

## **VERNACULAR ARCHITECTURE IN YOLA**

### **Section 1.01**

### **Introduction;**

Vernacular architecture could be said to be an unpretentious, Indigenous, traditional structures made of local materials and Following well tried forms, and types normally considered in 3

- (a) Categories; agriculture (barns, farm etc.), domestic and industrial (foundries, potteries e.t.c.

Vernacular architecture is thus architecture to a specific country and people.

### **Section 1.02 BACKGROUND**

(a) The earliest Fulani migration into the eastern region of Northern Nigeria *circa* 1200. but it was only at the beginning the 19TH Century that Modibbo Adama founded a Fulani kingdom.

Yola was essentially an open space built up mostly of conical huts among spacious courtyard or cornfields. The halls were built with clay walls and thatched.

#### **(b) WALL CONSTRUCTION**

Wall in Yola were built from toballi bound and plaster were made in same manner, from building earth (lope) taken from selected pits for away from the building site. To crumble watered lope was added grass or rice leaves (gene marori) chopped up with an axe (saqdere). A pile of this mixture is covered with grass until the next day. When more water and is added. After this the processed earth (lope yobade) is ready for making toballi. The toballi are made in there shapes, the originally conical form was replaced in the 1950 by a round one which was easier to make some thing the toballi is shaped like a bread.

Walls were built without a footing on foundation an arm length deep. The walls were in tier, each four toballi high. They all plastered but the plaster between each tier of four toballi is much thicker than between each layer of toballi. The bottom tier was four toballi high, the next one three, the next two and the top tier one toballi high; it usually formed the parapet around the flat roof. This general principle was adhered to in rectangular buildings. In circular structure as for example in the entrance gate (Zaure) of Muhammad Mustafa's compound the walls were three toballi thick at the base and two at d top.

Occasionally alls were reinforced with external pilaster by adding an extra thickness of toballi.

#### **ROOF CONSTRUCTION**

Circular building (sudu) with walls of toballi were covered with a roof construction formed by a frame of azaras (lochiduble) arranged in a cone. Between them were sometimes inserted bamboo sticks (lochi

The cone rested on a ring made from coarse grass kalwal (same as used for zana mat) set on the crown of the wall and tied with balams rope Tekkere was made on the ground as a continuous roll, then it was raised with the aid of scar folding inside the house to the crown of the ends overlapping by boom. The conical frame of lochi was stiffened on the outside by numerous rather slender rings (bilori) of kalwal grass. Same as was used for tekker. At half height the cone had a thick ring (gangawal) on the inside, made from thin stem (kole) closely bound first with balamji rope and then with decorative plait, boggol, made from sodoronde grass. Above gangawal a type of basket work was mounted inside the cone: it had about twenty rings (murdaka) of tappo grass, bound round with strip of rama bark. Above this ring, the last element. Finally, the apex of the cone was covered by a horizontal circle, a round mat made by women and use for serving food. Mbedu, consist of several spirals of sordonde grass, bound with coloured chochodi grass so as to form rich pattern.

### THATCHING.

When roof construction is completed poles placed upright around the walls of the building at a distance of 1.3m, they are higher than the walls and are linked horizontally at the top, which created scaffolding. The mat is laid spirally with the bottom part of the grass stems downward. The first layer of thatch consisted of four thicknesses of mat one on top of the other. The next layer was three mats thick then up to the middle of the roof, single layer were wound in a spiral with small overlap. A step was formed in the middle of the roof by placing four layers of mat on top of one another. Then same process as in the lower half was repeated. The step enriched the appearance of the thatch but more importantly it increases the momentum of the rain water on running down its surfaces.

The simplest finishing of the thatch involved the tight binding of the top most spiral of the mat, with balamji rope above the apex of the roof frame. Finally, a clay pot was placed over the binding protecting the most fragile part of the thatch roof.

However another method was often applied for elaborate

And using the best kind of grass. A man sat astride the roof and carefully adjusted the position of the topmost spiral of matting. Then he grasped a handful of grass and bound it with balamji rope about three centimeters below the grass heads, where the stems are more flexible. The first handful of grass was starting point, and then every 30 centimeters along, he bound another handful of grass, joining them together around the apex of the roof construction in a stiff circle. Two centimeters higher up the next binding was wound around the whole and the ends of the grass were bent into the ring thus created. A plug of grass was pressed into the center to firm and tighten the top. Next a kind of net was pulled over the top to keep the whole together.

This process of finishing the apex (lamsol) is described by the verb lamsol. Finally the apex was covered with lopare, a sort of conical basket woven from uware grass by specialist. The bottom of malapare was strengthened with balamji rope to prevent expansion. Openings were made above it in six or eight places and similar

balamji pierced the thatch was bound to the lochi inside, and then threaded back to the outside again; this sewing process was continued all round the holes of the malapare . Three sticks were driven diagonally downwards into the apex of malapare and an inverted pot placed over them. The pot was filled with grass so that it will remain securely in position.

#### **RECTANGULAR BUILDINGS.**

Adaba.

Rectangular buildings were thatched in a similar way to round ones, though naturally they had a different roof construction.

The main element s was rafters (noppiji) of kojole timber, bounded in pairs, trestle like. The ridge beam (pilal) was laid above their crossing and four or five battens (pile) which were fixed on each side of the roof. When the walls were sufficiently thick, the rafters were set not on wall plates, but into openings cut diagonally into the crown of the walls.

#### **METHOD OF CONSTRUCTION.**

The method of construction of Fulani mud houses is predominantly traditional. Since the huts were low rise buildings, they don't have to worry about carrying construction materials to high levels. The construction process is carried out by local master craft men, with a proportional quantity of water; some amount of grass is then added to it. This serves as a bonding material in the mixture. This mixture is then trampled with bare foot. When the mixture has been trampled upon to its required texture, the mixture is covered with polythene bags or grasses to prevent it from drying up. Water used in this process is gotten from near by streams or village wells.

For the huts where, blocks are not constructed, after a given period of time, when the grass in the mud mixture gets rotten, it is then used in the hut construction directly. In cases where blocks are used; when mud mixture is set for use, it is then fed into a form work known as moli; then the mud blocks are set to dry.

The blocks measure about 0.35 x 0.16m. After the blocks dry up, they are now placed in courses one above another to form the enclosure, which turn out to be the room or shelter.

Each course of mud blocks is bonded to next courses on top of it by same mixture of mud, grass and water known as tabo. The room in focus measured about 3.4 x 3.1m. In to in and square in plan. On enquiry, it was learnt that this particular structure would serve as a provision store (shago) when completed. This Particular room is more like a modern version the traditional Fulani mud house because in this case instead of grass for roofing sheet together with tree branches, we have timber and zinc. And in place of grass to cover the door and windows opening, we have iron rod and wood. The room rises to a height consisting of about twelve block courses. In general, the whole structure was estimated to have consumed total four hundred blocks. The Fulani craft men usually measure by counting footstep. The interior of these hut are usually cool all day. During cold period, heating can be achieved by setting up a fire.

The walls have just one opening, which is the door, but some other ones have three small windows opposite the door.

### **WINDOWS AND DOORS**

On enquiry, it was discovered that, in the past, door openings were covered with animal skin then they started using stick. Sticks are cut to equal size spanning the width of the door opening. The sticks are then tied to each another with spaces between each stick left at regular intervals. This to allow for vertical opening of the door opening. This is then hung over the door opening. To open the door the sticks are rolled up vertically, tied in place and hung over the door opening.

After this era they started using door made of grass (*chiyawa*). Present day Yola vernacular architecture has admitted doors made of wood and zinc measuring 0.6m and about 01.6m in height.

For windows in the past and present the materials use have been the same with that of doors in Yola vernacular architecture. The hut rises to about four brick courses before the window opening is made. The window opening measures about 0.6m by 0.6m in height. They use timber to serve as beam above windows and doors openings.

### **FLOOR FINISHING**

Red earth is mixed with water to form a mixture, just like aforementioned *tabo*. It is then spread all over the ground in the interior of the hut. Then a piece of timber is prepared specially for this purpose (floor finishing) it is used to beat the red earth until it is levelled. This is essentially the method they use to archive floor finishing in *Gokra*.

### **WALL FINISHING**

This days wall finishing is achieved with cement. But for who cannot afford cement, the use of elaborate mixture of mud, water, heated coal tar and kerosene.

Red earth is mixed with a little quantity of water to give it workability, coal- tar is then heated to a high temperature to give it workability. Then coal is heated to it's required textural state, some quantity of kerosene is added to it. It is measured in the proportion of half a bottle of kerosene to one paint container of coal tar. After proper heating or boiling, the kerosene-coal tar mixture is added to the red earth -water mixture. This mixture is daubed on the wall and smoothen with the aid of a hand trowel. This process can be said to be the equivalent of plastering. The kerosene-coal tar mixture prevent the wall finishing from been washed off by rain water. It gives the wall a blackish brown appearance.

### **FUNITURE FITTING**

The interiors of this mud houses have just a few traditionally constructed furniture. Most conspicuous of them is the bed also known as *gado* in Hausa. This comprises of empty sacks which have been sealed together they now stuffed with grass to form a mattress. It then laid on the floor. Before this type of bed the

villagers use to stuff cotton lint into sewn cloth to form mattresses. Another type was made by mixing grass with mud to form beds. A space was provided underneath where a fire can be lit to mitigate cold.



Building earth



Brick form work (moli)



Sun dried brick



GRASS MATTING



THATCHED HUT HUT

#### **ADVANTAGES OF YOLA VERNACULAR ARCHITECTURE**

The most conspicuous advantage in the construction of traditional hut is that of cost, since most of the material employed in the construction are naturally occurring. e.g branches earth and grasses. It does not cost much to build a hut in a village.

The use mud blocks makes the interior of the houses cool. Considering in adamawa, it is an ideal natural way of fending off the heat at peak heat period.

#### **DISADVANTAGES**

- a- foundations not deep enough to ensure proper stability of huts
- b- inadequate ventilation and lightening
- c- Buildings generally not durable

## CONCLUSION.

It has been interesting investigating the way of life of certain people. But architecturally based on therefore mention disadvantage. After a careful study, the following recommendations were made.

- a. In order to achieve proper ventilation and good lightening, provision should be made for at least two windows on the opposite side of the hut.
- b. In order to achieve stability, foundation should be Deeper and better constructed.

## REFERENCES.

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