

A TROPICAL MODERN ARCHITECT

Prof. John Owusu Addo

Prince Charles Kwabi

ABSTRACT: Professor John Owusu Addo is a Ghanaian tropical modern architect and a pioneer in architectural education and practice in the nation-building of Ghana and other Commonwealth countries. His contributions to the modern architecture discourse seem to be overshadowed by the cohort of architects of both Western and Socialist origin who practiced in Africa during the decolonization era. The Community Center at the Kwame Nkrumah University of Science and Technology (KNUST) campus in Kumasi-Ghana was designed by him; it represents a classic example of 'unknown' heritage within the narrative. This short essay examines both primary and secondary data, including unpublished interviews, master series events, articles, and papers to contextualize Prof. Owusu Addo as an exemplary protagonist to be explored for the benefit of tropical modern architects, especially in African settings.

KEYWORDS: John Owusu Addo, architectural education and practice, tropical architecture, modern architecture, KNUST

INTRODUCTION: The Kwame Nkrumah University of Science and Technology (KNUST) Community Centre in Kumasi, Ghana, was refurbished and opened to the public in 2020. Analyzing secondary sources, it would seem that the facility had been defunct and deteriorating for several years until rescued by the management of KNUST. A salient question that arises is how many such gems with social and economic significance remain buried and forgotten. The community center has generally received positive end-user feedback upon its re-opening (AfricaBZ, 2022).¹ Obviously, people's lives within the university neighborhood have been influenced and shaped by this architecturally designed building, but very little is known and documented about the KNUST Community Center (KCC) itself [FIGURE 01, FIGURE 02].

Debatably, the community center qualifies for the status 'Tropical Modern Heritage', and importantly, its design can be attributed to an indigenous Ghanaian architect. Upon investigation, it was revealed Prof. John Owusu

Addo (also known as "Prof.") was the design architect of the facility. He is best known for the design of the Unity Hall of Residence and Senior Staff Club House on the KNUST campus, among other pieces of work (Bosumprah, Essah, 2014).² There appears to be inadequate documented evidence about the entire extent of his legacy (both tangible and intangible), especially 'minor works', which is underscored by the case of this KNUST Community Center (KCC) as it sits on the periphery of Africa's modern architecture discourse.

KNUST COMMUNITY CENTER

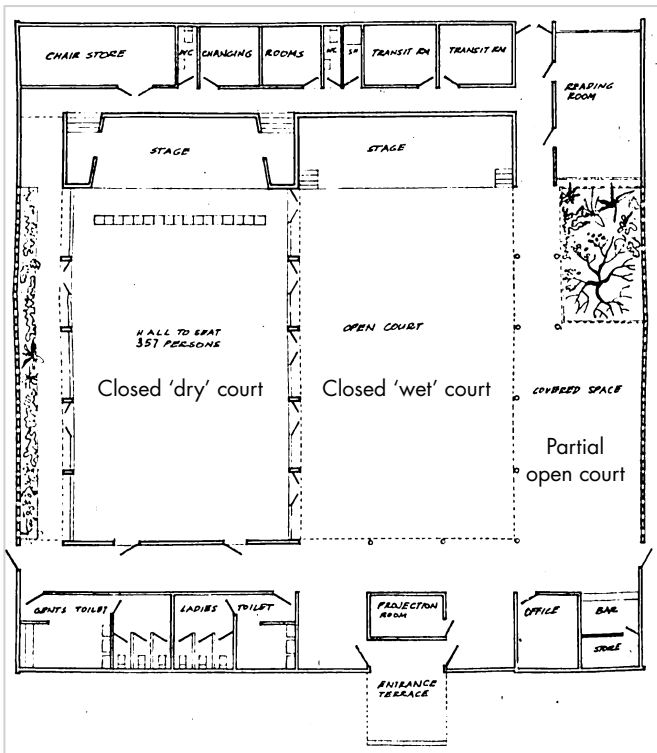
Spearheaded by the Welfare Department under the leadership of Senior Welfare Officers Afadzi and Mensah of KNUST, the KCC was commissioned in the early 1960s. The aim was to create a communal and multi-purpose space for the junior staff members of the university. Additionally, it was to provide a kindergarten and children's library. In other words, it was to serve as a staff club for junior



01 External view of the KNUST Community Center as of 2018. © KNUST Development Office, 2023.



02 View of closed 'dry' court at KNUST Community Center. © KNUST Development Office, 2023.



03 Floor plan of the KNUST Community Center (KCC). © KNUST Development Office, 2023.

staff members catering to the welfare, educational, and recreational needs of the university community at large. Such functions and activities included concerts (as Prof. reminisced about Axim Trio concert party performances at the time), a cinema, hosting all manner of meetings, especially those by the trade unions, funerals, and ceremonies to commemorate various occasions. Also, minor indoor sports events, including squash, volleyball, and basketball took place here (Kwabi, 2023).³

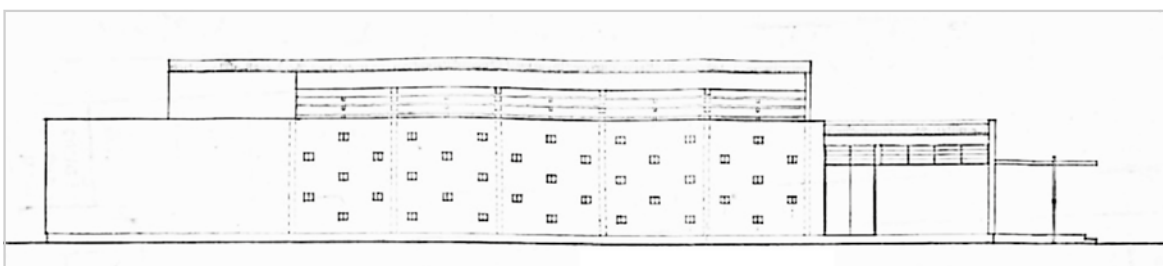
In 1961, in his early thirties, the vibrant young Owusu Addo took on the commission of the KCC project. This set the course of his tropical modern 'experimentations' on the KNUST campus that eventually and undoubtedly contributed to the architectural culture of Ghana's nation-building alongside his foreign cohort. Having worked with and being influenced by Kenneth "Winky" Scott, a cohort of Maxwell Fry and Jane Drew in London, ideologies espoused in the Prof.'s design mantra aligned with the European Modern Movement in tropical settings. The KCC, being his first project on KNUST campus, typified tropical architectural principles of cross ventilation, open courtyard, sun shading, and the harnessing of daylighting. The center was conceptualized to exhibit partial and full

open court (seating and stage) for activities which enabled interactions with the outdoors. It was termed by Prof. as the 'wet space'. Adjacent to the 'wet space' is a similar configuration he termed the 'dry space' meant for indoor and enclosed activities. Both spaces were aligned with the two main weather patterns of the country: the wet (rainy) season and the dry (harmattan) period [FIGURE 03, FIGURE 04].

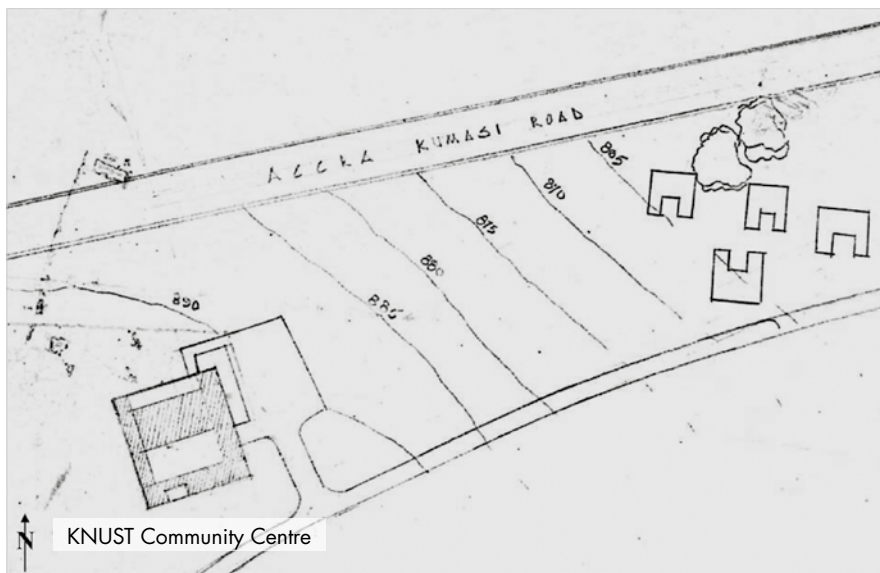
In fashioning the center, Prof. indicated in an interview with the author that there was no immediate precedent study in Kumasi other than the Prempeh Assembly Hall. A few case studies designed in the manner of modern architecture which might have influenced Prof. indirectly were the Accra Community Centre (1951) and the Tarkwa Community Center (1950s), both designed by Fry and Drew (Jackson, 2022). The architectural science of these centers displays the dialectics of the fundamental principles of vernacular architecture, which eventually translated into Tropical Modern Architecture.

The KCC had a welcoming entrance that was orientated to the east and was celebrated with a flat floating slab roof supported on a portal frame in front. This created a large canopy-shaded area to foster the typical African communal feeling of gathering and comradeship. Behind, the closed and open courts (that is, the stage areas) were lined with offices and supporting facilities, such as changing areas, kitchen, and storage, positioned to the setting sun in the west. This side of the building is literally blank, with high-level windows and a services access point. The north and south façades have screen walls with punched holes elegantly fluted with blocks placed to extrude and create a contrasting effect to the blank surface. The idea behind the north and south façades was to attenuate sound from the Kumasi-Accra Road [FIGURE 05]. It was also to prevent outsiders and intruders who might not have paid for a concert from peeping through when shows and performances were ongoing at the center.

In the aftermath of World War II, when Ghana set the pace as the first country in Africa to achieve self-determination from British rule, most buildings were overseen by Western and Socialist architects. Together with their local contemporaries, these buildings displayed tropicalized European Modernism, and the works of Prof. were no exception. As a case in point, the KCC is one example



04 Elevation of the KNUST Community Center (KCC). © KNUST Development Office, 2023.



05 Location of KCC. © KNUST Development Office, May 2023.

of projects that marked a new 'modern' Ghana in the 1960s. It was built in sandcrete blocks and reinforced concrete utilizing post and beam construction, portal frame, and steel posts. The modern language of simple planar elements and refined minimalism, which includes a flat concrete roof, low angled single or double-pitched corrugated roof and blank-textured surfaces, were exemplified in the KCC.

In terms of its tropicity, passive ventilation and natural daylighting were achieved through the open 'wet' court, which doubled as a courtyard system and the simulation of the outdoors by having a planted area in the court with cut-out portions through the roof of the shaded space. The shaded space served as a spillover area for audiences during performances and for hosting semi-covered activities. Also, an open void over the row of planters and veranda space sandwiched between the northern screen wall and the outer wing of the closed 'dry' court was introduced to aid airflow. Here, an indoor-outdoor atmosphere was created as the row of planters spanned the entire length of the closed court, adding to the visual effect from the inside. Ventilation was further enhanced through the stack effect via shaded high-level windows fed by incoming air through a series of timber/glass pane jalousie or louver doors and windows at human height level. The use of recesses and shading elements were utilized especially at the flanks of the closed 'dry' court to modulate the ambient temperature and comfort levels. The "pristine nature [of mostly white and some grey color scheme] of the tropical modernist architectural style" (Uduku, 2006) espoused by the pioneers—Fry and Drew, James Cubitt, and others—defined Prof.'s KCC and most of his buildings in Ghana.

RENOVATION OF KCC

The recent renovation of KCC maintained the original design intent with a few modifications, mainly to non-structural building elements. Timber doors and windows have assumed a current look of fixed or operable glass panels

and louvers framed in either timber or aluminum profiles. Terrazzo and granolithic floor finishes have been replaced with timber-looking and grey porcelain outdoor tiles. The stage area, formally the covered court now, has natural timber panels as the floor finish. The original plywood ceilings have been replaced with cement and plasterboard ceilings. The KCC has been revitalized with contemporary electrical and plumbing systems, coupled with an aesthetically pleasing green color scheme. For the closed court, ceiling fans and free-standing air-conditioners have been introduced to aid in total ventilation, as a few of the initial louvers and the high-level window concrete shading slats have been replaced with fixed glass panes. The sanitary windows on the front façade have been partially screened off with four free-standing columns clad in stone and topped with a timber pergola. This added feature has become a background for taking photographs during events. The newly refurbished KCC is refreshing, and it provides a glimpse of how it was fashioned in the 1960s, lending credence to the Prof. as a Tropical Modern Architect [FIGURE 06, FIGURE 07]. The second part of the article focuses on his profile.

PERSONAL

The 95-year-old Professor who had four children with his late wife, Justice (Rtd) Mrs Doris Owusu Addo (1931-2022), is an embodiment of six decades of the evolution of architectural education and practice in Ghana. He originally trained as an art teacher before completing a five-year architectural education at Regent Street Polytechnic (now University of Westminster) and receiving his RIBA certification a year later in 1958. He witnessed the inception of the Department of Architecture (DoA) and partook in its pedagogical development at the KNUST, then known as the Kumasi College of Technology, in 1952. As an architectural educator, he became the first Ghanaian lecturer and eventually the first Black Head of Department. (Derban, 2022) During his lecturing career,



06 KCC after renovation, front view towards entrance and view of open court. © Author, 2023.



07 KCC after renovation, external view and inside view of closed court. © Author, 2023.



he undertook a six-month training in tropical architecture at the Architectural Association, London, on an exchange program. In KNUST, he steadily rose through the ranks and became an Associate Professor in 1964. Prior to lecturing at the DoA, he took up an advertised position as an architect, later to become the “first Ghanaian chief architect at the Development Office of the KNUST [who] had privileges that other Ghanaians did not” (Manful, 2016, p. 414-419). These uniquely privileged ‘experiences’ set him apart from his peers and afforded him the opportunity to express an aspect of his architectural design philosophy of social responsibility. In 1966, Owusu Addo had commented that:

Unless the role of the architect is based on our real needs, we run the risk of running into the usual architect poses, which are similar to a jeweller creating fine adornments, very nice, very pretty buildings which are out of social context. Architects who are too lazy to consider social context are creating pastry. The architects become stars and heroes using twice as much concrete and building more for less (to reverse the slogan). What is for America and Europe, we simply cannot afford (Addo, Bond, 1966).⁴

In agreement with Prof.’s ideals, contemporary architectural historians have argued that the modern architecture in British West Africa, as practiced by mostly European architects, contradicted the social responsibility of culture, economics, and the environment, hence its short-lived popularity. For instance, Elleh (1997) argued that the modern movement was marked by an overreliance on the importation of foreign materials and labor to aid its

continuity (Elleh, 1997, p. 244).⁵ Similarly, Uduku (2006) pointed out that the African continent could never really match the high investment the style posed.⁶ Also, Architect John Lloyd, the first head of DoA at KNUST, “writing from Ghana just ten years later [in 1966], conveyed a sense of the discipline’s estrangement from the context” (Roux, 2004).⁷

TROPICAL MODERN ARCHITECTURE

In lieu of this, Prof. also embraced social issues, which may not have necessarily earned him status as a star architect; however, he was deemed a pragmatic practitioner and a prolific educator as such. At the turn to decolonization and early nation-building in Ghana, he participated, partnered, and wrought iconic works from the 1960s with professional relationships and networks of both sides of the Western and Socialist architectural divide. Such contemporaries included Fry and Drew, Kenneth Scott, James Cubitt and Partners, Nickson and Boris, Max Bond, Miro Marazovic, and Nikso Ciko (Herz et al., 2015).⁸ Moreover, he collaborated with fellow Ghanaian architects, especially at the Development Office of KNUST, on various projects, notably the iconic Bank of Ghana Cedi House tower in Accra, which in particular was assisted by Arc. Samuel Opare Larbi (Uduku, 2017).⁹ He and Larbi were amongst the first generation of indigenous architects to be awarded such ‘key’ government contracts in the 1960s and 70s.

Indeed, he was actively part of it all, witnessing firsthand the rise and pitfalls of tropical modern architecture of the period. Owusu Addo actively sought out and exemplified contextual remedies through his philosophies and ardent practice. He advocated and implemented

the curriculum reforms of the KNUST Department of Architecture, which was originally RIBA-aligned (AP Editorial, 2018). In a 1970 University Report for BBC African Service, Prof. asserted that

...when the Faculty of Architecture was started at Kumasi, the syllabus was all based on the Royal Institute of British Architects but now we have succeeded in throwing that out completely and building up our own syllabus which is suited to the needs of the country. (BBC African Service, 1970)

Moreover, Prof. was very active in the architectural fraternity, contributing to the systemized (and legal) framework of its practice in Ghana. He and his few pioneering compatriot architects at the time formed the Ghana Institute of Architects in 1959. It included T.S. Clerk, Victor Adegbite, O.T. Agyeman, P.N.K. Turkson, J.S.K. Frimpong, and others. (GIA, 2019) The institute was distinct from the Ghana Society of Architects, whose members were predominantly from the Western world. As he moved between architectural practice and education, he exhibited excellent leadership skills when he became the Chairman of the Commonwealth Board of Architectural Education (CBAE) in the early 1980s. Also, from 1982 to 1990, he contributed immensely to the African Union of Architects when he chaired its Board of Educational Research and Technology. (Bosumprah, Essah, 2014) Aside from educating architectural students in KNUST, Prof. taught at the University of Nigeria, Enugu campus for a year in 1984 as a visiting professor. He then moved to Imo State University (now Abia State University) for two years, where he became the first African Head of Department in the School of Architecture in 1986 (Boateng, 2023).¹⁰

All of the above highlights some of Prof.'s experiences, influence, and impact on the architectural built-scape in Ghana and the Commonwealth at large. As a tropical modernist architect, he attempted to effectively identify and utilize available local resources and contextualize the cultural circumstances during his active years of practice. He was instrumental in setting up a trajectory that can be harnessed and distilled by young and upcoming architects in the tropics to emulate, adapt and improve for the West African regional settings.

Owusu Addo is almost a centenarian, and there has been a very limited spotlight on his contributions to the modern architecture discourse on the international stage. This essay is in appreciation of Prof.'s career and work in architecture exemplified by the KCC, a 'forgotten' gem sitting at the periphery of tropical modern architecture. His remarkable impact on the architectural culture in Ghana and other commonwealth countries can be distilled into a volume fitting for publication to document

his achievements, ideologies, and the African way of approaching architectural education and design practice. Outcomes of such endeavors will go a long way to positively impact the psyche of the contemporary tropical architect in their training and practice. In short, from his retirement home located near the Kumasi Golf Course, Prof. John Owusu Addo's mantra is summed up in his own words:

Always remember that you were a Ghanaian before you became an architect. No matter how diverse the influences [are] along the way, be guided by these three aspects of life: the sustainable, the communal, and the cultural. They mark the true path of the African. (Derban, 2022)¹¹

ACKNOWLEDGEMENTS

The article by Arc Kojo Derban titled 'John Owusu Addo: A memoir of Ghana's architectural journey through the eyes of a pioneer Architect' in design233.com has been a useful source to chart the history of Prof. Owusu Addo. Many thanks to Arc. Kojo Safo-Kantanka and Arc. Nana Agyeman Cobbinah of the KNUST Development Office, who provided access to the original drawings and existing pictures before the rehabilitation of the Kumasi Community Center (KCC).

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See twitter thread at <https://twitter.com/ghanaarchitects/status/1110711560547254272>

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Prince Charles Kwabi has a combined 15-year working experience as a certified Architect (AGIA), a Project Management Professional (PMP/PMI) and a Chartered Builder (CIOB). Currently, he is a Higher Degree Researcher with the School of Architecture in the University of Queensland, Australia. As an Architectural Design Engineer, he is affiliated with Ghana Multi-Country Office (GHMCO) of the United Nations Office for Project Services (UNOPS). His research interest lies in British West Africa, tropical architecture, sustainable / green buildings and educational facilities. He enjoys spending quality time with his family, engaging in DIY activities and taking pictures of neighbourhoods on long walks.

ENDNOTES

- 1 AfricaBZ is an online platform dedicated to business listings, customer reviews and experiences in Ghana with emphasis on public and shared spaces. For example, 'Isaac' of Kumasi posted online that:
"This place had a day care for toddlers, which I attended. I don't know if it still runs, but it was cool. I went there recently for the first time in many years. Talk about a glow up. The place has been fully renovated, with an attractive new colour scheme. Very nice. Must be under new management. It frequently hosts funeral ceremonies during the weekends".
- 2 Unpublished 'informal' interview at Prof. Addo's residence which revealed other works (and collaborations) of his architectural portfolio.
- 3 Unpublished 'informal' interview at Prof. Addo's residence. The referenced paragraph and the six succeeding paragraphs are culled from this interview. Prof. voiced out his appeal to the architectural fraternity to put together the necessary resources to curate his entire body of works while he is still alive.
- 4 Owusu Addo authored a piece of article with his African American architect colleague Max Bond in the special edition of KNUST campus journal ARENA espousing their ideologies on a holistic tropical modernism.
- 5 Issue of importation has been cited and interrogated by William Whyte who discusses Modernism, Modernization, and Europeanization in West African Architecture between the period 1944 to 1994.
- 6 The inference is from an interview conducted in 2003 by Uduku with Architect Co-Partnership group founding member Michael Grice. It was demonstrated that the issues of modernism during the post-war era was laced with high project life-cycle cost (especially at the implementation stage) even though tropical design principles were being adopted.
- 7 Writings of Architect John Llyod sharply contrasted the apparent 'tabula rasa' mode of practice by Maxwell Fry and Jane Drew. As a result, Owusu Addo indicated in an interview with AP Editorial in 2018 that John Llyod readily provided the necessary platform to make changes to KNUST DoA curriculum.
- 8 This resource seems to lack works done and authored purely by native architects in Ghana. In the case of Owusu Addo, works featured were those collaborated with foreign architects.
- 9 Arc. Samuel Opare Larbi's profile can be accessed at <https://www.design233.com/articles/samuel-opare-larbi>
- 10 According to Addo, he did not hold any academic position in the University of Nigeria but only taught as a visiting professor for one academic year. He made mention of Professor Darta – an Indian - as the Head of Architecture Department in the University of Nigeria who used to be with the Building and Road Research Institute (BRR) in Kumasi, Ghana. At Imo State University, he succeeded the acting head Dr. Sinha - an Indian - to become the first Black Head of Architecture Department.
- 11 It can be inferred that what represented Prof. Owusu Addo's personality throughout his career is the deep concern for collective identity (of the African) and its sustainability for the common social good of all.