

Please, kindly give her every assistance she may require.

Dr. Iliya M. Haruna
HEAD OF DEPARTMENT

APPENDIX II:

REQUEST TO RESPOND TO QUESTIONNAIRE

Vocational and Technical Education
Department,Alhmadu Bello University,
Samaru – Zaria.

Dear Respondents,

REQUEST TO RESPOND TO QUESTIONNAIRE

I am an M. Ed student of the above named institution undertaking a study on the "Effects of determined socio-cultural house forms on home activities among native occupants in Adamawa State."

Please kindly complete the questionnaire as accurately as possible. All information given will be treated confidentially, and be used only for academic purposes.

Thanks for your cooperation.

Yours faithfully,

Merinda Phanuel Shall

APPENDIX III:

QUESTIONNAIRE ITEMS

PLEASE ANSWER ALL QUESTIONS IN EVERY SECTION

SECTION A: BIODATA

Instruction: Please tick (√) the type of house form you are occupying as applicable to your characteristics.

		TYPE OF HOUSE FORM	
S/N		**Circular**	**Rectangular**
1	**Age**		
	(a) 31 – 35		
	(b) 36 – 40		
	(c) 41 and above		
2	**Level of Education**		
	(a) HND/1st Degree		
	(b) OND/NCE		
	(c) SSCE/TC II		
	(d) Primary Education		
3	**Level of Income**		
	(a) high income earner		
	(b) Middle income earner		
	(c) Low income earner		
4	**Social Class**		
	(a) Royal Class		
	(b) Landlord		
	(c) Labourer		
	(d) Farmer		
5	**Marital Status**		
	(a) Married		
	(b) Unmarried		
6	**Family Lifecycle**		
	(a) Monogamous Family		
	(b) Polygamous Family		
	(c) Extended Family		
7	**Number of People in the house**		
	(a) 1 – 5		
	(b) 6 – 10		
	(c) 11 – 15		
	(d) 16 – 20		
	(e) 21 and above		

Instruction: Please tick (√) the type of your settlement as applicable to your characteristics.

		TYPE OF SETTLEMENT	
S/N		**Rural**	**Urban**
1	**Age**		
	(a) 31 – 35		
	(b) 36 – 40		
	(c) 41 and above		
2	**Level of Education**		
	(a) HND/1st Degree		
	(b) OND/NCE		
	(c) SSCE/TC II		
	(d) Primary Education		
3	**Level of Income**		
	(a) high income earner		
	(b) Middle income earner		
	(c) Low income earner		
4	**Social Class**		
	(a) Royal Class		
	(b) Landlord		
	(c) Labourer		
	(d) Farmer		
5	**Marital Status**		
	(a) Married		
	(b) Unmarried		
6	**Family Lifecycle**		
	(a) Monogamous Family		
	(b)Polygamous Family		
	(c) Extended Family		
7	**Number of People in the house**		
	(a) 1 – 5		
	(b) 6 – 10		
	(c) 11 – 15		
	(d) 16 – 20		
	(e) 21 and above		

SECTION B

Instruction: Please indicate the appropriate response by ticking (√) the column that best suit your opinion.

Keys:
SA – Strongly Agreed
A – Agreed
D – Disagreed
SD – Strongly Disagreed

Effects of determined socio-cultural house forms in relation to meal preparation activities

S/N		SA	A	D	SD
1	Cooking is done in the (a) Sleeping room (b) Porch (c) Courtyard (d) Kitchen				
2	The type of fire place used in the house is (a) three stones (b) three moulded mud (c) iron (tripod)				
3	Movement is so tight in the sleeping room when preparing meal.				
4	Standing grinding stone is built in the wife's porch.				
5	There is no enough light and fresh air in the sleeping room when cooking is done inside				
6	It is the culture to eat in the (a) Kitchen (b) Open courtyard (c) Sleeping room				
Effects of determined socio-cultural house forms in relation to leisure activities					
7	Mothers live in the same room with their female children				
8	Small wall is built inside the sleeping room for privacy				
9	Members of the family interact in the: (a) Open courtyard (b) Central porch (c) Under a tree outside the house				

10	Children play in the: (a) Open courtyard of the house (b) In front of the house				
Effects of determined socio-cultural house forms in relation to sanitation activities					
11	The type of toilet used in the house is: (a) Pit latrine (b) Bucket latrine (c) Water closet (d) No toilet				
12	My culture does not allow toilet in the house because it attracts cockroaches and flies.				
13	Bathing is done: (a) just behind a room (b) in the stream (c) in the bathroom				
14	There is no drainage in the house as such: (a) Sewage water runs inside the house (b) Water logs inside and outside the house. (c) Proper drainage				
15	Refuse is discarded: (a) around the house (b) in the farm (c) burnt in an incinerator (d) Packed by the LGA				
Effects of determined socio-cultural house forms in relation to storage activities					
16	Storage facilities for food available in the house are: (a) food store (b) barns (c) bags (d) sheds (e) pot (f) heaped on the floor inside the room				

17	Storage facilities for clothing in the house are: (a) wardrobe (b) shelves (c) cupboards (d) boxes (e) straw baskets (f) ropes				
18	Building of granaries in the sleeping room is: (a) a sort of decoration and show of wealth (b) makes the room congested				
19	Dried leafy vegetables are stored in guinea corn leaves and hung up in the roof.				
20	Onion is preserved: (a) in guinea corn (b) near the water pot (c) on sand in the porch				
Effects of determined socio-cultural house forms in relation to clothing maintenance activities					
21	Local weaving take place: (a) in the central porch (b) special shade made for the work				
22	Household washing is carried out in the: (a) open courtyard of the house (b) outside the house (c) stream				
23	Washed clothes are spread on the: (a) fence of the house (b) grass or shrubs outside (c) on a line				