



# 'Functional Follies' for an Urban Slum

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## **Kofi Akakpo**

### **Thesis Research**

#### **Introduction**

To attempt to define an architecture for a whole continent seems an arduous task, to attempt to do so for the second largest and most diverse continent is foolhardy. According to the German monograph *Minderheitenrechte in Europa* co-edited by Pan and Pfeil (2002) there are 87 distinct indigenous peoples of Europe, a continent with a population of 741 million people. The country of Uganda, population 43 million has about 50. This creates a crisis when one is trying to decide how to design anywhere on the continent. One can look to the history and culture of the continent but even this is complicated due to European conquest of most of Africa during the colonial era. In this period, the natural development and flourishing of tradition and culture was curtailed. This would affect the architecture on the continent with these new colonial masters introducing to their colonies different materials and building methods conducive to their needs. In scholarship, the general attitude is that this moment corrupted African architecture and therefore in order for one to truly save the discipline on the continent, some sort of revival is needed. The revival has often been seen as a return to so-called traditional architecture, looking at elements that occurred before European domination of the continent and trying to project what they would look like in the present. It is my contention that this attitude is flawed and contributes to a primitivization of Africa.

The African continent like all others has always been open to new methods, techniques and ideas from abroad and has in turn given much to the rest of the world throughout history. Just as the resources and knowledge of its great ancient kingdoms such as Egypt, Aksum and Kush influenced Europe and the Arabian peninsula, the continent also borrowed and learned from other great kingdoms surrounding them. There were European style forts and castles along the eastern coast of Africa before colonization. Christianity had flourished in the horn of Africa before the first Portuguese missionary stepped foot in the Gold Coast. Islamic scholars had already established universities in places like the Mali Kingdom before the first Europeans ever reached Mali. It is therefore unproductive to assume that African architecture was somehow corrupted with the introduction of colonialism. This perspective refuses to account for the elastic nature of the culture of a people as conditions change. African architecture should focus on the now, what the ambitions and aspirations of its young population currently is, and how to partake in the larger global conversation and not a history that can never be rewritten. The continent has been and is still home to great architecture that responded to the conditions on the continent. It is to these that young architects working on the continent must look to for inspiration.

There is no doubt that architects on the continent have to respond to unique issues that those practicing on other continents may not have to. Resource scarcity is a huge problem on the world's poorest continent and a major barrier to development. There is also the general perception that there are more pressing needs than architecture on the continent, like

infrastructure, education and healthcare. While these issues have to be ever present in the mind, architecture is unique in its ability to use design to creatively help to alleviate these very challenges. The assumption that we will invest in architecture after we have solved all other issues is simply a misunderstanding of what architecture can do, perhaps because in most minds, architecture is only about building grand edifices. It is up to us as architects on the continent to prove otherwise and reestablish in the minds of the public our importance.

### **The work of Jane Drew and Maxwell Fry**

Jane Drew and Maxwell Fry refined their brand of tropical modernism in post-independence West Africa, taking advantage of the experimental latitude of these new countries, a latitude that was not immediately available in their home country. Fry and Drew would use this opportunity to refine their ideas on tropical architecture, testing different concepts, the most successful of which would then be redeployed in their subsequent projects both on and beyond the continent such as in Chandigarh. Drew and Fry's architecture took advantage of the lack of density on the sites they worked on. A lot of their multiple secondary school projects such as the Mfanstipim school in Cape Coast, Ghana take advantage of the landscape, creating a series of independent narrow, rectilinear, volumes in the landscape, connected by covered walkways, allowing for maximum cross-ventilation.

The couple had a more tentative start to work on the continent. The initial site plan for the Asawasi Experimental Housing Estate was a rigid cartesian grid of single-storey gabled houses, generously spread out with large open spaces between buildings. This early foray into West African architecture in many ways did not match the ambition of the new states, providing only the basic necessities. Subsequent efforts would be more exploratory. The Hohoe Teacher Training College site plan is more free with radiating paths along a central axis and showed the beginning of more exploration. Prempeh College features a series of covered walkways that curve to follow the contours of the site. Most of the program blocks remained rectilinear and formally rigid but there were slight variations in site planning to respond to context. Where Fry and Drew excelled were in finding creative ways to satisfy both functionality and aesthetics using carefully designed and detailed breeze block infills between reinforced concrete post and beam frames. These breeze blocks ensured much needed ventilations in the hot tropical climate and were the place for artistic flourish with the use of locally inspired patterns.

One of the biggest contributions of Fry and Drew to architecture on the continent and to other tropical parts of the world was to document and publish what they discovered through their work. They would write:

*We write not only for those who, like ourselves, live outside the tropics and for whom, therefore, designing is something of an intellectual process; but also for the growing number of those who inhabit these regions and who, by their overfamiliarity with the conditions, may be stimulated to re-examine them. On these architects and planners falls the major burden of creating an environment in which the tropical people may flourish.*

*Fry, E. Maxwell and Drew, Jane (1956), Tropical Architecture in the Humid Zones, (London, Batsford) p. 19.*

This ability to understand the impact of their work beyond their immediate context and to educate the next generation is what I find the most admirable about their efforts.

## **Demas Nwoko**

Nigerian artist and architect Demas Nwoko's work does not necessarily blur the lines between art and architecture, what he does is to integrate his artistic flourishes into several moments. While he has said in interviews that he believes that art and architecture are the same, I believe his approach seems to be of one who sees architecture as predating art and creating a canvas onto which art can be engaged with. Having said that, his buildings are usually sculptural, needing to be experienced in the round with each facade having distinct elements. His Dominican Monastery project in Ibadan, Nigeria is a case in point with no two facades being similar. The complex is located on a hill with green lawn around it ensuring visibility from several points around the site. The bell tower on top of the main chapel is a sculptural work in reinforced concrete with an integrated skylight that washes the pulpit in light. Hand sculptured wooden columns provide support for the roof and shade screens are adorned with sculptural traditional motifs. The feature wall of the adjoining refectory is made of stone with glazing of a series of crosses that symbolize the crucifixions of Christ and his apostles.

Perhaps his most striking project is Miss Pearce Chapel in Issele-Uku but like a lot of seminal work on the continent, it is poorly documented. Here, Nwoko's interest in geometry and mixed influences is clear. The whole chapel is perched on a mound and appears to rise from a pair of retaining walls on either side. It features reinforced concrete walls with arched windows and an ironwork wall at the terminus of the main axis. The chapel is given extra verticality through the use of a rather pronounced, Japanese roof. This project is particularly frontal and here, Nwoko's often generous use of ornament and traditional symbolism is pared down but the buildings composition still elicits a theatrical effect, perhaps befitting Nwoko's training in stage design.

His art work, as a member of the Zaria Art Society is consciously built around historical art forms, seeking to achieve what he calls a "natural synthesis" that would merge Western and vernacular influence. In his architecture, this western influence is in borrowing Modern Architecture's concrete frame as the organizing structure, to which there is an infill of locally

produced soil blocks and sheet roofing. Bespoke screens, columns of carved wood, sandcast concrete and wrought iron are used to both functional and artistic effects. His work is perhaps closest to a regional interpretation of Modernism.

Nwoko's work is interesting in my opinion because it avoids the trap of being purist. He borrows freely from other influences, merging interests from several sources and constantly experimenting with different compositions. At the same time, he infuses his buildings with his personal interpretations of his culture while producing truly unique work true to himself.

## **Francis Kere**

Francis Kere represents the vanguard of the school of new African architects making international waves by finding new and creative architectural solutions using scarce resources. In a lot of ways, Kere's architecture satisfies what non-African observers believe represents the new architecture of the continent with its focus on traditional materials and uses, and passive cooling techniques.

Kere's early architecture, such as his Gando School project, was borne out of need and lack. Its creativity derived primarily from an inventive use of the scarce resources available. In lieu of more expensive and more ubiquitous cmu blocks, he uses mud blocks which are cheaper to make and better for the climate as well. Larger, more expensive structural roof trusses are replaced by lightweight truss structures that were made from simple welding of iron rods by local laborers. In a low-skill environment Kere found ways to make architecture possible by designing more than simply the buildings but alternate ways to build it.

Subsequent projects will begin to be more formally expressive. His design for Lycee Schorge, another school, will avoid the simple rectilinear block of Gando and instead coil a series of connected classrooms into an almost enclosed shell. The lightweight truss structure of the roof remains, the material palette is still similar and climatic and environmental concerns are still major considerations. Concrete elements pop up out of the roof to create vent stacks that improve natural ventilation and thin tree trunks are used to create a shade element along the corridors.

As Kere's practice has grown, so has the language and ambition of his work with his proposal for the Burkina Faso National Assembly perhaps being his most ambitious. The building takes the form of a giant pyramid that rises out of the earth and creates a publicly occupiable skin as well as a series of public gardens. In other moments on the site, the ground peels up to reveal support program above which is a grove of trees. In the early work, form understandably takes a back seat to more pressing needs to keep costs down. Ornament derives from material choice rather than symbolic applique and the successive publicity of these projects helped to cement a sort of aesthetic-of-lack as the expectation for African architecture, something that other

architects are struggling to escape from. Subsequent projects would explore bolder forms. More recent work from Kere outside the continent such as his serpentine pavilion or his coachella project explores different aesthetics that one hopes will make it to his work on the continent.

### **Joe Osae-Addo and Inno-native**

Joe Addo's approach to architecture marries several of his architectural experiences (education at the AA, working in Finland, and then working in Los Angeles where he would teach at USC for several years), into a unique style that responds to several of architecture's core questions. He calls his approach inno-native, one that synthesizes all these influences while responding to the climate, exploring new and innovative uses of traditional materials and struggling to develop a unique architectural expression.

Addo's approach is similar to Kere's in some aspects in that passive cooling techniques and local material choices are key considerations, but Addo's work is more expressive and free in its use of ornamental features than Kere's work on the continent. These ornamental flourishes however are also based on material choices with timber cladding, bamboo screens and stabilized earth blocks deployed in interesting new ways. In the design of his own home, Osae-Addo sticks to a simple L-shaped form that wraps around a generous courtyard. The whole house is lifted off the ground to allow for circulation below as well as around the building as well as to avoid troublesome termites that would otherwise eat into the mostly wood-clad house. The main structure of the house is a steel frame with an infill of stabilized earth blocks. There are moments where the use of mud-blocks is revealed through the absence of render present in the rest of the house. Circulation primarily happens on the covered corridor outside which is placed to help shade the windows to the bedrooms and to keep the building narrow to aid natural ventilation. No air conditioning is used at all in the house.

In his Busia House project, a couple of large adobe walls define the major and minor axes of the project with habitable spaces and circulation arranged along them. These walls are cut into when needed to provide frames views of the lovely landscape beyond. Prefabricated steel beams create the main structural elements. A generous use of louvred windows along the length of the house ensures cool ventilation. An interior garden brings the outside in and is wrapped with a shade structure made from bamboo rings that ensures the garden can be used even on the hottest days.

Osae-Addo's approach is sensitive to site and context but does not let these factors limit the ambition of the project.

## **David Adjaye**

David Adjaye is certainly the most internationally recognized architect born on the African continent. Adjaye is constantly experimenting in his architecture. He has no distinct styles, instead opting for forms of expression based on a close reading of the context. That being said, several of his forms are often more understated, with Adjaye preferring to experiment more with materials and ornament.

Adjaye's work relies on the power of narrative in his work to communicate his ideas and to change the meaning of familiar elements. His Hugh Masakela pavilion, a project completed in Johannesburg in 2019 has almost the same elements as his Shada pavilion project completed almost two decades earlier in London in 1999 but assumes a new role through a different narrative as a monument to the late trumpeter. In his National Cathedral of Ghana design, Adjaye asks what the shared sacred space of a country can be and in reply he reaches to the "traditional symbols of worship and veneration." These symbols are not immediately apparent in the final design in my opinion and one has to listen to Adjaye's narrative to have any chance of making that connection. In his work on the National Museum of African American History and Culture, on learning that most of the slaves taken to the United States had been from West and central Africa, he looks to the symbols of the Benin Kingdom and takes an element from a carved caryatid in order to create the form for his building. Again this form cannot be deciphered by an observer without the aid of Adjaye's narrative and I am personally left wanting a stronger connection.

I believe Adjaye's best work can be found in tight urban spaces where his ability to find innovative ways to play with light and material become fully manifest. Unfortunately none of these projects are located in Africa. Instead, a lot of his output on his home continent seems to focus on symbolism and ornament which, while important elements in African culture, have become tired tropes of architecture on the continent. In this, the continent's Architect who is best positioned to bring other expressions of Africanness to the table has largely not done so.

Adjaye is unique for an architect born on the continent in that he is seen simply as an architect rather than an 'African' architect. This means he is able to escape the expectation placed on other architects from the continent to produce projects that are primarily concerned with efficient use of resources, or traditional materials and techniques. While these are important considerations in architecture, Adjaye presents an opportunity for African architects to break the intellectual limitations placed on their work, providing a path for them to participate fully in the global conversations in architecture.

## **Kunle Adeyemi**

Kunle Adeyemi Makoko floating school project uses architecture as a form of protest. The project, a floating school, was located in Makoko, an illegal slum settlement in Lagos, Nigeria. By placing the project in that location, the architect was making a statement that those people

mattered and were deserving of education, something that the government had failed to provide for them.

What Kunle designed was a unit of infrastructure using the most stable geometric form he could imagine for a floating building: a pyramid. His ambition is to imagine a whole network of these floating forms deployed as different programmatic elements within a larger community at different scales. With sea level rise threatening some of Africa's most vulnerable populations, Kunle's approach of a simple, basic unit that can be deployed en masse could be the quickest way to deploy sheltered spaces to flooded coastal communities. Its viability as a long term solution in my mind is still in doubt but perhaps this is fitting since in most African coastal communities, the architecture is often one of impermanence with communities working together to rebuild each season as older places of shelter built from often organic sources deteriorate. In these spaces, for architecture to remain as a tool for social cohesion, impermanence might be what is required. Ultimately, it is for the people in these future communities to decide if maintaining that aspect of their culture is more important to them but Kunle's contribution is to encourage the architects on the continent to look beyond just the object to designing architectural systems or units of systems that can tackle the challenges of the continent at several scales.

### **Mass Design Group**

Mass Design Groups Impact-driven approach and non-profit model has allowed them to really provide an architecture that has a responsibility to improve people's lives, a core part of their mission statement. Their four Es, economy, environment, education and emotion provides a framework for approaching the work that they do in the poorer parts of the African continent and is made manifest in the use of locally available and fabricated materials as well as local labor to complete these projects. While working predominantly in lower income environments, the work of Mass still manages to appreciate the value of beauty in their work. They do not believe that all poorer communities need are dull buildings that provide only basic shelter needs.

Their work can be described as the East African equivalent of Kere's earlier work in that they look at what is used around them and find new ways of deploying the familiar to make inspiring spaces. Their Ruhehe Primary School project in the Musanze District of Rwanda would deploy long classroom blocks radiating from a series of rock retaining walls that follow the contours of the site and borrow from the area's tradition of building in stone. Reinforced concrete would form the frame into which would be infilled hand cut rocks, in lieu of the mud blocks someone like Kere would use. Pitched roofs with ceramic tiles, timber slat ceilings, woven screens and hand made timber doors complement the look. The school was designed by the African Design Center fellows, an initiative by Mass Design to train high-impact designers, an initiative that goes a long way in helping to address the dearth of trained design talent on the continent. .



Their African Center for Peace project in Kigali, Rwanda that is a memorial to the genocide that tore the country apart and the healing process that is ongoing, begins with the idea of the testimonial room, a functional space of remembrance, a unit that is then replicated several times across the site. A series of circulation paths are then introduced to create a network of linked rooms for the entirety of the complex. The module is then scaled up in certain moments to form larger spaces of congregation and interaction, or scaled down to become large structural elements such as columns. In effect, the whole project is a unit that evolves to become all other programmatic elements. The labyrinthine quality of the spaces created reflects the confused nature of the process of recovery that the entire nation of Rwanda has to constantly work together to get through. The materials are simply brick for the units and columns, concrete floors and glazing. This pared down palette allows for the memorial to be about the memory of the nation rather than the building.

## **Jo Noero**

The particular architectural style Jo Noero is known for was developed, while working as one of a few white South African architects in the Black townships during apartheid, from looking at shack settlements and trying to learn from their explorative use of materials and structure in different ways. He would apply what he learned in subsequent projects in the poorer black communities initially, before being invited post apartheid to use that same style to build in the whiter, wealthier parts. This new 'shack-chic' style would therefore be an architectural style that was developed bottom-up rather than top down. Noero does not talk of an African architecture because he finds the notion absurd because of the size and diversity of the continent, but instead focuses on South African or Cape Town architecture.

Noero is an explorative architect not content with a trademark style and despite the popularity of his shack-chic style, he would move on from that and continue to constantly experiment with form, colour and composition to arrive at new architectural expressions. His series of Planned Parenthood buildings, rather humble in scale, would be given presence by exaggerating their heights and using bright colors to make them stand out. He would reach to his country's rich tradition of colourful wall murals in sending political messages through his architecture, painting his buildings in the colours of the ANC party, at a time when the party was banned in South Africa.

Noero's breadth of architectural interests is refreshing. Apart from his interest learning from the composition of slums around his city and the traditional use of colours, he is constantly experimenting with form. This can best be seen in early projects such as St Paul's Anglican and current projects such as Christ Church Somerset West. His Kliptown Anglican Church is an exploration in postmodern expression but Bekkersdal Church is a pared down shack-chic aesthetic used for a religious building. In his Soweto Careers Center and House Nxumalo, he explores the idea of a facade that communicates the sectional arrangement of the spaces

within. Noero also has a strong interest in architectural drawings with several of his ideas beautifully explored through paper and ink.

### **Conclusion**

Just as contemporary European architecture is simply architecture that is located in Europe, African architecture has to be about architecture located in Africa. It is a geographical distinction, not one of material, or culture or other romantic notions. It can reference history without being about history, it can reference culture without being about culture, it can borrow from tradition without being traditional. it can explore materials beyond mud and thatch. While a lot of the architecture on the continent that gets a lot of press is about the traditional, the best architecture on the continent looks beyond that, partaking in the global discourse within the discipline on its own terms.