

Mural Decoration on the Traditional Architecture of Northern Ghana

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ABSTRACT

The indigenous architecture of Northern Ghana is unique and different from that of the southern regions of the country. It has grown out of the hot dry climatic conditions and limited resources of this savanna country. This paper appraises the resourcefulness and skills of the builders in the use of the available building materials - laterite and thatch - especially the technique of mural decoration which is an important dimension of the art of building in this region. It considers the decorations as a language with a vocabulary of lines and textures which apparently speak of the life in this region.

Keywords: laterite, indigenous, parapet, shea-butter, dye, liquor

INTRODUCTION

The architecture of Northern Ghana may be better appreciated as an art if one understands the beliefs, customs, traditions and the general pattern of life of the people, as well as the environmental conditions of this region which dictate the design of the structures and the choice of the materials used.

Northern Ghana generally has a very low annual rainfall of about 1066mm which occurs in a short period, usually between April and August [11]. This is followed by a long draught of six months, resulting in the harmattan - a cold dry weather which is hostile to vegetation and animal life. The North is, therefore, a dry country. The Navrongo district, for instance, which has a lower rainfall, 1015mm, than that of Tamale, 1095mm registers the highest temperatures in Ghana, 34°C - 44°C [11]. This dry climate adversely affects the vegetation and availability of timber, ropes and other forest products required for building in this region. The builders therefore make less use of these materials which are scarce and more of thatch and laterite which are in abundance. Figure 1a.

The topography of this district is comparatively monotonous. It consists of flat plains and only gentle slopes with occasional narrow valleys and river beds which drain into the Volta river system [2]. See Figure 1b. The geology of the Northern region is a factor which contributes to the infertility of the soil. The earth's crust in this region consists, in the main, of granite, gneiss and

TECHNICAL NOTE

'voltaian' rocks which are resistant to weathering and do not facilitate soil formation [16]. These harsh physical characteristics of the land result in poor soil.

Because of the general infertility of the land, the Northern region supports a low population density of about 100 people to 640 acres who live in dispersed compound settlements in the district. Each settlement consists of a cluster of shelters, farmlands and pasture of between 45.5 meters and 182 meters apart [7]. It is believed that formerly there were settlements whose remains might exist, close to the main courses of the Volta river system, and that a retreat of the population from the river courses was an escape from the insect-borne diseases prevalent there. However, the Gonjas who are the largest of the thirteen Guan communities, and believed to be the earliest settlers of this country [9], are still concentrated on the Volta river course where the land is comparatively fertile and fish is in good supply.

The other districts within this region are occupied by heterogeneous societies made up of various ethnic and religious groups of people. The Kasena-Nankanis, Grusis, Frafras, Kusasis and Mamprusis who live in the north-eastern district around Navrongo, Bolgatanga and Bawku, as well as the Lobis, Sissalas, Dagartis and Walas of the north-west, occupying the territory from Wa to Tumu, are believed to have remote Sudanese ancestry. According to tradition, more civilized people from the Sudan, Mali, Burkina Faso and other northern states of Africa, invaded and conquered the indigenous people, and introduced in the place of the 'Tendana' (Landowners), Chieftaincy, which was a new political concept [7]. The invaders incorporated the Tendana into their religious and social systems and shared with them, their prerogatives and rights.

In Wa where the society consists of Walas, Dagartis and Lobis, the compromise reached was that the Wala immigrants became the Imams (religious leaders) while the Dagartis (the indigenous people) had the right to rule as chiefs. There was a similar arrangement in the Bawku district where there are more Kusasi or indigenous chiefs than Mamprusi ones. The Mamprusis who are scattered along the district from Bawku to Walewale, further south, are believed to be immigrants from the Sudanese states. It is also believed that the ancestors of Navro-Pio, the paramount chief of Navrongo came from Zuku in Burkina Faso to settle at Nangalikinia in Navrongo, from where the palace was moved to the present compound of

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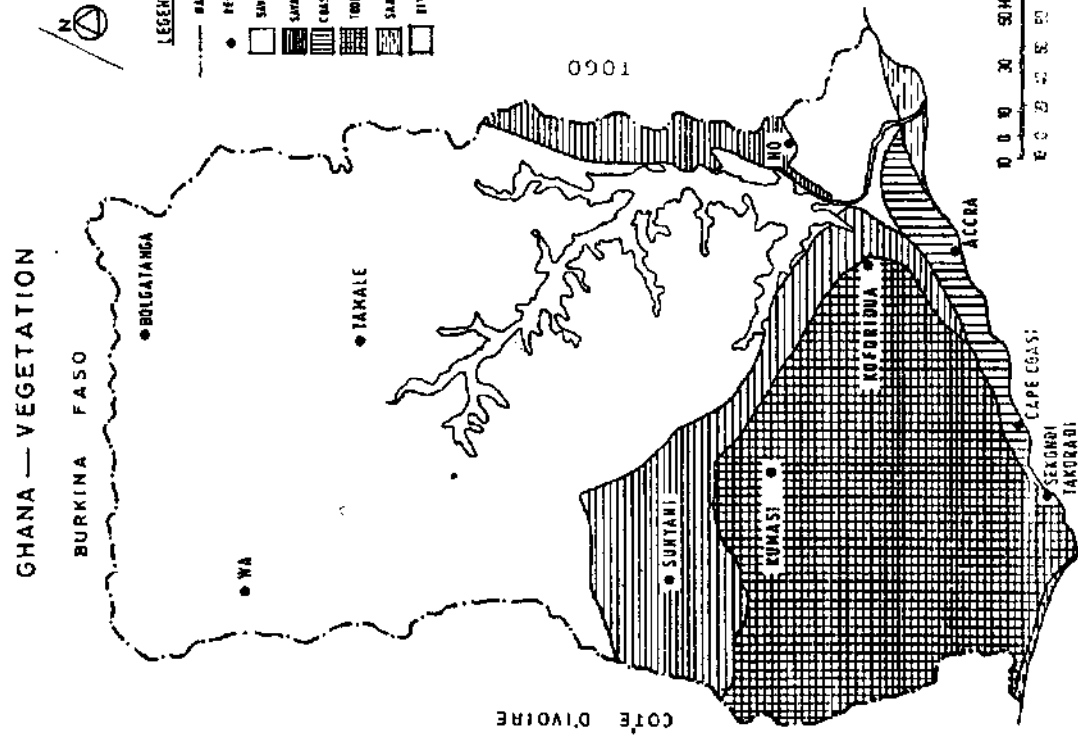
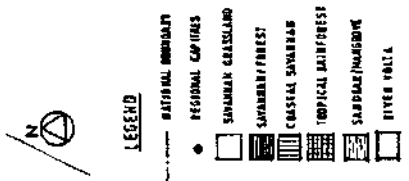
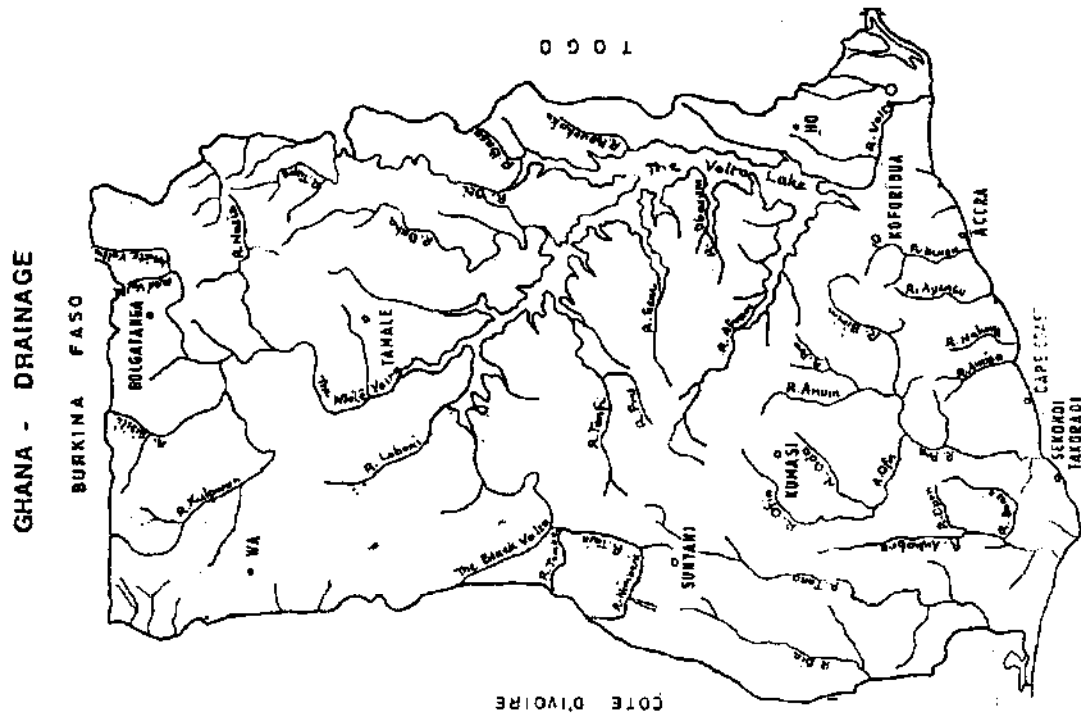


Fig. 1b

Fig. 1a

GHANA - POLITICAL DIVISIONS

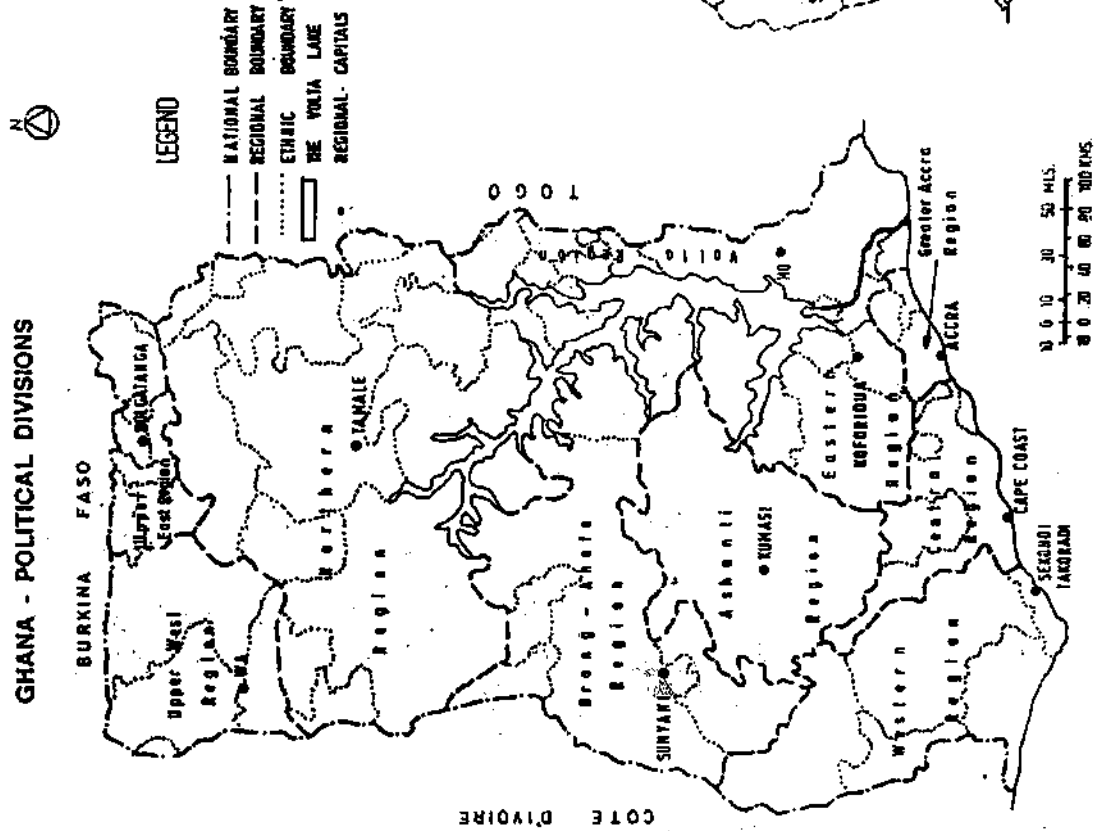


Fig. 2a

GHANA - ETHNIC GROUPS

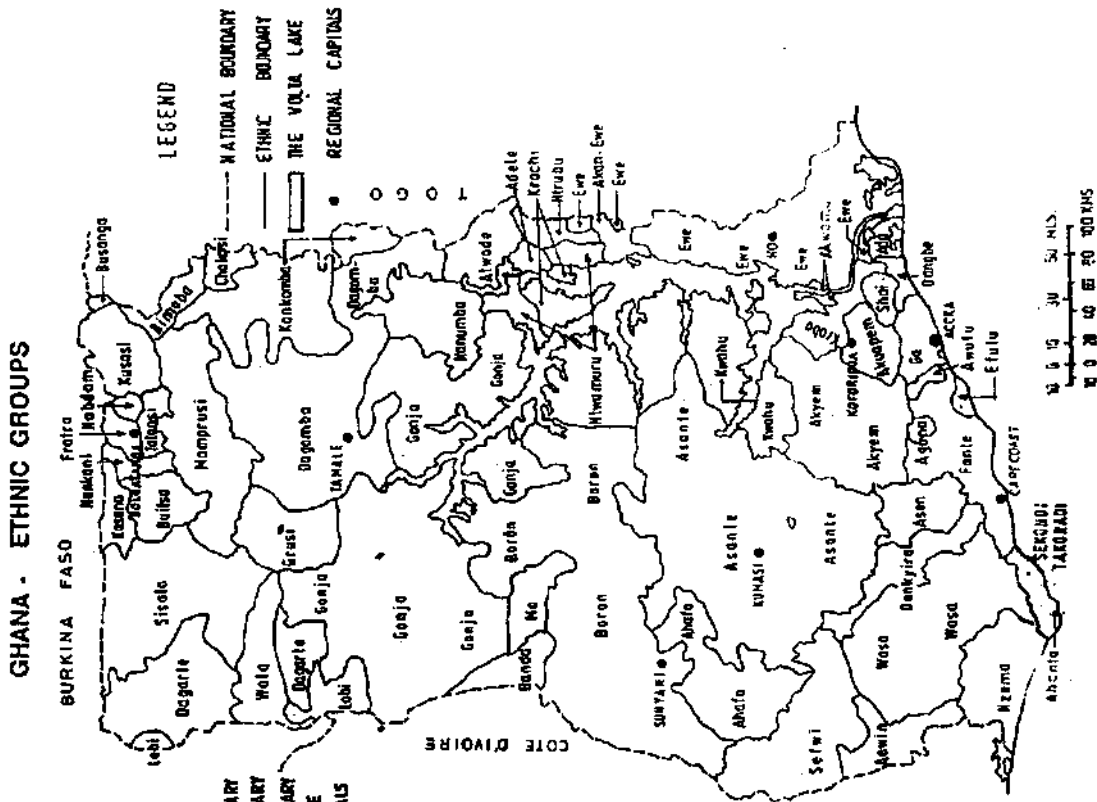


Fig. 2b

the paramount chief [7]. It is notable that the Kasena-Kankasis occupy both sides of the Ghana-Burkina Faso border today, Figure 2b.

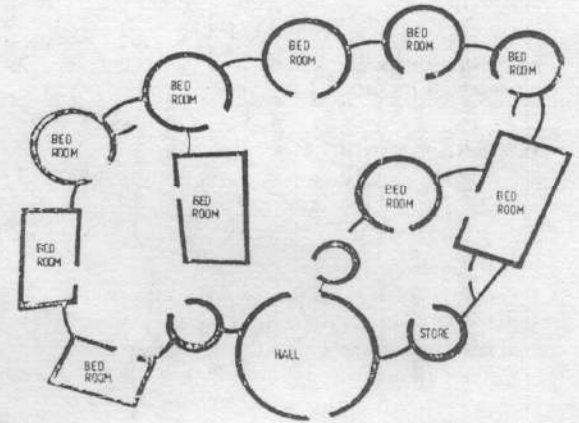
The societies of Northern Ghana have an old tradition of patrilineal inheritance. Every male child is a potential head of his family. Men are therefore supreme with respect to family celebrations and the performance of rituals. In each society, the family is the basic unit. It consists of a man, his wife and children who may form a small part of an extended family of all the descendants of a patrilineal ancestor. Two or more of such extended families may constitute a clan.

Farming is the principal occupation of these people, though one may specialise in basketry, blacksmithing or leatherwork as a hobby. Guinea-corn, millet, rice, groundnuts and sweet-potatoes are cultivated. Onions, okro, tomatoes and other horticultural crops are also grown where possible. The introduction of modern institutions by missionary, governmental and international organisations, especially after independence, is accelerating formal education in the North. The newly founded University of Development at Tamale is a striking example of the efforts of the Government of Ghana to develop the region and create better employment opportunities and living conditions for the people. There is a system of markets in this region which operates on a three-day or six-day cycle, where basic commodities, including farm produce could be exchanged. The markets are also centres for social activities such as drumming, dancing and drinking.

ARCHITECTURAL EXPRESSIONS OF NORTHERN GHANA

Dagomba Compounds

The various kinds of architectural styles of Northern Ghana are expression of the indigenous concept of community living [12]. The commonest of these, the Dagomba compound, is a round house with a circular plan, laterite walls and thatch roof. Several of these houses with connections of low walls, granaries, kitchens, bath-places and shelters for animals, are organized into large compounds around courtyards. In these compound houses, individual members share resources and



A DAGOMBA COMPOUND KUMBUNGU

Fig. 3



INTERIOR VIEW OF A DAGOMBA COMPOUND AT TAMALE, GHANA, SHOWING ROOFS OF CAREFULLY PREPARED THATCH

Fig. 4

responsibility with one another, and undertake communal work in agriculture, social services and military defence. In this life-style, respect for elders, leaders, heads and other authorities in the social and religious hierarchies in the community, is strictly observed.

A modern Dagomba compound consists of round and pseudo-rectangular houses connected by walls [1]. It is entered through an entrance-hall which forms part of a sub-area consisting of a bedroom, granary, hen-coop, bath-place and shrine for the family god. This area is occupied by the head of the family. Next to this is the women's area which has the largest courtyard for domestic use. It consists of the rooms of the wives of the landlord arranged in order of seniority from the extreme end which is linked to another subsection occupied by the young men. A compound may expand to cater for a growing family or contract to eliminate the apartment of a deceased member. See Figures 3 & 4.

Kasena Compounds

Another architectural style of Northern Ghana is the round laterite house with a circular plan, a flat mud roof and a parapet wall. The walls of this house are load-bearing and able to support roof beams of a reasonable size. The roof is constructed with timber from the shea-butter tree. One layer of poles is supported on the walls and smaller rafters are laid across these at about 100mm intervals. Finally, tiny twigs are laid over this, very close to each other in a criss-cross manner. On this wooden structure is superimposed well-kneaded laterite which is

finished with a plaster of clay mixed with fine sand and the residual meal from shea-butter nuts [15]. This plaster rendering is slightly sloped to enable the roof to discharge rain water through wooden or metal spouts. The parapet wall is then erected and the roof is painted and rendered waterproof with a varnish from boiled dawadawa (*Pakia Biglobosa*) pods [18]. Vents and light openings may be provided in the roof during its construction by the insertion of earthenware pots without a bottom. The roof-top which is accessible by means of a forked timber, is used for the drying or storage of farm produce.

The Kasena compounds in the Navrongo districts of the Upper-East region, are of this design. Examples of the style are also found among the Nankanis, Frafras, Talensis and Builsas. See Figure 5.

Wala Compounds

The houses of the Walas, Dagartis and Lobis in Wa, Nakore and the surrounding country in the Upper-West region, are unique in style. Instead of round forms they build square ones with rectangular entrances, which are nevertheless as intriguing as the round ones. Though these houses also have dual-purpose entrance halls used for both reception and living, they have flat laterite roofs without parapet walls, supported on elaborate timber structures. The walls which are rendered inside, are built in layers with each layer overlapping the one supporting it. Covered courtyards, open spaces and low parapets are special characteristics of the Lobi version of this design.

Another quality which adds to the uniqueness of this

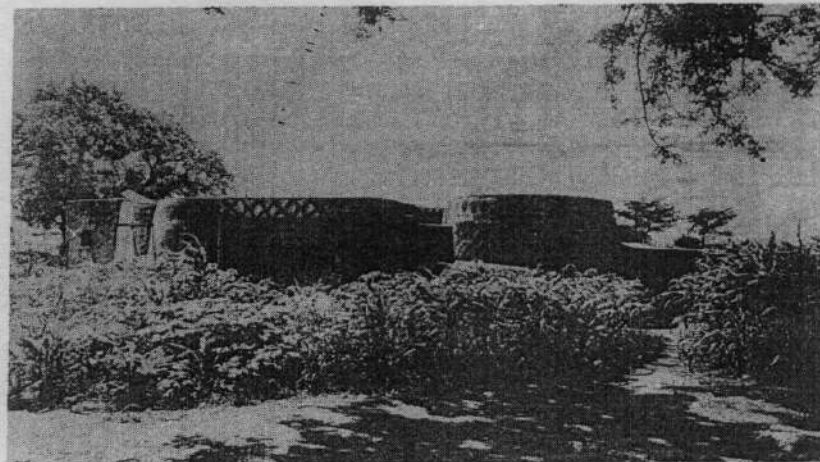


Fig.5 A KASENA COMPOUND NEAR NAVRONGO, UPPER REGION, GHANA. NOTICE DECORATIONS ON WALLS AND PARAPETS, AND SPOUTS

style is the triangular perforations on the front elevations of the buildings. Though these perforations appear as decoration, they are not just superimposed on the walls as an afterthought, but properly integrated into the general design. These openings which also ventilate the building, coupled with the imposing buttresses with pinnacled tops, supporting the walls, give the structure high distinction. See Figure 6.

The architecture of Northern Ghana like that of the south of the country, serves various purposes. Besides the domestic buildings which provide privacy and space for the numerous domestic activities of the people, and the grandiose edifices of the chiefs such as the palaces of the Wa-Na and Ya-Na which are designed to befit the important office of a ruler, there are the Mosques.

The Mosques

Mosques are buildings used by Muhammadans for religious services. They were originally intended to be mere shelters for protecting the congregation from severe weather during prayers. Since by Islamic tradition, prayer meetings could be held in any house in the early years of the faith, the plan of the Mosque is largely influenced by the traditional domestic architecture of the Arabs. The spatial organization of the mosque also makes provision for the regimental rhythmic body movements of the congregation during these ceremonial mass prayers.

Mosques are always oriented towards Mecca. They have an inner courtyard "sahn" which is enclosed on both sides by galleries, and a low flat roofed sanctuary "haram".

They may have, in addition, a "mihrab" in the form of a decorated recession in the wall which marks the direction of Mecca, and a "maqsura", an enclosed space around the "mihrab", where the caliph, sultan or governor prays. Mosques may also have a "minaret" - a tower, built at one corner of the building from where the "muezzin", the call to prayer, is made - and fountains or wells under porticoes, used for ablutions before prayers [5].

Some of the great mosques of Iran, Syria and Iraq may have extra space for "madrasa", a school often including libraries and living quarters for teachers and pupils, as well as elaborate decorations of magnificent wooden fretwork, carved marble and lustrous ceramic tiles [4]. The structure of the Nakore, Limanyiri and Dondoli mosque of Wa in Northern Ghana, on the other hand, is based on the primitive form of the early mosques of Egypt. They have laterite walls which are rendered inside and outside with sand-mud plaster and are supported by the traditional buttresses with pinnacled tops. Their flat laterite roofs are suspended on structurally sound timber construction and are of the same design as those of the domestic buildings.

The ground floor plan of the Dondoli mosque, Figure 7, shows doors at the north and south ends of the building, a window and the "mihrab" in the direction of Mecca. Section B-B shows a man in the minaret, sounding a call to prayer. The elevations show the two towers, the buttresses, decorative triangular perforations and some horizontal timber members, linking the buttresses. Figure 8 shows a photograph of the mosque surrounded by adjacent buildings.

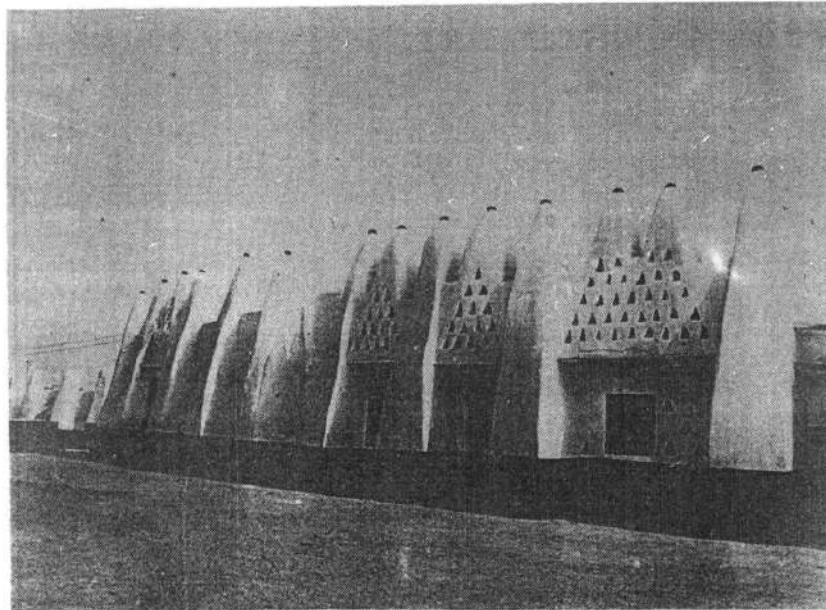
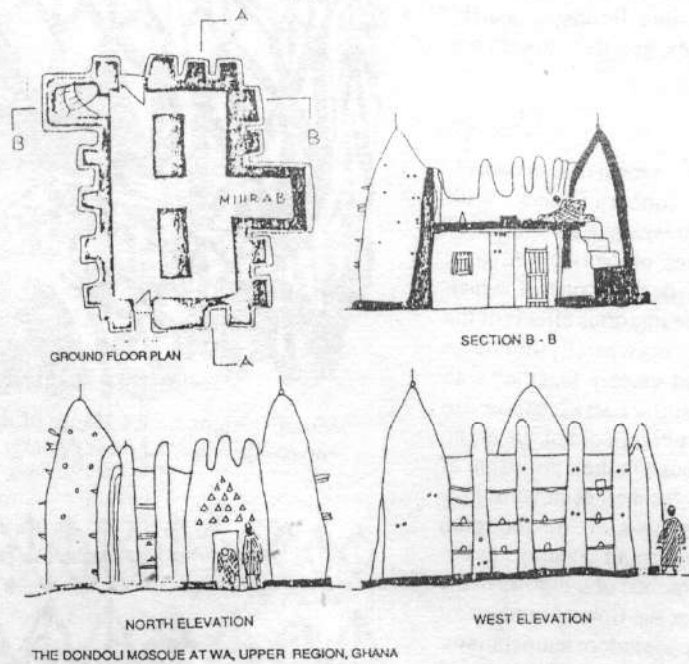


Fig. 6

THE WA-NA'S PALACE AT WA, UPPER REGION, GHANA, NOTICE THE MAGNIFICENT BUTTRESS WITH PINNACLED TOPS, AND THE TRIANGULAR PERFORATIONS



THE DONDOLI MOSQUE AT WA, UPPER REGION, GHANA

Fig. 7

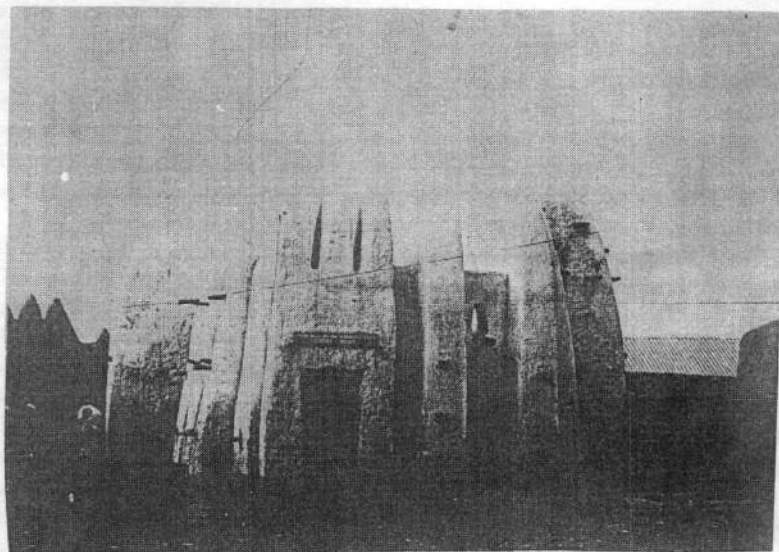


Fig. 8

SOUTH VIEW OF THE DONDOLI MOSQUE, WA, UPPER REGION, GHANA RESTORED BY THE GHANA MUSEUMS AND MONUMENTS BOARD

The simplicity and modesty of these mosques of Northern Ghana, reflects the deep concern of Muhammadans to avoid superfluous luxury. These buildings are devoid of large imposing frontages, stately facades and commanding portals, and their towers are kept at reasonable heights.

Control of Climate

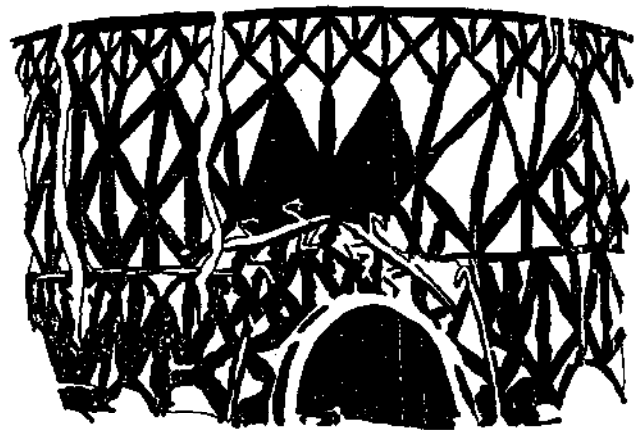
The control of climate is one of the main design considerations in the architecture of Northern Ghana. With their humble knowledge of the weather conditions of their environment, the societies of Northern Ghana, devised the compound house design concept which functions as a protector from the injurious effects of the climate of the region. In this concept whereby the houses are built in clusters and linked closely together with walls, only a minimum of their surface area is exposed to the intense heat of the day, and bitter cold of the night. The houses are therefore, effective in their provision of reasonably comfortable shelter for their occupants. Furthermore, the use of thick laterite walls for the room units, the provision of relatively small openings as entrances to the rooms, and the absence of windows in the building, ensure strict control of the flow of outdoor air into indoor spaces, and of moderate indoor temperatures. These and other elements such as the circular plan and thatch roof which are purposely used to ensure maximum resistance against storms of this region, on the one hand, and reasonable human thermal comfort, on the other, are some of the climatic modification characteristics employed in the traditional architecture of Northern Ghana [8]. Whether modern society with their profound knowledge of the universe and expertise in architectural science, could do better in the circumstances of the people of Northern Ghana still remains in question.

THE DECORATIONS

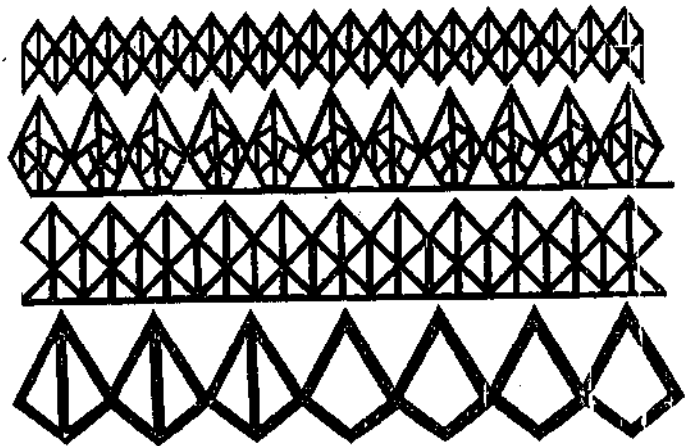
Mural decoration is an essential element in Ghanaian indigenous architecture. It is one of the most striking features of the indigenous buildings of this country. Because of its popularity, a house in Northern Ghana without mural decoration, can hardly be considered complete. While these decorations appear mainly on Chiefs' Palaces, Stool and Fetish Houses in the South, they appear on all buildings - both state and private - in the North. They are, therefore, not a demonstration of wealth or social prestige in the architecture of this region, but an art of self-expression. The designs are decorative and enhance the aesthetic quality of the buildings both interior and exterior, and thereby, endow the streets, lanes and alleys with special visual delights. Besides their decorative effects, they are used to identify and give character to each building.

Type of Designs

The decorations on the walls of the buildings of Northern Ghana are usually bold abstract patterns. They are designs of linear relationships which are generally



Mural Designs on the House of the First Wife of the Navro-Pio (Painted from Photograph by S.O. Larbi)



Various Motifs in the Designs on the House of the First Wife of the Navro-Pio. The Paramount Chief of Navrongo.

Fig. 9

devoid of the mechanical rules of perspective and static grids. The expressive qualities of the lines in these mural designs make them effective elements for the representation of forms such as the imagery which are common in children's linear drawings.

Some of the lines in the designs serve as contours which describe the outlines and volumes of the forms and the colour masses represented. The lines may be thick, thin, straight, circular, wavy, zigzag, continuous or broken, and the variety of these qualities coupled with their different rhythms, create such dynamism as is rare in the phenomena of pictorial expression. The designs may vary from house to house in composition and character.

In some of the compositions, the bold dark lines interspersed with geometrical spaces create a sense of drama. See Fig. 9. These beautiful linear designs like the fascinating patterns observed in vegetation, animals and environmental structures such as the branches of leafless

trees, prop roots, skeletons of animals, electric poles and pylons, scaffoldings, balustrades and tall industrial buildings, offer the artist great inspiration and infinite possibilities for further exploration of lines and spaces in design.

The decorations may cover the whole of the building or only its frontage. They may also be applied to the parapet walls of the houses with flat roofs. See Figure 5 above. There are special decorations around the doorways of some of the buildings. These may be mosaic composed with pieces of broken china and little whole plates. See Figure 10.

Method of Application

The designs are applied on the smoothed surfaces of the walls which are initially prepared with a plaster of fine soil. This forms the base for a second coat of mud and shea-butter carefully worked into a smooth consistency. These external finishes are done in three coats. The walls of the Fetish Priest's Compound at Navro-Pungu, for instance, had a rendering of fine loamy soil as the first coat. On this, was superimposed a mixture of fine gravel and laterite of the appropriate consistency as the second coat. Finally, a dark-brown paint was applied to decorate and render the walls waterproof [7]. Generally, both surfaces of the walls are rendered.

In the Northern Region, special attention is paid to the construction and decoration of the floors of rooms. In the example of the Fetish Priest's Compound, floors of laterite and fine gravel, constructed on a hardcore of stone, grug and lumps of dry earth, were decorated and rendered damp-proof with a vegetable solution [7].



ENTRANCE DECORATIONS OF DAGOMBA COMPOUNDS NEAR TAMALE, NORTHERN GHANA

By Courtesy of Hanna Schreokenbach

Fig. 10

While the houses of Northern Ghana are constructed by men, the decorations on them are done by women. Sometimes professional women artists from other towns are commissioned by landlords and organisations to do the decorations. Many houses in Bawku including the Treasury building, were decorated by women from Binaba and Kusanaba in the same district. See Figure 11.

Sources of Paint

The designs on these houses are painted with black or dark brown ink extracted from leaves, roots and seeds of plants including the Dawadawa (*Pakia Biglobosa*) [18]. The vegetables are pounded or chopped into little

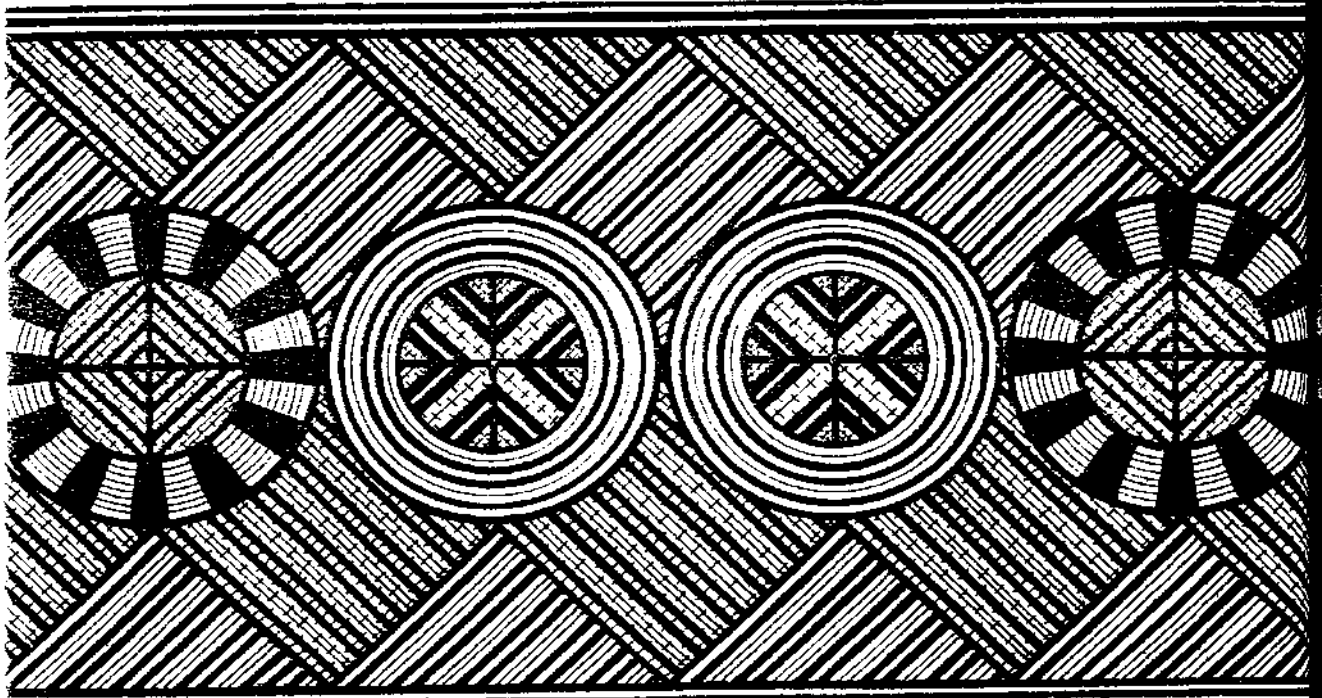
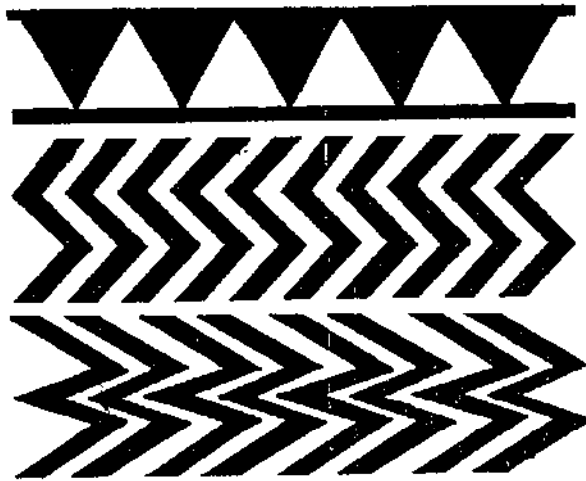


Fig. 11
PERFECTLY EXECUTED DESIGN-FORMING PART OF THE DECORATIONS ON THE TREASURY BUILDING IN BAWKU U.R. THE DESIGNS IN WHITE AND RED-OCBRE COLOUR WERE EXECUTED BY WOMEN ARTISTS FROM THE NEARBY BINABA.

pieces and boiled. The resulting liquor is then strained and stored for use. Various shades of dark-brown ink are obtained by this process, according to the kind of vegetables used and the concentration of the liquor. Vegetable dyes are also obtained from trees which grow in the forest region in Southern Ghana. The bark of the Senegalensis, a species of the Mahogany, known in Akan as 'Kuntunkuni-dua', produces black, while Anogeiasus Leiocarpus known as 'Kane' yields burni-umber. These and other dye-stuffs which are used in the fabric printing industry in Ashanti, could be exploited for mural decoration in the North.



DECORATIONS ON A KASENA COMPOUND NEAR NAVRONGO, GHANA
Painted from Photograph by S.O. Larbi

FIG. 12

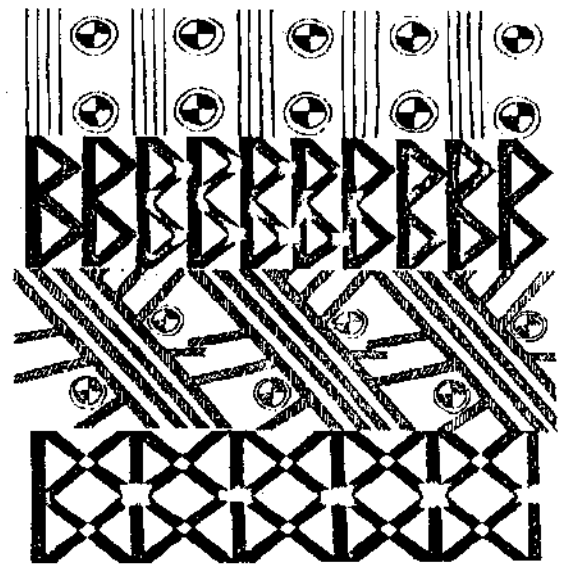
Colours obtained from earth deposits such as black and white stones and red-ochre laterite are also used for mural decorations. The colours of these minerals often depend on the nature of the constituent iron. Minerals which are low in iron are white or pale in colour, while those which are rich in iron are dark. However, small traces of impurities in lightly coloured minerals can change their colour. Corundum, for instance is changed into red and called Ruby by traces of chromium. It could also be changed into blue or Sapphire by traces of Titanium [14]. Similarly, a variety of beautiful mineral colours such as black, red, purple, green and grey could be obtained from slate which is derived from a metamorphosed sedimentary rock, known as shale. The various colours of slate which can be split and shaped into roofing shingles, electrical panels and blackboards, are due to the presence of organic or carbonaceous material in it. The higher the content of the organic matter, the darker the shale and slate [13].

CONCLUSION

The art of the people of Northern Ghana is a demonstration of intellect, knowledge and understanding of nature. It is a careful balance between needs and resources, and the appreciation of reality and beauty. It is furthermore, an expression of the decorative tradition of the Ghanaian artist who, by custom, is not only a builder and a painter, but also a weaver and a carver. Mural decoration, one of these creative arts exemplified in the architecture of this region, like the ancient Greek and Roman arts, has with time, attained a high standard of development, and must be recognised as a perfect art. In a similar description of the excellence of the Zulu hut, Barrie Biermann in his article, 'Indlu: The Domed Dwelling of the Zulu', wrote: "All human endeavour, no matter how humble, that has attained perfection in its own field, is a rare enough phenomenon to merit acclaim".

However, in the wake of the social changes brought about by the exposure of the Northern societies to formal education and cultures of the South, there might be a change from the traditional to modern living habits, and a possible growth of the subsistence economy into a prosperous one. The large compound houses may then be replaced by small house units with the capacity for accommodating only small families. In these circumstances, the Northern homesteads may shamefully give way to densely built residential areas with a concentration of population, the problem of squatting and its attendant environmental slums and social evils.

Nevertheless, if this change is in sympathy with the culture of the people, and conditioned by the physical characteristics and natural resources of the environment, and thus made to harmonize with the existing house forms and community structure, the advantages of the innovation will be more than the disadvantages.



LINEAR DESIGNS ON SOME NABADOM HOUSES IN NORTHERN GHANA
Painted from Photograph by Ian Archer

FIG. 13

ACKNOWLEDGEMENT

The author would like to express his most sincere and grateful thanks to Dr. H.N.A. Wellington and Mr. Yaw Asante, Senior Lecturers in Architecture in the Faculty of Environmental and Development Studies, U.S.T., Kumasi, for their generous and invaluable comments which have made this work possible.

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