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**ARCHITECTURE: THE SEARCH FOR  
IDENTITY AND CONTINUITY**

U. L. ARCHIVE

BY

**DAVID ARADEON**



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# ARCHITECTURE: THE SEARCH FOR IDENTITY AND CONTINUITY

An Inaugural Lecture delivered at the University of  
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U. I. ARCHIVE

by

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# ARCHITECTURE: THE SEARCH FOR IDENTITY AND CONTINUITY

## INTRODUCTION

### 1.0 PROLOGUE

In the next one... architecture, first as a synthesis of trans-civilizational interaction and the chronicle of his specific culture. Second, as a symbol of identity and continuity. The main focus of this exploration is within the physical spaces of our cultural ecology we have... exchanges from other cultures.

In doing so, we are acknowledging that cultural boundaries are porous and blurred, that communities are wrinkled distances and that rigid cultural boundaries and boundaries still exist as a physical entity less today than before. The field even though it is...

In the same space, cultures exist and co-exist as host and "stranger" cultures within the same space. The perception about any group, as "diaspora people", or the "ghetto culture" are examples of this fluidity.

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# ARCHITECTURE: THE SEARCH FOR IDENTITY AND CONTINUITY

## INTRODUCTION:

### 1.0 PROLOGUE

In the next one hour, we will be discussing architecture;

first as a synthesis of man/socio-ecological interaction and the chronicle of his specific culture. Second, as a symbol of identity and continuity. We shall focus on examples from within the physical boundaries of our cultural ecology. We shall also draw examples from other cultures.

In doing so, we are acknowledging that cultural boundaries are porous partly because, communication has shrunk distances and truncated cultural boundaries. But cultural boundaries still do exist as a physical entity less so today than before. It is fluid even though discernible.

In the same space, cultures exist and co-exist; as host and "stranger" cultures within the same environment. The perception about any group as "diaspora people", or the "ghetto culture" are examples of this fluidity.

## 1.1

In either case, groups, family and individuals live their culture wherever they find themselves.

We will discuss the mutual contact of cultures and detail the impact of European architecture on our landscape; we will also elaborate on the encounters of European art movement with African aesthetic values and examine, the impact of this new perception of aesthetics on the Modern international style architecture and its dialect, Tropical architecture. We will highlight the contributions of our Department of Architecture to Architectural education in our cultural ecology. Finally, we will draw conclusions appropriate for contextual architecture.

As a complement to this lecture, my work on exhibition in the foyer of this auditorium indexes my conceptual ideas about space, structure and form in Architecture. On my photography, this exhibition focuses on light as a form giver, and on my furniture design portfolio, the collection focuses on wood for its warmth, colour and texture. This exhibition, a selection of my work from 1976 - 1997 elaborates in greater detail than I could ever hope to explain and theorize in any hour long lecture.

## 2.0

What is Architecture? Is it art or science or technology or is all of these? More precisely, what is a building? Is it simply walls and a roof, or is roof sitting on walls which are standing within the context of space and time. In making a building, we employ the results and services of science and technology, even if we have to throw money at a type of technology. But because we can see the building, touch it, enter it and move

around inside it and move around outside, we can also express our liking and or dislike for all of it or parts of it. When we express those feelings, we do so within the cultural context of the building as a work of art and utility.

Architecture is art; but it is more than art. Unlike other creative arts: painting and sculpture, architecture must be functional. According to Fitch, architecture must first be functional whatever its artistic pretensions.

In either case, or at both levels, architecture chronicles your interaction with the following:

- 1) *the cycle of the sun and its cause/effect on the wind, rain and vegetation and the variations within the cycle of the seasons.*
- 2) *the specific micro-environment of your habitat,*
- 3) *the socio-cultural milieu of your group, and*
- 4) *your own personal psyche - moods, temperament.*

In so doing, architecture establishes an identity for each man within the context of the group and place in the space-time continuum. Hence, we talk of the search for identity and continuity.

## **2.1 ARCHITECTURE: the Search for Identity and Continuity.**

Subsumed within this title is the concept and expression of immortality: buildings or statuettes in memory to; streets named for, even where solicited or procured. Tombstones, even where they carried the simple inscriptions: "Here lies....., He lived, He

loved and He Passed on.” Even without inscriptions, the place and the space stand as a monument to our collective memories; symbols of our identity and the linkage to our continuity.

When the middle child at two expresses the concept of identity, she is unambiguous. “My own Mommy”, “My own house”. In the course of time, the context changes to “Our Mommy”, “Our House”. Long after that, it changes to “My father’s house”. At womanhood, that same house will have become “The family house”.

From childhood to womanhood, the perception of identity admits the realities of the constraints of shared values.

## **2.2. ARCHITECTURE is AN INDEX to the READING and INTERPRETATION of CULTURAL ECOLOGY.**

The empty space and house form, as well as the lost city, share one thing in common; each in its special circumstances provides an intellectual challenge to our understanding of the culture of its location.

In the absence of written records and material culture, the built forms as the “vestigial remains” of the physical setting has made possible, “the revelation of evolving humanity and its adaptation to environmental influences”. (Lloyd: 76, 9) [1]

Great Zimbabwe (14 - 15th century), as epitomized by the complex of buildings of the Matabele civilization are exciting examples of the complex nature of human culture.

According to Peter Garlake, "Great Zimbabwe..... is a building of peculiar size and imposing grandeur, the product of two or three centuries of development of an indigenous stone building technique, itself rooted in long traditions of using stone for field walls, building platforms and terraces. The structure reflects the economic dominance and prestige of a small oligarchy that has arisen within an Iron Age." (Garlake: 73, 202). [2]

In his book, *The Mystery of the Great Zimbabwe*, (1984), Wilfrid Mallows, an architect, challenges the reader to another point of view. Discussing the site plan, he said and I quote, "Whoever chose this site knew his business. Sited on a smooth granite outcrop overlooking the Valley Ruins to the southwest and, with extensive views to the southeast" Great Zimbabwe "supervised the Valley Ruins and guarded the southeast approach to the Hill-Fortress. The entrances reflect this function. Entrance 1 controlled the approach to the Hill Fortress; Entrance 3 gave direct access to the Valley Ruins, with the nearest Maund Ruins only 130 metres away; while Entrance 2 was the back door from which domestic rubbish, according to Hall, had been thrown down the steep southern slope to the valley bottom." (Mallows: 84, 13) [3]

Elaborating on the physical planning, he observed that "there is virtually no Euclidean geometry: there is not one straight wall, not one rectangular space, no true right angles or circles or true arcs of circles in any portion of the plan..... "All the planning shapes are curving, sinuous, infinitely flexible to fit any topography or any function, as if the laws of geometry had not yet been invented or, if known, had by choice been avoided." (Mallows: 84, 39). [4]

2.3 In Nigeria, the artefact from the excavated Tomb of Igbo-Ukwu, the fired and unfired bricks from the excavated cities of Kanem-Bornu (12 - 16th centuries), 'Mai Idris' capital at Birnin Gazargamu and his summer palace at Gambaru, have not only informed us of a past, rich in material culture, but also of traditions possessing highly developed technologies for iron smelting and building.

In a larger sense, our understanding of human achievement has been informed through the excavated lost city and its space and house forms. In a more specific and regional sense, while Igbo-Ukwu and Birnin Gazargamu represent aspects of our own contributions within this total human achievements, they are symbols and realities of our identity and continuity.

### **3.0 ARCHITECTURE AS KEY TO HUMAN SPIRIT.**

While still on the theme of immortality, I would like to briefly illustrate with some slides:

- 1.The Pyramid of Teotihuacan, Tikal,
- 2.The silent and mysterious Pyramids of Giza and The Funerary Temple of Queen Hatshepsut in the Valley of the Dead in the land of the Pharoes, and finally
- 3." The elegant Taj Mahal, (1630-1653) in Agra, India.

The Taj is considered to be one of the most beautiful buildings in the world. The Moghul Emperor, Shah Jehan, had it built to the memory of his favourite wife, Mumtaz-i-Mahal. Built with translucent marble, the Taj 'as generations of visitors attest, is

blue at dawn, white at noon and yellow of the sky at sunset.' (Hoag, 1977; 184). [5] (Aradeon: 96,83). [6]

From the Pyramids of Giza, the burial chamber, to the Taj Mahal, the mausoleum, each one of these examples, is a reflection of Architecture as the key to the passion and the ultimate symbol of the grandeur of the human spirit; the expression of his vanity; the silent and enduring symbol of his power of intimidation; the nobility of his conception and creation; the measure of man's capacity to oscillate between indigence and opulence.

3.1 Also, architecture is the most profound expression of the rebellious spirit of man. In the hands of those who control the social order, Architecture has been used throughout human history to construct and enhance their hold on power. In the hands of those marginalized and displaced, architecture is a tool of revolt against the centres of power.

MAPO HALL, Ibadan, and STATE HOUSE, Marina, Lagos are examples of the use of Architecture to construct power.

The site of Mapo Hall on a prominent hill top is intimidating: the robust and massive corinthian columns, the colonnaded portico terminating in the imposing pediment of the approach elevation are elements, each and all, designed and detailed to compel and focus approaching attention. After seventy years, the scale and size of this public building within an existing indigenous urban structure is still alienating.

The residence for the Colonial Governor was built within a segregated enclave in the colony overlooking the Marina and the Lagos Harbour. Compared to Mapo Hall, the Residence is aloof and unapproachable.

At another level, the influence of Mapo Hall on the architecture of Adebisi Idikan and the main-house, Foko Compound illustrate identities and continuity even though disjunctive to the cultural ecology of Ibadan. (Aradeon: 1996) [7]

3.2 The impact and influence of the architecture of Mapo Hall on Adebisi Idikan and the Main House, Foko compound rendered unfashionable, the indigenous space and house form in Ibadan. In this process of change, placing new tradition in close proximity to existing traditions is a powerful tool for inducing visual slums. By comparison, the spatial context of these contiguous traditions influence slum living conditions. The colonial process used this strategy with devastating effect. In a previous publication, we noted that "the single house contributed to the obsolescence of the traditional house form and to a degree, its lifestyle. Its emergence introduced new values, meaning and language, the codes for which are not likely to be easily understood by nor successfully taught to the indigenous culture." (Aradeon: 91,93). [8]

3.3 State lands and its antecedent, Crown lands owe their realities to the Laws of Eminent Domain, the legal instrument for the piecemeal dispossession of the peoples' rights over its land. Its use in this region by those who control the social order has repeatedly provoked revolt. Central Lagos (1955), Maroko (1994) and Aja (1996).

The systematic growth of popular settlements on State lands: Ketu, Lagos (1976); Pikine and Nimjad, Dakar, (1969); Maroko, Lagos (1965) and the Eastern marina foreshore since 1977 are expressions of architecture as a symbol of revolt by those who are continually being marginalized by the State power.

In disputes over land ownership, Architecture constructs the power of possession.

3.4 As we observed earlier, the architectural style of Adebisi Idikan and Main House, Foko compound draws on the character of the architectural expression of Mapo Hall: the articulation and dominance of the Main House over the complex in the compound, the pre-eminent intrusion on to the street over the enclosure walls, are elements of the neo-classical architectural style that spread in the core city.

Mapo Hall influenced generations of family houses whose Oloye had one built in the family compound in anticipation of becoming the Olubadan. (Aradeon:1996) [9]

This phenomenon of borrowing or copying, transforming and transplanting creative and visual arts across cultural ecologies confirms Eric Wolf's observation, that the mutual contact and confrontation between cultures is one of the catalysts for change and cultural fusion. (Eric Wolf: 82.). [10]

In order to appreciate the monumental importance of this change on Architecture, let us review briefly, the influence of the European classical revival Architecture in the colonies during this period.

#### **4.0 ARCHITECTURE and the IMPERIAL MISSION.**

The first half of this century, marked the consolidation of the European colonization of Africa. We would like to call attention to two significant factors in the 1950-1960 decade.

First, with the exception of Liberia, dominated by the emigre black American culture in Monrovia, the West African region was on the threshold of political independence. Also, with the exception of Ethiopia, the east, south and central Africa were still under the control of white settler minority governments. In these other parts of the continent, the minority white settler population saw their enclaves in Africa as the physical extension of Europe and their particular European culture as the mirror of civilization.

4.1 Architecture and the context of that architecture was an important indicator for development; the code for cultural identity and continuity. In the French, British, Portuguese, Spanish colonies just as in the imperial countries, the architecture of public buildings were built and expressed in the neo-classical style.

In South Africa as it was in India, the architecture of Herbert Baker was imperial partly because he was, in the circumstances of the times, the architect of Cecil Rhodes, the empire builder. Also, he was by formation and conviction, an architect who believed in the Imperial Mission, like Lord Lugard in Nigeria and Marshall Lyautey, the Governor General of French West Africa. Both men were contemporaries.

The mission of European colonialism was to civilize the "uncivilized"; its religion was to christianize the "heathens" and its Architecture by extension, was the tool and the symbol of this mission. The architecture of the christian church set on the location of the indigenous local temple or shrine has a dual meaning and a significance, far beyond its formal expression. All over the world, the landscape of the colonized is congested

with several examples of Architecture as a form of religious symbolism. The effect has been devastating on the cultures of a colonized people.

4.2 Firstly, we would like to emphasize that prior to European colonialism and Arab incursions this century, there was no architectural vacuum in Africa.

Secondly, 'vernacular architecture' a more contemporary terminology for traditional architecture, is normally excluded from the Western European History of Architecture texts because, it is considered as non-monument. However, this type of architectural expression continue to provide the most comprehensive index and guide to the various cultures of the peoples. (Rapoport; 69.1). [11]

Colonial officialdom ignores and denigrates the formal and informal expressions of those cultures but sought a thorough understanding of these cultures as a basis for political, social and economic control.

These houses built in the "non permanent/durable materials of earth and vegetable roofing" contributed two significant vocabularies to modern international architecture: "Built-in obsolescence" and "organic architecture". The two concepts are linked. The first explains the concept of spatial restructure, material renewal and rebuilding in scale that is manageable, while the second concept explains flexible spatial organization that allows physical growth of the house to reflect changing family/extended family size and values. (Aradeon: 1996) [12]

Thirdly, at the turn of this century, the 'encounters' of the European art movement with the aesthetic values of the 'primitive peoples' influenced Modern Art in the Western World. (We would be expanding on this phenomenon later in this lecture).

4.3 As we observed earlier on, the architectural expression indigenous to the region have had no relevance to the empire builders in the first decade of this century. However, by the second decade, we note changing trends.

In southern Africa, the influence of modern/international style was evident in the region as early as in the 1930 decade in the work of resident/settler architects. These architects had either studied in, or have had contacts with the leaders of the movement in Europe. The movement consolidated its influence through residences designed by the architects for themselves and for private clientele.

In the West African region, colonial buildings continued to be built largely by the Ministries of Works in neo-classical idioms.

In French West Africa, colonial public buildings romanticized aspects of traditional architectural styles in an apparent change of policy in 1903 by French Governor Jourard who said, "We are not like others who tread down those they conquer but we are willing to walk with them, alongside them like brothers." (RBF; 87, 1385). [13]

4.4 Consistent with the nature of architects and master builders, ideas and motifs were transferred, and symbols were transposed as stylistic elements across cultural and colonial

boundaries. For example, a pointed arch opening dominates the central and only tower of the Main market in Bamako, Mali. The pointed arch is a stylistic element normally found in mosque architecture in the Maghreb.

In East Africa, Cornell used eclectic elements, the arch opening and lace like screen from Mogul India as decorative sun screen on the facade of the Crown Law Building in Nairobi. (Sharp:83, 205) [14]

4.5 With the independence of Ghana in 1947, and Nigeria, (1960) and most of the French colonies (1963-1965), the West African region embarked on a public building programme. Within two decades, the rate of construction was impressive and the investment of public funds was staggering. In spite of its monumental contributions, International style architecture continued to exhibit fundamental flaws:

Because it ignored the local culture, programming did not and could not respond adequately to spatial and user needs; its claims to universal validity was the very antithesis to regionalism and cultural relevance, and finally, the performance of the concrete roof form in this region of immense and sustained rainfall was a failure especially for large spans.

If the colonial architecture articulated by Edwin Lutyens and Herbert Baker jointly in the New Dehli project and, by Herbert Baker alone in Southern Africa denied the relevance of any tradition in the architecture of the region, Maxwell Fry and Jane Drew, the pioneers and propagators of the international style in West Africa, were even more emphatic about questioning the

validity and continuity of those traditions. (Beier: 60,19) [15].  
(RBF:87 1389). [16]

## **5.0 AFRICAN AESTHETIC VALUES ON MODERN EUROPEAN MOVEMENT IN ART and ARCHITECTURE.**

An examination of the impact of African aesthetic values on the Western European Modern Movement in Art and Architecture will enable us to situate Tropical Architecture within its historical and stylistic context. It will also enhance our understanding of the sources of the inspiration of the parent movement.

5.1 At the turn of this century, the encounter of the European art movement with African aesthetic values was to influence Modern Art in the Western world in two critical ways:

Firstly, European Anthropologists, in the course of their study of "Primitive" cultures of Africa and Occenia, collected a whole range of material cultures: masks, totem, jewelry, etc. These collections were housed, stored and displayed in Museums.

In the spirit of the times, these museums were created in neo-classical architectural styles.

The practice of our own museums as repositories and storage of material culture derived from this European antecedents. (Aradeon: 1996) [17]

5.2 The concept of "primitivism" is racial in origin. In 19th century Europe, European culture articulated most other non-European racial groups as privimitives. By the end of the first quarter of the 20th century, the use of the term primitive culture had evolved to refer exclusively to the peoples and

cultures of Africa and Occenia. Among the leading artists in Paris, especially, the Surrealists/naturalists, the primitives were regarded as the "noble" savages.

Secondly, the contact of European art movement with these artefact within the context of private or public collections changed the direction of European aesthetic perception. The power of distortion of the African mask to give new and powerful meaning to their images freed the European artist from the constraints of their naturalist traditions. In architecture, the use of asymmetry in the creation of balanced composition also freed European architecture from the rigid reliance on symmetry as well as on the golden rule of proportion of the classical forms.

In 16th century Europe, important public and private buildings were built in the neo-classical architectural styles. In Paris, the Musee de L'Homme and The Palais de Louvre east facade, (1667) in London, The British Museum, (1823-46); in Berlin, the Altes Museum, (1823-30). Students of Architecture were educated and cultured on the principles of the classical orders enunciated by Palladio. Ecole des Beau-Arts in Paris was the foremost educational centre in Europe.

By the close of the 19th century, the cultural linkage to classical architectural style had become the tour de force in the United States. In addition to The Metropolitan Museum (1880 -1906), in New York city, the Medieval Cloisters in Spain (1558) was stripped down from its original location in Europe and re-assembled in New York (1934-38). It became The Museum of Romanesque and Gothic religious relics.

5.3 The claims of the Western European christian culture to the Greek/Roman cultures found an apparent manifestation in the symbolism of those buildings. However, the collections of artifacts and material culture from "exotic and "primitive" cultures of Africa, Oceania, India, Asia and elsewhere enshrined the interior spaces of those Museum Buildings.

In one single container, the extinguished past of an alien and pagan culture was resurrected, appropriated and placed on display in these European Museums. If the contradiction was noted, it was not so easy to admit.

In the galleries of traditional Museums, viewing artistic work increasingly became an intellectual experience. The continuous gallery ramps of the Guggenheim Museum, (1965), departed from this tradition. The Guggenheim gallery ramps would push the viewers through rather than give them the platform on which to view, contemplate and enjoy the work of art on display.

5.4 The work of anthropologists such as Marcel Griaule and Mme Deterlen among the Dogon, Le Boeuf among the Lobi enriched French culture. The African masks had wrought an indelible change on the perception of European artists such as Picasso, Kadinsky, Paul Klee, Moore, Giacometti to name a few. Abstract art widened and extended the horizon of 20th century European architecture, painting and sculpture. In Europe, Paris became the most important centre of creative and artistic ferment and European Universities the intellectual centres for the study of primitive and exotic cultures.

5.5 The encounters of the European art movement with African aesthetic values influenced Modern Art and architecture in the Western World. Picasso, one of the giants of 20th century art was a product of this influence. His painting, "Les Femmes d'Alger" is famous for its literal manifestation of the African influence. The forms of the faces of the young women are clearly derived from African masks. Moreover, to avoid any doubts, Picasso depicted the face of the woman in the upper right hand corner literally as a carved wooden, black mask. Completed in 1907, this painting represents a new approach in western art towards naturalism and the human body. Artists recognized in African sculpture the power of distortion to give meaning to their images. Modern European artists were finally freed from the constraints of their naturalistic tradition.

5.6 "The study of African architecture and an appreciation of some of its qualities influenced another giant of the 20th century; Le Corbusier was an active artist and architect who had studied both the traditional vernacular and the monumental architecture of Asia Minor and Greece during a voyage d'études as a young man. Later he took the opportunity to visit the Mzab in the Algerian desert.

"These crowded white-washed oasis cities with the dwellings and mosques that follow the contour of the site, turning unexpectedly at every step, profoundly influenced Le Corbusier. He made numerous sketches and also stored the images in his mind's eye.

"Much later, Le Corbusier had the opportunity to draw inspiration directly from Mzab Mosque architecture and principally from one mosque, the Sidi Brahim Mosque, located out in the country-side.

This mosque is used during the great Muslim festivals by huge crowds, but on a daily basis, only a few faithfuls worship there. Le Corbusier was given the commission to design a Catholic pilgrimage chapel and he immediately recognized the similarity in spatial use. A pilgrimage chapel also has to accommodate large crowds and simultaneously provide a sanctuary for the solitary, devout worshipper.

"Le Corbusier acknowledged the influence of the traditional mosque architecture in the Algerian Mzab upon his design for the Ronchamp Pilgrimage Chapel. When Le Corbusier visited the Mzab oases and the mosques, he recognized the spiritual quality of these humble, sombre sanctuaries. In the Ronchamp Chapel, he sought to achieve the same meditative atmosphere. Le Corbusier also recognized the architectural beauty of these traditional buildings. He conceived of architecture as "the magnificent play of forms in light" just as in the Sidi Brahim Mosque, his Catholic chapel has deeply set windows which funnel shafts of light into the central space.

"The forms of the oases mosques differed radically from the International Style architecture with its rigid stereometric forms, precision detailing and sleek white finish. The plan, the elevation, the walls, the orientation — all these aspects of the mosque are irregular free forms. The battered mud walls curve at random. In Ronchamp, Le Corbusier allowed himself the freedom to experiment with irregular free forms and textured wall surfaces having recognized their potential for beauty.

"Le Corbusier studied traditional African architecture, appreciated some of its principles and features, and then transformed them into his own aesthetic and architectural

language. Ronchamp Pilgrimage Chapel opened up the horizons of Modern Architecture to the potentials of free form sculptural expression in concrete. (Susan Aradeon, 1988).[18]

The Brutalist tradition of which Ronchamp was a remarkable landmark include the work of Le Corbusier in Chandigarh, Oscar Niemer, in Brasilia, Louis Khan, in Dacca, Nervi in Rome, Kenzo Tange in the Tokyo Olympic village to name a few.

According to Hamish Maxwell, "The influence on twentieth-century Western art of the traditional sculpture of African, Oceanic, and other peoples of the world's developing countries demonstrates the vitality that can result from cultural interaction. It is also a measure of the debt that modern culture owes these peoples."

....."modern art (western European culture) has been immeasurably enriched, and its public has been helped to appreciate a variety of great art remote from its own traditions." (Maxwell: 84,vi).[19]

## **6.0 MODERN ARCHITECTURE/TROPICAL ARCHITECTURE**

A glancing familiarity with international architectural style is critical to our understanding of tropical architecture.

Tropical architecture is the mid-20th century modern European response to our cultural ecology. As a movement, it is a dialect of the international style architecture. Where the dictum of the parent style was "**FORM FOLLOWS FUNCTION**", tropical architecture articulated instead the principles of "**DESIGN WITH CLIMATE.**"

In the temperate climate, especially in the United States where the international style architecture was in full bloom in the 1950-1960 decades, the use of glass as curtain walls visually opened up the interior spaces to the external environment but the internal working environment were sealed and protected from natural ventilation. The building depended on fossil fuel for heating and cooling, transportation and water services.

6.1 As a reaction to the classical revival movement in Europe at that time, it embraced functionalism but rejected the traditions of western Christian European architectural history.(Bourassa:89,293) [20].

This history which had appropriated the architecture of the Pagan cultures of ancient Greece and imperial Rome had consistently denied the contributions of other cultures to traditions in architectural ideas and thoughts!

Case studies of building types developed for western european cultures became antecedents for other cultures/places. The claims for its universal validity by the propagators and adherents of the movement are predicated on functionalist principles, rational planning and structures. The single space and house form as well as the apartment building as typologies for living in our cultures exposed the inherent weakness and the intellectual contradictions of the modern movement.

A cursory comparison of the works of three major masters of this movement, Mies, Le Corbusier and Frank Lloyd Wright reveal identities so stunning in stylistic differences and yet consistent within the basic principle enunciated by the movement of "FORM FOLLOWS FUNCTION". Mies's technical excellence with

his glass and steel articulation of the box format; Le Corbusier with mastery of the plastic forms in concrete and Wright with the mastery of spaces.

6.2 In addition to Form Follows Function and the perception of universal solution, tropical architecture propagated the principles of natural ventilation and like the parent movement, promoted the use of a new technology based on reinforced concrete and cement based material for enclosure walls. For example, the space and house form of the single family house in Bodija, Enugu, Surulere appeared to transcend culture, time and place. In actual fact, the single family house of this period continued the early British colonial period single family house of which the Afro-Brazilian sobrado and the Saro houses were variations of a theme. (Aradeon: 1997:) [21]

6.3 In the 1950-1970 decades, the Campus of the University of Ibadan was the first major statement of the modern International style architecture in this country. Its impact on the practice of architecture and architectural education has been immense. The planning and the architecture of university campuses continued to influence the spatial organization of generations of Nigerian University campuses into the 1980 decade.

6.4 While it is arguable that without the intervention of European antecedents, our traditions might very well have had to emulate the spatial typologies created for other cultures for homes, schools, churches, hospitals, stadia, in reality, the circumstances of that intervention mitigated against the process of internally generated change. We remain caught between

apparent contradictions and the subconscious manifestations of our cultural realities.

The consequences of these conflicts have and continue to create crisis in the culture of our public housing and its environment and the context of the architecture of space and house form.

Let us discuss tropical architecture and the context that has triggered that crisis.

## **7.0 TROPICAL ARCHITECTURE :SPACE AND HOUSE FORM**

Two major sources, Maxwell Fry and Jane Drew (1964), and Kulfermann, (1969), have contributed to the literature and our understanding of the impact of European influence on Space and House form in the west african sub-region. In the 1950 -1960 decade, Maxwell Fry, the British architect who promoted the International Style in Britain received a commission to design the University of Ibadan in Nigeria. His firm handled many other commissions in West and East Africa. Ultimately, Fry influenced many African, British and Third world architects through his commission, publications and teaching at the Architectural Association in London.

Maxwell Fry and Jane Drew and a host of others, notably, Richard Hughes, Kenneth Scott, James Cubbitt and Partners, Alan Vaughan-Richards, Fry, Drew/Atkinson, The Design Group and Godwin and Hopwood pioneered an architecture of space and house form based on the principles and methods of design for the hot and humid climate.

7.1 With orientation for air movement from the south and south-west, living spaces are planned to achieve cross ventilation through equal size openings placed on opposite sides of the walls. This architecture created two pairs of walls; the east wall and the west wall. From sunrise till early afternoon, the east wall blocks the sun; and from late afternoon till sundown the west wall blocks the sun. The south wall admits the in-flow of the south breeze and its complement, the north wall functions as the wall that filters out the south breeze.

These pairing of walls, the sun walls and the breeze and light walls became part of the major referents for understanding the reading of the new architectural idiom. Within the capsule of the two pairs of parallel walls, the living/dining merged into one continuous space with the hatchway providing the physical linkage between the kitchen/pantry and the living/dining. The hatchway separates and links food preparation from the celebration of dining. Additional referents consists of the shading devices over window openings for glare control and, low ceiling to keep the volume of dead air space to the minimum even though, dead air space within the context of an architectural space, is a function of the window height.

7.2 Design solutions for planning approval were restricted to spaces one room deep for air circulation. In most buildings, the application of these rules resulted in linear plans with extended corridors for circulation.

The white box format with the sun screen/breathing walls and flat concrete walls dominated the architecture of space and house form, while the slab became the quintessential form for tall office buildings as in both the Mandillas House (1962), and

the Independence Building (1962). In either case, the major focus of the architectural design was the light and air filter/screen on the south and north orientation, framed within the solid/blank east and west walls.

7.3 In most of the examples, the screen was expressed with the use of small repeated units to create a lace-like pattern of masonry grille on the elevations. While most of the screen patterns were in scale in the architecture of space and house form, they looked rather fragile in tall buildings. Compared to the bold delineations of Le Corbusier's brise soleil in Chandigarh (1965), and The Harvard Visual Arts Center (1963), the grille work articulating all the views of the Independence Building, (1962) and The Force Headquarters, Obalende, (1965), look rather delicate!

### **DESIGN WITH CLIMATE: The Experience in "Tradition"**

Space and house form built with earth masonry is continuously in equilibrium with the environment of its location. Earth is an environmentally friendly material. In thermal behaviour, the performance is superior to any other masonry material including sand/cement masonry. Its inherent capacity to absorb, store and delay the transfer of heat from outdoors to indoors, aided by the thickness of the load bearing walls accounts for its continuously stable indoor temperature; in the wet season when it is cold/damp or cold/dry, the indoor space is warmer and dry, and in the dry season when it is hot/dry or hot/damp, the indoor environment is cooler and dry. As the outdoor temperature falls

in the evenings, earth masonry walls transfer back its stored energy to the outdoor environment.

In addition, air exchange by convection takes place. Comparatively cold air flows-in through the bottom of doors, expands as it rises through the space to the sun heated thatch roof and exits through the loose but tight fabric of the thatch roof. Rising smoke, visible through the thatch roof during the rains confirms the principle of air exchange through the "breathing" thatch roof. Space and house form built with earth and a roof structure that breathes do not have to depend on openings in the masonry walls for ventilation.

8.1 The local experience, borne out of the use of earth for the construction of space and house form teaches us that air, unlike light, does not travel a straight path; second, that in a single space frame, air would find an outlet through any area of low pressure; third, that unequal size openings on opposite sides of the wall will create a differential in air pressure strong enough to generate a draft. Based on the understanding of these principles, creating an architecture of complex spaces for natural light, air exchange and thermal comfort still remains a very complex, challenging and painstaking process of synthesis.

## **8.0 IMPACT OF THE SCHOOLS OF ARCHITECTURE IN THE REGION**

As may be expected, the curriculum of the leading Schools of Architecture in the sub-region was structured largely on the theories, principles and practice of modern architecture in the tropics. To the extent that those theories explored the problems of designing for comfort in the hot and humid climate and,

functional performance; building with new and more durable industrially produced building materials and construction methods, they brought about a dramatic change on the landscape. However, the lines and surfaces of the new architecture, according to Beier, were "hard, angular, glaring white, unapproachable" and out of context. (Beier: 60,19) [22]

Tropical architecture was based on the principles of climate control, functionalist and rational application of structural principles:

As a 'dialect' of the International Style, tropical architecture ignored local cultures and their traditions. Like other adherents to the International Style aesthetics, Maxwell Fry believed that his architecture was capable of improving the quality of life of the Africans. It was, for Africa, "an instrument of introduction to European life and thought". Ulli Beier also quotes Maxwell Fry as saying: "I am commonly asked to what extent the development of contemporary architecture draws on the cultures in which it takes place, to which I could reply: How much continuing life is there in these cultures? Have they contemporary validity? Are there artists who feel them and can express them in contemporary terms?" (Beier: 60,19) [23]

8.1 This perception reflects the environment of the mid-twentieth century when the new nation states aspired to political nationhood. European ideas and perceptions shaped the physical environments in the forms and symbols of the International Style architecture and planning, and structured space and house form in the materials and technology propagated by the movement. Some perceptive observers like Beier questioned the relevance of this new architectural forms

to the diverse cultures within the geographical boundaries of the new nations at that time. (Beier; 60, 18) [24]

At a fundamental level, it is quite possible to understand how the Europeans could have simply been overwhelmed by the sun and its energy. As a consequence, they negotiated other factors such as the local culture away. In doing so, they created codes and regulations to effect the strict separation between living and working and engineered the social process of conflict between aspirations and realities in our housing environment.

## **9.0 ARCHITECTURE OF SPACE AND HOUSE**

8.2 The work of Dmochowski on the Faculty of Architecture at Ahmadu Bello University was centered on research on the traditional architecture in Nigeria. The students assisted in the field work on the survey and measurement of existing buildings. The Museum of Traditional Architecture in Jos as well as the three volume publication on the Traditional Architecture of Nigeria constitute a major contribution to the literature in the field. Above and beyond the personal commitment to research by individual members of the teaching faculty in almost all the Schools in the region, the curriculum in the Department of Architecture in Lagos structured courses on the subject to sensitize the students to their common regional environment.

8.3 In the first semester of the second year, we offer a basic course on Traditional materials, principles and methods of construction. In the second semester, the students participate in a studio programme designed for an understanding and appreciation of regionalism in the built environment. The studio project encourages research and enquiry through team work. The six to eight week project consists of research and analysis of cultures selected to reflect a fairly wide regional spread for

comparison and contrast in order to illuminate socio-ecological factors and technology as determinants of Space and House form.

8.4 By the 1960-1970 decade, cultural relevance and behavioural patterns had become more widely accepted as important factors in the shaping of space and house form relevant to the culture of the user. (Rapoport:1964) [25]. Aradeon:1967) [26].

## **9.0 ARCHITECTURE of SPACE and HOUSE FORM: TRADITION and MODERNISM.**

What is our tradition of space and house form in architecture? To speak of tradition is to imply modernism. What is tradition? Is it the way we were or the costumes we wear; our diet or the way we eat our food? A space may be traditional because of the material and the method of construction but the way we use the space, the gadgets we put in it may be modern.

9.1 In a paper published in the Journal of Architectural Education in 1981, I had observed that the "existing built environment is our major resource for the teaching of the design process in architecture." It was also noted that "the degree of divergence is as wide between us as architects and the users of space as it is among the users themselves." (Aradeon:81,25) [27]

9.2 The transformation of the Space and House form from the compound house in tradition to the single house has been as remarkable as the impact has been devastating on the physical and social landscape: planning subdivision, zoning regulations and the building codes were designed and structured to

reinforce private ownership of land and promote the single family space and house form as the sine qua non for development. The acquisition of communal land under the state laws of eminent domain, the use of state funds for the development of infrastructural services and the distribution of the serviced land to groups with access; the prohibitive cost of infrastructure and, maintenance services of the tenuous service lines dictated and generated by the planning layout thinking has helped to shape the form and content of our physical and social landscape.

The high density figures per unit of space for the middle and upper middle income families in urban centres account for the stress and dislocation to family social structures. The attendant patterns of spatial use overwhelms the space and house form of the single family house. The patterns also manifest a culture of adaptive, creative and functional response that treats space largely as a framework and a reference place; a place with a shifting/variable social foci generated and defined more appropriately by human activities." (Aradeon:91,95) [28]

9.3 The aesthetic language of the house form adapts to the stylistic expression fashionable at the time. At the street level, old and existing house forms are "renovated" primarily to create higher market values. In view of this pattern of changes, the stylistic elements of the architecture of space and house form of each tradition remain recognizable but the forms are blurred in part because of the juxtapositions and over layering of styles of the urban texture.

For example, the blank and silent walls of the compound space and house form with its series and hierarchies of courtyards

creates the space for the sun, shade and human motion; a motion which constantly moves in rhythm with the sun. The compound house and the traditional cities is an architecture of walls, mud walls within mud walls, and spaces within space. Someplace, they are distinct; sometimes, they are the same shading human activities from the sun. This architecture is more spatially organic than the architecture of the "brise soleil". (Aradeon:1967) [29]

9.4 The colonial single house accepts the east and the west sun; so are the Afro-Brazilian town house and the Saro house of the same period. The single house of the 1950 decade, designed for the tropical climate rejects the east and the west sun by creating the blank walls to block these views. The often severe expression of this house form contrasts with the exuberance and the self assured flamboyant expression of the house form of the 1980 post-modern decade.

## **9.6 Foundations of the Traditions in Space and House Form**

Prior to the mutual contact between the Portuguese and African cultures in the 15th and 16th centuries, the Compound/courtyard house typify the space and house form in cultures indigenous to the sub-region. The compound houses were culture specific; in formal stylistic expression, especially in the spatial organization, they varied from one culture to the next. For an understanding of the architecture of space and house form dating from this period, we are indebted to several sources: Jean-Pierre Beguin et al; Paul Pelissier; Gerard Brasseur; Leo Frobenius; Marcel Griaule; Paul Oliver; Louis-Vincent Thomas, etc.

While some of these sources were illuminating on the social relations of the cultural groups studied, others like Froebenius traced the origins of the Yoruba impluvium courtyard to the Tuscan atrium.(Froebenius: 68;341).[30] Marcel Griaule in his studies of the Dogon elevated African architecture to the realm of the metaphysical and the exotic. (Griaule: 65,91-98).[31]

9.7 Our study of Human Settlements in the sub-region during the period 1968-1971, funded by both the Ford and Fairfield Foundations revealed two fundamental factors that condition space and house form. Within the same ecological zone, the roof form is a response to the ecology while the spatial organization of the house is a reflection of the culture of the specific group. The spatial organization and the use of the spaces are as varied as there are cultural groups within the ecological zone. However, compared to the single house of the European antecedent, "The traditional courtyard space is an activity defined space with an internal and inward looking orientation." (Aradeon:91;94) [32]

9.8 In the rain forest, the thatch roof is structured to achieve a fast run-off of storm water drainage. The winged overhang protects the earth walls from direct impact and erosion by rainwater. For example, the roof structure of the Bini, Yoruba, Diola in the <sup>en</sup>Cassamance delta, Fulbe in the Fouta Djallon mountains and in the Adamawa plateau is pre-eminent in scale and pitch. In a marked contrast, the earth walls dominate the earth roof structure in the sahel savannah zone partly because of the short rainfall season. The flat roof structure of the space and house form of the sahel cultures include the Somba, Dogon, Soninke, and <sup>the</sup>Hausas who also build structures in earth

domes and the Gobirawas on the Sokoto/Niger plains who build shell structures in earth.

## **9.9 Material and Construction Technology**

The material and technology of construction are clearly discernible in the architecture of this genre: the building forms in earth among the urban cultures of the Yorubas, Binis, Ashantis, the Fon of Dahomey of the rain forest; the Hausas and Bambara of the sahel savannah; the dispersed settlements of the Betyabe Somba of the Atakora mountains in present day Benin and Togo Republics; the Igbos of Nsukka, also in the rain and transitional rain forests; and the uncut and undressed stone and earth construction of the Dogon on the cliffs of Bandiagara in the sahel.

## **9.10 Space and House form: Cultural Expression.**

The structure of the Space and House form in tradition articulates several levels of thresholds: between public and private space; between male and female domain. (Aradeon; 1977, 1981). [33]

The different levels of articulation owe their origins to religious and social customs. Among the Yorubas, "the central/reception space within which the newly born child is received and named consecrates the child's initiation into the membership of the larger family; the compound space within which the remains of the family head is interred; the sleeping room of each wife within which her remains is interred —these imply the concept of permanence of lineage relationships and continuity among members of the living and between the living and their ancestral gods." (Aradeon: 1996) [34]

The spiritual presence of the ancestors provide protection and guidance for the living. These spatial concepts continue to drive and shape social patterns of behaviour in spite of over a century of cultural confrontation - ours and the western Europeans -confrontation which was anything but mutual.

## **10.0 THE COMPOUND HOUSE/THE SINGLE FAMILY HOUSE.**

"Within the community, the family compound is the symbolic expression of that permanence. The relationship of the individual member of the family to the larger community is perceived through his lineage.

"Most often, the reluctance or refusal of the family or communities to relocate is an act of affirmation of its shrine/space as an endowment for the permanence and continuity of life.

The context of the house form, the spatial content within and without is mutable. As an expression, the structure of the traditional courtyard house is adaptable to the growth and expansion of the needs of the extended family."

"Within the context of that tradition, spaces and the structure of the house form respond to multiple levels of expectations: for example, sleeping space for the unplanned-for visitors, or a physical expansion to accommodate the needs of the extended family.

As a user culture, our subconscious perception of the European Space and House form hardly admits the constraints of domestic scale imposed by location, the density limits compelled by

structural considerations, and the uniqueness of use defined by location and design." (Aradeon:1996) [35]

"Structured as a single house, the house form confers "identity"; the construction materials express permanence; the imposing metal gates assures privacy and security. However, in our conscious and subconscious cultural response, we overwhelm the single house.

For example, the spatial organization of the court yard house in tradition achieves privacy through spatial delineation between the family/private spaces and the family/public spaces. Whereas the synthesis of space defined activities of the adapted single house form relies on the intervention of door panels for separation and privacy." (Aradeon: 1996) [36]

To live in the compound house is to co-exist with others, younger and older; to develop the capacity to accept that freedom to act has limits to obligations and privileges; to be able to define loosely, the mother child relationship. All these attributes reinforce the capacity for the constraints of shared values. The compound is a training ground for tolerance in community living and the politics of dialogue.

10.1 In urban spaces, the Esu shrine-space in Ita Ege (Ibadan), the protective spirit against evil in Yoruba cosmology; the Pegue space, (Banani, Dogon country) which embodies the cosmology of the Dogon and creates the contextual space for the expression of the myth and beliefs of the Dogon and the symbols of Legba, the Messenger of God in the complex urban environment of the Fon. Every one of these exemplify the integration of space and structure, structure and form. In

addition, each one embodies the space as a spiritual link and continuity with the ancestral and the lineage of gods. (Aradeon: 1996) [37]

## **10.2 Cultural Contact and Conflict:** **19th/20th Century: Impact of European space and house form.**

The early colonial houses were packaged product (drawings and framed structure and material) for export and use in the colonies. The spatial organization and the house form were transplanted “English”, “German” or “French” houses for use in the colonies. Some local Chiefs and rich merchant-Kings like King Eyamba V of Calabar ordered an elaborate pre-fabricated two-storey steel “palace” from Messrs. Leycock and Co, iron merchants of Liverpool in 1843. (NCMM; 86.97) [38]

10.3 The early mission houses built locally by the missionaries were adapted to the climate: a ring of deep and continuous veranda whose sides were “usually kept closed-in by the venetian shutters”; windows are usually kept closed about two times a day, probably to keep out the heat. The veranda functioned largely as the living room. By adapting to the climate, the local English missionary space and house form was built with timber on stilts with the living spaces on the first floor. This English space and house form of this period located the service stairs for night soil evacuation. These houses articulated a clear differentiation between “a dark” and gloomy interior from a hot, humid and mosquito infested “swamp mists” environment. (Vaughan-Richards/ Akinsemoyin:76,27) [39]

#### **10.4 The Modern Single House and its technology.**

The architecture of the single house propagated a technology based on reinforced concrete. With its clean lines, the labour of design and the construction of the pitch roof became archaic. However, the inherent capacity of concrete to develop cracks over time created a performance credibility problem for the flat roof. The concrete flat roof with spouts for storm drainage appeared exciting, clean and simple, but in our humid environment, the evidence of the poverty of its performance is overwhelming. The streaking action of the water spouts discolours the masonry walls while the pounding force of the rain downpour causes excessive erosion of the grounds.

The re-emergence of the sweeping pitch roof planes on the Lagos landscape has been an encouraging trend during the last twenty years.

10.5 The single house is as specific as its internal divisions. The spatial organization allocates space for single specific functions; the sitting or living, dining, sleeping, etc., promoting in the process the single nuclear family house of colonial origins. "In comparison to the courtyard house in tradition, the single house is a synthesis of space defined activities with an external public street orientation especially for its private\public spaces." (Aradeon: 91,94) [40]

As a creation of the lot subdivision dating from the colonial period, the form has been sustained by the supportive planning and zoning laws and, building regulations. The content remains fluid and flexible. In spite of the cultural norms, the single house

and its planning context continues to propagate the physical separation of living from work and, living from selling and buying even at the community level.

10.6 As we observed earlier on, we owe a great deal of our understanding and emotional prejudice against our traditional architecture to Social Anthropologists who, in the course of their work, have emphasized form over function. We also owe our intellectual prejudice about the "superiority of the square over the circle" as an index for assessing the level of human civilization.

10.7 The traditions of indigenous architecture of Africa is popularly understood by its defining forms, the material and the technology of construction. The structure that stands the buildings up as well as the technology that makes it possible are less well understood. Very rarely patterns of spatial use considered as perhaps the most potent factor in shaping both the space and house form.

### **10.8 Structure and Form.**

The square and the circle, both basic and pure geometric planes, transformed and developed into spatial volumes, they are structurally single space forms. The projection from the plane to the single space volume is conditioned by the following:

1. function of the space
2. materials available for spanning the space
3. the roof structure and form which is conditioned by the ecology.

In the sahel/dry areas, the roof structure is expressed as the flat or the curvilinear plane: it is either

- a) the zaure with the flat or domed roof in Hausa architecture,
- b) the flat plane of the Dogon house on the cliffs of Bandiagara, Mali, as well as the Somba house on the undulating plains of Boukumbe, Benin Republic;
- c) it is the ribbed shell in the Sharia Court of the Zaria Mosque with uninterrupted stress flow from the crown to the bearing soil;
- d) the thin shell domes on the Gobirawa plains,
- e) or the pairing of the intersecting and mutually reinforcing curvilinear beams in the Zaria Mosque. In the rainforest/wet areas, it is the cone truss.

Conceptually, space and structure, the structure and form of the single space expression are integral. (Aradeon:1971) [41]

While the congruence of the materials of construction and the technology that stands up the form are essential to our understanding, the essence and meaning of traditions in African architecture lies in the understanding of space as an expression of cultural norms. These norms vary even within linguistic groups living within close proximity.

## **10.8 Spaces for Conversation:**

The Functional Centre on the Periphery.

For example, seating arrangements for formal or informal conversation in most southern cultures is predicated on heirachy

within a spatial formation with a central clear space. However, the functional centre in the square or circular space, in a living room of whatever the size is on the perimeter. This location relative to the perimeter seating of everyone else, allows for eye contact and visibility, equidistance/equal access to the functional centre. Tete a tete with the functional centre is allowed as the need arises, but always in full view of everyone else who is present. The conversations remain privileged. In a more formal setting, this seating arrangements allows for ushering in important visitors with pomp and pageantry appropriate to the occasion. The seating arrangements for group conversations in the living room of the modern house is always rearranged for emphasis on functional centre.

10.9 Given the constraints of designing with climate of the 1950 -1980 decades and the colonial antecedents at the turn of the century, it is perhaps understandable why the practice of architecture has remained largely tied to fashion trends of the international style. The mirror glass/curtain walls currently in vogue in private and public buildings across the country is most inappropriate and environmentally hostile in this ecology.

Within the context of our spatial planning, the rigid separation between residential and commercial buildings, private and public spaces continues inspite of the mixed use of our buildings and the streets.

A radical rethinking and drastic revision of the planning laws and zoning regulations to bring them in line to the realities of our cultural habits is urgently needed. Laws that run against the mores of a people are bound to fail in the short and long run.

For example, the physical separation of the three arms of government in Abuja, the Presidency, Judiciary and the Legislature, was influenced by American democratic ideals, however, in practice, what really engineers and fuels the system is our culture. At best, this physical separation is symbolic. In practice, it remains an illusion.

## **10.8 Architectural Character**

Except in the architecture assembled from linear wood among the Bamileke and the Fon on lake Nokue, the architecture of plastic form is more widely in use in both the rain forest and the sahel as well as in the north African littoral. However, the predominance of the thatch roof form in the rain forest in comparison to the plastic roof form in the sahel/dry areas emphasizes roof form as a basic response of traditions to ecology.

As a basic response to the ecology of insulation against diurnal insolation and impervious shield from rainfall, the logic of the material roof cover and form that can best achieve these basic requirements is simply compelling.

From the Great Zimbabwe ruins in un-mortared stone units to the mud houses of the sahel\savannah, traditions in African architecture is dominated by two interdependent factors: freedom in the use of point support as and where needed, in addition to load bearing walls. These two factors have come to engineer the plastic and the brutalist traditions of modern architecture. The cubist forms of the sahel; the plastic forms of the Mزاب, and the moving walls of the granaries in the Algerian mountains as well as the abstract forms of the African masks and

sculptures have influenced another level of aesthetic understanding in Architecture and art this century.

## 11.0 **THEORY and CRITICISM: The Creative Process:**

Of all the creative and performing art forms, only architecture provides the spatial context for the appreciation and contemplation of painting and sculpture, theatre and music. To contemplate a work of art, the viewer must stand in front of the painting; for sculpture, he must move around to be able to experience the two spatial dimension of the sculpture. Since we inhabit the spatial dimension, architecture is "always basically functional and utilitarian." (Fitch:81,86) [42] As a spatial dimension, architecture does not only enclose and define space, but it also extends the horizon of its spatial experiences beyond its physical realm by bringing into, and integrating the external within the internal experiences. This spatial quality to achieve cognitive and sensual experiences is one quality that separates architecture from buildings. It also distinguishes a specific building as a work of art.

For example, when approaching the academic core of this campus from the Tafawa Balewa and Dan Fodio intersection, the new Senate Building is likely to loom as the terminal building. Halfway on the segment, the viewer's vision frames the opening that heightens sensuous excitement. This new Senate House replaces and preempts the auditorium as the physical and functional centre of the campus. The Senate space, statutorily the collective centre of the Academic pre-eminence, is subsumed in the Administrative expression of the new structure.

The location of the Senate House, the floating of the structural columns over the platform on grade is an acknowledgement of the pre-eminence of the pedestrian culture of the centre of the university campus. It is also a recognition of its location on the threshold of the edge of the water; a recognition of the podium on grade as the link, the cross over between places and the classrooms which provides a meeting place for people in between places. The context of location of the Senate House was conceived as a space and place within an urban structure.

11.1 Had I been required to conceptualize this lecture as an architectural or sculptural expression, literacy in the reading and understanding of the codes, meanings and symbols of art and architectural language would be required of my audience. Even then, I would still have to depend on the power and imagery of words, certainly much less than is required for communication with a mixed audience. We are confronted with this dilemma of communicating ideas with our clients and the public who must use our buildings. The students of creative and performing art are educated in isolation in our Universities.

The teaching of Architecture cannot be done in isolation. While the interaction of architecture with other creative arts is intense, its interaction with other disciplines within the university community is almost non-existent. Architecture creates the environmental context for your work, play and relaxation. Therefore Architects must understand your needs and aspirations in order to create the environment sympathetic for example, for the special nature of the Theatre for Surgery in the hospital. Very often, the level of an environmentally appropriate and friendly theatre can only be assessed by the surgeon, but only after the theatre has been in use. If the theatre

is unsatisfactory, the user surgeon will have to live with it. So does the Architect; he lives with his mistakes while the surgeon buries his.

Therefore, the interaction required of architecture within each specific theatre of activity is critical to the growth and development of architecture.

A thorough rethinking of the University curriculum is overdue. Every entering freshman in the University should be required to take a number of courses in music, art and architecture appreciation. This would enlarge the average student's awareness of his environment; enable his capacity for appreciation for the creative arts; sensitize the level of his critical awareness of architecture and the context of that architecture.

For one thing, we will have a better informed and more responsive public. At the same time, our creative and performing artists and architects will have better informed private and public clients.

## **12.0 CREATIVE PROCESS.**

"Architecture, according to Henry Cobb, "is a dialogue between Memory and invention. He went on to say that successful architecture is that design which finds the appropriate blend, or even the merging between memory and invention." (Cobb, 1997) [43] To invent is to create. But what constitutes this memory? Is it the visual experiences of the urban and non-urban context or the movement of the sun from sunrise to sundown and the play of light in shaping life and form; or all of these?

For example, the use of the translucent glass pyramid on the Louvre in Paris by I.M. Pei communicates a clear and unambiguous historical reference to the mysterious and impenetrable ancient pyramid of Giza. The clear view of the people and exhibits and the perception of the structure in the diffusion of daylight, all culminate in an exciting and imaginative use of the pyramid form. Disengaged and distanced from ancient Egypt, it is given a new meaning: clear, translucent and visually accessible.

### **13.0 Teacher/Student symbiotic relationship**

According to a Professor colleague in the Faculty of Engineering, architecture is skill and gift. This perception warmed my heart; I felt that this community was finally beginning to understand what he had earlier referred to as the seeming madness of Architects and Architecture. Professor Ibidapo-Obe shall remain nameless!

If I may elaborate on this concept, successful architecture within the teaching and learning environment must be predicated on the talent that the individual student brings to his work.

We recognize career aspiration as an important factor; and that includes the aspiration of the parents as well, but we work better with talent and best with talent that has the capacity for self examination and long hours of productive work.

To watch a dancer whose movements are lyrical and effortless is to appreciate the significance and meaning of this gift. In response to the rhythm of the drums, this gift is spontaneous even in a one year old child. It is not taught. It is not learnt.

The Architecture student must combine the following aptitudes: creative work, three dimensional visualization and the capacity and patience to live with uncertainty within the frame work of deadlines.

Through a gradual process of critique development, the studio environment enables the individual student to develop a critical awareness of this process of conceptualization in response to problems of design: interpreting, relating, selecting and associating and understanding the spatial implications of that line or the play of lines in the spatial dimension.

The first line on paper made by student begins the process of dialogue between the critic and the student. The design critic must have the intuitive capacity to recognize the potential in the design concept of his student; he must possess an almost infinite capacity to draw out of the student this potential with empathy, respect and encouraging gestures. Yet he must have the patience to gently nourish and nurture that potential, pushing and nudging it almost to the limit, sometimes gently and at times not so gently.

The design critic must possess the intuition for defining the limit of that potential in each of his students. There lies the essence of the symbiotic relationship. Within the framework of time and programme established by the studio critic, each student paces his own work. The design studio is the place for dialogue. The stub pencil on paper is the tool of that dialogue, punctuated with verbiage, occasional grunts amid intense concentration.

The design studio is a far more interactive dialogue with a completely different orientation from the science laboratory to

which it is so fondly compared in the university environment. In the design studio, each student is in search of a design solution uniquely his own whereas, the science experiment at a comparative level, is designed for confirmation of an already defined and time tested thesis.

The growth of both the critic and each student can and should be challenging, exciting and mutually rewarding. If all the normal student is required to bring is raw talent, then studio critic should display both polished and tested talent. Without the talent for creative work, the process of creative interaction and the development of the student critique awareness becomes stultifying to the studio critic and frustrating to the student.

#### **14.0 ARCHITECTURE: THE DESIGN FOCUS**

As architects and design critics, it is a privilege to guide talented students to discover and realize their potentials. The design portfolio of the design critic in architecture must continually validate the privilege to inspire others. If an architecture design critic has no gift for design work, it is a reality that cannot be changed. In the design studios, he will at best be an unguided missile. The work of the students in his studio are not likely to rise above the level of mediocrity for which his work stands as an example. The nature of mediocrity tends to suffocate tendencies of excellence.

The University must continually assist and support the Department of Architecture to seek out talented teachers and students. The collection of gifted design teachers and students as well as an exciting programme are the ingredients for the making of a great school. In the past, (1972 - 1987), our design

programme has benefitted immensely from external linkage and support. We owe our tradition on the teaching of **ARCHITECTONICS** in our Year I studios to our foundation Director, the late Professor John Sterling Myers, (1970 - 1972) of The School of Architecture at the University of Minnesota.

Architectonics is the exploratory studies of spatial and structural systems to create architectonic objects which may or may not be functional. As a process of designing from the three-dimensional scale, it enriches spatial and structural perceptions, through the interplay of planes and linear members in space. Those who have had the opportunity of being nurtured on this menu confirm that the process of structuring architectonic objects has given them a good foundation.

In the past years, I have had the opportunity to build on this tradition and have often been challenged to limits by the conception of some of the extraordinarily gifted students I have had the fortune to teach. The dialogue continues to enrich my growth. Under the German Exchange Programme, the DAAD, Professor Elmar Dittmann, Architect and Planner, Dean 1976-1979, who continued the strong design emphasis, laid the foundation for our programme on urban and regional planning. Unfortunately, the growth and expansion of the Faculty Reference Library with the excellent collection has been reduced to a shadow of what it was once.

Under this exchange programme, the Architecture programme was fortunate to have Professor Adolf Schroeter, Visiting Professor of Architecture and Historical Preservation Expert and Mr. Von Mende, Senior Lecturer in Building Technology, 1977-1980.

Professor Schroeter designed the first University Main/West Gate. Two of our alumni were also sponsored under the DAAD exchange programme for doctoral degree programmes in Housing and Building Technology.

In the period 1982-84, we established an exchange programme with the Faculty of Architecture and Urbanism of the University of Sao Paulo, Brazil. The post graduate education in Urban Design of two of our alumni was funded by the Brazilian Government under this exchange programme.

Between 1977 and 1988, our reputation for excellence in design attested to by the consistent prize winning performances of our students in national and international competitions. Unfortunately, the reputation of the UNILAG architecture graduates in the industry for design excellence, hardwork and leadership qualities in a design office, has been greatly eroded in the last eight years. All of us including our alumni are so painfully aware that the blood transfusion prescribed by the University in the last ten years has distorted the pre-eminence of the design focus of our faculty.

Mr. Vice-Chancellor, Sir, I wish to place on record my appreciation for your leadership in the restoration of the DESIGN FOCUS of our faculty. In doing so, I am quite certain that I speak for generations of our Architecture graduates, Architecture and the creative design disciplines.

Professor Schroeter designed the first University Main/West Gate. Two of our alumni were also sponsored under the DAAD exchange programme for doctoral degree programmes in Housing and Building Technology.

In the period 1982-84, we established an exchange programme with the Faculty of Architecture and Urbanisme of the University of Sao Paulo, Brazil. The post graduate education in Urban Design of two of our alumni was funded by the Brazilian Government under this exchange programme.

Between 1977 and 1988, our reputation for excellence in design attested to by the consistent prize winning performances of our students in national and international competitions. Unfortunately, the reputation of the UNILAG architecture graduates in the industry for design excellence, hardwork and leadership qualities in a design office, has been greatly eroded in the last eight years. All of us including our alumni are so painfully aware that the blood transfusion prescribed by the University in the last ten years has distorted the pre-eminence of the design focus of our faculty.

Mr. Vice-Chancellor, Sir, I wish to place on record my appreciation for your leadership in the restoration of the DESIGN FOCUS of our faculty. In doing so, I am quite certain that I speak for generations of our Architecture graduates, Architecture and the creative design disciplines.

Mr. Vice-Chancellor, Sir, Ladies and Gentlemen, in closing, I would like to highlight two of our major contributions to the architecture of excellence:

### **15.1 FESTAC EXHIBITION**

a) The Exhibition of African Architectural Technology now part of the CBAAC collection in the National Theatre represent our landmark contribution in the field. This exhibition grew out of my travel and research work funded by the Ford and the Farfield Foundations in the period 1968-1971 on the subject. The exhibition would not have been possible without the collaboration of my students who worked almost non-stop, twelve hours, six days a week for five months. The exhibition was set up to the exacting standards that had become the hall mark of our School in Lagos since 1977.

If the FESTAC 77 Exhibition represents at one level, the cognitive excellence of visual material, photographs, drawings on plexiglass, scale models, our continued research on the Multivalent meanings of SPACE AND HOUSE FORM in our cultural ecology continues to highlight the problems of behavioural patterns as a basis for articulating programming for user needs and building typologies for our cultures.

### **15.2 EDUCATIONAL INSTITUTIONAL CAMPUS DESIGN**

In these two major institutional campuses, the master plans for the Lagos State College of Education and Lagos State University, we conceptualized a Three Dimensional master plan

structured for the pedestrian students and teachers. In anticipating the problems of scale created for architecture by the plot allocation planning, the core pedestrian campus contracts time and distances between the core and the periphery and shrinks the infrastructural and services lines.

With the Nursery School on the University Campus, we pioneered the use of the red clay bricks in metropolitan Lagos over 20 years ago. As a mark of recognition for The School of Education on the LACOED campus, the project was awarded an International Construction Award in 1990.

In these last 26 years I have walked these paths as one who came to lunch and stayed for breakfast. I have grown, and I have known fulfillment from the interaction with my students in their studios and my personal work. I see it in the looks of my students, in their unsteady walk transformed from the first year to their struts and their gait and their self assured air from year to year. The ARCHI students of the University of Lagos are indeed a special breed.

Finally, I thank my students, who over the years challenged and inspired me to always find better ways to explain architecture for their understanding. Without you being my student-collaborators, my work might have taken a different direction.

To my parents who dare to hope and my teachers who nurtured the potential and gave me the opportunity to study architecture with distinguished and creative teachers. I would like to single out Professor James Harston Fitch who nurtured my spirit of enquiry in contextual architecture.

To my wife, Susan for whatever is outstanding in my work, I owe it to her support and encouragement. Beginning with my thesis project at Columbia, she was and has remained my first and last design critic; my research assistant on the travel and study across North and West Africa and the hazardous trip across the Eastern Algerian desert. My literary editor who always insisted on clarity of thoughts for communication. She sacrificed her career teaching History of Art and Architecture to support the family and the children.

To our children, my immense gratitude for their understanding and empathy for their capacity and readiness to share their father with the other children. And lastly, to my friend, the gift from this university, to whom I owe at least these thoughts.

Mr. Vice-Chancellor, Distinguished ladies and Gentlemen, I thank you for your infinite patience this last hour.

## **REFERENCES.**

- 1 Ulyod, S. The Archeology of Mesopotamia, Thames and Hudson, London, 1976
- 2 Garlake, P, Great Zimbabwe, Thames and Hudson, London 1973,
- 3 Mallows, W. The Mystery of the Great Zimbabwe, W.W. Norton, N.Y, 1984
- 4 Mallows, W. The Mysteries of the Great Zimbabwe
- 5 Hoag, J.D Islam Architecture, Electa/Rizzoli, N.Y.1977,
- 6 Aradeon, D Glendora Review African Quarterly of the Arts, Vol. I, No. 3
- 7 Aradeon, D. Living Culture of Nigeria, Ed. Biobaku, S.O. Thomas Nelson, 1976
- 8 Aradeon, D. Lifestyles and Architecture.
- 9 Aradeon, D Contribution, 'Ibadan' Dictionary of Art, Macmillan Publishers, 1996
- 10 Wolf, E Europe and the People Without History, University of California, Berkeley, Los Angeles, 1982.
- 11 Rapoport, A Culture, Space House Form, Prentice Hall, N.J. 1965
- 12 Aradeon, D. Notes, 20th century Architecture in Africa
- 13 Roger Banister Fletcher's History of Architecture. 19th Edition. Butterworths, London, 1987
- 14 Sharp, D. "The Modern Movement in East Africa" HABITAT INTL. Vol. 7 No. 5/6, 1983.
15. Beier, UHistory of Art in Nigeria, Cambridge University Press,1960
16. RBF History of Architecture.
- 17 Aradeon, D Workshop Proceedings, West African Museum Programme, Accra, 1996

- 18 Aradeon, S. Notes/discussions. Modern art, Le Corbusier
- 19 Maxwell, H. Primitivism in 20th Century Art. The Museum of Modern Art, New York.1984.
- 20 Bourassa, S.C Journal of Architectural and Planning Research, Vol. 6 Number 4, Winter, 1989
- 21 Aradeon, D. Catalogue, Exhibition of African Architectural 1977 FESTAC Exhibition revisited. Catalogue
- 22 Beier, U. Art in Nigeria, 1960
- 23 Beier
- 24 Beier
- 25 Rapoport, A House Form and Culture Prentice-Hall, N.J. 1965
- 26 Aradeon, D Agbaja, Nigerian New Town, Progressive Architecture, No. 9. Sept, 1967
- 27 Aradeon, D "Space and House Form: Teaching Cultural Significance to Nigerian Students" Journal of Architectural Education. Vol XXXV, No 1, fall, 1981
- 28 Aradeon, D. "Architecture and Lifestyle" in a Handbook of Nigerian Culture. Ed. Aig-Imoukhuede, F. Dept. of Culture, Federal Ministry of Culture and Social Welfare, Lagos, 1991
- 29 Aradeon, D Proposals, The Ford and Farfield Foundation
- 30 Froebenius, L Voice of Africa, 1913
- 31 Griaulle, M. Conversations with Ogotomelli published for the International African Institute, London: Oxford University Press, 1965
- 32 Aradeon, D Lifestyles
- 33 Aradeon, D. Festac Exhibition, and "Space and House Form, Teaching Cultural Significance to Nigerian Students"

- 34 Aradeon, D "Nigerian Architecture, tradition and change" in EZUMEZU: Essays on Nigerian Art and Architecture, A Festschrift to Demas Nwoko 1996(forthcoming)
- 35 Aradeon, D. "Nigerian Architecture, tradition and change".
- 36 Aradeon, D. "Space and HouseForm" Forthcoming Archimat 1996
- 37 Aradeon, D. "Museums in West Africa; Impact on Urban Cultures, West African Museum Programme, 1996 Conference Proceedings (forthcoming)
- 38 Old Calabar, National Commission of Museums and Monuments, Lagos, 1986
- 39 Vaughan-Richards Building Lagos, F & A Services, Lagos, 1976 Akinsemoyin, K
- 40 Aradeon, D "Architecture and Lifestyles"
- 41 Aradeon, D Research Field Notes, Kano Hausa Architecture, 1971
- 42 Fitch, J.M. Experiential Context of the Aesthetic Process. Precis. Vol. 3, 1981.
- 43 Rawn, W.L Designing a New Place for Music at Exeter, The Exeter Bulletin, Summer, 1996.

## **Bibliography**

ACASA Newsletter, Vol. 49. Aug. 1997

Kultermann, U. New Directions in African Architecture, George Brazillier, 1967, New York.

Fry, M and Drew, J. Tropical Architecture, Reihnhold Publishing Corp. 1964, N.Y.

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