

Cultural Issues in Architecture - Case Study of Esan in Edo State - Nigeria

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ABSTRACT Architecture in Esan has tended from traditional towards the European style in the past four and half decades. This can easily be traceable to the influence of Western Education, which has greatly influenced the people's culture. The paper therefore presents the common issues to both culture and architecture of Esan. It also identified reasons for the abandonment of Esan Traditional Architecture. Findings were appraised against the background of the prevailing Western cultural norms in our living pattern. The need for a determined effort to revive the dying indigenous architectural trend and evolve new and acceptable architectural style that recognize the culture of the people is discussed.

INTRODUCTION

Architecture is a profession rooted in culture (Rapaport, 1979). The paper attempts to present architecture as a profession that has its roots in culture. To a large extent culture exerts some influence on architecture in every society. Man always expresses himself socially and culturally. Culture and architecture are interdependent and inseparable. Society is a product of culture and they are therefore related. Although no culture remains static, specific aspects of culture remain unchanged for some reasonable length of time. Rapoport (1979) noted that the origins of Architecture are best understood if one takes a wider view and considers socio-cultural factors in the broadest sense to be more important than climate, technology, materials and economy. This scenario tallies with the picture painted by Spencer and Thomas (1978) that "As Architecture developed, the concept of the shelter was extended from simple physical protection from cold, dampness, wind and sun toward an increasingly complex set of cultural traits centred around the growing idea of the "family home". The supposedly harmonious elements appear to be a mismatch to each other because of ignorance, change of value system and the influence of new technology and materials. "Imported" architecture has been accepted at the expense of traditional architecture.

Study Area

The study focuses on five out of the eighteen

Local Government Areas that make up Edo speaking entity of the state. Esan is part of the old Mid-Western Region of Nigeria. Figures 1 and 2 indicate its geographical location. The area lies between latitudes 6° 20" and 6° 45" North of the Equator and between longitudes 6° 10" and 6° 35" East of Greenwich Meridian. It has a land area of about 3010 km² (1662 square miles) and a population of 40,7899, using 1991 census projected to 1996. The relative humidity varies between 75% - 90% in the rainy season 50% - 75% in the dry season and evenly distributed rainfall with annual record of between 2300-3000 mm. The prevailing winds are the North- East Trade Wind (N.E.W.) and the South West Trade Wind (S.W.W.).

It is a rainforest zone, which encourages the growing of tree and other cash crops. The soil is essentially laterite rich in clay. There is absence of any igneous rock, though the area is a plateau with a height of 390m (1300ft) above sea level. Few derivable roads in Esan enabled people to travel to urban centers of Uromi, Ekpoma, Auchi and Benin City in Edo State and Agbor in Delta State. Leaves, logs and bamboo are available as local building materials, while persons with sufficient purchasing power use modern building materials. Segynola (1987) noted that "The people are predominantly agriculturists. They practice subsistence agriculture made with crude to partly modern implements. The soil favours tree and tubers crops. Agricultural pursuit is a common feature of all the local government areas. Characteristics of agriculture in the developing countries of the world, production are largely

based on peasant methods, with resultant low production and income”.

A few persons are engaged in off farming activities such as tailoring, blacksmith, trading and auto-mechanic. The gap of housing standards between the rural and urban dwellers is as a result of the respective purchasing power of the two groups.

METHOD OF DATA ANALYSIS

The study collected data by means of field survey in the study area. There has not been any documentation of information with respect to this topic on Esan. The data were collected through the use of questionnaires that were later examined and analysed. Also physical measurements of some selected places and buildings were taken. Some cultural and architectural elements in the study area were highlighted. The sampling framework led to the survey being carried out in fifteen streets in Esan. Three major streets in each Local Government Headquarters, chosen are in the central business districts. In determining the type of housing environment with respect to culture, 13 variables were used in ranking the towns. Modernity and durability were the values used in assessing houses in each of the 15 streets and settlements. The questionnaire was to help determine the nature and conditions of the houses in the area. A typical example each of village layout, traditional compound and transitory traditional – modern building were studied in detail. The content of the questionnaire was based on cultural issues that influence architecture.

RESULTS

Results obtained have helped to highlight the trend of architectural development in Esan as shown in figures 1 and 2. Architectural concepts evolved by the people were pronounced in the use of courtyards and linear settlements. In table 1, traditional residential mud buildings constitute a total of 60.61 % (i.e., 654 houses) out of the entire 1079 residential buildings surveyed. One striking feature common to all the 5 towns studied specifically the 15 streets is the linear settlement pattern along the public playgrounds, roads and streets. Tables 2 and 3 reveal several issues in the study area. the ranking is baded mainly in modernity and durability of houses studied.

Numbers 1-10 in the ranking are more durable structures, while 11-13 are less durable. Villages express social and physical structures of the groups living in them. The type of culture practiced in Esan resulted in multiple households living in one compound with one overall head. Modernity has changed this scenario to single household for an apartment, each with a head. In other words cultural values are tied to the kind of architecture prevalent in Esan land and ultimately livable environmental conditions found. Table 2 shows the 13 variables weighed against modernity and durability as the values, thus resulting in table 3 with the overall ranking from the highest quality-housing environment to the lowest. The footnote under indicates that Ubiaja ranks first, while Uromi, Ekpoma, Irrua and Igueben follow in that respective order.

A comparative analysis of the main factors and features of traditional and modern architecture in Esan is depicted by key factors as communality, societal settings, organization, security, and materials. Part of the factors includes construction patterns and methods, nature of construction materials and labour. Others include finance, housing units, zoning and space interpretations, courtyard patterns, water bodies and playground. Traditionally, there is no formal training for the craftsmen and designers. Local builders in a traditional setting perform communal labour, whereas the emerging architecture evolved formal training to all members of the building team without any form of communal labour. The homogenous informal life pattern ordered by unwritten rules of old is now evolving into formal heterogeneous setting.

Culture Systems and Settlement Patterns

Territoriality is a basic trait of *Homo sapiens*. Every person and family has feeling of individuality for home ownership and also in defined areas proclaimed as individual or family territory. Esan people hold very dearly and pass to new generations as their tradition that must be upheld resulting in the settlement pattern discussed in the paper.

Territoriality in some form is one of the strongest expressions of human reaction and one to which mankind has made many additions in the creation of systems of culture, Spencer et al. (1979). The urge to live in social groups has led to the establishment of basic identifiable units

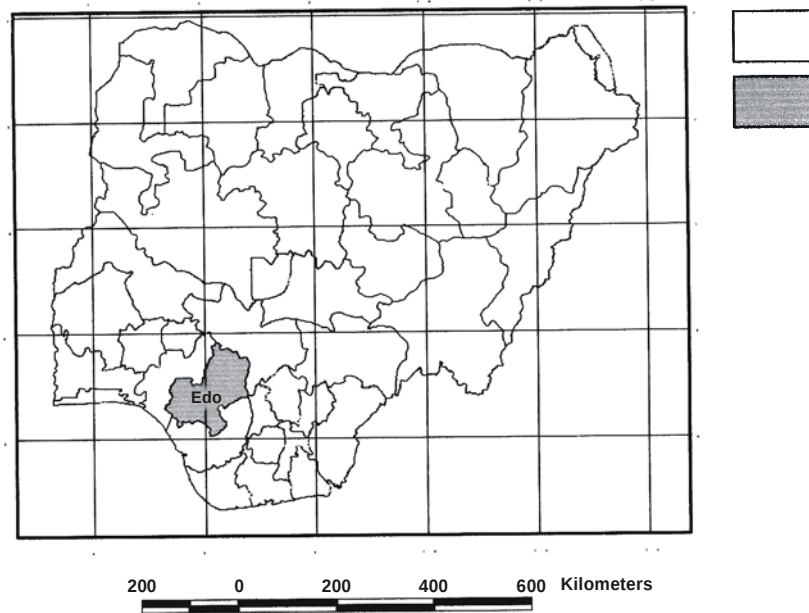


Fig. 1. Map of Nigeria showing Edo state

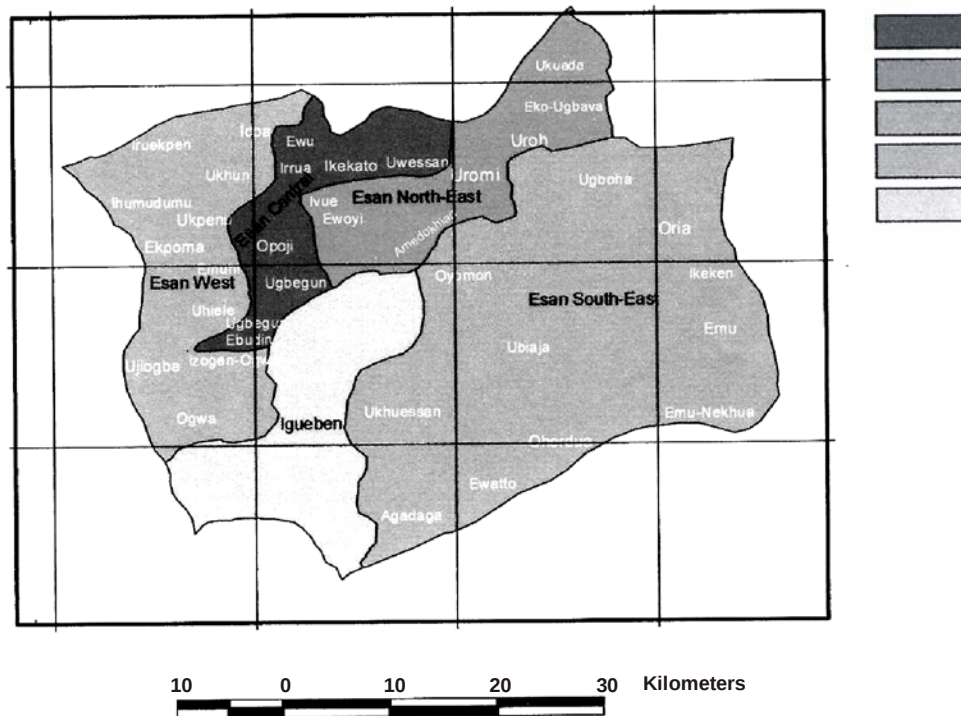


Fig. 2. The five Esan L.G showing major settlements Esan

Table 1: Comparative study of housing types in Esan with reference to the five L.G.A. headquarter

S. No.	Towns	1 -TmU	2 TmP	3 -TmP ^p	4 MSU	5 MSP	6 MSP ^p	7 2ST MSP	8 2ST MSP ^p	9 2ST TmP	10 2ST TmP ^p	11 3ST MSP ^p	12 * PB	13 2ST MSU	14 3ST MSP	Total
A	Irrua	7	13	40	7	2	15	-	2	-	1	-	-	-	-	2
		4	7	19	2	3	18	1	2	1	-	1	12	-	-	1
B	Uromi	1	8	33	2	3	13	-	2	-	1	-	-	-	-	3
		-	19	26	4	18	19	1	6	-	1	1	-	-	-	2
		-	6	20	2	12	28	2	8	-	-	-	8	2	2	5
C	Ekpoma	-	1	34	-	2	18	2	9	1	2	1	-	1	-	6
		-	12	29	3	10	3	-	-	-	-	-	-	-	-	2
		6	4	54	6	4	17	3	6	-	-	-	19	2	-	8
D	Ubiaja	-	8	40	-	2	13	1	5	1	-	-	-	2	-	0
		10	14	54	6	2	14	-	2	1	-	-	-	2	-	2
		-	1	49	-	4	4	5	1	-	4	-	22	1	-	5
E	Igueben	-	12	42	2	2	2	-	1	-	-	-	-	-	-	7
		10	14	10	3	3	4	-	-	-	-	-	-	-	-	1
		1	1	7	9	9	13	1	2	1	-	-	5	-	-	6
		4	4	14	12	9	22	-	-	-	3	-	-	-	-	1
Total		43	123	471	58	88	203	16	46	5	12	3	66	10	2	1146
Percentages		3.98	11.39	43.61	5.37	8.15	18.80	1.48	4.26	0.46	1.11	0.28	-	0.93	0.19	100

Residential House = 1079.

66 Public buildings were excluded from the analysis.

Table 2: Ranking (values) Cersus variables

S. No.	Irrua	Uromi	Ekpoma	Ubiaja	Igueben
1	3ST MSP ^p	1	-	-	-
2	2ST MSP ^p	6	11	5	2
3	2ST TmP ^p	2	-	4	3
4	MSP ^p	36	33	20	39
5	TmP ^p	92	80	91	31
6	3ST MSP	-	-	-	-
7	MSP	11	32	16	8
8	TmP	28	26	24	19
9	2ST MSP	1	4	5	1
10	2ST TmP	1	1	1	1
11	MSU	11	6	9	24
12	2ST MSU	-	3	4	-
13	TmU	12	-	10	15
Total	201	235	201	235	156

3ST MSP^p 3 Story modern sandcrete plastered, painted
 2ST MSP^p 2 Story modern sandcrete plastered, painted
 2ST TmP^p 2 Story Traditional mud plastered, painted
 MSP^p Modern Bungalow sandcrete plastered, painted
 TmP^p Traditional mud plastered and painted (Bungalow)
 3ST MSP 3 Story Modern sandcrete plastered
 MSP Modern Bungalow sandcrete plastered
 TmP Traditional mud plastered (Bungalow)
 2ST MSP 2 Story modern sandcrete plastered
 2ST TmP 2 Story Traditional mud plastered
 MSU Modern bungalow sandcrete unplastered
 2ST MSU 2 Story modern sandcrete unplastered
 TmU Traditional mud unplastered (Bungalow)

Table 3: Overall ranking

S. No.	Irrua	Uromi	Ekpoma	Ubiaja	Igueben
1	1	1	0	0	0
2	12	46	22	10	4
3	6	6	0	12	9
4	144	220	132	80	156
5	460	400	465	455	155
6	0	12	0	0	0
7	77	224	112	56	147
8	224	208	192	288	152
9	9	45	36	45	9
10	10	10	10	10	10
11	121	66	99	88	264
12	0	36	48	36	0
13	156	-	6	130	195
Total	1230	1274	1122	1210	1101
	6.12	5.42	5.58	5.15	7.06

The order of ranking is from highest to lowest as indicated below- (1) Ubiaja with 5.15, (2) Uromi with 5.42, (3) Ekpoma with 5.58, (4) Irrua with 6.12, (5) Igueben with 7.06.

called hamlets, villages, or any kind of settlement. There is a hazy idea as to when the first settlers came. One can only say with some measure of certainty that the communities became more established during the reign of Oba Ewuare of Benin Empire about 1440 (Okojie 1960).

Esan originally had loosely connected settlements, each having the palace as the focus with most residents close by. Reasons for these kinds of settlements include security from external aggressors and social-cultural ties. The housing and settlement pattern take into consideration the fact that culture and architecture especially in rural areas are expected to be related and interdependent.

Evolution of Architecture in Esan

The study has found that there is dearth of documented information on the history of architecture in Esan, though there exist enough elements in the culture and architecture of the people to warrant the study. By virtue of the historical and cultural linkages of Esan to Benin Empire, its architecture exhibits the same features and characters. Originally, buildings in Esan were of thatch roof, and mud walls. Floors were left uncommented and some furniture like beds and benches were of mud. Few tradesmen of about four were required for traditional building construction. At the later part of the nineteenth century the use of cement and corrugated iron roofing sheets became common and pronounced.

RURAL SETTLEMENT

Man gradually occupied the whole earth through cultural means. Territoriality led to erection of houses and consequently settlements. In ancient times people needed a dwelling place. Architecture is not just provision of a place to sleep but a place to exclude harsh weather and meet other human needs. In an attempt by Esan man to define his territory of abode cultural issues set in. Any architectural scheme no matter the size indicates the size, the status of the owner, users or society of its location.

Humans and animals right from their creation have always designated places for dwelling. Man has been able to allocate spaces for various purposes such as sleeping, storage and cooking in his dwelling. These exclusive spaces created by man for his individualistic use is known as territory. The Esan man exhibits these traits. In these territories you have habitations, which we call homes or houses. The entire territory can be an architectural scheme. Rapoport (1979) says that spatial and social relations are not random, but ordered. Language and architecture are related, both express cognitive process of distinguishing various items among places. "The shelters that people learn to create also greatly aided adaptations to living in varied physical environment"

Spencer and Thomas (1978). He also said human dwellings vary in the raw material used. Each settlement is a fine, balanced solution to problems of habitation. It should be seen as a physical reflection of the lifestyle of its inhabitants on which the rural settlement pattern depends.

All over the word, culture is the major determinant of the settlement pattern of any group of people. Rapoport (1969) agrees that culture has a lot to do with settlement patterns and the way people build their houses. The climate, available building materials, constraints and capabilities of a given level of technology is what finally decides the overall setting, outlook and pattern of our dwellings. It has been customary to classify rural African peoples according to four broad economic categories: agriculturists, pastoral nomads, mixed farmers and hunters and gatherers. Sedentary farmers often times settled close to their farmlands because crops grown are slow maturing, thus tying their owners to one plot of land for many years. Esan villages

express physical and social structure of the group of people living in them. Just as the individual household population increased in multiple households setting, the need to expand the physical structure also arose to meet the human requirement.

ARCHITECTURE

Architecture is the art and science of building design or style of building(s). Wright (1943) observes that “architecture is the triumph of human imagination over materials, method and men”. Le Corbursier defined Architecture as “the masterly correct and magnificent display of masses brought together in light”. Gbotosho (1996) in quoting Van der Rohe says, “When technology reaches its ultimate fulfillment, it transcends into architecture”. The definitions above emphasise architecture as a process with a lot of creativity, imaginations and assemblage of materials in distinctive and ordered manner to achieve peculiar requirements and character. In a layman’s understanding Architecture is defined as “comfort for mankind”. The word comfort refers to level of tolerance, acceptance and appreciation of any architectural piece when used or seen. Gbotosho (1996) asserts that Architecture is in essence dynamic and consistent with the development of man. It means that architecture is always current with the socio-cultural and technological development of the entire world. Architecture gives a summary of the history socially, culturally and technologically to first time visitors. Gbotosho (1996) calls the architect as one of the great custodians of civilization, the master of the creative effort whose province it is to make imperishable record of the noblest in the life of his race in his time. Going by the above explanations it can be inferred that the Architectural style in vogue in a particular society is tied to the culture of that same society, just in the same way as the placenta and baby are linked by umbilical chord. A building is not an end in itself, but rather a means to an end, which is to satisfy the material and spiritual needs of the people for which it is created. Dmochowski (1990) says that architecture is very much linked with human life and reflects its dynamics most faithfully. Further more the type of shelter usually erected by any society depicts the prevailing culture. Also the available materials for house construction to a large extent determines the type

of structure to be erected, hence Centre for Earth Construction and Technology (CECTech) (1995) say that construction in general and earth construction in particular is the expression of the culture of people and individual traditions and we should not forget it.

The wide range of shapes, methods of building walls and roofs, has met the present aspirations of evolution towards modernity. Inspired regional architectural heritage of colour and texture of materials, have been achieved while proposing new architectural model that can enhance cultural continuity. Again cultural considerations are emphasised in any architectural piece. Any architectural piece that doesn’t consider the socio-cultural elements of its environment stands the risk of being rejected by the people. The aspects of culture that influence settlement patterns include religious, economic and social activities.

The use of modern building materials adversely affected traditional architecture because the entire design concept changed. At the stages of transition from traditional to modern, new and beautiful finishing started to appear in houses at the middle of the century. Layout was usually environment friendly. For hygienic reasons domestic refuse dump sites were usually behind the compound while the pit latrine for females was always some distance away. (About 30 to 60m). This explains why typical Esan man’s premises cannot have only a unit structure accommodating every function required as it is today. Figures 3(b) is an example of various separate units within one compound. There are usually multiple courtyards in each of the premises that serve different purposes.

Social values and technology seriously changed the scenario. Traditional trends started to diminish due to western world influence, thus changing from the multiple unit system of housing extended family to one-unit system of flats and apartments. What obtains now is a complete deviation from the courtyard system, even if the occupants are more than one household. Figure 4 is the style that has evolved from the traditional compound. Confirming above statement Denyer (1978) asserts “Though the colonial masters did not directly intervene in matters of indigenous culture; there were however two major circumstances in which compulsion did occur. They were the alienation of land to accommodate expatriate settlers, and

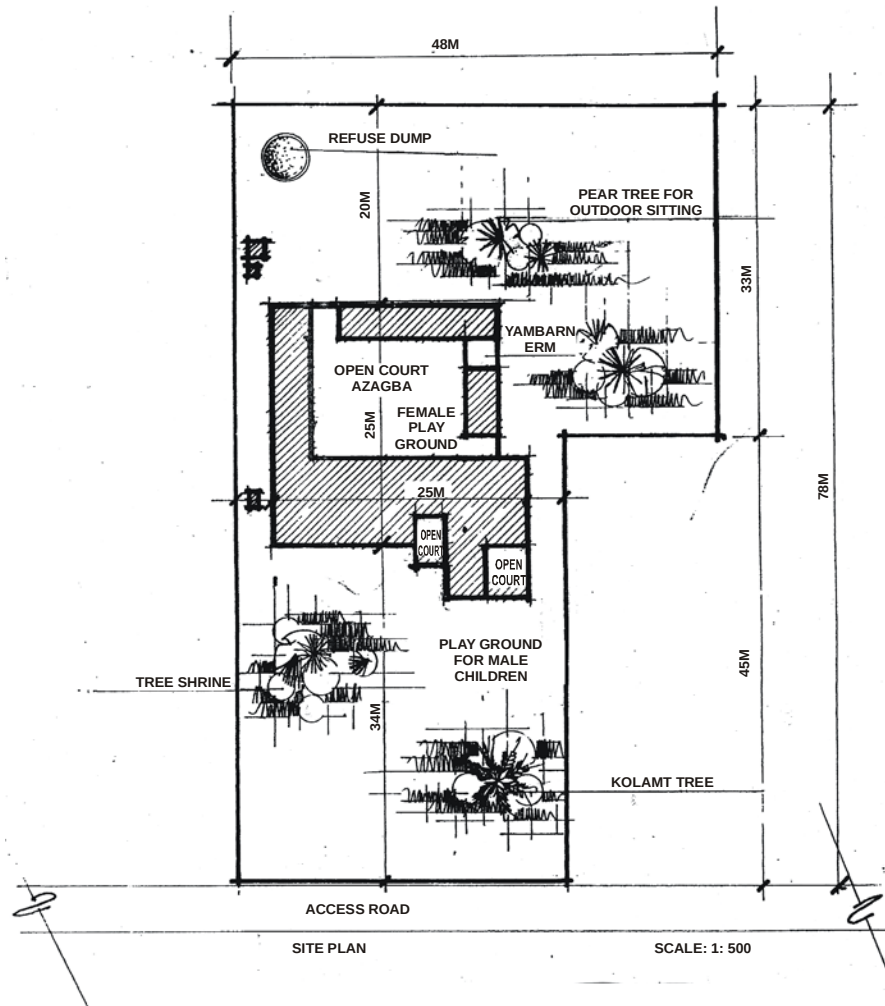


Fig. 3. Compound with multiple households and multiple courtyards at Uromi

the idea of trying to persuade people to live in settlements suitable for local development policies. There was serious interference in the habitation arrangements and many governments have not changed the existing trend". This intervention grouped people together into large villages and made them abandon their family homestead of small and scattered hamlets. Modern public utilities also attracted some people to the location of these facilities. Some British Colonial government officers were reported to have compelled the people in Mid-western Nigeria, Ghana and Sudan to leave the uplands for the plains.

Esanland was already colonised by 1920 and

had influenced its architecture by the way the colonial masters built their houses. The houses studied were built in early 20th century. The District Officer's residence at Ubiaja built in 1926, has the walls made of mud, floor and ceiling are of timber. As a result of these reasons Nigerian traditional architecture, including that of Esan, over time, passed through specific phases.

Architecture in Precolonial Era: This was the traditional architecture practiced before the advent of the British colonial era.

Architecture in Colonial Era: It consisted of indigenous and the imported style of architecture including the Brazilian style of building.

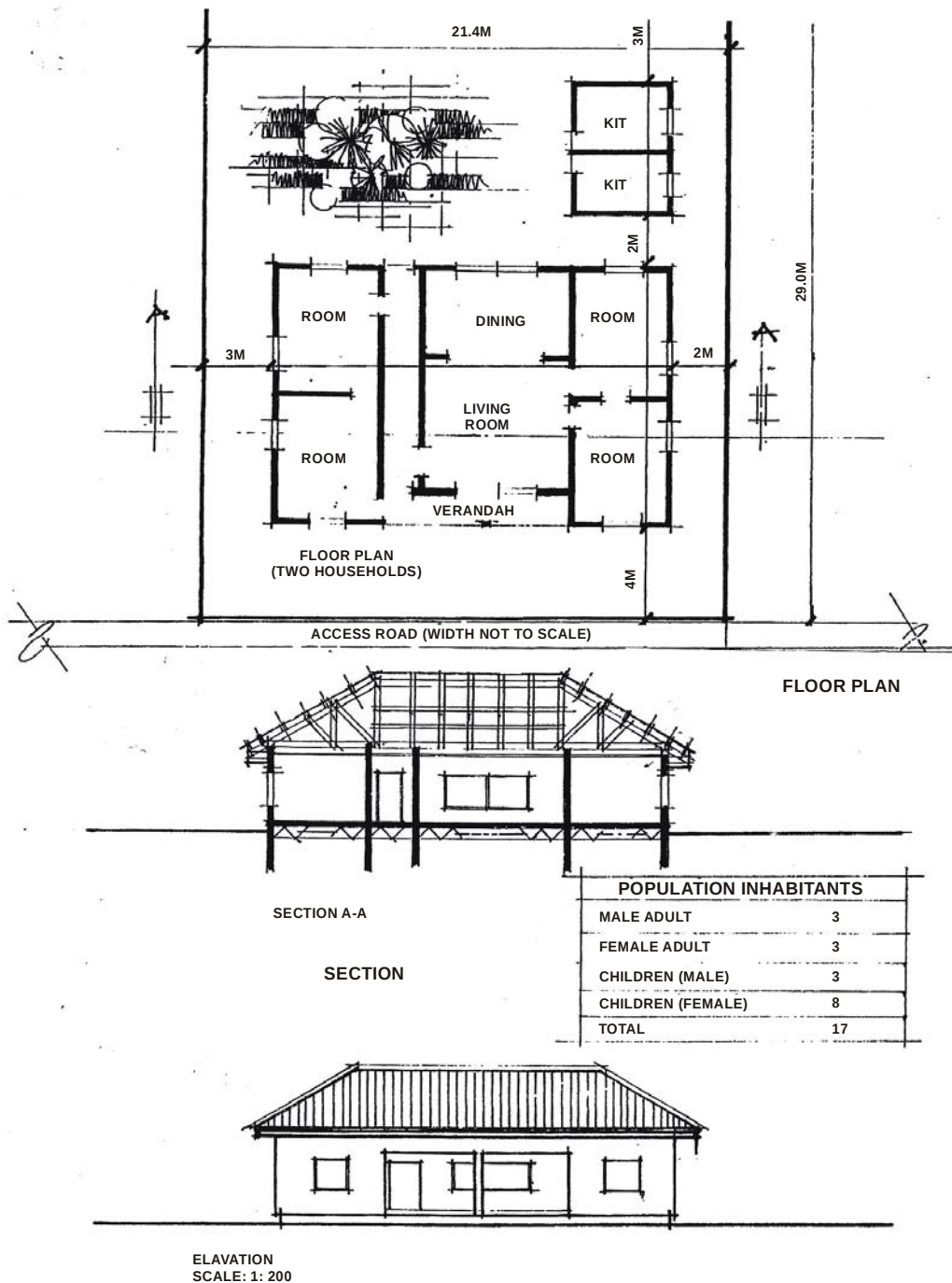


Fig. 4. Compound unit household of an individual at Uromi

The Post Colonial Era: The type now being practiced in Nigeria and it is essentially a mixture of indigenous and western styles of architecture. It gave rise to two major types of architecture now being practiced in the country:-

- i) Indigenous type in rural areas. This system employs traditional indigenous materials, technique and methods. It is the method being used by rural settlers, is estimated to be used by 70% of the population.
- ii) Urban (modern) housing production patterns use materials and techniques derived from modern technology.

Comparative study of environmental sustainability between Urban and Rural housing delivery system is done based on eight Environmental Sustainability Attributes (ESA)

These are -

- 1) Recyclability
- 2) Structural convertibility
- 3) Structural residue integration
- 4) Climatic factors
- 5) Socio-cultural compatibility
- 6) Reusability
- 7) Replenishability
- 8) Economic viability

The need to provide food for the families compelled some families and individuals to settle in certain places thus bringing about settlements. Other reasons are religious beliefs, socio-culture linkages and economic backgrounds. Security is another major reason why most old settlements in Esan came about regardless the suitability of such places. First human advances in culture resulted in several new developments, which include territoriality. Any advance in culture activates architectural growth. The territory changes in concept and definition when culture is altered. This is because of new inputs into the culture systems. Attitudinal responses to spaces by man have also determined the kinds of culture system practiced in the varied human groups and sub groups including Esan people.

Some groups of human prefer large geographical space per person while others preferred smaller units. Furthermore the pattern of social contacts differs. Spencer and Thomas (1978). The same reason made some people to prefer different kinds of landscape e.g. coasts, high mountains, open plains, forest areas and even rocky, hilly areas. In the case of Esan, geographical factors such as vegetation, topography and availability of water were paramount in location of settlements.

Some groups of people occupied places other than areas of their first choices due to deprivation or other compelling reasons to go for the alternative. Eko-Ibadin village at Uromi in the study area got established by Chief Ibadin when he had family problems and he had to settle far away from his family.. Prevalent physical and sociological factors make up the balance cultural elements to have complete and distinct culture. Small internal societal structures usually exhibit classes' in-group form such as sex, age groups, kingship, nuclear family and some personal characteristics. Religious beliefs constitute part of the important issues that can determine culture traits and culture systems. The fear of the unknown gives birth to spiritual security consciousness, thus resulting in certain architectural developments. This social grouping by religious systems is one of the basic structural patterns of human life on earth and it is continually in force.

Shrines for the gods are for both habitation and worship. Certain shrines such as Ohie, Aredo, Osun and Ijiogbe (or Alui-Ijiogbe) are usually found within the settlements in Esan. Religious beliefs in Esan compel worshippers to settle close to some particular shrines or accommodate such shrines in the dwelling houses. They are usually gods of fruitfulness, protection and prosperity, while those for wars and the like are located in the open areas.

Socio-Cultural and Economic Background

In the past, Esan was essentially rural and an amalgam of small communities. Every family practiced subsistence agriculture on which their livelihood depended. This was hazardous as the weather could fail to favour the crops planted. The traditional co-operative system of job execution controlled by the elders or age grades used to be very effective, though it is losing popularity due to modernity. It used to be very effective way of job execution.

Often times, the sedentary farmers and traders consequently become forced in shaping settlement patterns. The various traditional systems of agriculture in Esan contained some remarkably fine adaptations to the problems of the environment. Agricultural systems were carefully geared to the environment while family structure was tailored to the requisite labour requirements. This was one of the major reasons

why the Esan man preferred the polygamous family life. The size of the family was directly proportional to the size of the farm. This resulted in large hamlets and villages. The types of crops grown also affected settlement patterns. Slow-maturing crops (permanent crop), do not allow the farmers to shift locations too often. Kingship was another major determinant of the structure of settlement pattern. All members of one clan could settle in a clearly defined manner. The family units vary in sizes and composition. Members of the same family had the tendency to settle close to each other because of the bond of love existing between them and also for security reasons when slave trade and inter-tribal wars were frequent.

Village Layout

Villages usually expressed social and physical structures of the groups living in them. The man would be expected to build a new house for the additional wives. The housewives usually had their accommodation within the inward-looking courtyards. The layout of the village exhibited linear settlement patterns, though land constraints and increase in population later resulted in a nucleated type of settlement. This kind of layout gave a sense of belonging and encouraged stronger bond between family members.

The typical village layout in figure 5 shows a part of the layout of Ebhoiyi Village (Afuda quarter) in Uromi town. This village has ten quarters and it is densely populated with linear settlement patterns.

Homestead: The first types were simple but conformed with basic requirements. Each unit compound or homestead also exhibits its own internal plan. The physical layout does not religiously reflect social layout groupings. Rather it conforms with family groups called Uelen or Idumu (i.e. Quarter). The requirements of the family are simple and mainly similar in all agrarian societies, a place for each member to sleep, a place for cooking, for storage of farm produce and somewhere to protect animals at night. The usual arrangement is that each compound consists of many separate apartments and buildings.

The main apartment of building called "Oduwa" belongs to the head of the family and every other male in the family. The female, apartments behind the main one, is usually arranged to have a closed inward looking

courtyard. The housewife's apartment is usually a room doubled into a sitting. The inner room serves as the kitchen while the first one is a dual-purpose space; living and sleeping room. The kitchen is usually positioned that way to enable the women have complete control of it and enjoy maximum privacy and safety from food poisoning.

Building Types: The initial principle of shelter to the average Esan man tallied with the picture painted by Spencer in the introduction. Esan in the tropical Africa has been so rich in sacred, ceremonial and communal activities that outsiders might expect a wealth of buildings designed for these purposes but is not exactly so. The weather is generally clement, warm and rain predictable hence many activities can be performed in the open air. Premium is paid to societal setting. An apparently empty and unusual space often turns out to be of traditional significance. It could be a traditional council meeting or parliamentary open site, because of the warm climate. The area may not have any serious architectural landscaping apart from may be a hedge, fence of group of trees to serve as shade. Technology, materials, climate and culture determine the house types. The homes were usually of one or two-unit space before the dynamic cultural factors started to alter them. Later, separate apartments were then erected for husbands and wives. Children were to be with their mothers. This later metamorphosed into flats and duplexes of contemporary nature in the urban areas.

Religion: Esan used to have African traditional religion as the only formal mode of worship. They see it as a means of survival on earth and the world beyond. Worship is either individualistic or communal, depending on the purpose of the gods. Actual buildings for the shrines are not common. Where there are religious buildings such as shrines, they are usually small in scale and a unit space. There are some others owned by the community that need buildings to accommodate them and the citizens are by tradition compelled to settle close to them. Christianity got established in this part of the country as early as 1900. There were few churches at that period and they were of smaller scale in sizes and followers were equally few. Later, churches of larger scale were built as their membership grew. Remarkable churches were constructed out of mud and sandcrete blocks.

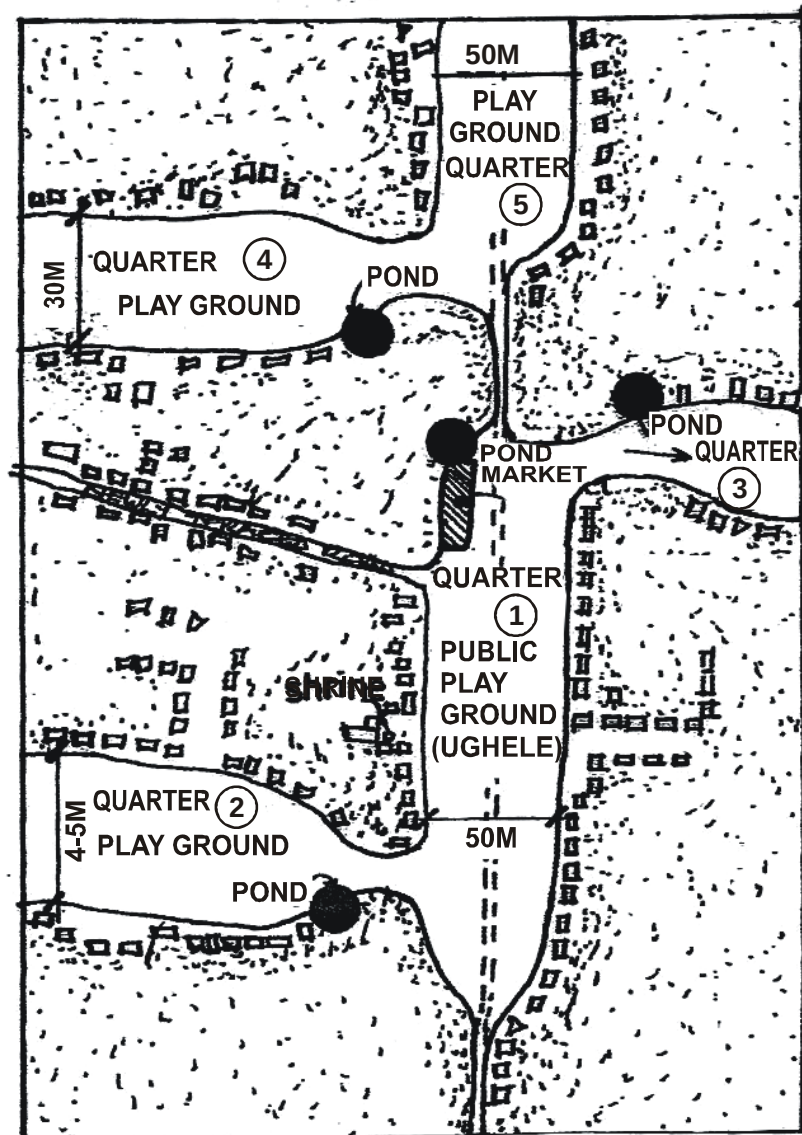


Fig. 5. Typical village layout in Esan

Some churches, built over the last century, still utilized local building materials. Islam penetration into Esan only got as far as Irrua and Ewu. This has not seriously influenced the traditional architecture in the land.

Secular Power

In rural areas, houses for kings and chiefs

were rarely specially walled or fenced off. Indeed, often, they were only distinguished by their focal position and large scale of the structures and were built, using the same materials. Puddled mud houses with walls erected in courses were for both the nobles and commoners. The commoners built their houses with fewer courses. It is such a versatile and strong material that there is no problem when used to construct a two-storey

building. Any basic shape can be expressed with it. Mud is also used as a ceiling material in Esan and it is called "Irru". This entails the use of bamboo as the structural framing and mud as the covering.

Effect of Climate on Architectural Forms

Climate in particular has certain effects on architectural forms. The hot humid zone of Esanland needs wide openings for lighting and ventilation. Climate and other physical elements dictate type of geographical features and which in turn influence the kind of designs and house that can be erected in a particular geographical zone. These elements further help the designer in evolving the form and spatial linkages arranged that are discretely arranged to satisfy the desired needs.

Site Conditions has to do with microclimate, topography, water body, ground surface, vegetation and wind breaks in the form of trees and bush. Other conditions are accessibility, nearness to public infrastructure, ingress, egress and noise level. Traditional house construction system did not consider most of the factors enumerated. What bothered the mind of house builder or any intending house owner were topography, vegetation with respect to economic crops, designation of plot with respect to religious activities, proximity to head of immediate family, village square and farm settlements.

Orientation is locating the building on the site with special attention being paid to the climatic elements such as wind, sun radiation, vegetation, precipitation and topography. Noise level and view are usually taken care of. Of all these, solar radiation is particularly important during times of excessive heat. There is a difference of as much as 3°C in temperature in a building between the worst and best orientation. Good orientation helps to exclude much of solar radiation from the interior of the building.

Orientation of houses was only determined by considering access to the premises and the fact that the head of the family apartment must be at the approach end. The type and nature of the houses help in reducing the effect of sun radiation. Most walls are of mud, which is a poor conductor of heat thus, making the interior quite cool. The absence of ceiling facilitates air circulation thus improving the ventilation. The only ceiling types obtained are either in (i) wood strips only (ii) wood strips covered with thin layer

of mud. "Irru". Thatch leaves for roof is a poor conductor of heat; hence it contributes to tolerable interior temperature.

Building Material and Evolution of House Form

A building that has minimum heat gain during the day in hot humid zone is regarded as the best structure for habitation. This means little energy is required to regulate the temperature of the interior. Quoting Olgyay, Konya (1980) said "a square building is not the optimal shape anywhere..." The best building shapes are those that have their elongation towards the east-west direction, that is to say the longer ends are towards the North and South directions while the shorter ends are in the east-west direction. Traditionally, materials used for building houses were mainly mud, vegetable materials. This to a great extent determined the architecture of the people. The house forms were usually rectangular or square of small scale. The size especially the span depended on the roofing materials such as bamboo, thatch leaves, etc. Attempts to provide additional spaces due to the increase in the number of family members gave rise to courtyard buildings.

Role of Courtyard among Esan People

In hot regions of the world including Esan, people prefer spending most of the time outdoors. There is always the need to provide shades for the sit-out, thus creating comfortable conditions externally sometimes extending into the interior. In hot-dry climates buildings are sometimes deliberately clustered together to create shade to each other and along walkways. But the warm-humid region that obtains in Esan has loosely arranged houses in neighbourhoods. This is to allow for proper ventilation. In order to have shades for out-door sitting, trees are planted and they are usually economic trees such as orange, pear and cashew trees or ornamental trees such as almond trees. Courtyards in Esan evolved as a result of socio-cultural needs of the people. Attempts at solving the problems gave birth to courtyards that meet one of the basic concepts of tropical architecture, which requires optimum ventilation and shade from solar radiation.

The basic roles of courtyard in figures 4 and 5 among Esan people are

(a) *Religious*: (Antiquity of Esan Arch)

They believe in supernatural forces and try to device some ways of contacting them. Shrines and altars are sometimes located in the courtyards in ordinary dwelling houses.

- (b) *Architectural*: In some buildings, there are ponds in courtyards, which enhance the processes of air humidification as well as heat reservation. This regulates the environmental conditions of the courtyard. Some of the ponds within the courtyards are for domestic animals like pigs.
- (c) *Social and Agricultural*: Courtyards are of various sizes and functions, which include ceremonies, dwelling, open air cooking, sit-out, farm produce storage and livestock rearing. The plan remains the basic concept, indicative of the prevalent extended family structure. Here, there can be as many as three to six households in one complex.
- (d) *Psychological*: Since a courtyard building presupposes enclosure or confinement, the inhabitant always feel secured against any external invasion in the form of thuggery, burglary and any spiritual attack. As a result they have to be confined to the home (courtyard) headed by a "competent" man.

Settlement Derived From Security

Attempts to safeguard the citizens and property from invaders during the inter-tribal wars and slave trade in Nigeria also compelled some communities to settle in terrains that were not easy to access by enemies without being noticed. This is also true for some other parts of the world hence Spencer (et-al) have this to say of Architecture of fortification. "From the early Neolithic into historic and modern time, war has been an element in both fortification architecture and settlement patterns". This was the reason for the construction of Benin moat and some settlements in Esan. Ubiaja gives a good example where the palace moved from Oyomon to the present location at Eguare. Incessant attacks by Uromi warriors, a neighbouring town having boundary with Oyomon village compelled the people of Ubiaja to bury their dead kings at Ahia that is the other extreme of the town, far away from Uromi.

Esan Palaces - Architecture and Planning

Casual survey of the physical structures of Esanland of old reveals that the structures that

are outstanding architecturally belong to the traditional rulers and their chiefs. The wealthiest man in any community was the Onojie then followed by his palace chiefs. This is demonstrated in every sphere of the Royal Highness's life. They usually marry many wives with a lot of children. The sheer size of the palace population required large accommodation. The status of the Onojie required him to have a grandiose palace building. Universally the architectural structures erected any community at a glance gives first visitor a summary of the socio-cultural status of the community.

Esan culture received some contamination from the European colonial masters. This extended into the housing and settlement sector. Colonization also preached the gospel of modernization, thus leading to most of our valuable culture fading away, though in some other aspects it introduced vibrant and meaningful life to the people.

DISCUSSION

The Concept of Culture

Culture is the material and non-material works of arts and science, plus the knowledge; manners; education, made of thought; behaviours and attitude accumulated by people through their history. Culture may further be defined as behaviour peculiar to *Homo sapiens*, together with material objects used as an integral part of his behaviour, specifically culture consists of language, ideas beliefs, customs, codes, institutions, and so on. Goetz (1992). Culture is about the intellectual, social and spiritual development and exhibiting it as a trait of a specific people. Tradition is essentially the retention of what has been developed over time be it social, intellectual or spiritual. Tradition goes further to preserve the traits so developed for posterity. In other words culture evolves ideas and exhibits them but tradition has the sole duty of retention and transfer of such cultural values to new generation.

Culture is the history of a people's past and present and it goes further to presenting anticipated picture of events for the future. That is to say the future is a derivative of the past and present. This perception is so because of the all-inclusive nature of culture. The culture of a people evolves overtime thereby changing from

one type of civilization to another. There are culture traits in different culture complexes in a system. The dynamics of culture is that man overtime evolved ways of tackling issues including culture, and he has since left his simple crude and sedentary kind of life about a thousand years ago for a vibrant, dynamic and sophisticated one through the use of his intellect.

According to Rapoport (1969) "Given a certain climate the availability of certain materials and the constraints and capabilities of a given level of technology, what finally decides the form of a dwelling and moulds the spaces and their relationship, is the vision that people have of the ideal life – the family as dwelling unit. The family reflects beliefs, family and clan structure, socio-cultural organization, ways of gaining a livelihood and social relations amongst individuals." This statement above emphasizes culture as the behavioural pattern of a people. The cultured main in the ambit of tradition is sophisticated, sensitive and educated.

Tradition is handing down from generation to generation of, opinions, beliefs, customs, and etc. Hornby (1969). Spencer and Thomas (1978) say that each tradition is comprised of loosely correlated esthetic, social, economic, political and ethical codes of behaviour and members variably share ideologies, habits, customs, procedures and technologies. This explains that activities of each society help the people to establish pattern of living thus imprinting the activities on the inhabited region. This then results in distinctive expression in all spheres that is referred to as culture.

Culture Traits and System

Culture is sometimes seen by some people as the primitive aspect of man's existence. It does not matter the society or people being considered, be it urban, rural, developed or developing. Its outlook takes such features because culture is the history of any group of people. The future is a derivative of the past and present. This perception is so because of all-inclusive nature of culture. It includes traits and systems, hence Spencer et al say "The pattern unit of cultural system consists of several kinds of smaller parts" Figure 6 indicates that culture traits in the different culture complexes differ, thus resulting in the different traits and complexes in the systems.

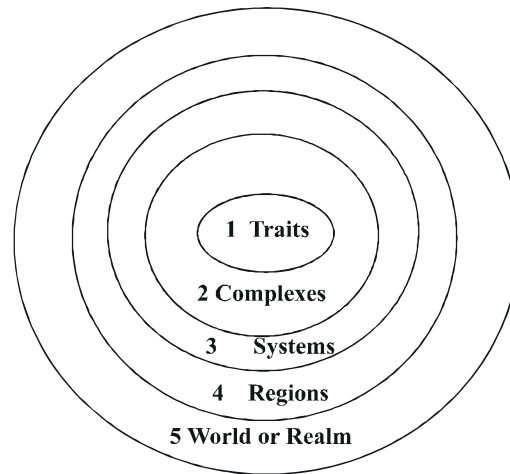


Fig. 6. Concept of culture

1. Cattle rearing and fishing etc.
2. Drinking milk and fish cold room etc.
3. Assemblage of culture complexes
4. Assemblage of culture systems e.g. Mexico, United States Canada and West Africa.
5. Examples: Latin America, Africa and Europe.

In any society including Esan the growth of culture worlds or regions and the numerous basic ideas are articulated at the local and primary levels called culture hearth. They are practiced by a small group where there is buying and selling of norms, resulting in distinctive identity or traits that are associated with such people. The Esan man has distinctive culture trait amongst which are the Igbabonelibhin acrobatic dance and settlement patterns. Though some parts of the world are yet to visualize what the earth holds for them in future, greater parts of the world now have global outlook of every issue confronting them.

Dynamics of Culture

The various culture concepts or culture regions of the world evolved over the ages. They metamorphosed from the "primitive" stages to more refined and advanced stages that helped in the marriage of culture to the modern world of high technology. It is worthy of note that a world of high technology prevalent now is another distinctive culture of its own but could not afford to ignore the culture identity of the various peoples. Man over time evolved ways of tackling issues including cultural issues, and he has since

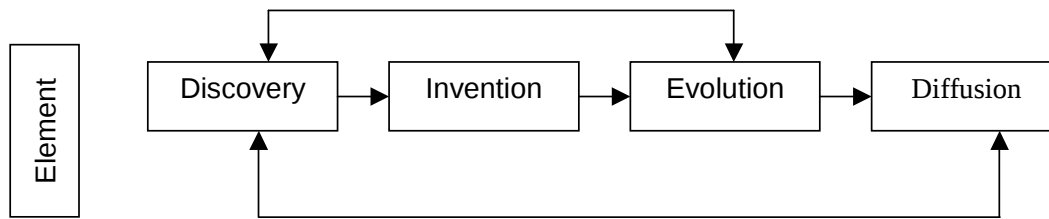


Fig. 7. Basic culture processes

Source: Introducing Cultural Geography (1978)

left his simple, crude and sedentary kind of life about a thousand years ago for a vibrant, dynamic and sophisticated one through the use of his intellect for the slow but purposeful movement. The interaction with the outside world has greatly influenced the cultural behaviour of Nigerians including Esan people. The typical Esan man before 1900 A.D has his “Abebe” which is the underwear and Igbulu as major traditional and only dress that was of general use. According to Spencer and Thomas (1978). The four basic culture processes that bring about culture traits, complexes and culture systems are Discovery, Invention, Evolution and Diffusion. This is explained diagrammatically in figure 7.

A good knowledge of any culture can help open up new frontiers for unlimited development. Any incident, invention or social activity extensively used or enjoyed eventually becomes a cultural norm as opposed to the primary purpose of its occurrence.

CONCLUSION

The discussion has shown that National and Cultural identity in Nigeria is bound to blossom with wide acceptance if the relationship between culture and architecture is nurtured. Architecture is able to give in a very quick and detailed manner, the historic economic and cultural backgrounds of any group of people or even settlements. A glance of the kind of architectural structures in any setup, tells visitors the kind of religions and social structures in existence. There must be a determined effort to revive the dying indigenous architectural trend and evolve new but acceptable architectural styles that recognize the culture of the people with respect to current development.

In this particular case a hybrid of the old and new cultures will help in evolving architectural style that is essentially indigenous to the people of Esanland and Nigeria as a whole.

There is no doubt that there is need to use existing situation as a spring board to develop architecture in Esanland and indeed in Nigeria that will be environmentally, socially, economically and culturally friendly and acceptable and at the same time harmonizing with the existing environmental infrastructures.

REFERENCES

- Centre for Earth Construction Technology CECTech. 1995. Jos, Nigeria, National Commission for Museums and Monuments, Jos. pp, 3 – 16.
- Denyer S 1978. *African Traditional Architecture*. New York: African Company, pp. 14-22
- Dmochowski ZR 1990. *An Introduction to Nigerian Traditional Architecture*; Preface; Ethnographical Limited, Britain and National Museum and Monuments, Nigeria. P.V
- Gbotosho Y 1996. In the cause of Architecture: A Philosophy of Design. *Africa Journal*, 3: 47.
- Goetz Philip 1992. *Encyclopedia Britannica*. 15th Edition Chicago: University of Chicago Press, P. 16.
- Konya Allan 1980. *Design Primer for Hot Climates*. London: Architectural Press Limited, P. 33, 37, 38.
- Okojie CG 1994. *Ishan Native Laws and Custom*. E. Nigeria Okwesa & Co., pp. 4 - 18.
- Rapoport A 1969. *House Form and Culture*. New Jersey: Prentice Hall, P. 25.
- Segynola AA1987. The Nigerian Rural Housing Environment. Focus on Bendel State. *Journal of Environmental Management*, 2(3): 71-82.
- Spencer JE, Thomas WL 1978. *Introducing Cultural Geography* Second Edition. New York, Santa Barbara, Toronto. England: John Wiley and Son, pp. 2-15.
- Wright 1943 FL. *An Autobiography*. New York: Dwell, Sloun and Pearce, P. 45.

Cultural Issues in Architecture - Case Study of Esan in Edo State - Nigeria

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KEYWORDS Traditional Architecture. Education. People's Culture. Indigenous. Nigeria

ABSTRACT Architecture in Esan has tended from traditional towards the European style in the past four and half decades. This can easily be traceable to the influence of Western Education, which has greatly influenced the people's culture. The paper therefore presents the common issues to both culture and architecture of Esan. It also identified reasons for the abandonment of Esan Traditional Architecture. Findings were appraised against the background of the prevailing Western cultural norms in our living pattern. The need for a determined effort to revive the dying indigenous architectural trend and evolve new and acceptable architectural style that recognize the culture of the people is discussed.

INTRODUCTION

Architecture is a profession rooted in culture (Rapaport, 1979). The paper attempts to present architecture as a profession that has its roots in culture. To a large extent culture exerts some influence on architecture in every society. Man always expresses himself socially and culturally. Culture and architecture are interdependent and inseparable. Society is a product of culture and they are therefore related. Although no culture remains static, specific aspects of culture remain unchanged for some reasonable length of time. Rapoport (1979) noted that the origins of Architecture are best understood if one takes a wider view and considers socio-cultural factors in the broadest sense to be more important than climate, technology, materials and economy. This scenario tallies with the picture painted by Spencer and Thomas (1978) that "As Architecture developed, the concept of the shelter was extended from simple physical protection from cold, dampness, wind and sun toward an increasingly complex set of cultural traits centred around the growing idea of the "family home". The supposedly harmonious elements appear to be a mismatch to each other because of ignorance, change of value system and the influence of new technology and materials. "Imported" architecture has been accepted at the expense of traditional architecture.

Study Area

The study focuses on five out of the eighteen

Local Government Areas that make up Edo speaking entity of the state. Esan is part of the old Mid-Western Region of Nigeria. Figures 1 and 2 indicate its geographical location. The area lies between latitudes 6° 20" and 6° 45" North of the Equator and between longitudes 6° 10" and 6° 35" East of Greenwich Meridian. It has a land area of about 3010 km² (1662 square miles) and a population of 40,7899, using 1991 census projected to 1996. The relative humidity varies between 75% - 90% in the rainy season 50% - 75% in the dry season and evenly distributed rainfall with annual record of between 2300-3000 mm. The prevailing winds are the North- East Trade Wind (N.E.W.) and the South West Trade Wind (S.W.W.).

It is a rainforest zone, which encourages the growing of tree and other cash crops. The soil is essentially laterite rich in clay. There is absence of any igneous rock, though the area is a plateau with a height of 390m (1300ft) above sea level. Few derivable roads in Esan enabled people to travel to urban centers of Uromi, Ekpoma, Auchi and Benin City in Edo State and Agbor in Delta State. Leaves, logs and bamboo are available as local building materials, while persons with sufficient purchasing power use modern building materials. Segynola (1987) noted that "The people are predominantly agriculturists. They practice subsistence agriculture made with crude to partly modern implements. The soil favours tree and tubers crops. Agricultural pursuit is a common feature of all the local government areas. Characteristics of agriculture in the developing countries of the world, production are largely

based on peasant methods, with resultant low production and income”.

A few persons are engaged in off farming activities such as tailoring, blacksmith, trading and auto-mechanic. The gap of housing standards between the rural and urban dwellers is as a result of the respective purchasing power of the two groups.

METHOD OF DATA ANALYSIS

The study collected data by means of field survey in the study area. There has not been any documentation of information with respect to this topic on Esan. The data were collected through the use of questionnaires that were later examined and analysed. Also physical measurements of some selected places and buildings were taken. Some cultural and architectural elements in the study area were highlighted. The sampling framework led to the survey being carried out in fifteen streets in Esan. Three major streets in each Local Government Headquarters, chosen are in the central business districts. In determining the type of housing environment with respect to culture, 13 variables were used in ranking the towns. Modernity and durability were the values used in assessing houses in each of the 15 streets and settlements. The questionnaire was to help determine the nature and conditions of the houses in the area. A typical example each of village layout, traditional compound and transitory traditional – modern building were studied in detail. The content of the questionnaire was based on cultural issues that influence architecture.

RESULTS

Results obtained have helped to highlight the trend of architectural development in Esan as shown in figures 1 and 2. Architectural concepts evolved by the people were pronounced in the use of courtyards and linear settlements. In table 1, traditional residential mud buildings constitute a total of 60.61 % (i.e., 654 houses) out of the entire 1079 residential buildings surveyed. One striking feature common to all the 5 towns studied specifically the 15 streets is the linear settlement pattern along the public playgrounds, roads and streets. Tables 2 and 3 reveal several issues in the study area. the ranking is baded mainly in modernity and durability of houses studied.

Numbers 1-10 in the ranking are more durable structures, while 11-13 are less durable. Villages express social and physical structures of the groups living in them. The type of culture practiced in Esan resulted in multiple households living in one compound with one overall head. Modernity has changed this scenario to single household for an apartment, each with a head. In other words cultural values are tied to the kind of architecture prevalent in Esan land and ultimately livable environmental conditions found. Table 2 shows the 13 variables weighed against modernity and durability as the values, thus resulting in table 3 with the overall ranking from the highest quality-housing environment to the lowest. The footnote under indicates that Ubiaja ranks first, while Uromi, Ekpoma, Irrua and Igueben follow in that respective order.

A comparative analysis of the main factors and features of traditional and modern architecture in Esan is depicted by key factors as communality, societal settings, organization, security, and materials. Part of the factors includes construction patterns and methods, nature of construction materials and labour. Others include finance, housing units, zoning and space interpretations, courtyard patterns, water bodies and playground. Traditionally, there is no formal training for the craftsmen and designers. Local builders in a traditional setting perform communal labour, whereas the emerging architecture evolved formal training to all members of the building team without any form of communal labour. The homogenous informal life pattern ordered by unwritten rules of old is now evolving into formal heterogeneous setting.

Culture Systems and Settlement Patterns

Territoriality is a basic trait of *Homo sapiens*. Every person and family has feeling of individuality for home ownership and also in defined areas proclaimed as individual or family territory. Esan people hold very dearly and pass to new generations as their tradition that must be upheld resulting in the settlement pattern discussed in the paper.

Territoriality in some form is one of the strongest expressions of human reaction and one to which mankind has made many additions in the creation of systems of culture, Spencer et al. (1979). The urge to live in social groups has led to the establishment of basic identifiable units

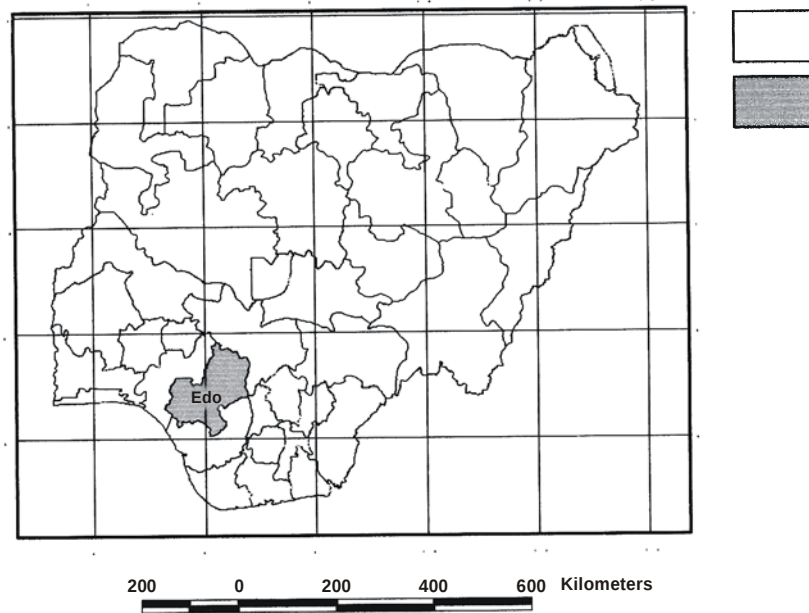


Fig. 1. Map of Nigeria showing Edo state

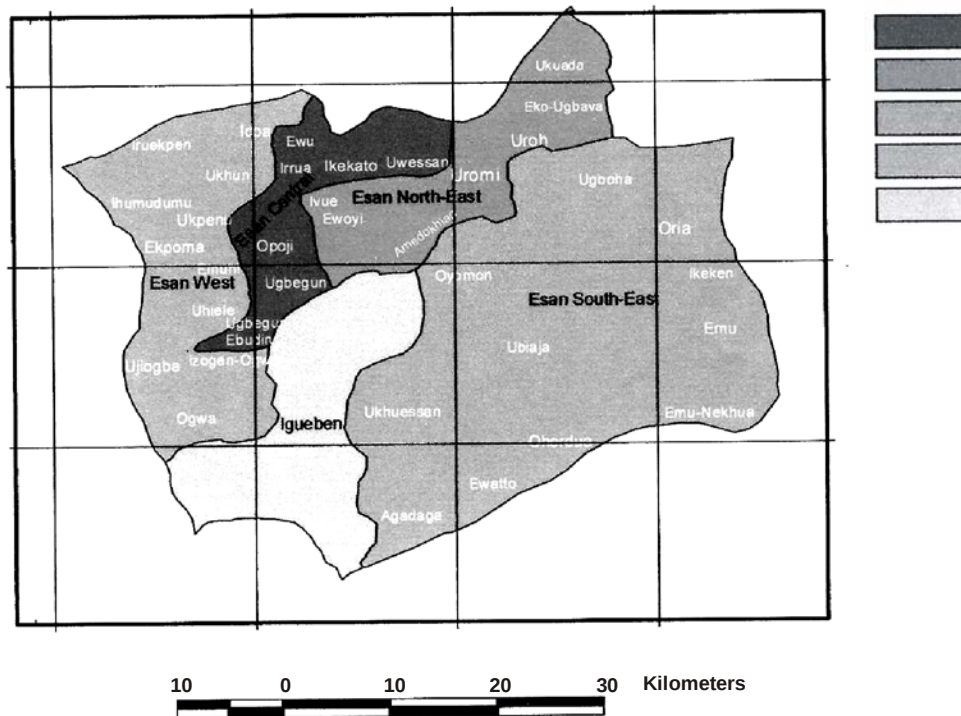


Fig. 2. The five Esan L.G showing major settlements Esan

Table 1: Comparative study of housing types in Esan with reference to the five L.G.A. headquarter

S. No.	Towns	1 -TmU	2 TmP	3 -TmP ^p	4 MSU	5 MSP	6 MSP ^p	7 2ST MSP	8 2ST MSP ^p	9 2ST TmP	10 2ST TmP ^p	11 3ST MSP ^p	12 * PB	13 2ST MSU	14 3ST MSP	Total
A	Irrua	7	13	40	7	2	15	-	2	-	1	-	-	-	-	2
		4	7	19	2	3	18	1	2	1	-	1	12	-	-	1
B	Uromi	1	8	33	2	3	13	-	2	-	1	-	-	-	-	3
		-	19	26	4	18	19	1	6	-	1	1	-	-	-	2
		-	6	20	2	12	28	2	8	-	-	-	8	2	2	5
C	Ekpoma	-	1	34	-	2	18	2	9	1	2	1	-	1	-	6
		-	12	29	3	10	3	-	-	-	-	-	-	-	-	2
		6	4	54	6	4	17	3	6	-	-	-	19	2	-	8
D	Ubiaja	-	8	40	-	2	13	1	5	1	-	-	-	2	-	0
		10	14	54	6	2	14	-	2	1	-	-	-	2	-	2
		-	1	49	-	4	4	5	1	-	4	-	22	1	-	5
E	Igueben	-	12	42	2	2	2	-	1	-	-	-	-	-	-	7
		10	14	10	3	3	4	-	-	-	-	-	-	-	-	1
		1	1	7	9	9	13	1	2	1	-	-	5	-	-	6
		4	4	14	12	9	22	-	-	-	3	-	-	-	-	1
Total		43	123	471	58	88	203	16	46	5	12	3	66	10	2	1146
Percentages		3.98	11.39	43.61	5.37	8.15	18.80	1.48	4.26	0.46	1.11	0.28	-	0.93	0.19	100

Residential House = 1079. 66 Public buildings were excluded from the analysis.

Table 2: Ranking (values) Cersus variables

S. No.	Irrua	Uromi	Ekpoma	Ubiaja	Igueben
1	3ST MSP ^p	1	-	-	-
2	2ST MSP ^p	6	11	5	2
3	2ST TmP ^p	2	-	4	3
4	MSP ^p	36	33	20	39
5	TmP ^p	92	80	91	31
6	3ST MSP	-	-	-	-
7	MSP	11	32	16	8
8	TmP	28	26	24	19
9	2ST MSP	1	4	5	1
10	2ST TmP	1	1	1	1
11	MSU	11	6	9	24
12	2ST MSU	-	3	4	-
13	TmU	12	-	10	15
Total	201	235	201	235	156

3ST MSP^p 3 Story modern sandcrete plastered, painted
 2ST MSP^p 2 Story modern sandcrete plastered, painted
 2ST TmP^p 2 Story Traditional mud plastered, painted
 MSP^p Modern Bungalow sandcrete plastered, painted
 TmP^p Traditional mud plastered and painted (Bungalow)
 3ST MSP 3 Story Modern sandcrete plastered
 MSP Modern Bungalow sandcrete plastered
 TmP Traditional mud plastered (Bungalow)
 2ST MSP 2 Story modern sandcrete plastered
 2ST TmP 2 Story Traditional mud plastered
 MSU Modern bungalow sandcrete unplastered
 2ST MSU 2 Story modern sandcrete unplastered
 TmU Traditional mud unplastered (Bungalow)

Table 3: Overall ranking

S. No.	Irrua	Uromi	Ekpoma	Ubiaja	Igueben
1	1	1	0	0	0
2	12	46	22	10	4
3	6	6	0	12	9
4	144	220	132	80	156
5	460	400	465	455	155
6	0	12	0	0	0
7	77	224	112	56	147
8	224	208	192	288	152
9	9	45	36	45	9
10	10	10	10	10	10
11	121	66	99	88	264
12	0	36	48	36	0
13	156	-	6	130	195
Total	1230	1274	1122	1210	1101
	6.12	5.42	5.58	5.15	7.06

The order of ranking is from highest to lowest as indicated below- (1) Ubiaja with 5.15, (2) Uromi with 5.42, (3) Ekpoma with 5.58, (4) Irrua with 6.12, (5) Igueben with 7.06.

called hamlets, villages, or any kind of settlement. There is a hazy idea as to when the first settlers came. One can only say with some measure of certainty that the communities became more established during the reign of Oba Ewuare of Benin Empire about 1440 (Okojie 1960).

Esan originally had loosely connected settlements, each having the palace as the focus with most residents close by. Reasons for these kinds of settlements include security from external aggressors and social-cultural ties. The housing and settlement pattern take into consideration the fact that culture and architecture especially in rural areas are expected to be related and interdependent.

Evolution of Architecture in Esan

The study has found that there is dearth of documented information on the history of architecture in Esan, though there exist enough elements in the culture and architecture of the people to warrant the study. By virtue of the historical and cultural linkages of Esan to Benin Empire, its architecture exhibits the same features and characters. Originally, buildings in Esan were of thatch roof, and mud walls. Floors were left uncommented and some furniture like beds and benches were of mud. Few tradesmen of about four were required for traditional building construction. At the later part of the nineteenth century the use of cement and corrugated iron roofing sheets became common and pronounced.

RURAL SETTLEMENT

Man gradually occupied the whole earth through cultural means. Territoriality led to erection of houses and consequently settlements. In ancient times people needed a dwelling place. Architecture is not just provision of a place to sleep but a place to exclude harsh weather and meet other human needs. In an attempt by Esan man to define his territory of abode cultural issues set in. Any architectural scheme no matter the size indicates the size, the status of the owner, users or society of its location.

Humans and animals right from their creation have always designated places for dwelling. Man has been able to allocate spaces for various purposes such as sleeping, storage and cooking in his dwelling. These exclusive spaces created by man for his individualistic use is known as territory. The Esan man exhibits these traits. In these territories you have habitations, which we call homes or houses. The entire territory can be an architectural scheme. Rapoport (1979) says that spatial and social relations are not random, but ordered. Language and architecture are related, both express cognitive process of distinguishing various items among places. "The shelters that people learn to create also greatly aided adaptations to living in varied physical environment"

Spencer and Thomas (1978). He also said human dwellings vary in the raw material used. Each settlement is a fine, balanced solution to problems of habitation. It should be seen as a physical reflection of the lifestyle of its inhabitants on which the rural settlement pattern depends.

All over the word, culture is the major determinant of the settlement pattern of any group of people. Rapoport (1969) agrees that culture has a lot to do with settlement patterns and the way people build their houses. The climate, available building materials, constraints and capabilities of a given level of technology is what finally decides the overall setting, outlook and pattern of our dwellings. It has been customary to classify rural African peoples according to four broad economic categories: agriculturists, pastoral nomads, mixed farmers and hunters and gatherers. Sedentary farmers often times settled close to their farmlands because crops grown are slow maturing, thus tying their owners to one plot of land for many years. Esan villages

express physical and social structure of the group of people living in them. Just as the individual household population increased in multiple households setting, the need to expand the physical structure also arose to meet the human requirement.

ARCHITECTURE

Architecture is the art and science of building design or style of building(s). Wright (1943) observes that “architecture is the triumph of human imagination over materials, method and men”. Le Corbursier defined Architecture as “the masterly correct and magnificent display of masses brought together in light”. Gbotosho (1996) in quoting Van der Rohe says, “When technology reaches its ultimate fulfillment, it transcends into architecture”. The definitions above emphasise architecture as a process with a lot of creativity, imaginations and assemblage of materials in distinctive and ordered manner to achieve peculiar requirements and character. In a layman’s understanding Architecture is defined as “comfort for mankind”. The word comfort refers to level of tolerance, acceptance and appreciation of any architectural piece when used or seen. Gbotosho (1996) asserts that Architecture is in essence dynamic and consistent with the development of man. It means that architecture is always current with the socio-cultural and technological development of the entire world. Architecture gives a summary of the history socially, culturally and technologically to first time visitors. Gbotosho (1996) calls the architect as one of the great custodians of civilization, the master of the creative effort whose province it is to make imperishable record of the noblest in the life of his race in his time. Going by the above explanations it can be inferred that the Architectural style in vogue in a particular society is tied to the culture of that same society, just in the same way as the placenta and baby are linked by umbilical chord. A building is not an end in itself, but rather a means to an end, which is to satisfy the material and spiritual needs of the people for which it is created. Dmochowski (1990) says that architecture is very much linked with human life and reflects its dynamics most faithfully. Further more the type of shelter usually erected by any society depicts the prevailing culture. Also the available materials for house construction to a large extent determines the type

of structure to be erected, hence Centre for Earth Construction and Technology (CECTech) (1995) say that construction in general and earth construction in particular is the expression of the culture of people and individual traditions and we should not forget it.

The wide range of shapes, methods of building walls and roofs, has met the present aspirations of evolution towards modernity. Inspired regional architectural heritage of colour and texture of materials, have been achieved while proposing new architectural model that can enhance cultural continuity. Again cultural considerations are emphasised in any architectural piece. Any architectural piece that doesn’t consider the socio-cultural elements of its environment stands the risk of being rejected by the people. The aspects of culture that influence settlement patterns include religious, economic and social activities.

The use of modern building materials adversely affected traditional architecture because the entire design concept changed. At the stages of transition from traditional to modern, new and beautiful finishing started to appear in houses at the middle of the century. Layout was usually environment friendly. For hygienic reasons domestic refuse dump sites were usually behind the compound while the pit latrine for females was always some distance away. (About 30 to 60m). This explains why typical Esan man’s premises cannot have only a unit structure accommodating every function required as it is today. Figures 3(b) is an example of various separate units within one compound. There are usually multiple courtyards in each of the premises that serve different purposes.

Social values and technology seriously changed the scenario. Traditional trends started to diminish due to western world influence, thus changing from the multiple unit system of housing extended family to one-unit system of flats and apartments. What obtains now is a complete deviation from the courtyard system, even if the occupants are more than one household. Figure 4 is the style that has evolved from the traditional compound. Confirming above statement Denyer (1978) asserts “Though the colonial masters did not directly intervene in matters of indigenous culture; there were however two major circumstances in which compulsion did occur. They were the alienation of land to accommodate expatriate settlers, and

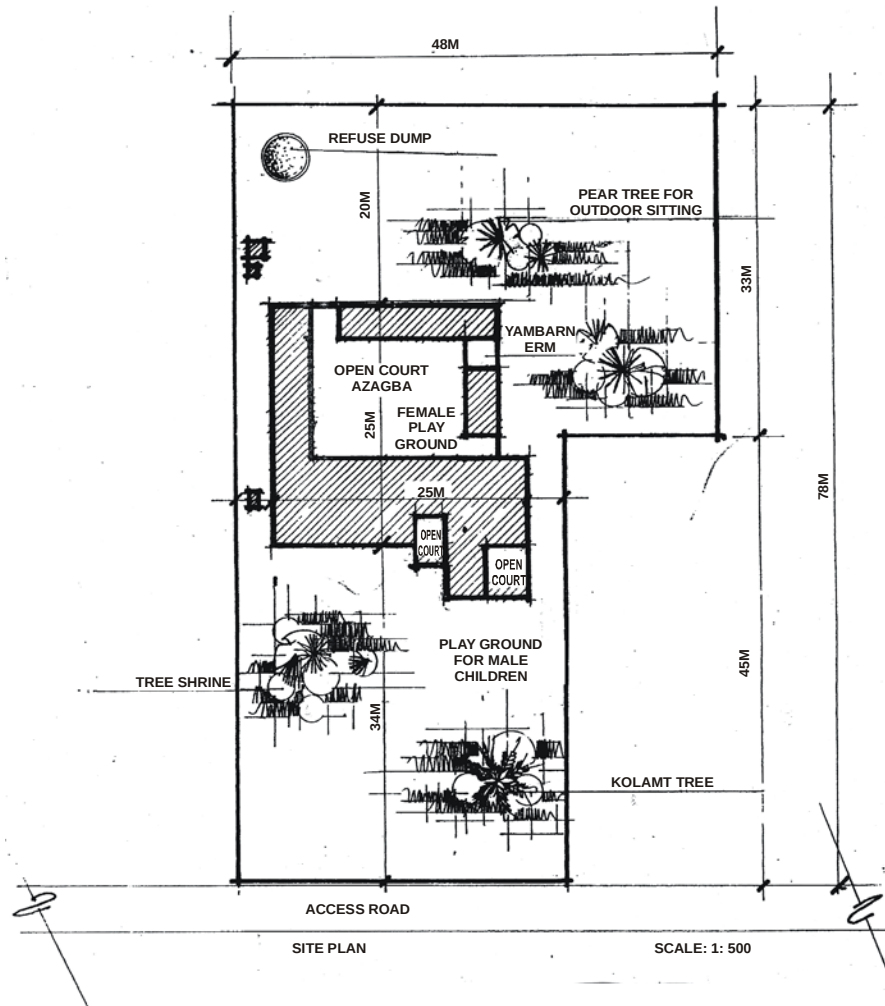


Fig. 3. Compound with multiple households and multiple courtyards at Uromi

the idea of trying to persuade people to live in settlements suitable for local development policies. There was serious interference in the habitation arrangements and many governments have not changed the existing trend". This intervention grouped people together into large villages and made them abandon their family homestead of small and scattered hamlets. Modern public utilities also attracted some people to the location of these facilities. Some British Colonial government officers were reported to have compelled the people in Mid-western Nigeria, Ghana and Sudan to leave the uplands for the plains.

Esanland was already colonised by 1920 and

had influenced its architecture by the way the colonial masters built their houses. The houses studied were built in early 20th century. The District Officer's residence at Ubiaja built in 1926, has the walls made of mud, floor and ceiling are of timber. As a result of these reasons Nigerian traditional architecture, including that of Esan, over time, passed through specific phases.

Architecture in Precolonial Era: This was the traditional architecture practiced before the advent of the British colonial era.

Architecture in Colonial Era: It consisted of indigenous and the imported style of architecture including the Brazilian style of building.

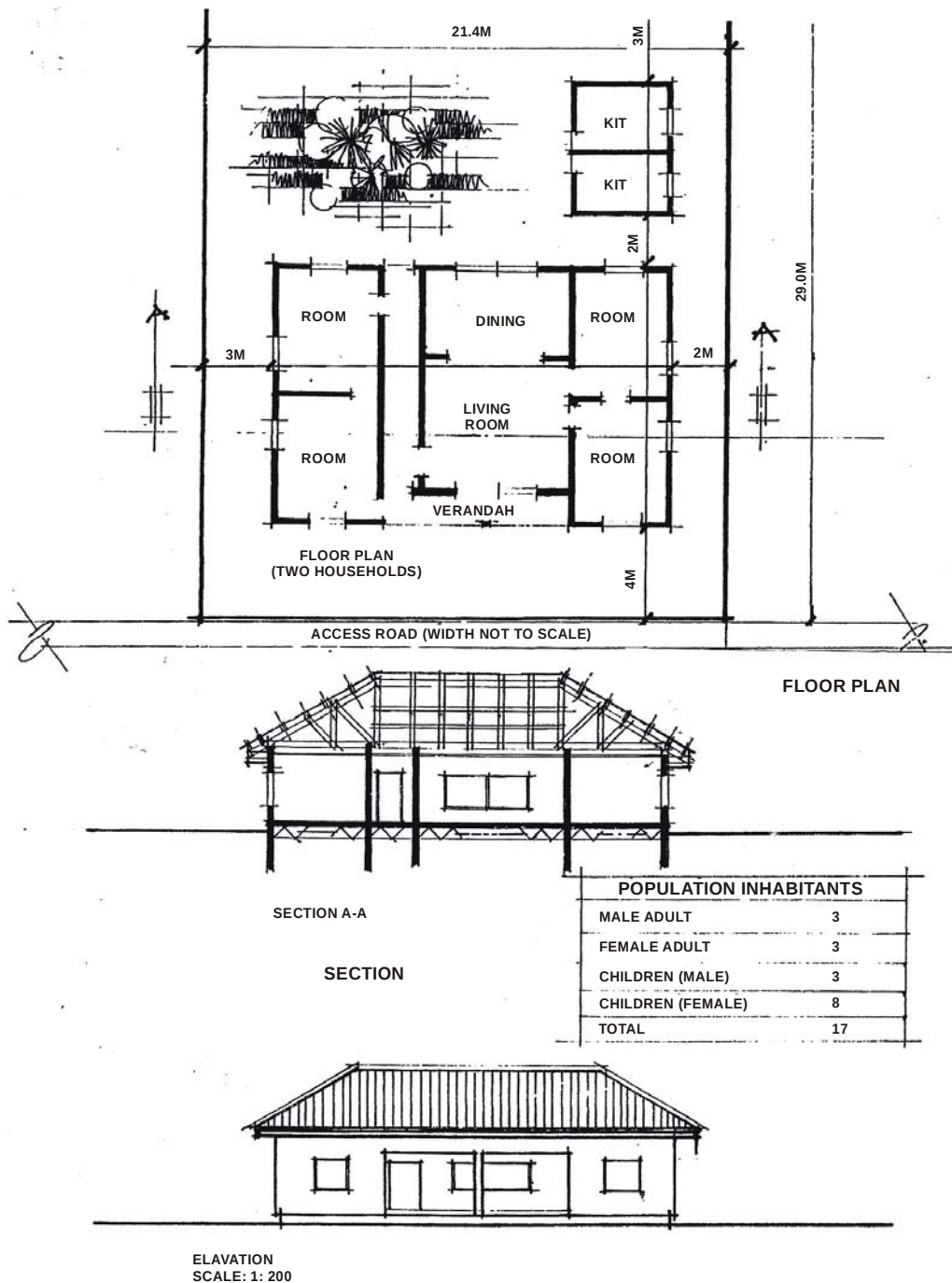


Fig. 4. Compound unit household of an individual at Uromi

The Post Colonial Era: The type now being practiced in Nigeria and it is essentially a mixture of indigenous and western styles of architecture. It gave rise to two major types of architecture now being practiced in the country:-

- i) Indigenous type in rural areas. This system employs traditional indigenous materials, technique and methods. It is the method being used by rural settlers, is estimated to be used by 70% of the population.
- ii) Urban (modern) housing production patterns use materials and techniques derived from modern technology.

Comparative study of environmental sustainability between Urban and Rural housing delivery system is done based on eight Environmental Sustainability Attributes (ESA)

These are -

- 1) Recyclability
- 2) Structural convertibility
- 3) Structural residue integration
- 4) Climatic factors
- 5) Socio-cultural compatibility
- 6) Reusability
- 7) Replenishability
- 8) Economic viability

The need to provide food for the families compelled some families and individuals to settle in certain places thus bringing about settlements. Other reasons are religious beliefs, socio-culture linkages and economic backgrounds. Security is another major reason why most old settlements in Esan came about regardless the suitability of such places. First human advances in culture resulted in several new developments, which include territoriality. Any advance in culture activates architectural growth. The territory changes in concept and definition when culture is altered. This is because of new inputs into the culture systems. Attitudinal responses to spaces by man have also determined the kinds of culture system practiced in the varied human groups and sub groups including Esan people.

Some groups of human prefer large geographical space per person while others preferred smaller units. Furthermore the pattern of social contacts differs. Spencer and Thomas (1978). The same reason made some people to prefer different kinds of landscape e.g. coasts, high mountains, open plains, forest areas and even rocky, hilly areas. In the case of Esan, geographical factors such as vegetation, topography and availability of water were paramount in location of settlements.

Some groups of people occupied places other than areas of their first choices due to deprivation or other compelling reasons to go for the alternative. Eko-Ibadin village at Uromi in the study area got established by Chief Ibadin when he had family problems and he had to settle far away from his family.. Prevalent physical and sociological factors make up the balance cultural elements to have complete and distinct culture. Small internal societal structures usually exhibit classes' in-group form such as sex, age groups, kingship, nuclear family and some personal characteristics. Religious beliefs constitute part of the important issues that can determine culture traits and culture systems. The fear of the unknown gives birth to spiritual security consciousness, thus resulting in certain architectural developments. This social grouping by religious systems is one of the basic structural patterns of human life on earth and it is continually in force.

Shrines for the gods are for both habitation and worship. Certain shrines such as Ohie, Aredo, Osun and Ijiogbe (or Alui-Ijiogbe) are usually found within the settlements in Esan. Religious beliefs in Esan compel worshippers to settle close to some particular shrines or accommodate such shrines in the dwelling houses. They are usually gods of fruitfulness, protection and prosperity, while those for wars and the like are located in the open areas.

Socio-Cultural and Economic Background

In the past, Esan was essentially rural and an amalgam of small communities. Every family practiced subsistence agriculture on which their livelihood depended. This was hazardous as the weather could fail to favour the crops planted. The traditional co-operative system of job execution controlled by the elders or age grades used to be very effective, though it is losing popularity due to modernity. It used to be very effective way of job execution.

Often times, the sedentary farmers and traders consequently become forced in shaping settlement patterns. The various traditional systems of agriculture in Esan contained some remarkably fine adaptations to the problems of the environment. Agricultural systems were carefully geared to the environment while family structure was tailored to the requisite labour requirements. This was one of the major reasons

why the Esan man preferred the polygamous family life. The size of the family was directly proportional to the size of the farm. This resulted in large hamlets and villages. The types of crops grown also affected settlement patterns. Slow-maturing crops (permanent crop), do not allow the farmers to shift locations too often. Kingship was another major determinant of the structure of settlement pattern. All members of one clan could settle in a clearly defined manner. The family units vary in sizes and composition. Members of the same family had the tendency to settle close to each other because of the bond of love existing between them and also for security reasons when slave trade and inter-tribal wars were frequent.

Village Layout

Villages usually expressed social and physical structures of the groups living in them. The man would be expected to build a new house for the additional wives. The housewives usually had their accommodation within the inward-looking courtyards. The layout of the village exhibited linear settlement patterns, though land constraints and increase in population later resulted in a nucleated type of settlement. This kind of layout gave a sense of belonging and encouraged stronger bond between family members.

The typical village layout in figure 5 shows a part of the layout of Ebhoiyi Village (Afuda quarter) in Uromi town. This village has ten quarters and it is densely populated with linear settlement patterns.

Homestead: The first types were simple but conformed with basic requirements. Each unit compound or homestead also exhibits its own internal plan. The physical layout does not religiously reflect social layout groupings. Rather it conforms with family groups called Uelen or Idumu (i.e. Quarter). The requirements of the family are simple and mainly similar in all agrarian societies, a place for each member to sleep, a place for cooking, for storage of farm produce and somewhere to protect animals at night. The usual arrangement is that each compound consists of many separate apartments and buildings.

The main apartment of building called "Oduwa" belongs to the head of the family and every other male in the family. The female, apartments behind the main one, is usually arranged to have a closed inward looking

courtyard. The housewife's apartment is usually a room doubled into a sitting. The inner room serves as the kitchen while the first one is a dual-purpose space; living and sleeping room. The kitchen is usually positioned that way to enable the women have complete control of it and enjoy maximum privacy and safety from food poisoning.

Building Types: The initial principle of shelter to the average Esan man tallied with the picture painted by Spencer in the introduction. Esan in the tropical Africa has been so rich in sacred, ceremonial and communal activities that outsiders might expect a wealth of buildings designed for these purposes but is not exactly so. The weather is generally clement, warm and rain predictable hence many activities can be performed in the open air. Premium is paid to societal setting. An apparently empty and unusual space often turns out to be of traditional significance. It could be a traditional council meeting or parliamentary open site, because of the warm climate. The area may not have any serious architectural landscaping apart from may be a hedge, fence of group of trees to serve as shade. Technology, materials, climate and culture determine the house types. The homes were usually of one or two-unit space before the dynamic cultural factors started to alter them. Later, separate apartments were then erected for husbands and wives. Children were to be with their mothers. This later metamorphosed into flats and duplexes of contemporary nature in the urban areas.

Religion: Esan used to have African traditional religion as the only formal mode of worship. They see it as a means of survival on earth and the world beyond. Worship is either individualistic or communal, depending on the purpose of the gods. Actual buildings for the shrines are not common. Where there are religious buildings such as shrines, they are usually small in scale and a unit space. There are some others owned by the community that need buildings to accommodate them and the citizens are by tradition compelled to settle close to them. Christianity got established in this part of the country as early as 1900. There were few churches at that period and they were of smaller scale in sizes and followers were equally few. Later, churches of larger scale were built as their membership grew. Remarkable churches were constructed out of mud and sandcrete blocks.

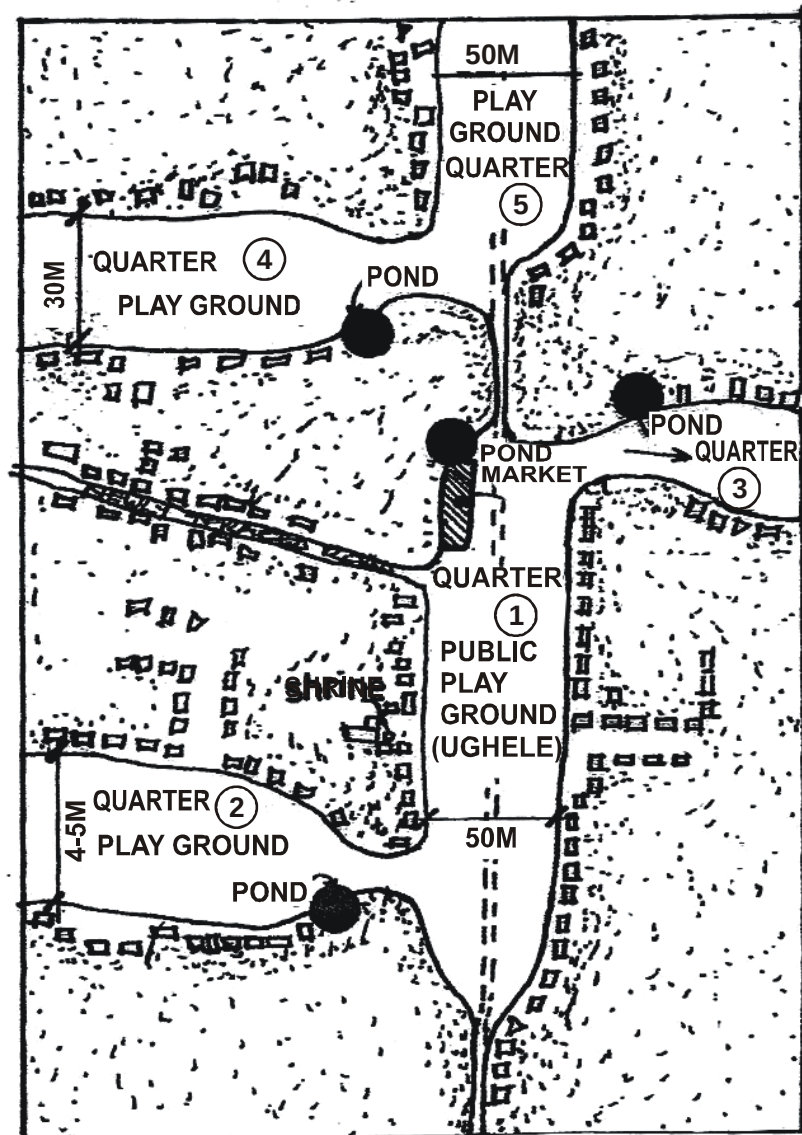


Fig. 5. Typical village layout in Esan

Some churches, built over the last century, still utilized local building materials. Islam penetration into Esan only got as far as Irrua and Ewu. This has not seriously influenced the traditional architecture in the land.

Secular Power

In rural areas, houses for kings and chiefs

were rarely specially walled or fenced off. Indeed, often, they were only distinguished by their focal position and large scale of the structures and were built, using the same materials. Puddled mud houses with walls erected in courses were for both the nobles and commoners. The commoners built their houses with fewer courses. It is such a versatile and strong material that there is no problem when used to construct a two-storey

building. Any basic shape can be expressed with it. Mud is also used as a ceiling material in Esan and it is called "Irru". This entails the use of bamboo as the structural framing and mud as the covering.

Effect of Climate on Architectural Forms

Climate in particular has certain effects on architectural forms. The hot humid zone of Esanland needs wide openings for lighting and ventilation. Climate and other physical elements dictate type of geographical features and which in turn influence the kind of designs and house that can be erected in a particular geographical zone. These elements further help the designer in evolving the form and spatial linkages arranged that are discretely arranged to satisfy the desired needs.

Site Conditions has to do with microclimate, topography, water body, ground surface, vegetation and wind breaks in the form of trees and bush. Other conditions are accessibility, nearness to public infrastructure, ingress, egress and noise level. Traditional house construction system did not consider most of the factors enumerated. What bothered the mind of house builder or any intending house owner were topography, vegetation with respect to economic crops, designation of plot with respect to religious activities, proximity to head of immediate family, village square and farm settlements.

Orientation is locating the building on the site with special attention being paid to the climatic elements such as wind, sun radiation, vegetation, precipitation and topography. Noise level and view are usually taken care of. Of all these, solar radiation is particularly important during times of excessive heat. There is a difference of as much as 3°C in temperature in a building between the worst and best orientation. Good orientation helps to exclude much of solar radiation from the interior of the building.

Orientation of houses was only determined by considering access to the premises and the fact that the head of the family apartment must be at the approach end. The type and nature of the houses help in reducing the effect of sun radiation. Most walls are of mud, which is a poor conductor of heat thus, making the interior quite cool. The absence of ceiling facilitates air circulation thus improving the ventilation. The only ceiling types obtained are either in (i) wood strips only (ii) wood strips covered with thin layer

of mud. "Irru". Thatch leaves for roof is a poor conductor of heat; hence it contributes to tolerable interior temperature.

Building Material and Evolution of House Form

A building that has minimum heat gain during the day in hot humid zone is regarded as the best structure for habitation. This means little energy is required to regulate the temperature of the interior. Quoting Olgyay, Konya (1980) said "a square building is not the optimal shape anywhere..." The best building shapes are those that have their elongation towards the east-west direction, that is to say the longer ends are towards the North and South directions while the shorter ends are in the east-west direction. Traditionally, materials used for building houses were mainly mud, vegetable materials. This to a great extent determined the architecture of the people. The house forms were usually rectangular or square of small scale. The size especially the span depended on the roofing materials such as bamboo, thatch leaves, etc. Attempts to provide additional spaces due to the increase in the number of family members gave rise to courtyard buildings.

Role of Courtyard among Esan People

In hot regions of the world including Esan, people prefer spending most of the time outdoors. There is always the need to provide shades for the sit-out, thus creating comfortable conditions externally sometimes extending into the interior. In hot-dry climates buildings are sometimes deliberately clustered together to create shade to each other and along walkways. But the warm-humid region that obtains in Esan has loosely arranged houses in neighbourhoods. This is to allow for proper ventilation. In order to have shades for out-door sitting, trees are planted and they are usually economic trees such as orange, pear and cashew trees or ornamental trees such as almond trees. Courtyards in Esan evolved as a result of socio-cultural needs of the people. Attempts at solving the problems gave birth to courtyards that meet one of the basic concepts of tropical architecture, which requires optimum ventilation and shade from solar radiation.

The basic roles of courtyard in figures 4 and 5 among Esan people are

(a) *Religious*: (Antiquity of Esan Arch)

They believe in supernatural forces and try to device some ways of contacting them. Shrines and altars are sometimes located in the courtyards in ordinary dwelling houses.

- (b) *Architectural*: In some buildings, there are ponds in courtyards, which enhance the processes of air humidification as well as heat reservation. This regulates the environmental conditions of the courtyard. Some of the ponds within the courtyards are for domestic animals like pigs.
- (c) *Social and Agricultural*: Courtyards are of various sizes and functions, which include ceremonies, dwelling, open air cooking, sit-out, farm produce storage and livestock rearing. The plan remains the basic concept, indicative of the prevalent extended family structure. Here, there can be as many as three to six households in one complex.
- (d) *Psychological*: Since a courtyard building presupposes enclosure or confinement, the inhabitant always feel secured against any external invasion in the form of thuggery, burglary and any spiritual attack. As a result they have to be confined to the home (courtyard) headed by a "competent" man.

Settlement Derived From Security

Attempts to safeguard the citizens and property from invaders during the inter-tribal wars and slave trade in Nigeria also compelled some communities to settle in terrains that were not easy to access by enemies without being noticed. This is also true for some other parts of the world hence Spencer (et-al) have this to say of Architecture of fortification. "From the early Neolithic into historic and modern time, war has been an element in both fortification architecture and settlement patterns". This was the reason for the construction of Benin moat and some settlements in Esan. Ubiaja gives a good example where the palace moved from Oyomon to the present location at Eguare. Incessant attacks by Uromi warriors, a neighbouring town having boundary with Oyomon village compelled the people of Ubiaja to bury their dead kings at Ahia that is the other extreme of the town, far away from Uromi.

Esan Palaces - Architecture and Planning

Casual survey of the physical structures of Esanland of old reveals that the structures that

are outstanding architecturally belong to the traditional rulers and their chiefs. The wealthiest man in any community was the Onojie then followed by his palace chiefs. This is demonstrated in every sphere of the Royal Highness's life. They usually marry many wives with a lot of children. The sheer size of the palace population required large accommodation. The status of the Onojie required him to have a grandiose palace building. Universally the architectural structures erected any community at a glance gives first visitor a summary of the socio-cultural status of the community.

Esan culture received some contamination from the European colonial masters. This extended into the housing and settlement sector. Colonization also preached the gospel of modernization, thus leading to most of our valuable culture fading away, though in some other aspects it introduced vibrant and meaningful life to the people.

DISCUSSION

The Concept of Culture

Culture is the material and non-material works of arts and science, plus the knowledge; manners; education, made of thought; behaviours and attitude accumulated by people through their history. Culture may further be defined as behaviour peculiar to *Homo sapiens*, together with material objects used as an integral part of his behaviour, specifically culture consists of language, ideas beliefs, customs, codes, institutions, and so on. Goetz (1992). Culture is about the intellectual, social and spiritual development and exhibiting it as a trait of a specific people. Tradition is essentially the retention of what has been developed over time be it social, intellectual or spiritual. Tradition goes further to preserve the traits so developed for posterity. In other words culture evolves ideas and exhibits them but tradition has the sole duty of retention and transfer of such cultural values to new generation.

Culture is the history of a people's past and present and it goes further to presenting anticipated picture of events for the future. That is to say the future is a derivative of the past and present. This perception is so because of the all-inclusive nature of culture. The culture of a people evolves overtime thereby changing from

one type of civilization to another. There are culture traits in different culture complexes in a system. The dynamics of culture is that man overtime evolved ways of tackling issues including culture, and he has since left his simple crude and sedentary kind of life about a thousand years ago for a vibrant, dynamic and sophisticated one through the use of his intellect.

According to Rapoport (1969) "Given a certain climate the availability of certain materials and the constraints and capabilities of a given level of technology, what finally decides the form of a dwelling and moulds the spaces and their relationship, is the vision that people have of the ideal life – the family as dwelling unit. The family reflects beliefs, family and clan structure, socio-cultural organization, ways of gaining a livelihood and social relations amongst individuals." This statement above emphasizes culture as the behavioural pattern of a people. The cultured main in the ambit of tradition is sophisticated, sensitive and educated.

Tradition is handing down from generation to generation of, opinions, beliefs, customs, and etc. Hornby (1969). Spencer and Thomas (1978) say that each tradition is comprised of loosely correlated esthetic, social, economic, political and ethical codes of behaviour and members variably share ideologies, habits, customs, procedures and technologies. This explains that activities of each society help the people to establish pattern of living thus imprinting the activities on the inhabited region. This then results in distinctive expression in all spheres that is referred to as culture.

Culture Traits and System

Culture is sometimes seen by some people as the primitive aspect of man's existence. It does not matter the society or people being considered, be it urban, rural, developed or developing. Its outlook takes such features because culture is the history of any group of people. The future is a derivative of the past and present. This perception is so because of all-inclusive nature of culture. It includes traits and systems, hence Spencer et al say "The pattern unit of cultural system consists of several kinds of smaller parts" Figure 6 indicates that culture traits in the different culture complexes differ, thus resulting in the different traits and complexes in the systems.

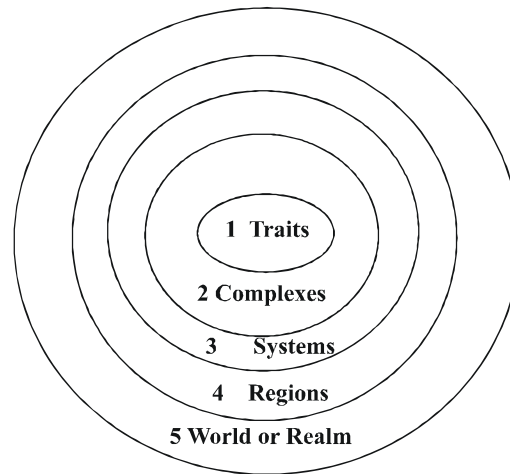


Fig. 6. Concept of culture

1. Cattle rearing and fishing etc.
2. Drinking milk and fish cold room etc.
3. Assemblage of culture complexes
4. Assemblage of culture systems e.g. Mexico, United States Canada and West Africa.
5. Examples: Latin America, Africa and Europe.

In any society including Esan the growth of culture worlds or regions and the numerous basic ideas are articulated at the local and primary levels called culture hearth. They are practiced by a small group where there is buying and selling of norms, resulting in distinctive identity or traits that are associated with such people. The Esan man has distinctive culture trait amongst which are the Igbabonelibhin acrobatic dance and settlement patterns. Though some parts of the world are yet to visualize what the earth holds for them in future, greater parts of the world now have global outlook of every issue confronting them.

Dynamics of Culture

The various culture concepts or culture regions of the world evolved over the ages. They metamorphosed from the "primitive" stages to more refined and advanced stages that helped in the marriage of culture to the modern world of high technology. It is worthy of note that a world of high technology prevalent now is another distinctive culture of its own but could not afford to ignore the culture identity of the various peoples. Man over time evolved ways of tackling issues including cultural issues, and he has since

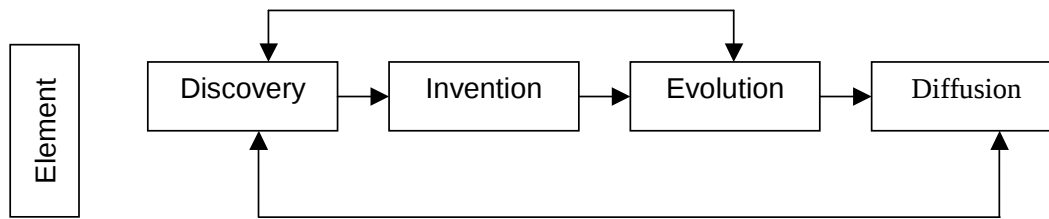


Fig. 7. Basic culture processes

Source: *Introducing Cultural Geography* (1978)

left his simple, crude and sedentary kind of life about a thousand years ago for a vibrant, dynamic and sophisticated one through the use of his intellect for the slow but purposeful movement. The interaction with the outside world has greatly influenced the cultural behaviour of Nigerians including Esan people. The typical Esan man before 1900 A.D has his “Abebe” which is the underwear and Igbulu as major traditional and only dress that was of general use. According to Spencer and Thomas (1978). The four basic culture processes that bring about culture traits, complexes and culture systems are Discovery, Invention, Evolution and Diffusion. This is explained diagrammatically in figure 7.

A good knowledge of any culture can help open up new frontiers for unlimited development. Any incident, invention or social activity extensively used or enjoyed eventually becomes a cultural norm as opposed to the primary purpose of its occurrence.

CONCLUSION

The discussion has shown that National and Cultural identity in Nigeria is bound to blossom with wide acceptance if the relationship between culture and architecture is nurtured. Architecture is able to give in a very quick and detailed manner, the historic economic and cultural backgrounds of any group of people or even settlements. A glance of the kind of architectural structures in any setup, tells visitors the kind of religions and social structures in existence. There must be a determined effort to revive the dying indigenous architectural trend and evolve new but acceptable architectural styles that recognize the culture of the people with respect to current development.

In this particular case a hybrid of the old and new cultures will help in evolving architectural style that is essentially indigenous to the people of Esanland and Nigeria as a whole.

There is no doubt that there is need to use existing situation as a spring board to develop architecture in Esanland and indeed in Nigeria that will be environmentally, socially, economically and culturally friendly and acceptable and at the same time harmonizing with the existing environmental infrastructures.

REFERENCES

- Centre for Earth Construction Technology CECTech. 1995. Jos, Nigeria, National Commission for Museums and Monuments, Jos. pp. 3 – 16.
- Denyer S 1978. *African Traditional Architecture*. New York: African Company, pp. 14-22
- Dmochowski ZR 1990. *An Introduction to Nigerian Traditional Architecture*; Preface; Ethnographical Limited, Britain and National Museum and Monuments, Nigeria. P.V
- Gbotosho Y 1996. In the cause of Architecture: A Philosophy of Design. *Africa Journal*, 3: 47.
- Goetz Philip 1992. *Encyclopedia Britannica*. 15th Edition Chicago: University of Chicago Press, P. 16.
- Konya Allan 1980. *Design Primer for Hot Climates*. London: Architectural Press Limited, P. 33, 37, 38.
- Okojie CG 1994. *Ishan Native Laws and Custom*. E. Nigeria Okwesa & Co., pp. 4 - 18.
- Rapoport A 1969. *House Form and Culture*. New Jersey: Prentice Hall, P. 25.
- Segynola AA1987. The Nigerian Rural Housing Environment. Focus on Bendel State. *Journal of Environmental Management*, 2(3): 71-82.
- Spencer JE, Thomas WL 1978. *Introducing Cultural Geography* Second Edition. New York, Santa Barbara, Toronto. England: John Wiley and Son, pp. 2-15.
- Wright 1943 FL. *An Autobiography*. New York: Dwell, Sloun and Pearce, P. 45.