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SHARED HERITAGE AFRICA

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CONTENTS

Uta Pottgiesser & Wido Quist

Editors-in-Chief

SHARED HERITAGE AFRICA REDISCOVERING MASTERPIECES

Docomomo International is proud to present the results of the international project *Shared Heritage Africa: Rediscovering Masterpieces* and other selected papers from our call for papers *Shared Heritage Africa – Campuses*, published in December 2022. The SHA project itself, coordinated by Docomomo Germany, focused on rediscovering post-war modern buildings from the 1950s-1980s in the partner countries Ghana, Nigeria, Uganda, and Rwanda.[1] This period of independence from colonial rule, from the United Kingdom (Ghana 1957, Nigeria 1960, and Uganda 1962) and from Belgium (Rwanda 1962), has a great socio-political significance and influence on the educational systems and buildings. The rediscovery of this heritage focuses on exploring the values, challenges, and opportunities through the eyes of their contemporary users. Concentrating on the post-war modern buildings constructed after independence from colonial rule, the project celebrated projects that are situated at the periphery of the architectural discourse and, therefore, seldom documented despite their social, economic, and political significance.[2]

This Docomomo journal highlights the importance of the combination of local workshops, including student writing and photography workshops, exhibitions and 'digital fellowships' using the internet for dissemination. Exploratory interviews and narratives are used to collect testimonies of contemporary users applied in the SHA project as well as in the other articles. Aspects discussed are, among others, the physical; deterioration (technical, functional, social), the cosmological; through the sense of identity, community, place attachment, maintenance and taking care, ownership and appropriation, and the environmental; considering the quality, and sustainability of spaces, and also conditions of comfort and satisfaction. While the method is in development, preliminary conclusions can already be sketched. The written, visual, and digital documentation of the built cultural heritage of Africa is a prerequisite for sustainable urban and social development. The approach builds upon African and international Docomomo initiatives and identifies students and young professionals as important groups to develop social, cultural, and political awareness and to further advance participatory tools.

Most relevant were the partners in and from Africa who helped with their networks in Ghana, Nigeria, Uganda, and Rwanda during the excursions and exhibitions: Ola Uduku (University of Liverpool), Taibat Lawanson (University of

01 University of Lagos, photo taken during the SHA project visit to Lagos and Nigeria. © Jean Molitor, 2022.

Lagos) are well-known and respected for their research on education buildings and urban development in Africa. Their commitment to the younger generations and the (built) heritage of Africa and their enthusiasm were instrumental to the achievements of the SHA project. Kuukuwa Manful from Docomomo Accra Chapter in Ghana finished her dissertation within the ERC program 'African State Architecture' during the project duration, and Mark Olweny (Uganda Martyrs University) in Kampala, Uganda, greatly supported the visit to Uganda and Rwanda. The photography and writing workshops and exhibitions were strongly supported by the project partners, namely photographer Jean Molitor, who has initiated his own art project 'bau1haus', is experienced in setting up exhibitions and shared his knowledge enthusiastically with the SHA-Fellows. Christian Burkhard brought in the competence of Architectuul, an architectural platform that, through its co-workers in various countries, forms an international architecture community. Finally, Anica Dragutinovic (TH OWL) coordinated the contact amongst the SHA-Fellows from the very beginning and during their visits to Europe to the 17th International Docomomo Conference in Valencia in 2022 and to the 19th Docomomo Germany Conference in Frankfurt 2023. Three exhibitions were organized: in Lagos in 2022, in Kampala and in Frankfurt in 2023.[3]

We also like to thank the members of the SHA project's Advisory board: Ana Tostoes (University of Lisbon), Iain Jackson (University of Liverpool), Irene Appeaning Addo (University of Ghana), Kaija Voss (Architectural Historian), and Tino Mager (ICOMOS Germany).

Finally, we are grateful to the German Federal Foreign Ministry that supported the project with a grant (AZ99210073) from 2021-2023, and it is with great pleasure that we are launching this issue of the Docomomo journal, published both in print and online via www.docomomojournal.com.

1 https://docomomo.com/research-projects/#sha (visited November 17th 2023).

2 Denison, E., & Vawda, S. (2022). Modern Heritage in the Anthropocene. Proceedings Global Symposium, 2022, https://www.ucl.ac.uk/bartlett/architecture/sites/bartlett_architecture/files/book_of_abstracts.pdf

3 https://sha.architectuul.com

INTRODUCTION

Ola Uduku, Kuukuwa Manful

BUILDINGS FOR HIGHER EDUCATION IN AFRICA

Access to formal education has long been considered essential to progress by people in Africa. The design and building of educational institutions were also an important part of the post-war modernism construction boom around the world and on the African continent, coinciding with post-independence nation-building. From the 1940s through to the early 1970s, ambitious nations from Algeria to Zimbabwe invested in universities and higher educational buildings as both literal and physical centers of intellectual advancement for their nations' youth in that jubilant era, heralding freedom from colonization and the emergence of self-rule.

More than half a century later, these edifices borne of hope and expectation have generally stood the test of time and remain recognizable features in many African cities and landscape settings. How these structures have fared architecturally and how they have been adapted or incorporated into contemporary life varies by country, institution, and socio-political context: an important subject to be studied. As the provision of educational buildings is still important to African nations and is part of the global sustainable development goals, what better time to revisit those purpose-built institutions in a time of hope and exuberance? Especially as their relevance remains critical to the development of Africa's best and brilliant young minds?

This special issue of the Docomomo Journal focuses on educational institutions, particularly universities and other higher educational establishments built in Africa from the late 1940s to the 1970s, as instances of shared' social, political, cultural, economic, and architectural heritage. This architectural heritage has been shared through actions of coercion, co-option, and co-operation between various proximal African countries, former colonial powers, and contemporary socio-economic partners. Many contributions are linked to the Shared Heritage Africa (SHA) Project—funded by the German Foreign Ministry (Auswärtiges Amt)—, which focused on the documentary rediscovery of modern university campuses as examples of cultural landscapes from the period of independence from colonial rule.

Our specific focus on tertiary educational institutions, in particular, is because "universities were crucial institutions in decolonizing nations" (Livsey, 2017, p. 2) and served as "catalyst(s) for technological development" (Adjei and Oppong, 2017, p. 436). The construction of higher education institutions

in the second half of the 20th century demonstrated some continuities in historical trajectories, such as the positioning of Western education in "ivory towers" separate from existing African contexts (Uduku, 2018). Additionally, many European architects from different countries and for various reasons came to Africa to build and teach architecture (Intsiful, 2016; Stanek, 2020). Yet, disruptions were also evident in the increasing number of African and Black diaspora architects creating and studying architecture in this era of independence (Stanek, 2020; Manful, 2016; Uduku, 2018; 2008; Le Roux and Uduku, 2004), many of whom were working and studying in the margins and peripheries of their national contexts.

We also acknowledge that despite African Modernism being a much more studied area in the 2020s than it had been at the end of the 20th century, there remain relatively few publications on the subject. Furthermore, the publications that do exist tend to have been written by non-indigenous scholars who, despite rigorous scholarship in the subject area, often espouse views from a Western socio-philosophical perspective and not necessarily from an indigenous local-context-focused viewpoint. *Docomomo Journals* in 2003, 2013, and 2020 have incorporated themed editions that include contributions from Africa (Uduku, 2003), sometimes technical, sometimes aesthetic, and sometimes historical, but a complete thematic issue devoted only to the continent has yet to be published.[1]

This publication presents a great context to revisit Modernism in African countries through a collection of fascinating accounts of educational buildings as well as various people who contributed to their design and construction. This journal offering is less of a retrospective and more of a varied collection of papers that encounter African architecture at different historical and contemporary levels, with some approaching the theme from a photographic perspective. Several articles are from the Docomomo Shared Heritage Africa Project Fellows, complemented by contributions from both seasoned and early-career researchers who present their research and writing to this unique, thematic journal edition.

The contributions selected for this collection each responded in creative, insightful ways to our call for essays and articles that 'seek to rediscover projects situated at the periphery of the main architectural discourse, referring to built heritage that has either been forgotten, relatively undocumented with limited publicity or discussion, despite their social, economic, and political significance.'

For example, Adefola Toye's essay titled *Learning from the Recorded Histories of Nigeria's First Post-Independence Universities* draws from her ongoing research on Nigeria's historic universities of the 1960s to reflect on the myriad silenced and excluded sources in mainstream historical records about the founding and construction of higher educational institutions in Nigeria. In an essay that seeks to center previously marginalized African voices in historical records, *African Agency and Colonial Committees at Fourah Bay College: An investigation into the architecture and planning of the new Fourah Bay College in Freetown, Sierra Leone,* co-written by Ewan Harrison and Iain Jackson, the authors explore the history of Fourah Bay College in Mount Aureol, Freetown, Sierra Leone. Through their investigation of West Africa's oldest Western-style university campus, the authors show that Africans exercised agency in the design and construction of the college. *A Tropical Modernist Architect: Prof. John Owusu Addo*, written by Prince Charles Kwabi, is an appreciation of the architecture of Professor John Owusu Addo, one of Ghana's first indigenous

1 **The following Docomomo Journals were published: Modern Heritage in Africa No. 28 (2003),** https://docomomojournal.com/index.php/journal/issue/view/72; **Modern Africa, Tropical Architecture, No. 48 (2013),** https://docomomojournal.com/index.php/journal/issue/view/dj-48; **Tropical Architecture in the Modern Diaspora No. 63 (2020),** https://docomomojournal.com/index.php/journal/issue/view/dj-63.

architects who worked both as an educator in Kumasi and as an architect in Accra and Kumasi. Following a recent trend of telling the stories of indigenous African architects who were involved in the Modern Movement, Kwabi discusses a solo project of Owusu Addo as an example of a forgotten masterpiece in dominant narratives of Tropical Modernism. In their article *The Higher School of Agriculture of Mograne (1947-1952) in Tunisia. A referential architectural work of Jean Pierre Ventre*, Salma Gharbi and Hédi Derbel explore the production of university institutions in Tunisia. Another interesting campus example is examined in the article *Reviving the Modern Architecture of Arieh Sharon's Obafemi Awolowo University, Ile-Ife, Nigeria,* where authors Bayo Amole and Emmanuel Babatunde Jaiyeoba take a closer look at the particularities of this institution and its conservation efforts. They call to attention the current decline of the buildings in the university and advocate for urgent action towards preserving this example of Tunisian Modernism.

Some of the authors have used a comparative approach to exploring the shared architectural heritage in African countries. Emmanuella Ama Codjoe and Justicia Caesaria Kiconco, from Ghana and Rwanda, respectively, have constructed their essay *A Comparison of two Schools in Sub-Saharan Africa Reflections on the Impact of Modern Design on African Primary Schools* in this spirit. They compare the anglophone and francophone colonial influences, the different trajectories, and the current uses of two schools in their countries (École Belge in Kigali, Rwanda, and Republic Road School in Tema, Ghana) to show similarities in design borne out of architectural networks in the post-independence era. Similarly, *The Great Hall, KNUST, Kumasi, Ghana; Parliament of Bunyoro Kitara Kingdom – Rukurato Hall in Hoima City, Uganda*, which describes contrasting approaches to public building conservation through the 'Great Halls' (assembly halls) of two universities in East and West Africa, is written by Timothy Latim (Uganda) and Jonathan Agbeh (Ghana) and curated by Professor Ola Uduku. In their essay *Uganda International Conference Center and Nile Hotel. A faint memory of past geopolitical alliances and ideals in Kampala, Uganda*, Milena Ivković and Frank van der Hoeven discuss an "overlooked and undervalued" example of shared modernist architectural heritage between Yugoslavia and Uganda. With regard to the current status of modern heritage in Africa, an analysis and comparison of the documentation efforts of the Docomomo National Working Parties is presented in the article *Connecting the Dots: A Global Exploration of Local Inventories* by Meric Altintas Kaptan, Aslihan Ünlü, and Uta Pottgiesser.

This special issue contains several essays that report on and discuss collaborative workshops and exhibitions. Nnezi Uduma-Olugu, Adeyemi Oginni, Oluwaseyi Akerele, and Ademola Omoegun discuss the Nigerian edition of the African Architecture Writing Workshop ran by Professor Ola Uduku, Dr. Irene Appeaning Addo, and Dr. Kuukuwa Manful in *Documenting the Re-use of Modern Buildings: An Appraisal of a 2022 British Academy Writing Workshop of Postgraduate Students and Researchers*. The article *Campus Utopias: A Visual Rereading* by Esther Gramsbergen, Yağız Söylev, and Ayşen Savaş describes a collaborative "multidisciplinary graduate course" by the Architecture Departments of TU Delft and METU Ankara, which included a case study of Obafemi Awolowo University in Nigeria. The course culminated in an exhibition of 3D digital drawings, models, collages, and physical reliefs.

The fellows of the Shared Heritage Africa (SHA) Project that this journal issue stems from have contributed an essay that discusses their "varied experiences" of the architecture explored through the project. With the title *What is*

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shared about African Modernism? What is African about Modern Heritage?, Immaculata Abba, Tubi Otitooluwa, Bola Oguntade, Jonathan Kplorla Agbeh, Emmanuella Ama Codjoe, Christine Matua, Timothy Latim, and Justicia Caesaria Kiconco discuss eight examples of modernist architecture in their respective countries through elements and themes such as non-inclusivity, natural ventilation, and shifting boundaries. Through their explorations of these buildings, they suggest that "modernist architecture forms a part of African culture," but "this may not necessarily translate into African heritage."

Two book reviews complete the collection of contributions to this special issue. Mark Olweny reviews *Fugitive Archives: A Sourcebook for centring Africa in Histories of Architecture*, edited by Claire Lubell and Rafico Ruiz. Olweny asserts the "need to… record and amplify the evidence created by researchers who embody Africa's diverse spatial lineages, experiences, and knowledges." Immaculata Abba reviews Nnamdi Elleh's *Architecture and Politics in Nigeria: The Study of a Late Twentieth-Century Enlightenment-Inspired Modernism at Abuja, 1900–2016*, calling it a 'delightful' departure from typical academic histories and a "resource for thinking about spatiality, urban planning and civic space in relation to the design ethos of modernism."

This special issue of the *Docomomo Journal* has succeeded in its aim to provide a new platform for the exploration of the architecture of higher education on the African continent, mainly by African authors, some of whom are writing their very first academic articles. It is the hope and aim of the editors that many more such volumes are produced–of African authors writing about the architecture, architects, and builders of and from their continent.

It is the hope and aspiration of the editors that many more such volumes are produced, that showcase the work of young African and Africa-based authors, writing about the architecture, architects, and builders of and from their continent.

EXAMINING THE RECORDED HISTORIES OF NIGERIA'S FIRST POST-INDEPENDENCE UNIVERSITIES

Adefolatomiwa Toye

ABSTRACT: Nigeria's independence ushered in an era of university creation. Four new universities were established by 1962, just two years after attaining self-rule. Twenty-five years later, they each commissioned and published a book that documented their histories. This article employs a textual analysis of these publications within the context of contemporary research on university architecture in 20th-century Nigeria. It examines these books as a historical source for tracing the universities' architectural histories. It further explores the ways they documented their built environment through their accounts of academic development, institutional changes, and nation-building goals. Finally, it reflects on the relevance of their sources, narratives, and limitations in reimagining the architectural history of Nigeria's first universities.

KEYWORDS: Nigerian universities, architectural history, built environment, university publications

INTRODUCTION: University creation marked the period of decolonization in Nigeria. By the mid-1950s, the country's only colonial university, University College Ibadan, was incapable of providing the workforce demand for a colony on the path to self-rule (World Bank Group, 1955)[1]. The University of Nigeria, Nsukka, opened days after Nigeria's independence in 1960 and was followed in 1962 by the University of Lagos, Obafemi Awolowo University, Ile-Ife[2], and Ahmadu Bello University, Zaria (Okafor, 1971). The University of Lagos-UNILAG was a federal institution, while the University of Nigeria, Ahmadu Bello University-ABU, and Obafemi Awolowo University-OAU were administered by the regional governments of Eastern, Northern, and Western Nigeria, respectively, until 1975 (Anyanwu, 2011).

Two and half decades after their creation, these universities began extensive documentation of their histories. The books published for this purpose were titled:

- The University of Nigeria, 1960-1985: An Experiment in Higher Education (Obiechina et al., 1986)
- Great Ife: A History of Obafemi Awolowo University, Ile-Ife (1962-1987) (Omosini & Adediran, 1989)
- Ahmadu Bello University (1962-1987) (Tukur & Mahadi, 1989)
- A History of the University of Lagos 1962-1987 (Aderibigbe & Gbadamosi, 1987)[3]

This article aims to examine the universities' account of their built environments by conducting a textual analysis of these publications in the context of current research on Nigerian university architecture. It discusses their relevance as sources, the extent of the built environment they cover, and their limitations when centered as historical sources for scholarship on Nigerian universities' modernist architecture.

RELEVANCE AS SOURCES

The books–initiated as part of silver jubilee celebrations–appraised the institutions' strides in academic and campus expansions, staff and student growth, and local and national impact. They were preceded by *The University of Ibadan, 1948-73: A History of the First Twenty-Five Years* (1973). The publication was referenced primarily to provide a background to the state of higher education in Nigeria prior to the new institutions' establishment. *University of Ibadan, 1948-73*, alongside those published by the universities under consideration, serves as secondary historical sources in current studies on nation-building and higher education in Nigeria. They were used in *The Politics of Access* and *Architecture and Development* to discuss the background of university education in late colonial and early independence Nigeria (Anyanwu, 2011; Levin, 2022). Anyanwu (2011) contends that in the second half of the twentieth century, national and

global politics directed Nigerian policies for mass higher education, whereas Levin (2022) investigates Israel's aid relationship with post-colonial Africa through the architecture of their development projects, including Obafemi Awolowo University. In contrast, Livsey's (2017) *Nigeria's University Age* departs from the books' polished histories to examine the multi-layered nature of development and decolonization in Nigerian universities influenced by local ambitions and transnational exchange. Regardless, it incorporates the institutional archival sources used in *University of Ibadan, 1948-73* and *A History of UNILAG 1962-1987.*

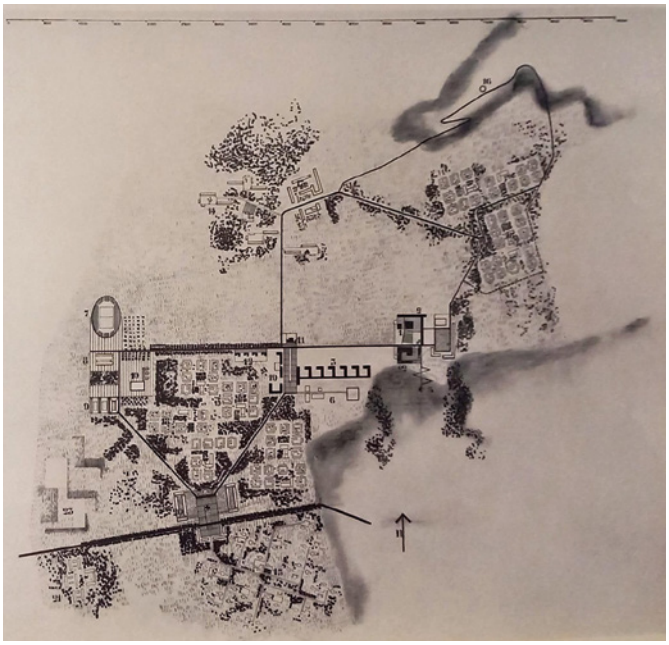
The books relied on historical data sourced internally from university archives and from interviews with pioneer staff and founding figures. University archival records included (but were not limited to) minutes of Senate and faculty meetings, reports, speeches, and prospectus. External records from government archives and newspaper publications were cited, especially in chapters that discussed controversial events of administrative tussles and student protests. Also referenced were books on university development in Nigeria already published by the 1980s. They include *The Development of Universities in Nigeria* by Nduka Okafor (1971) and *University Development in Africa, the Nigerian Experience* by Chukwuemeka Ike (1976). Both books position the universities' origins within the political landscape of colonial and independent Nigeria. The publications of founding figures like Nnamdi Azikiwe's (1937) *Renascent Africa* were also referenced.[4]

The use of primary sources varied across institutions. The destruction of infrastructure and loss of records at the University of Nigeria during the Nigerian Civil War (1967-1970) resulted in a reliance on oral history in *University of Nigeria 1960-1985*. *ABU 1962-1987* also used oral accounts collected from invited participants at a four-day workshop in September 1987 on the book's content and scope (Mohammed, 1989). In contrast, *A History of UNILAG 1962-1987* based its research largely on its extensive catalogue of university records. The absence of a university archive at OAU at the time of *Great Ife 1962-1987*'s publishing was compensated with archival records of the defunct Western Nigeria government and the book *Ten Years of the University of Ife 1962-1972* (1973) written 16 years prior by Stephen Akintoye, a historian and member of staff.

DESCRIPTION OF BUILT ENVIRONMENT

The descriptions of the universities' built environments in the publications were linked to their institutional objectives. These centered on providing adequate facilities for their expanded curriculums, university population and nation-building goals. Although the tropical modernist character of university campuses was not explicitly discussed, the books did describe and explain some underlying factors that impacted site selection and campus layout. These included institutional founding ideologies and site constraints. OAU's emphasis on academic and architectural uniqueness influenced expressive designs by Israeli architect Arieh Sharon (Adediran & Omosini, 1989). Similarly, the University of Nigeria's populist ambitions for accessible university education encouraged simpler and cheaper structures on its campus (Ijomah, 1986). ABU's architectural style was defined by the tropical modernist buildings of the institutions it acquired, i.e. the Nigerian College of Arts, Science and Technology, and the Institute of Agricultural Research in its Zaria campus (Baba, 1989). While at UNILAG, the mangrove swamps on its main campus limited construction to specific cores for two decades (Agiri, 1987).

The account of the institutions' spatial development centered on the need to accommodate diverse academic programs and an increase in student enrolment. Book chapters on the creation and reorganization of academic programs included the completion timeline for new buildings and their subsequent extensions (Baba, 1989). They also listed the funding sources, including the amounts allocated for construction and the equipment they housed. A key component of the histories narrated and analyzed in the books was deliberations on academic organization. The University of Nigeria's collegiate system debate of the 1970s was one example, with implications for the built environment. During the post-civil war reconstruction, the university administration proposed an institutional reorganization modelled after the British 'Oxbridge' system, implemented at the old University College Ibadan (Olisa & Enekwe, 1986).



01 The University of Nigeria 1958 unbuilt master plan by James Cubitt and Partners. © James Cubitt and Partners, 1964. By courtesy of the University of Liverpool Library.

02 1978 sketch master plan for the University of Nigeria by James Cubitt and Partners. © James Cubitt and Partners, 1978. By courtesy of the University of Liverpool Library.

James Cubitt and Partners, previously commissioned for a master plan in 1958, was once again appointed to design a master plan reflecting the proposed college system. [FIGURE 01]. The sketch designs showed plans for compact complexes of colleges with students' residences, common rooms, lecture halls, and working spaces for staff (Cubitt, 1971). Those within the university community who resisted the proposal believed it was antithetical to the anti-colonial and populist foundations of the university. The proposal was eventually scrapped alongside the master plan, with only a few buildings constructed [FIGURE 02].[5]

National integration in the early 1960s was stressed, particularly in *University of Nigeria 1960-1985*, *ABU 1962-1987*, and *Great Ife 1962-1987*. These universities had been established by regional governments whose localized motivations were feared to jeopardize national unity. The books express their dedication to these goals through the halls of residence built to accommodate students of diverse backgrounds. Also, buildings and routes within campuses were widely named after Nigerian heroes from within and outside their regions [FIGURE 03].

EXAMINING THE 'INCOMPLETE' ACCOUNTS

These extensive accounts of their built histories leave out vital information about professionals involved in the projects as well as the importance of built spaces in student activities. Architectural firms either had the scope of their works reduced or omitted altogether. For instance, James Cubitt and Partners' commission for the University of Nigeria's 1958 unbuilt master plan is captured only as soil tests. Meanwhile, another unbuilt master plan designed by the firm of Israeli architect Alfred Mansfeld was highlighted (Ofomata & Ewelukwa, 1986). The authors suggested that the urgency to start off academic activities at Nsukka with temporary structures may have resulted in a deviation from the master plan. Also, *A History of UNILAG 1962-1987* omitted the role of Robert S. McMillan Associates, a Rome-based American firm that designed the University of Lagos's first buildings and academic core.[6] But the book acknowledged the works of the architecture firm Ibru Vaughn-Richards & Associates and local construction companies. Ibru Vaughn-Richards & Associates co-designed the university's 1982 master plan (Agiri, 1987). One of the firm's partners, Alan Vaughn Richards–a British architect domiciled in Nigeria by that time–had also designed staff housing and temporary campus buildings at the medical school in the 1960s.[7] Contractors T.A. Oni & Sons and G. Cappa Ltd built the staff housing and the academic core buildings on the main campus, respectively (Aderibigbe, 1987).[8]

Architecture periodicals and the private collections of architects and firms involved in university projects tell these missing stories. The growing scholarship on modernist architecture in West Africa has also brought valuable sources to light. Journals such as *Progressive Architecture, The Architectural Review,* and, importantly, the *West African Builder and Architect* (1961-1968) featured a series of commissioned Nigerian higher education projects ("University of Nigeria," 1959; "University of Lagos," 1967; "Engineering Labs for Lagos," 1969).[9] Furthermore, digitization projects have been conducted for the works of architects Arieh Sharon and Alan Vaughn-Richards (University of Ife, Nigeria - 1962-1972, n.d.; Uduku, 2020).

Although chapters addressed student life from the universities' inception, they lacked the voices of the pioneer student population. This is crucial as buildings and public spaces were sites and symbols of academic and social

03 Student halls of the defunct Nigerian College of Arts Science Technology, Zaria, currently the Ribadu and Alexander Halls, Ahmadu Bello University. © Central Office of Information London, 1959. INF 10/244 The National Archives, London.

activities discussed in the books. The dining halls boycott defined the protests at the University of Nigeria in 1962 and UNILAG in 1968, where students demanded better feeding and welfare services (Anyaegbunam & Ogbuka, 1986; Akingbade & Enahoro, 1987). They also adopted public spaces as meeting grounds for demonstrations, such as the Freedom Square at the University of Nigeria, named after the 1962 protests. This spatial dimension to student activities on campuses was most apparent in *University of Nigeria 1960-1985,* which contained the accounts of pioneer students [FIGURE 04].

04 Aerial view of UNILAG academic core with the old dining Hall at the centre (currently a Natural History Museum and library extension). © Adefola Toye, 2018.

CONCLUSION

The missing histories in the books compel the examination of historical sources necessary for documenting the architecture of Nigeria's early universities. As an 'official' testament to the institutions' progress, they reflect an extensive yet incomplete documentation of their built history. Revisiting the cited historical evidence through an architectural lens, as seen in recent works, is therefore essential to uncover the details of vague areas.

Undiscovered and/or unofficial sources could break the silence of excluded voices. Written and oral accounts of pioneer students, non-academic staff and university-employed construction workers offer a new perspective to understanding how universities were built and used. However, assessing student-led publications, staff correspondence, and construction documents is challenging because they are often held in unknown or unexplored locations.

Despite their limitation, the history books have been the foundation for research on the origin of higher education in Nigeria and their subsequent editions. They hold the few documented experiences of pioneer students and staff who have passed on and information on sites and buildings demolished or repurposed today. Ultimately, they present a chance to contextualize the architectural history of Nigerian universities within the institutional, political and social settings they originated.

ACKNOWLEDGEMENTS

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ENDNOTES

1 The International Bank for Reconstruction and Development (later World Bank) report raised concerns about University College Ibadan's low student enrolment, costly university buildings, and a limited range of academic programs. The College was renamed the University of Ibadan in 1962.

2 Obafemi Awolowo University was called the University of Ife from its inception until 1987. Adediran, B., & Omosini, O. (1989). Conception Planning and Birth. In O. Omosini & B. Adediran (Eds.), Great Ife: A History of Obafemi Awolowo University, Ile-Ife, 1962-1987 (pp. xvii–xix). Obafemi Awolowo University Press.

3 The books are cited in this article as University of Nigeria 1960-1985, Great Ife 1962-1987, ABU 1962-1987 & A History of UNILAG 1962-1987.

4 In Renascent Africa, Azikiwe argues that indigenous African universities were essential to liberation from colonial authority and self-rule. Azikiwe, the Premier of Eastern Nigeria until independence in 1960, was instrumental in founding the University of Nigeria.

5 An example is the Department of Mathematics and Physical Science building completed in the 1980s.

6 A Progressive Architecture issue highlighted the architect's projects in Africa. U.S. Firm Radiates from Rome. (1964, October). Progressive Architecture, 239-242. https://usmodernist.org/PA/PA-1964-10.pdf

7 These projects were featured in the West African Builder and Architect Journal. University of Lagos temporary accommodation at Idi Araba. (1964, January/February), 4(1), pp. 2-5.; Houses and flats for the University of Lagos. (1965 July/August), 5(4) pp. 66-72.

8 The university moved from its temporary location at the medical school to the main campus in 1965.

9 Progressive Architecture, an American Architecture journal which ran until 1995, showcased the works of the American firm Robert S. McMillan & Associates in Nigeria and Africa. The Architectural Review had included the works of British Architects in colonial Nigeria, such as Fry & Drew's design at the University College Ibadan. The West African Builder and Architect was the first architectural journal of its kind published in West Africa from 1961 until 1968. The 8-year span of the journal saw an extensive documentation of development projects in Nigeria, Ghana and Sierra Leone.

AFRICAN AGENCY AND COLONIAL COMMITTEES AT FOURAH BAY COLLEGE

Architecture and planning of the new Fourah Bay College in Freetown, Sierra Leone

Ewan Harrison, Iain Jackson

ABSTRACT: Fourah Bay College was the first Western-style university to be established along the West African coast in 1827. Primarily used to train missionaries and traders operating in British West Africa, it remained one of the premier educational establishments, overlooking the docks of Cline Town in Freetown, Sierra Leone. Following the Colonial Development and Welfare Acts and civil unrest in the aftermath of World War II, British colonial policy began to fund a series of secondary and tertiary education institutions. Modeled on the new University of the West Indies, these new universities adopted the residential college dorm typology coupled with the latest modernist architecture designed to enhance climatic comfort.

A new campus was proposed for Fourah Bay, and in contrast to earlier precedents, the architectural approach was to be more humble and less monumental. Following a masterplan by London-based architects Norman and Dawbarn, the much smaller and relatively unknown British practice of Frank Rutter was appointed to design most of the campus buildings. The centerpiece is a large concrete tower named after John F. Kennedy, symbolic of the shifting political posturing for control and influence. Following Independence in 1961 and with increasing technical aid offered to neighboring Ghana and Nigeria from Socialist Eastern European powers, Fourah Bay College demonstrated how these political attempts for influence were directly played out through these newly formed institutions. Fourah Bay College also reveals the African agency in appointing architects and who was able to control the procurement processes and design teams. Rutter was dismissed as 'college architect' by a small contingent of newly qualified Sierra Leonean architects eager to ensure local appointments and architectural expressions were given opportunity. The campus, with its impressive architectural structures and innovative solutions, mirrors the political flux and shifting global power structures of the late 1950s and early 1960s, along with the local agency of Freetown architects and their quest to shape the future.

KEYWORDS: Sierra Leone, Freetown, Fourah Bay, Tropical Modernism

INTRODUCTION: In 1946, Fourah Bay College in Sierra Leone planned a new campus on the summit of Mount Aureole in the hills of Freetown. Successively commissioning two British-led architectural practices to masterplan this new campus–Norman & Dawbarn (appointed 1952) and Frank E. Rutter & Associates (appointed c1958/9, who remained the college architect until c1966)–the college sought to expand on its missionary training in the old district of Cline Town and transform into a university capable of meeting the demands of the newly emerging nation.

The last twenty years have witnessed a fruitful period for research into the architecture of Western Africa, with scholars such as Le Roux, Uduku, Liscombe, Crinson, Levin, and Livsey all pioneering research and focusing on educational projects.[1] More recently, Adefola Toye is undertaking a PhD in collaboration with The UK National Archives to research the architecture of the University of Lagos,[2] Kuukuwa Manful's PhD thesis at SOAS has further considered educational projects and spaces in Ghana, and Adekunle Adeyemo has researched the University of Ife at Obafemi Awolowo University.[3]

Despite this emerging body of important work, Sierra Leone has remained somewhat excluded and overlooked. While Fourah Bay has been of interest to historians of education and African political thought (e.g., Paracka, 2003), the lack of architectural research in Sierra Leone is

perhaps attributable to the conflict that ravaged the country for eleven years (1991-2002), disrupting research at a time when academic interest was rapidly emerging around topics of 'colonial' and 'tropical' architecture.

Equally, the architects operating in Sierra Leone during the late colonial and early independence period were not as well-known nor as well-represented in the professional journals as their more famous and media-conscious counterparts elsewhere in Western Africa. The difficulty in accessing evidence, drawings, biographies, and photographs of projects in Sierra Leone has rendered them almost forgotten and invisible in the architectural history of the region. Even more recent scholarship, such as the excellent *African Modernism: The Architecture of Independence* (Herz et al., 2022) and the encyclopedic six-volume architectural guide *Sub-Saharan Africa* (Meuser and Dalbai, 2021), offer relatively sparse coverage of Sierra Leone, with no mention of Fourah Bay's 20th-century campus. This is clearly not due to a lack of architectural quality and range of buildings there.

There is a significant void in the scholarship, despite the educational history in Sierra Leone predatings that of its neighbors. Ayala Levin's recent publication (and expansion of her PhD research) is the major exception and perhaps the start of a new wave of scholarly interest (Levin, 2022).

This paper investigates the particular circumstances around the planning of Fourah Bay's new campus, suggesting that the interplay between colonial officialdom and African agency was decisive in shaping the outcome and that the relative power of the two groups shifted over time and in response to decolonization. As is perhaps to be expected, expatriate architects loom large in the narrative in the years prior to the formal end of British rule in 1961 and are increasingly displaced thereafter. However, the mechanics through which this shift was enacted also point to necessary future research on the role of the 'consultant architect'–a figure often overlooked in architectural historiography. The consultant architect is a specialist role independent of the commissioned architect. They are employed to act on behalf of and as a representative of the client, providing expert advice on complex projects with multi-faceted design components. They can be thought of as a project manager or expert client. In a postcolonial context, the 'architect as client' increasingly questioned and indeed supplanted the expertise of the expatriate architect, thereby creating new kinds of architectural agency.

FOURAH BAY'S HISTORICAL MISSION

Fourah Bay College's foundational aim was to train clergy and to aid the proselytizing of the Christian faith in West Africa. Founded by an Anglican missionary organization, the Church Missionary Society (CMS), the college initially offered degrees in theology. The CMS was a significant entity in the governance of the Sierra Leone colony, being responsible for the operation of many of its prestigious schools–as one commentator noted, "it was not always easy to know when the CMS ended and government began [in 19th century Freetown]" (Lewis, 1954, p. 186). The college became an instrumental component in the broader imperial enterprise as its graduates established CMS schools (including the first secondary school in Nigeria) and 'the bulk of the educated African personnel in the relatively high positions in the colonial service at the time.'[4] It became a particular focus of the Sierra Leone Creole (or Krio) community.

One of the most intensively analyzed and historicized African populations, the Creole, was an affluent, Christian community descended from freed enslaved Africans settled by the British in Freetown during successive waves of migration from 1787 to 1864.[5] Whilst the Creole culture was syncretic, drawing much from Yoruba traditions and practices, the Creole adoption of British mores, manners, and institutions–including Anglicanism–were widely commented on by British writers in the 19th and 20th centuries.[6] The scale and presence of the original buildings of Fourah Bay College reflect the importance of the college to the Creole community [FIGURE 01].

The college was built at Cline Town Wharf from local laterite stone, with a delicate front veranda formed by steel members bolted together. The now ruinous state of

01 Derelict Old Fourah Bay College, Cline Town, Freetown. © Iain Jackson, 2023.

the building has further exposed the steel structure inside. The beams were manufactured by the Glengarnock Iron and Steel Co in Ayrshire, Scotland, and were shipped to Sierra Leone during the construction of the college building. The foundation stone was laid by Governor William Fergusson in 1848. Fergusson was of Scottish-Jamaican parentage and the first student of African descent to study at Edinburgh University.

The old college building became a symbolic beacon to ships arriving in the nearby harbor, and as noted by a colonial government chaplain;

> *The white walls of a large and noble building, rising in aristocratic loftiness, three good stories high, as if by enchantment, from the palm trees which embosom it, and displaying its parapets in the quiet moonlight, like a structure of fancy, which Spenser's pen might not have despised.*
> *(Lewis, 1954, p. 186)*[7]

Despite the immense prestige of the college and the international recruitment efforts–many of its students coming from the Nigeria and Gold Coast Colonies–the college was not immune to administrative problems, temporary closures, and other challenges. These issues continued into the 20th century, with the UK government conducting reviews of education in the colonies generally and West Africa specifically during the 1940s, which were published as the Asquith and Elliot reports.

FOURAH BAY IN THE EARLY 20TH CENTURY

In both the London and Sierra Leone colonial administrations, there was tension in the management of Fourah Bay. On one hand, colonial administrators professed great admiration for the college, noting its "proud historical tradition [and] hold on Creole sentiment," on the other hand, they hesitated to invest funds in tertiary education, given the "relatively small population, secondary school output and graduate manpower requirements of Sierra Leone" (Cox, 1967). This reflects the Sierra Leone's relatively low priority for colonial planners, who instead sought to channel developmental resources into the larger, more populous Gold Coast and Nigeria colonies.[8]

Paradoxically, a blow against the college was the establishment of new tertiary institutions in the 1940s. This "new tide of colonial education," which saw the foundation of University Colleges at Legon, Ibadan, and Makere, left Fourah Bay "high and dry," as it deprived the college of its traditional student base, as many of its distinguished alumni were from the Gold Coast and Nigeria colonies (ANON, 1954).

By 1944, the college had "dwindled to a remnant" of its former glory, with only 17 students and six staff (ANON, 1954). At the same time, its venerable home at Cline Town Wharf was commandeered by the government to provide accommodation for a proposed expansion to Freetown's deep-water harbor. Despite the CMS's efforts to lobby for the site's return to the college, they were unsuccessful (Paracka, 2003, p. 155).[9] By 1946, the old college building was serving as the headquarters of the Railway Company, and the College was homeless. Accordingly, on June 7, 1946, the Senate of the College passed a motion to investigate:

> *The provision of a suitable permanent site for the College, the constitution of a new College Council fully representative of the Sierra Leone community and having administrative powers, the steps which ought to be taken to obtain the fullest measure of cooperation and support from the Sierra Leone Government in the maintenance and development of Fourah Bay College.*
> *(Paracka, 2003, p. 152)*

This move was likely advanced to combat *The British Colonial Secretary's Dispatch on Modern Education in West Africa* (July 1946), which had advocated for scaling back of the Fourah Bay curriculum in favor of a single university for all 'British West Africa' based in Nigeria, and a concomitant downgrading of Fourah Bay's status to that of a preparatory school (Paracka, 2003, p. 152).

The college was granted a new site up in the hills surrounding Freetown, on the summit of Mount Aureole. Whilst only a short distance from the city, it feels remote, with views overlooking vast forests and yet urban in its compact density. The isolated campus, with residences for the students, certainly invokes the vision pursued at the Ghanaian secondary schools ran by Christian mission organizations (for example, at Akropong, Aburi, St Mary's, Amedfoze, and Ho) being remote from the temptations and distractions of the town. In Freetown, the Sierra Leone Grammar School adopted the same idea and moved from the city to a much more salubrious 50-acre site at Murray Town.[10]

The College might have also been eager to keep up appearances with the latest developments in neighboring Ghana and Nigeria. The remote and carefully curated campuses with bespoke architecture in the latest fashion must have caused the Fourah Bay senate to pay careful attention. A geographically proximate predecessor was also found in Freetown's Hill Station, built by the Colonial Government in 1902 for European residence. This mountaintop drive for racial segregation, cooler air, and mosquito-free dwelling was seen as the idealized mode of living. The comparison was not lost on contemporaries, with one British writer noting in the mid-1950s that;

for fifty years the officials have been looking down on Freetown and planning its future good from the quiet of Hill Station. It will do no harm, and probably much good, for trained minds of another kind to look down from Mount Aureole…
(Lewis, 1954, p. 189)

The proposed site had been in use as an army hospital since the First World War, no doubt selected, as Hill Station had been, for its cool breezes and 'healthy' climate. Despite the incredible challenge of the topography and the poor state of the roads, it was hoped that the cost of constructing the new campus would be minimized by converting the existing hospital buildings on the site (Paracka, 2003, p. 170). By 1954, day-to-day college activities were well established in the hospital's former wards, mess halls, and operating theatres. A lyrical description of the college at this time noted it was "scrappy and untidy […] but it is alive, it is growing, and tin roofs do not prevent high thinking, even in the West African rains"(Lewis, 1954, p. 188).

More succinctly, an editorial in *The Manchester Guardian* bemoaned Fourah Bay's "fine site but makeshift buildings" in 1954 (ANON, 1954). The same writer noted that the staff looks forward to building an impressive campus at an "early date."

THE SELECTION OF NORMAN AND DAWBARN

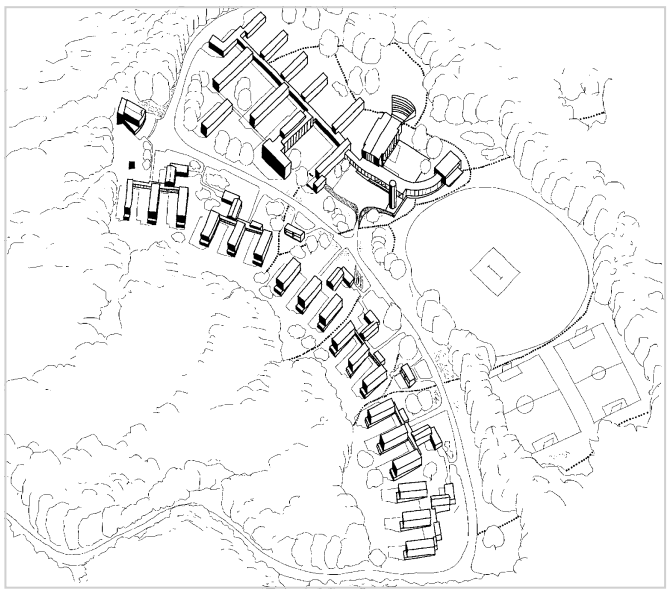
The first campus masterplan (or schematic envisioning, at least) was completed in 1952. The timing is significant. In 1951, legislative changes in Sierra Leone saw the inclusion of African politicians in national decision-making for the first time as part of a power-sharing government with the colonial civil service.[11] These partnership governments were pursued across late colonial West Africa. They were, in tandem with the colonial development policies that saw the funding of Fourah Bay's new campus, intended to prolong colonial rule by making "the exercise of power… legitimate, efficient and progressive" (Cooper, 2002). In the specific case of Sierra Leone, the new African cabinet, led by Sir Milton Margai, a doctor from the rural interior and leader of the newly formed Sierra Leone People's Party, charted a cautiously developmentalist approach in close rapprochement with the British.[12]

This partnership government commissioned the British practice Norman and Dawbarn to masterplan the new campus. Established in London by Graham Dawbarn and Nigel Norman in 1934, it grew into a large practice with a growing reputation for education and airport projects. It was most famous for designing the BBC Television Centre in London [FIGURE 02, FIGURE 03].

The surviving plans of Fourah Bay reveal a schematic proposal of interconnected blocks arranged in a triplet formation.[13] Norman and Dawbarn had already designed the University College of the West Indies (UCWI) in Jamaica, which was instrumental in influencing Ibadan, designed by Edwin Maxwell Fry and Jane Drew.[14] Norman and Dawbarn were also active in Eastern Africa, designing various accommodation blocks and faculty at Makerere in Uganda with its distinct brickwork, and parts of the University of Dar es Salam in Tanzania, featuring a much more rugged concrete finish.[15]

Norman and Dawbarn's appointment reveals much about the circulation of knowledge, expertise, and, crucially, the recognition of expertise in imperial frames. In February 1951, when Fourah Bay College indicated their intention to engage an architect to "examine the site [and] to advise on the type of buildings to be erected," the Governor of the Sierra Leone colony wrote to the Colonial Office to ask for a "list of suitable architects [..] from which

02 Norman and Dawbarn Schematic Plan for Fourah Bay College. © UK National Archive, CO 1045/1272 , 1952 [Redrawn by authors, 2023].



03 The University College of the West Indies, Special Collections and Archives, University of Liverpool D688/2/1/8 c.1950. © Private Collection, No date.

the college council could make its selection" (Governor of Sierra Leone, 1951). The resulting process would, however, reveal how little agency the College Council had in the selection of their architect.

The college's request was passed to the Crown Agents for Overseas Development, and it was this agency who compiled the list of architects deemed suitable for the task. This process resulted in shortlisting of four practices:

- Norman & Dawnbarn, 'the architects for the University College of the West Indies'
- Adam, Holden & Pearson, best known for Holden's work for the University of London but who had also recently been contracted to design a hospital in the Tanganika Protectorate.
- Robert Atkinson, who had undertaken government commissions in Gibraltar and were in talks to undertake 'the possible rebuilding of Government Offices' of the Gold Coast Government, and
- Nicholas & Dixon Spain, 'a sound firm of good reputation,' who had also undertaken hospital work in Singapore (Crown Agents for Overseas Development, 1951).

In each case, the Crown Agents emphasized the practice's ability to work in colonial contexts, even if these were in vastly different locations from the summit of Mount Aureole. A meeting of the Advisory Committee on Colonial Colleges of Arts, Science and Technology resulted in the addition of another name to the list: Seeley & Paget.[16] Based in a rambling Tudor mansion on London's Cloth Fair, Seeley & Paget were an eccentric choice for such a commission, as the practice was a small one best known for its historicist church and country houses work and the design of neo-Georgian follies for establishment clients.[17] The practice was nonetheless praised for its "good achievements" in the field of educational buildings in England, for their "economical" design of a training college at Norwich, and the file also noted approvingly that the practice acted as in-house architects to Eton, the Charterhouse School and Bede College, a constituent college of Durham University (Secretary of State of Sierra Leone, 1951). The historical links between Durham and Fourah Bay might have contributed to the Seeley & Paget's inclusion, although the Council of the Church Training Colleges, an Anglican body and the client for the partnership's college building at Norwich, also wrote in favor of the practice's inclusion (Reverend Stanford, 1951).[18]

We can only speculate on what kind of neo-Georgian vision Seely & Paget held for the summit of Mount Aureole. For, while it was noted that Seely & Paget were "keen to enter the colonial field and confident in its ability to do so effectively," the favored practice from the outset was clearly Norman and Dawbarn (Reverend Standford, 1951).

Both the Crown Agents and members of the Advisory Committee on Colonial Colleges viewed Norman & Dawbarn's successful completion of the University College of the West Indies favorably. This was a substantial job–the brief for which had included seven science departments, an arts lecture hall, a library, a hospital, an institute for social research, three halls of residence for students and one for nurses, and 50 staff bungalows on a 700-acre hilltop site near Kingston, Jamaica (ANON, 1954).[19]

These buildings were arranged in a dispersed layout across the site, allowing for 'the free circulation of air to all buildings and the avoidance of reflected heat and glare,' although a degree of formality was included by grouping the library, registry, senate house and a proposed great hall in a tighter formation at the center of the site, encircled by a circular road and approached by a long straight avenue.[20] Beyond this, the student housing, sciences and arts blocks were separately planned across the site. The eight departments of the science school, for example, were planned in individual blocks arranged in parallel formation following the contours of the site connected by covered walkways, creating one unified structure. Tectonically, the buildings were unpretentiously modernist, although variety in texture was introduced through the judicious use of local rubble stone. This is shown with brio in Gordon Cullen's rendering of the Great Hall Complex.

The site of the University College of the West Indies shared similarities with that of Fourah Bay; both were mountainous and partially used as army facilities, and the University College design produced by Norman and Dawbarn had obvious formal qualities to recommend it: not least the contrast between formality and openness in its site planning, and the elegant juxtaposition of rubble work and smoothly rendered and cast concrete throughout.

What truly really recommended Norman and Dawbarn's work at the University College of the West Indies was the partnership's exceptional ability for budgetary control. Several times, Norman and Dawbarn were commended by Colonial Office and Crown Agent officials for their "brilliant job in keeping within the estimates," something also singled out for praise by no less august an authority as *The Architectural Review*.[21]

The College Senate of Fourah Bay favored the appointment of an architect with West African experience–namely Richard Nickson, who, by the early 1950s, had a clutch of religious and educational commissions in the Gold Coast and Nigeria colonies to his credit.[22] However, it was the quantifiable experience of Norman and Dawbarn that mattered to the Colonial Office, despite the firm had *no* experience of working in West Africa.

For colonial officials, the ability to keep to the budget on a university commission in the West Indies was enough

to ensure that the practice was the first choice to design a university several thousand miles away on the other side of the Atlantic Ocean. As the cost of the architect was covered by Colonial Development and Welfare funds, the view of the Colonial Office prevailed over the opinions of Fourah Bay College itself, and in the summer of 1951, Norman and Dawbarn were appointed to produce a sketch-scheme for the site.[23]

Although the bulk of the funding was to come from CDW funds, there are suggestions that private finance was also sought. The United Africa Company's Frederick Pedler considered the company acting as guarantor for a loan to Fourah Bay College.[24] Further funding was also provided by the Sierra Leone Development Company (also partially owned by UAC), which gifted £25,000 for the construction of an engineering laboratory known as "Delco Laboratory"[25], and the Diamond Corporation, an international diamond exchange controlled by De Beers, donated funds to build the school of Geography and Geology.[26] These large corporations were eager to be associated with the new facility, attempting to demonstrate their ongoing financial commitment to the region and to display a benevolence that would enhance public relations. This was not an uncommon practice for private businesses in the region, who often sought to align themselves with the developmentalist agendas of both late colonial and post-independence nationalist regimes.[27]

NORMAN & DAWBARN FOURAH BAY MASTERPLAN

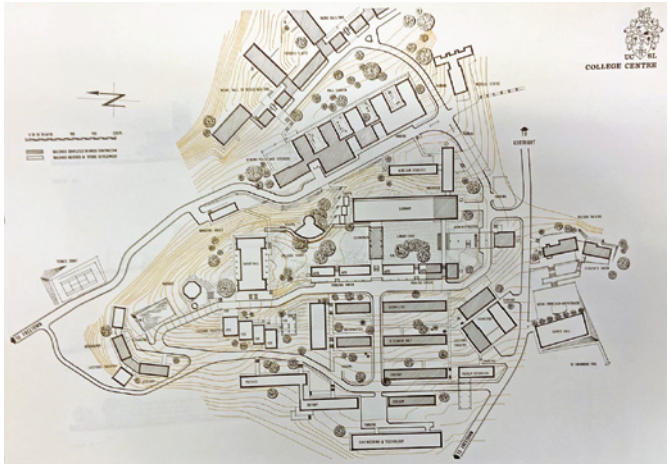
If a full brief to Norman and Dawbarn was issued, it has not survived in either the British or Sierra Leonean National Archives. However, a schedule of accommodation circulated to the practice before its appointment noted the need for an administrative and general purposes block and of residential accommodation for students. A further amendment to this list included requirements for a college chapel, although curiously, no mention was made of the need for a mosque, which might lend credence to the long-running assertion that Fourah Bay was an institution dominated by the city's Christian Creole elite. The inclusion of space for the teaching of engineering, technology, and the sciences reflects the expansion of Fourah Bay's curriculum, away from the arts and theology program that had defined its teaching program in the 19th and early 20th centuries to the technical subjects required for an independent state. This reflects the importance that nationalist politicians placed on the university as part of the necessary infrastructure of independence and might suggest that African ministers in the partnership government were thinking of how Fourah Bay could support a post-independent Sierra Leone by training technical staff to work in its administration.[28] As noted by Daniel Paracka (2003), the historian of Fourah Bay's educational program, "Ownership, self-reliance, and relevance thus emerged, at least for Leoneans, as important curricular themes' in the period of decolonization" (p. 184).

The first sketch plans produced by Norman and Dawbarn provided for teaching departments to the north of the site, accommodated in parallel two and three-story blocks, connected by a long spine of covered walkway, a beefed-up version of the sciences school provided at Kingston. At the southern end of this arrangement, a three-story great hall with an external amphitheater and a water tower served as a focal point. Student residences were situated in a curved line running from the northwest to the southwest of the site, on a lower contour line than the teaching accommodation. These were organized in eighteen three-story blocks, arranged in groups of three parallel blocks, and again connected by covered walkways.

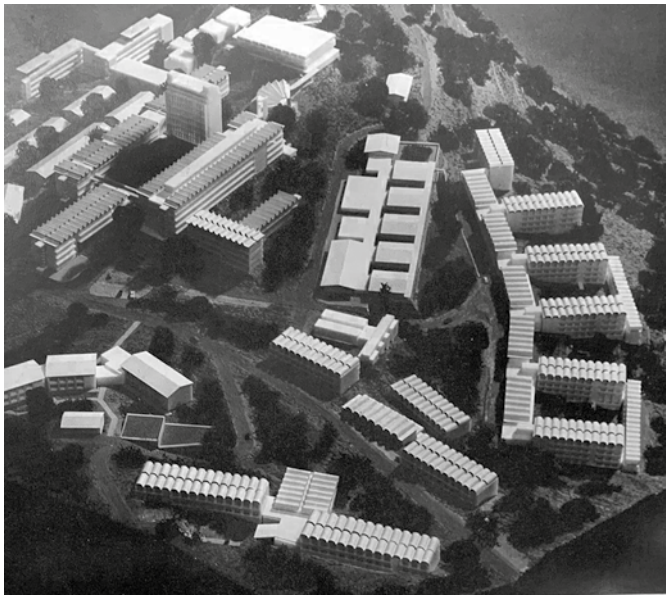
The student residences and the teaching accommodation were further separated by a curved road leading to the college chapel. In plan, this arrangement resembles two large megastructures arranged around central spines. However, the low height of the buildings and the open space between them would have had quite a different and much more gentle effect had it been constructed in this manner.

Although the detailing is schematic, it appeared that plainness was the order of the day, for the architects appear to have been counseled against the provision of "monumental buildings and the use of stylistic architectural detail," on which, a colonial civil servant noted (perhaps in reference to Maxwell Fry and Jane Drew), "there has sometimes been undue extravagance in the past" (Atkinson, 1950). Nevertheless, the plan was welcomed in Freetown. A columnist in the West Africa newspaper noted that, "these are excellent plans in a style between the too solid respectability of the University of the Gold Coast and the South Bank Fantasy and impermanence of the University College, Ibadan" (Matchett, 1954).

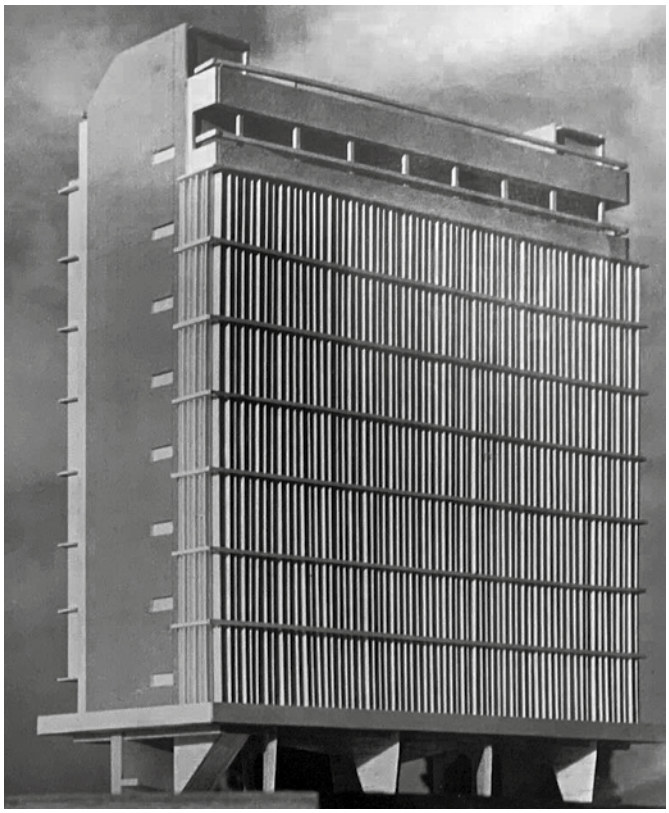
A reduced version of this plan was prepared in the mid-1950s and illustrated in the government's official statistical guide to Sierra Leone of 1958.[29] This retained a similar arrangement of teaching blocks to the first plan but placed this in a denser relationship, with a large block hosting the administrative functions, library, extra-mural department, and chapel. Much less provision for student housing was included, and the random placement of the Geography Department and Students Union off the main axis of the teaching spaces suggests the permanent retention of pre-existing buildings. The absence of this provision in the first masterplan suggests that Norman and Dawbarn's vision for the site had proven too costly.



04 Rutter's development plan. © 1962 Fourah Bay College, University of Sierra Leone: Development Plan and Related Papers. The National Archives of the UK (TNA): CO 1045/827.



05 Rutter's development plan model. © 1962 Fourah Bay College, University of Sierra Leone: Development Plan and Related Papers. The National Archives of the UK (TNA): CO 1045/827.



06 John F. Kennedy Building, Model. © 1962 Fourah Bay College, University of Sierra Leone: Development Plan and Related Papers. The National Archives of the UK (TNA): CO 1045/827.

FRANK RUTTER AND ASSOCIATES

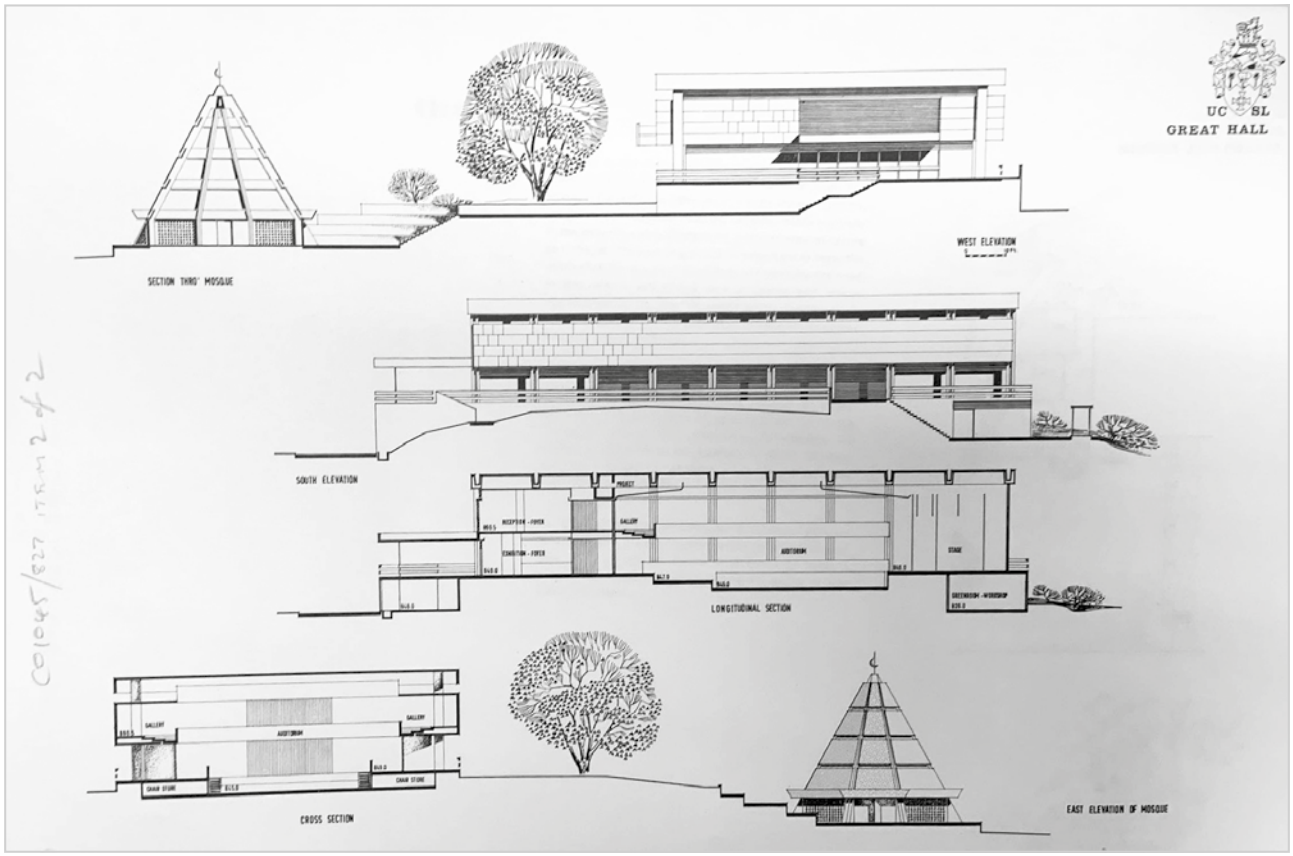
Within the large international business of Norman and Dawbarn, a small faction was ready to establish their own practice. Whether this was a 'break-away' client snatch or received the blessings of Norman and Dawbarn, we don't know, but Frank Mowbray Rutter (1911-1989) was well positioned with his international connections and previous 'tropical' and education-design experience. He established his practice, having also worked for Maxwell Fry at Impington Village College and Fry and Drew at Ibadan University. In addition to working on Fourah Bay, Rutter had also secured commissions in Guyana at that time.

Rutter joined Norman and Dawbarn in c1950/1951, for his name was included in the original contract Norman and Dawbarn signed in 1952,[30] but when he broke away is unclear. It seems extraordinary that the conservative and cost-conscious clients should take a chance on a new practice, especially in light of the careful deliberations that took place. Perhaps it was Rutter's experience with Fry and then Norman and Dawbarn that convinced the client body, and as a new practice, he may have been able to offer savings on the professional fees. Joining Rutter were two associates, Boris Fijalkowski (1924-2015) and Ken Draper (1932-2017), both of whom had also worked for Norman and Dawbarn. Fijalkowski completed his architectural studies at Kensington, West London. He graduated around 1951.[31] Ken Draper studied at Regent Street Polytechnic and eventually went on to become head of BDP.[32]

FRANK RUTTER'S DEVELOPMENT PLAN 1958

Rutter's development plan set out his vision for the flat summit of Mount Aureol as the principal focus of the college. The site was about 260 m above sea level, with subsidiary development of student and staff housing on two slightly higher plateaus and lining the main road up the mountain from Freetown [FIGURE 04, FIGURE 05, FIGURE 06].

At the center of the campus summit, Rutter proposed a 'crown' of buildings arranged around two courtyards: 'the College Centre'. The first of these, Library Court, was to be enclosed by the four-story library to the west, administration buildings to the south, a long three-story block to the west, and the John F. Kennedy Tower, an eight-story slab block to the north. These last two buildings jointly housed the Department of Economic Studies, which included the Faculties of Law and Public Administration, and which accounted for over a third of the College's student body, something that perhaps justified its prominence in the composition, for the John F. Kennedy Building was the tallest building designed for the campus, as well as being located at its very center, its name reveals the source of its funds, the United States Agency for International



07 Proposed mosque, Rutter. © 1962 Fourah Bay College, University of Sierra Leone: Development Plan and Related Papers. The National Archives of the UK (TNA): CO 1045/827.

Development, which had donated $250,000 for the construction of facilities to teach economics, education, and science in 1962 (Paracka, 2003, p. 176). This can be read as an attempt by the United States to ensure that decolonizing Sierra Leone was aligned with American ideology, as Edward Berman has suggested.[33] However, this also suggests much about the ideological position prevailing in Sierra Leone at the time. Whilst its close neighbors, Ghana and Guinea, sought to break ties with their former colonial master through expanded diplomacy with the socialist world, Sir Milton Margai and his Sierra Leone People's Party instead sought to retain rapprochement with Britain and the United States through an 'open door policy' of investment from the capitalist west.[34] The gift of an economics department by the United States, therefore, aligns as much with political and economic ideological currents in Sierra Leone as with any attempt at global hegemony by the United States.

Beyond the Kennedy tower, a *'larger and less formal'* College Court was proposed. This was to be closed by a Great Hall–a multipurpose space designed for degree ceremonies, graduation balls, and theatrical productions, *"a building of special importance [it] should possess an intrinsic dignity in keeping with the scale of the functions that will centre around it" (Rutter, n.d.).*

Accordingly, the Great Hall was to be located at the highest point of the site, perhaps in emulation of that at the University of Ghana, where the axial arrangement terminates at the Great Hall atop a high hill. To the north of the Great Hall, and connected to it by cloisters, a hexagonal mosque with a pyramidal roof was planned in reference to the adobe pyramidal minaret of the Larabanga Mosque in Ghana, one of the oldest in West Africa [FIGURE 07].

Rutter carefully included a mihrab and space for ablutions in the building plans, yet interestingly, a minaret is shown on the plan but not in sectional views of the complex. A multi-denominational Christian chapel was planned to the East of the Great Hall, like the mosque, it was to be connected to it by cloisters. The site of the chapel was steeply sloped, and Rutter made the most of this by creating a fan-shaped arrangement of pews flowing down the hillside from the cloister to an altar below. The arrangement of chapel, mosque, and Great Hall was sophisticated, with the chapel and the mosque balancing each other in the composition, thereby signalizing "the impact made upon Africa by these two great religions" (Rutter, n.d.). This also reflects changing political realities in Sierra Leone at that time. The Sierra Leone People's Party, leading the country in partnership with the colonial regime, drew its support from the Islamic rural interior rather than Creole-dominated Freetown. Indeed, the party positioned itself in opposition to Creole rather than colonial domination; as John Hatch, a British academic and Fourah Bay administrator, noted, "it was to combat creole political supremacy rather than to abolish British political rule, that the SLPP was formed" (Paracka, 2003, p. 166). The inclusion of such a sophisticated mosque design, with its clear references to Larabanga and the Islamic vernacular architecture of the region, illustrates the political desire to introduce a greater population of students from the

08 Halls of Residence. © 1964, Images of Education in Sierra Leone, The National Archives of the UK (TNA) INF 10/303.

09 Halls of Residence. © Paul Robinson, 2023.

Islamic rural provinces into the Fourah Bay student body and thence into positions in future administrative positions, displacing the dominance of the Creole population both within the Fourah Bay student body and the administration of Sierra Leone as a whole.[35]

Library Court was largely built as planned, albeit with smaller buildings to the east, west, and south. But the ambitious arrangement of chapel, mosque, great hall, and cloister was not enacted, although a remnant of the cloister can be seen in the vaulted undercroft of the John F. Kennedy building. Despite being only partially built, the college center successfully fulfills its function as a *stadtkrone* for the campus: Rutter outlined his ambition that the center would provide,

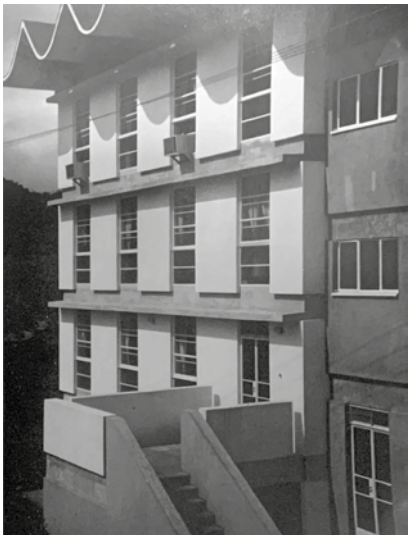
> *a clearly defined group of buildings giving a feeling of enclosure and producing a stimulating atmosphere […] at the same time, the buildings are designed to form a crown to Mount Aureol and to dominate the many other separate blocks clustered around the upper slopes of the hill [and be] silhouetted against the sky from below in Freetown" (Rutter, n.d.).*

Whilst the dense tree growth of the site renders the last ambition moot, the composition of buildings at the summit of the site, clustered around the John F. Kennedy Building, does form a successful focus for the campus as a whole [FIGURE 04].

To the immediate west of the college center, the pure and applied sciences were housed in a series of parallel blocks stepping down the contours of the hillside–an arrangement carried over from Norman and Dawbarn's masterplan for the site, perhaps as it made use of the foundations and concrete bases of pre-existing buildings on the site. Arts departments were provided in smaller, generally free-standing buildings arranged to the north of the site, away from the central area, each containing staff offices and seminar rooms [FIGURE 08, FIGURE 09].

The men's student halls are located to the east of the college center, on the precipitous edge of the site. They are symbolically orientated towards the old site of Fourah Bay College at Cline Town. These residences are some of the College's boldest architectural statements. Carefully planned, they provide an individual study bedroom and balcony to each student, with laundry and bathroom facilities per 20 students. They were also furnished with a

10 Fourah Bay Library. © 1964, Images of Education in Sierra Leone, The National Archives of the UK (TNA) INF 10/303.



11 Fourah Bay Library. © 1964, Images of Education in Sierra Leone, The National Archives of the UK (TNA) INF 10/303.

common room, senior common room, and reading room for each hall of 150 students.

On the Oxford model, tutors' flats were also provided on site, with bedrooms for two or three tutors accessible from shared living rooms. The blocks of residences varied in height from two to six stories, providing variety and rhythm. Their material and form were the most brutalist on the campus, with the walls and balconies in crisply cast concrete, rising to thin shell-vaulted rooflines–perhaps in emulation of London's Barbican or a heavier version of Basil Spence's Sussex University? [FIGURE 10, FIGURE 11].

A separate set of women's residences were located to the south of the site. Like the men's residences, these provided individual study bedrooms with balconies. However, the overall architectural expression was simpler–the blocks were three-story cubic compositions, without the cast-concrete shell roofs of the men's residences, although the elaborately patterned cast concrete balcony rails and use of local rubble stone illustrated in the development plan show a debt to Fry and Drew, an influence not otherwise widely evident in the campus. Staff housing was also provided, in small blocks of flats for junior staff and larger free-standing villas for senior staff–the elegant renderings of which, featuring modernist furniture and deck chairs, suggest a continuity of colonial luxury living for the senior staff. The principal of Fourah Bay College, Davidson Nichol, publically fulminated against such excesses in 1960, when he noted that "University educated Africans like ourselves should cease to regard themselves as a privileged class entitled to a car, furnished quarters, refrigerators and servants as soon as they graduate" (Paracka, 2003, p. 177). However, the need to secure appointments of expatriate staff to fill Fourah Bay's teaching needs ensured that such provisions were perceived as a necessity by the University's planners.[36]

The proposal was both a bold and pragmatic response to the site, making use of existing rocky outcrops and tree cover to add variety and texture, utilizing the topography, rejecting overly formal or axial arrangements, even converting and retaining existing buildings in order to keep costs low, and existing tree coverage and planting to provide shade.

In the end, nothing like the whole of this masterplan was constructed. The demography of Sierra Leone could not support a college of the scale envisioned: "there are not enough children school, not enough sixth forms, and consequently not a sufficient flow of students for Fourah Bay College" (British High Commission, 1964). Whilst the foundation of new higher education institutions in Sierra Leone (such as a teacher training college and an agricultural institute at Njala) and across post-colonial Nigeria and Ghana also deprived FBC of some of its original intake. Indeed, there is a slight pathos to the 1963 masterplan–which illustrated both the progress on the site to that date and the projections for the campus to 1969–although much of the projected development would not come to pass.

Yet, the campus does have a unified architectural language. The buildings unite similar scales, materials, and forms; a lively approach to roof detailing (a practical response to the heavy rainwater during the rainy season) is a particularly unique feature. Whilst the limited use of rubble work and precast concrete hints at the influence of Fry and Drew, generally, the massing is heavier throughout and the detailing more rugged than much of the duo's work. Even the John F. Kennedy Building, the most characteristically tropical modernist building on the site, has an austerity and rectilinearity to it that is quite unlike Fry and Drew's tendency to 'too much lace.' [FIGURE 12, FIGURE 13].

12 John F. Kennedy Building, Piloti detail. © Paul Robinson, 2023.

13 Fourah Bay Campus topography. © Paul Robinson, 2023.

THE BUILDING ADVISORY COMMITTEE 1965

The Rutter plan was initially executed at a good pace, but progress suffered due to a lack of on-site supervision and problems in appointing a site architect. The large campus project required rapid and informed decision-making from the client body council, too. The College Council established a Building Advisory Committee in June 1965, made up of college staff and professionals from the Ministry of Works and the Ministry of Housing and Country Planning. The Ministry of Works was represented by Joseph Ransford Jarrett-Yaskey (1924-?), whilst Housing and Country Planning was represented by Reuben Johnson Oluwole Wright (1914-1990), both Sierra Leonean architects [FIGURE 14].[37]

The Advisory Committee developed into a powerful group capable of not only monitoring process and decision-making but also holding Rutter to account. The committee's minutes are characteristically sparse but to the point. In the first meeting attended by the Ministry personnel, the committee resolved that,

The monopoly of one Architect exercising absolute rights over the physical development of the College for an inspecified [sic] period, does not allow room for competition. And there is no justifiable reason why this monopoly should be continued. Consideration should be given to Architects prepared to establish a local office, employ local people, and contribute to local taxes from fees earned. Experience of existing arrangements prove that work suffers from protracted correspondence and lack of direct supervision (Building Advisory Committee, 1965).

They recommended that the college establish a building department to undertake design and supervision, and/or designs are tendered on a competitive basis. They recognized that in the early period, when a development plan was required, retaining an architect 'at a distance' was a sensible approach, but the current arrangement was no longer serving the college (or the wider development of architecture in the city).

14 Reuben Johnson Oluwole Wright. © Private Collection, date unknown, probably c. late 1960s.

It's an interesting scenario, as a single practice could deliver a unified vision and benefit from certain economies of scale, contractual agreements, and increasing efficiency, but at the same time, the college was beholden to a particular approach, and communication problems were compounded. There were also clearly ideological reasons and a desire for local practices to be given the opportunity.

The two representatives from the Ministries were experienced architectural practitioners as well as civil servants. They both received civic awards in recognition of their work. Reuben Johnson Oluwole Wright was the first Sierra Leonean to be a qualified architect–possibly the first Black member of the Royal Institute of British Architects (RIBA). He studied at Edinburgh College of Art from 1943 and worked in Scotland while undertaking a Town and Country Planning Diploma. He returned to Freetown in 1951 to a position in the Civil Service and was President of the Institute of Sierra Leonean Architects. He became Permanent Secretary of the Ministry of Housing and Planning, responsible for building regulation and planning policy, and also collaborated with Nickson and Borys on their municipal office building in Freetown.

Joseph Ransford Jarrett-Yaskey was chief architect at the Ministry of Works. During his time in office, he designed the Freetown Library in 1963 and the Sierra Leone Central Bank in 1964, both with a distinctive honeycomb brise-soleil. On the occasions that Jarrett-Yaskey could not attend committee meetings, Abdul Rahman Mahdi (1919-?) deputized. Mahdi attended the Department of Tropical Architecture at the Architectural Association, London, pursuing the 'Educational Building in the Tropics' strand in 1964-65. The studentship was funded by UK technical assistance. Madhi's earlier training was at the PWD technical school in Lagos, and evening classes at Hammersmith School of Building, Arts, and Crafts in London whilst working in practice during the daytime.

Clearly, capable and highly skilled designers were locally available, and it must have irked them that, in the first few years of independence, architects from the former colonial country were recipients of these prestigious projects. Based hereupon the college transitioned away from using Rutter as each of the buildings he had designed (and been paid for) was completed. Furthermore, the college was informed it was unlikely to receive further funding from the British High Commission and that important departments such as African Studies might have to be scaled back to suit (Building Advisory Committee, 1965).

The committee made recommendations on who might be appointed locally. This still included expatriate British firms, but those who had established offices in Sierra Leone; to a degree transgressing the political-colonial

relations as they built up networks of collaborators and clients. The committee's list included McElroy and Pethybridge,[38] Nickson and Borys, and a consortium of Ministry Architects, including committee members Mahdi, Jarret-Yaskey, and Oluwole Wright (who also minuted they were entitled to professional fees) (Building Advisory Committee, 1966).

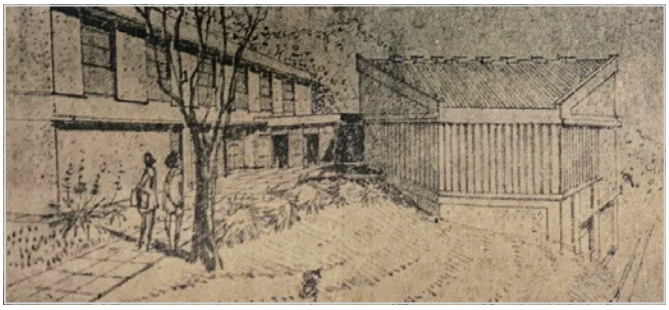
THE INSTITUTE OF AFRICAN STUDIES

Just south of the library, connected to it by an external staircase, sits the Institute of African Studies building. It is one of the last buildings designed on the campus site by Rutter, and one of the smallest. The building reveals much about the politically charged nature of university development in the immediate post-independence period[39] [FIGURE 15, FIGURE 16].

By the mid-1960s, Fourah Bay's reputation as a Creole institution, dominated by the "bookish, pedantic and lily-handed", providing a "British university education, stiff, unbending and unrelated to the needs of Africa," led by a "subdued and at times almost mystic" principal, Davidson Nichol, was becoming a political liability (Dunhill, 1964).[40] This reputation relied on both the long history of the college, deeply intertwined with the Creole identity, and the fact that Creoles and expatriates dominated the staff roster for some years after independence: Nichol himself was both a Creole by birth and a former Cambridge don, who came to Fourah Bay with the 'blessings' of the Colonial Office in 1960 (Paracka, 2003, p. 171). But Fourah Bay's s remote location, high above the city and the interior, atop a natural ivory tower of sorts, can only have contributed to this view (Stevens, 1984).[41]

The institution of new departments, teaching law, medicine, and midwifery, might be read as a challenge to this reputation. However, Fourah Bay College's pre-eminence in Sierra Leone continued to be challenged by two new institutions–the Milton Margai Technical University at Goderich, which had grown out of Fourah Bay's satellite Teacher Training College (also designed by Rutter), and the Njala Institute.[42]

The Njala Institute was a new foundation, opened with US overseas aid funding and the support of the University of Illinois. It was located on two campuses at Njala and Bo, in the largely Muslim rural Sierra Leonean interior. Its curriculum was originally intended to focus mainly on agronomy, but it quickly added supplementary courses. A British civil servant noted a tendency to look down on the Njala Institute as "brash, inarticulate and horny-handed," perhaps with a degree of projection given the college's American connections (Dunhill, 1964). But Njala's rise not only threatened "overlapping institutions, drift, different educational structures," it was also an explicitly political



15 Sketch of the Institute of African Studies, 1966. © 1966 "Institute of African Studies" Brochure produced by Fourah Bay College, held in Fourah Bay College Correspondence and papers 1949–1969, the National Archives of the UK (TNA): Co 1045/1104

16 Institute of African Studies. © Paul Robinson, 2023.

threat to Fourah Bay (High Commissioner, 1964). Not only might it offer a more developmentally focussed education than that on offer at Fourah Bay, something likely to be looked on favorably by the government, but as the "provinces (tribal) answer to (Creole) Fourah Bay", Njala found automatic favor with the Sierra Leone People's Party led government, which drew much of its support from the traditional rulers of the country's rural interior (High Commissioner, 1964).

In the early 1970s, this issue was circumvented by the creation of a Federal University of Sierra Leone, in which both Fourah Bay and Njala would co-exist as constituent colleges. In the mid-1960s, Fourah Bay's solution was the new Institute of African Studies.

The institute was developed to address several interlocking agendas. For Fourah Bay's leadership, and especially its President Davidson Nichol, the African Studies Institute provided a means to both unite disciplinarily distinct research on African subjects under one roof whilst also fostering a pan-Africanist approach to pedagogy by offering a physical setting for colloquia of African scholars and university administrators from across the region and, indeed, the continent as a whole. For the British Government, who offered partial funding for the institute's construction, it was also intended to serve as a 'bridge' between Fourah Bay and the government, providing both

a physical space and an intellectual climate for the promulgation of discussion on "economic and development planning matters," between academic staff at Fourah Bay and government officials and politicians (Dunhill, 1964). Plans for the institute were positively received by both the Ministry of Education and the Development Secretary. As its steering committee included a representative from the Njala Institute, it offered a nascent arena for cooperation between the two rival colleges (Dunhill, 1964). Whilst it is tempting to also see the development of the institute as a reflection of the Africanisation of the college lectureship, this seems unlikely. The validity of African studies as a discipline was often embraced by British and American scholars and challenged by African academics (Paracka, 2003). These debates were present at Fourah Bay, where the Creole theology lecturer Henry Sawyerr, for example, felt that, instead of a distinct department, "every discipline—English, History, Theology— should so organise its programmes of teaching and study that material related to African life provides integral aspects of all the teaching done in University departments in Africa (Paracka, 2003, p. 183).

But the institute also reflected the realpolitik of decolonization. The capital cost of the building was met through a gift from the Gulbenkain Foundation and also from British aid funding, gifted by the British largely for reasons of prestige. Having extensively invested "time and energy" in Fourah Bay, British and Commonwealth officials were unwilling to see the college become "dangerously insulated and remote from events nearer sea-level" (Dunhill, 1964).'[43]Accordingly, the new institute was given vigorous support from the British Government and the British Council in the hope it would inject 'relevance' to Fourah Bay's operations (Cox, 1967).

The site for the building was carefully chosen for both practical and symbolic reasons, in close communication with the library but on the "lower (town) side … in order to ensure ease of access to Freetown," and the government ministries and secretariats located there (Dunhill, 1964). Spatially, its program was rather simple: the brief provided for staff offices, seminar rooms, and space for a small specialist book collection, with the hope that construction could be carried out for £25,000 or less. Yet, given the politically charged nature of its work, the building, though "modest", was also intended to "serve as a focal point" on the campus (Dunhill, 1964).[44]

Rutter responded to this brief with brio, producing a small but vibrant building with an expressively hexagonal lecture hall block and a free-standing block containing seminar rooms, separated by a monumental external staircase that connects the complex to the library. In a surprisingly Aalto-esque gesture, this staircase comes to a triangular point, lending the composition a hint of Saynatsalo, but here translated into the tropical high forest. The building served its function as a focal point well, for Rutter's perspective views were used to illustrate college promotional material in the late 1960s.

CONCLUSIONS

The story of Fourah Bay College and its development reflects the country's political shifts, power structures, and certain cultural and educational ambitions. From the small college primarily serving theological training to a modern campus with a broader remit was part of a wider development and modernization agenda that was echoed throughout West Africa and further afield in other (former) colonial territories. Equally, these vast building programs on challenging and remote sites became technological tests requiring expensive foreign advice and expertise– as well as imported materials, machines, plants, and products. The development of the campuses allowed the colonial enterprise to continue well into the post-colonial period under the guise of capacity-building whilst furthering the colonial education model and approach.

Architecturally, Fourah Bay presents an important collection of work that should feature more prominently within the canon of mid-century Tropical Modernism and be considered part of the nation-building narrative in West Africa. Fourah Bay complicates the story of education provision in West Africa, as the universities in Nigeria and Ghana were often positioned as prerequisites for political independence, yet Sierra Leone was already equipped with these facilities and means. The architecture deployed on these projects was often celebratory and triumphant; it was required to deliver a message of creativity and independent thought and be at the forefront of cultural vision. Yet, at Fourah Bay, unlike in Ghana and Nigeria, the architectural 'pedigree' was less prominent. Whether this was because of the various 'problems' encountered with working with the likes of Fry and Drew and James Cubitt (such as construction and communication issues) or because Fourah Bay was built slightly later and the emphasis was on a simpler layout, with only the Kennedy building seeking any special attention. Despite the desire to avoid architectural excesses, the overseas investment and named association with the American funders shaped the design and its ambition.

The paper shows how this approach was successfully contested and challenged by local architects who had received the same standard of education (if not greater) than the architects appointed through the colonial administrative machinery. The local architects secured important positions and authority within the Sierra Leonean Civil Service and were able to advise, shape policy, and hold to account the procurement and design practices

operating at that time. Unlike in Ghana (and to a lesser extent Nigeria), they were not supported by or collaborating with architects from socialist countries. They adopted a position based on hard commercial decisions rather than aesthetic or stylistic terms–appealing against the 'monopoly' and taxation implications of employing Rutter; a familiar argument when dealing with businesses in the quest for political independence and the ongoing decolonizing process.

As the College approaches its 200-year anniversary, it remains incomplete, a work-in-progress rather than a finished product; a fresh wave of expansion commences, including a new school of architecture, and fresh hope for a reimagined campus.

ACKNOWLEDGEMENTS

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6 See, for example, Spitzer, L. (1974). The Creole of Sierra Leone: Responses to Colonialism 1870-1914. The University of Wisconsin Pres, Porter, A. (1963). Creoledom: A Study of the Development of Freetown Society. Oxford University Press, and the various books written by Christopher Fyfe, a colonial administrator turned historian, who can justly be described as a Creolist for his repeated studies of the importance of the group. See, for example, Sierra Leone: Two Centuries of Intellectual Life, and Sierra Leone: A History. For a more considered view, see Bangura (op cit) and Daniel Paracka's history of Fourah Bay College.

7 [Lewis, 186] this quote suggests that the college buildings were once lime washed or painted white, although this is not evident in historic photographs of the building.

8 See, for example, Letter from Sir Maurice Dorman to Lord Reith 14th June 1958, UK National Archives, CO852/1604

9 See also Maxwell Fry and K W Farms, 'Townplanning scheme for Freetown', Accra, Government Press Gold Coast, 1944.

10 The Grammar School used the proceeds from the sale of the valuable land in the city at Regent Square (now Lightfoot Boston Street), to buy the new site.

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12 Margai was a notably conservative and pro-British leader.

13 See UK National Archives CO 1045/1272.

14 See Suzanne Francis-Brown & Peter Francis (2019) Norman & Dawbarn, the UCWI, and Tropical Modernist Architecture in Jamaica, Caribbean Quarterly, 65:1, 27-56, DOI: 10.1080/00086495.2019.1565219 and Iain Jackson (2013) Tropical Architecture and the West Indies: from military advances and tropical medicine, to Robert Gardner-Medwin and the networks of tropical modernism, The Journal of Architecture, 18:2, 167-195, DOI: 10.1080/13602365.2013.781202

15 They also designed the University of Malta (designed in 1961, and built from 1964).

16 Referred to in the file as both Seeley & Paget and Mottistone & Paget, as Seeley was the 2nd Baron Mottistone.

17 The practice made something of a business from the design of ceremonial halls for City livery companies, for example.

18 The letter from the Reverend R W Stanford to Collins of the Clonial Office included a list of 20 education commissions that Seeley & Paget and Mottistone & paget had undertaken, mainly small scale extensions to existing private schools in England. It also included the practice's most famous commission, the conversion and extension of Eltham Palace, on the grounds that this building had subsequently become the headquarters for the Army Education Corps, although it had originally been commissioned as a weekend house by the interwar socialites Simon and Virginia Courtauld.

19 See also Suzanne Francis-Brown & Peter Francis (2019) Norman & Dawbarn, the UCWI, and Tropical Modernist Architecture in Jamaica, Caribbean Quarterly, 65:1, 27-56, DOI:10.1080/00086495.2019.1565219 and Iain Jackson (2013) Tropical Architecture and the West Indies: from military advances and tropical medicine, to Robert Gardner-Medwin and the networks of tropical modernism, The Journal of Architecture, 18:2, 167-195, DOI: 10.1080/13602365.2013.781202

20 Paracka (2003)

21 Lewis (1954)

22 Such as the St Cyprian's Cathedral in Fante New Town, Kumasi, 1950, extensions to Achimota School, Accra.

23 Draft contract between the Crown Agents and Norman & Dawnbarn, undated. UK National Archives, BW 90/450.

24 Unilever Archives, Port Sunlight, UAC/1/3/5/3/1-3 - Sierra Leone Relations with Government.

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26 Rutter Development plan, unpublished brochure.

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28 See also, Paracka 143-175.

29 Sierra Leone: 1958. HMSO. 1960.

30 Draft contract between the Crown Agents and Norman & Dawnbarn, undated. UK National Archives, BW 90/450.

31 https://www.guildfordsociety.org.uk/boris_exhibition.html and email correspondence with Krzysztof Fijalkowski.

32 https://www.bdp.com/en/latest/news/2018/ken-draper-1932-2017/

33 Quoted by Paracka, 176.

34 See for example Anon. 'Tourism in Sierra Leone' Briefing Paper dated 7th April 1961, Negotiations for a Hotel, Box 659 Sierra Leone National Archives. For more on socialist investment in decolonising West Africa, see Lukasz Stanek Architecture in Global Socialism: Eastern Europe, West Africa and the Middle East in the Cold War (Princeton: 2020).

35 This was a clearly stated ambition of the legislative changes brought in by the colonial government in 1951, explicitly designed to sideline the small Creole population in favour of more representation from the rural interior. See Cartwright, 59.

36 Paracka notes that staff passage to and from Britain constituted a major expense for the university for some years after independence. Ibid.

37 In the shipping register for 1958 there is a Gladys Sophie Jarrett-Yaskey also mentioned and listed as Architect PWD – could she the first Black Female RIBA member?

38 Brian Patrick Graham McElroy and Edwin George Pethybridge , practice dissolved in 1968. No further information has been found relating to this practice.

39 That the building was one of the last designed by Rutter is revealed by the following minute of the University of Sierra Leone Building Advisory Committee for 14th June 1965 ' 'resolved to recommend: that the design of the Institute of African Studies be proceeded with before the expiration of the six months' notice of the termination of the College Architects Agreement. Box 524 Sierra Leone National Archives.

40 The originator of this phrase noted that it was an 'untrue - or at least incomplete' stereotype.

41 The long serving president of Sierra Leone, Siaka Stevens, stated this explicitly in his autobiography.

42 The teacher training college was also designed by Rutter, and was built by Taylor Woodrow Sierra Leone.

43 A suggestion of baser interests might also be read into Dunhill's reference to economic co-operation between Britian and Sierra Leone achieved through the instititue.

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].

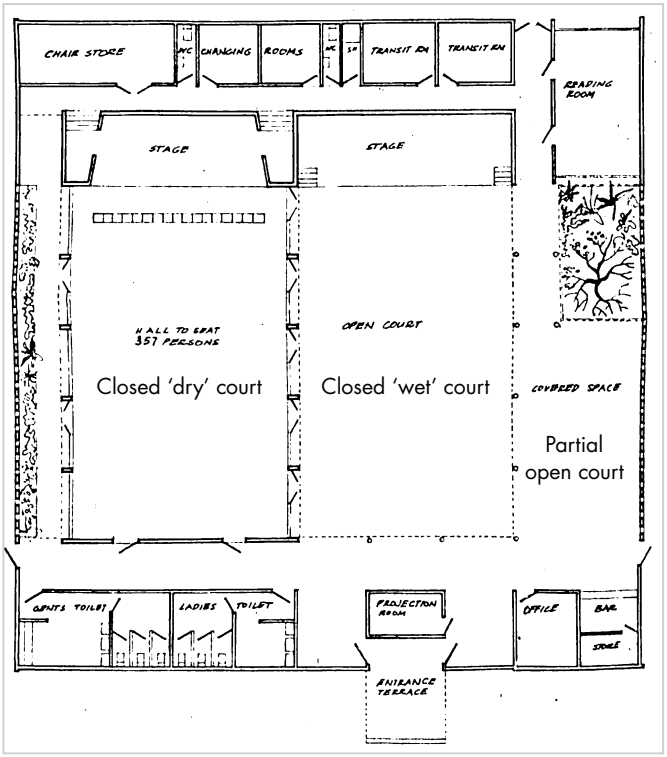
Debatably, the community center qualifies for the status 'Tropical Modern Heritage', and importantly, its design can be attributed to an indigenous Ghanaian architect. Upon investigation, it was revealed Prof. John Owusu Addo (also known as "Prof.") was the design architect of the facility. He is best 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.

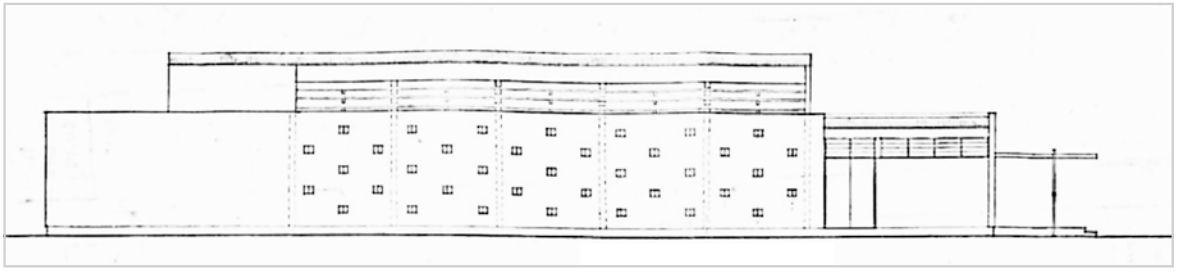
staff members catering to the welfare, educational, and recreational needs of the university community at large. Such functions and activities included concerts (as Prof. reminisced about Axim Trio concert party performances at the time), a cinema, hosting all manner of meetings, especially those by 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].

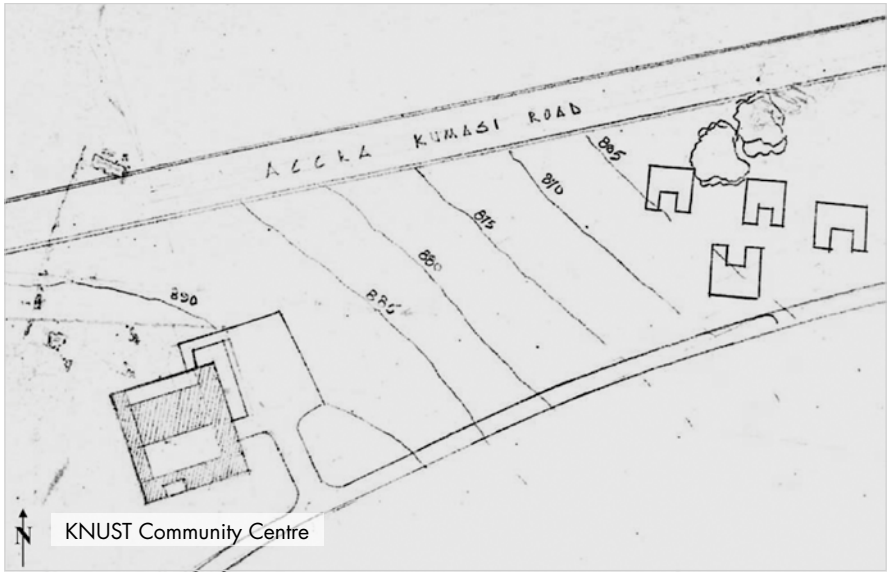
In fashioning the center, Prof. indicated in an interview with the author that there was no immediate precedent study in Kumasi other than the Prempeh Assembly Hall. A few case studies designed in the manner of modern architecture which might have influenced Prof. indirectly were the Accra Community 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 tropicality, 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 first-hand 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]

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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 whiles 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 (BRRI) 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.

THE HIGHER SCHOOL OF AGRICULTURE OF MOGRANE (1947-1952) IN TUNISIA

A referential architectural work by Jean Pierre Ventre

Salma Gharbi, Hédi Derbel

ABSTRACT: In order to document the architectural production of the Modern Movement in Tunisia[1], we propose in this article to study a major project in the production of academic institutions, the "Ecole d'Agriculture de Mograne" at Zaghouan in northern Tunisia. The school was designed by architect Jean Pierre Ventre (1913-1979) and his collaborator Marcel Faure (1882-?) and built between 1947 and 1952. The commission for this institution of higher learning, located in a verdant natural setting, was programmed with the political aim of bringing a breath of modernity to the country, breaking with the local traditional heritage. The complex is a classic example of structural modernity, in which the building's layout reflects both the functional nature of the complex and its coherent integration into the surrounding context. The overall aesthetic of the building is based on a rigorous geometric composition, with horizontal and vertical lines giving it a monumental character. The individual parts, meanwhile, are rationally designed, giving them a functional dimension in terms of sun shading, circulation, or structural maintenance. The mixed use of jointed ashlar masonry and bush-hammered concrete lends stylistic coherence to the whole and has contributed to the school's longevity and durability for over 70 years. For all its students, the school represents an exemplary academic environment where the memory of the place has left its mark on past generations and continues to do so. Over the years, the School of Mograne has been subject to a number of modifications. What's more, several of the annex buildings are now in a state of neglect. This calls for urgent action to rehabilitate and reconvert these abandoned spaces. And even more importantly, the Mograne School of Agriculture needs to be protected and classified as a modern heritage and national heritage monument for the values it offers in terms of history, architecture, and environmental integration.

KEYWORDS: Tunisian modernity, post-war reconstruction, Ecole Supérieure, Jean Pierre Ventre, Tunisia

INTRODUCTION: The history of the Tunisian university does not begin with the national university. Tunisia's university institutions are the fruit of a political will and a piece of legislation that gave a fundamental impulse to the current structure. These facilities are based on an archetype of institutions that the independence reform took in hand to found a national university. Due to the lack of resources, in the 1940s, several universities were installed in colonial buildings in the center of Tunis. In a modernist vision, Bernard Zehrfuss' team of architects (1911-1996) was called to rebuild Tunisia, which was destroyed by the Second World War. Between the 1950s and the 1970s, they provided the country with two exemplary productions in terms of academic institutions. Namely, the Higher School of Agriculture of Mograne, designed by architect Jean Pierre Ventre between 1947 and 1952, and the University Campus of El Manar[2], designed later, in the 1960s, under the regime of former President Habib Bourguiba, by Bernard Zehrfuss and Russian and American architects. This paper presents the Ecole Supérieure de Mograne, a project of higher education institution, a reference in terms of architectural design, atmosphere, and sensitive experience.

THE DESIGN PROCESS OF THE SCHOOL BUILDING IN THE CONTEXT OF THE POST-WAR RECONSTRUCTION IN TUNISIA (1943-1955)

The period of the Tunisian post-war reconstruction from 1943 until the country's independence is a historical moment rich in events, whether political, economic, or social. The country had to, at that time, rise from its ashes

01 Current state of the High School of Agriculture of Mograne. © Author, 2023.

02 The School of Agriculture of Sidi Naceur in Mograne before the mountains of Zaghouan, seen from the entrance block. © Author, 2023.

and face a chaotic situation. The period of post-war reconstruction in Tunisia is so called for the work done in different sectors and mainly in the urban and architectural fields greatly affected by the bombings. The Tunisian State had to implement a reconstruction program, with policies aiming, above all, at rehousing its stricken populations but also at reconfiguring the urbanism of the cities and at restoring its main facilities.

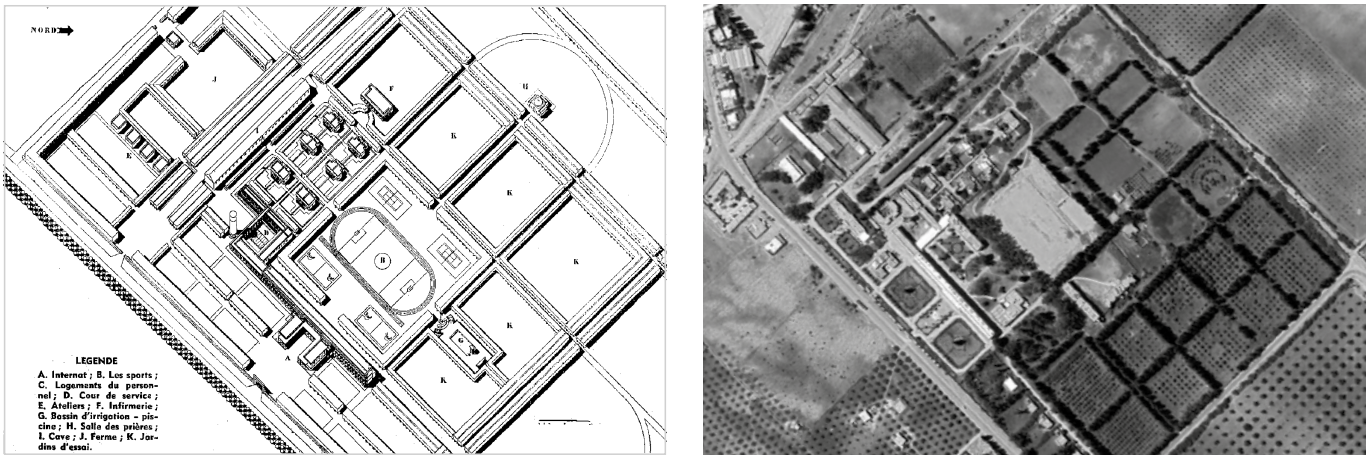
For this purpose, the State engaged architect Bernard Zehrfuss to establish an inventory of the country's situation and to set in motion an action plan aiming to implement urban and architectural studies to rebuild the country. Zehrfuss brought together several architects, including Jason Kyriacopoulos (1909-2002), Jacques Marmey (1906-1988), Jean Le Couteur (1916-2016) and several others. The team of architects' interest in offering architecture that is conscious of its environment and its user is very explicit in their speeches. Zehrfuss' team advocated the ideals of the Modern Movement, especially those of Le Corbusier (1887-1965), often trying to apply the recommendations of the Athens Charter (1931) and developing a new vision and conception of the elements, such as light, air, and sound. In addition to this wave of modernity, we note a mimicry, born of the architectural landscape present on the territory, whether in the north or south of the country. Some speak of "Tunisian" architecture, others of a "local modernity" that carries the identity or characteristics of local architectural elements, others still evoke a "universal architecture". It is a simple architecture, pure, without ornamentation, executed with available materials such as rubble, hollow bricks, plaster, hydraulic or fat lime, and the Tunisian workforce, expert in local construction techniques that are fast and inexpensive in their implementation[3].

The architects wanted to explore modern architecture vocabulary[4]. They designed buildings with a strong expression with pronounced vertical and horizontal lines, distinct volumes with a play of height between the blocks, and clearance of the vertical circulation on the façades [FIGURE 01]. This was feasible especially when adequate materials could be used, such as concrete, steel, or prefabricated elements for details designed by the architects, giving the façade a certain rhythm, a certain linearity but also contrast with the light generating a play of shadows dynamizing the façades. Otherwise, they favored the use of traditional techniques that relied on the use of expert labor in the execution of vaults, arches, or domes. The economic constraints, the traditional architectural landscape but also this post-war reconstruction team's idealism and know-how offered an undeniable diversity in the architectural production and the entire Tunisian territory.

THE SUPERIOR SCHOOL OF AGRICULTURE OF MOGRANE (1947-1952)

The agricultural school Sidi Naceur de Mograne was built between 1947 and 1952 according to the design of the architects Jean Pierre Ventre and his collaborator Marcel Faure. It is located 50 km from the capital Tunis in a grandiose landscape with, in the background, the silhouette of the mountains on which the small town of Zaghouan clings to the hillside [FIGURE 02]. This school was initially requested by the Services of Education and Agricultural Research within the Ministry of Agriculture. Only in 1976, it became an institution of higher learning and is now denoted as the Ecole Supérieure d'Agriculture de Mograne (ESA). The collaborators on this project were Charles Galea (drawing designer), Henri Novak (engineer BA), and Mohamed Kria (constructor).

The School of Mograne testifies to the new air of modernity in total contrast with the Islamic heritage known before. However, it reminds us of the rich ancient heritage and, in some cases, vernacular expression of clean lines and simple volumes. This architectural expression, with a modern character, denies any ornamentation and superfluousness at the façade level. It offers functionality between the interior spaces and the various paths, highlighting the exterior spaces and the views of the green areas.



03 The original project by Jean Pierre Ventre and the actual implantation of the School of Mograne. ©AA n°20, 1948, p.91 (left), © Google Earth (right).

Two scales of architectural production testify to the approach of the "workshop of the Reconstruction"[5] (Bonillo, 2021): the smaller scale of public buildings designed from a critical reflection on Tunisian tradition and the larger scale of regional and national development aiming to provide Tunisia with a modern built environment. These scales of modernist production follow the rationalist conceptual logic close to the classicism of Auguste Perret[6]. Amongst the buildings realized in the post-war period, the School of Mograne is a reference with a political objective, which breaks with the local tradition and advocates a new breath of modernity for the country.

LOCATION AND IMPLANTATION MATRIX

The School of Mograne extends over 800 ha; built to train young Tunisian farmers on modern techniques of agricultural exploitation. Nowadays, the school provides two educational paths; training engineers in agro-economy and management of agricultural enterprises in addition to research and professional master programs. The location has been the major aspect of the general layout of the building, highlighting the wonderful view of the mountains of Zaghouan. The region, where rainfall reaches an annual average of more than 500 millimeters, was particularly favorable to creating a school of agriculture with large test gardens, typical plantations, and market gardens for both teaching and practical activities of students and school staff.

The composition of the complex is defined around two main orthogonal axes [FIGURE 03]. The purpose of the first axis is to create a prayer room treated as a small isolated pavilion. The second axis overlooks a raised courtyard lined with arcades arranged with a central pool serving as a swimming pool and irrigation system. The composition of the plan was also studied according to several parameters, namely: a southeast orientation indisputable in the region, the existing buildings including a cellar (wine cellar) 125 m long, the nature of the basement, and the slope of the land, the location of water points, and the view on the mountains of Zaghouan.

The exterior circulations, deliberately placed along the southeast façade, fully protect the walls and openings from the summer sun. A frieze of sunshades completes this protection on the southeast and the northwest façade, protecting them from the dreaded 15 to 18 hours of sunlight in summer and the rains of the north in winter. The thick façade is a particular feature of the architecture of the Tunisian reconstruction, testifying to the designers' interest in the microclimatic data of the site and the aim to create an architecture concerned with its environment.

FUNCTIONAL ORGANIZATION

The original complex program consisted of the following major parts: the boarding house, classrooms, administration, principals' and teachers' quarters, workshops, infirmary, sports fields, and test gardens. The School of Mograne includes six big functional entities, namely [FIGURE 04]:

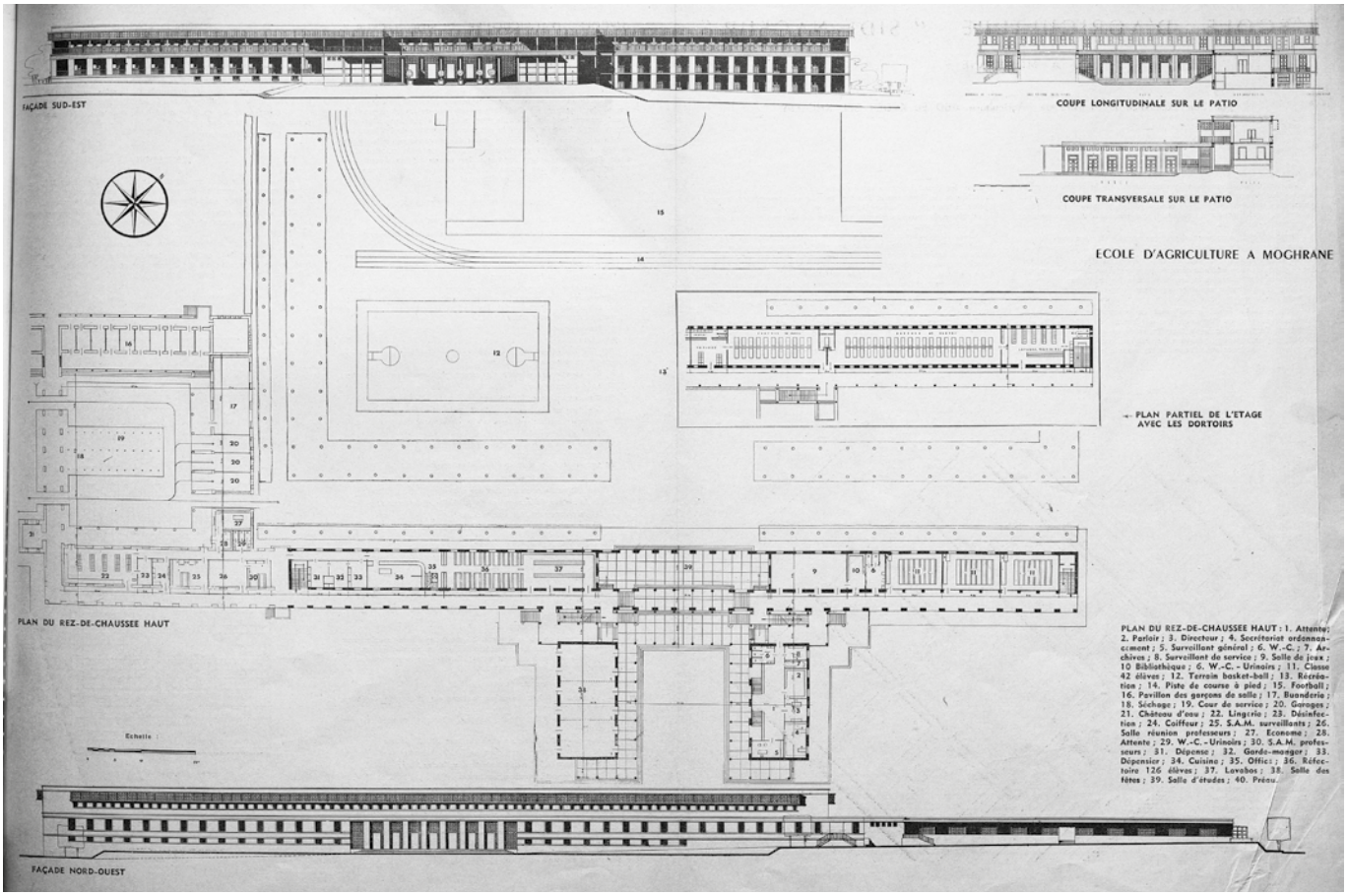
- The main building, grouping the boarding school, the classrooms, and the direction;
- The services and the housing of the personnel;
- The principals' and teachers' headquarters
- The workshops;
- The infirmary;
- The sports grounds.

The school, in its present form, was built in 3 phases:

- The first phase, realized between 1947-1952
- The second phase, built in 1960;
- An extension carried out in the 1980s, built in two phases: the first phase included accommodation and laboratories, and the second phase included a 300-person restaurant with a kitchen.

ARCHITECTURAL STYLE AND CONSTRUCTIVE CHOICES

The School of Mograne responds to a rationalist modernity advocating the architectural and constructive rigor of the "school of structural classicism" developed by several protagonists of the early twentieth century and mainly French architect Auguste Perret. The buildings are built with

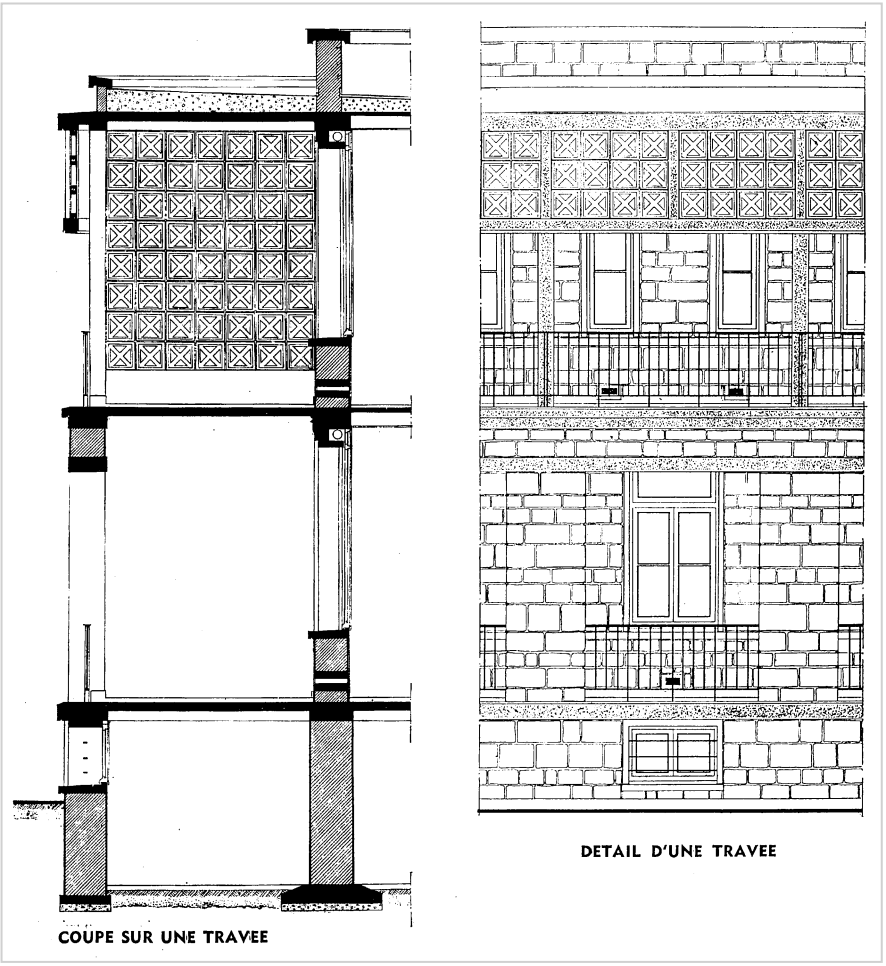


04 The first phase of construction, built between 1947 and 1952, © AA n°20, 1948, p. 89–90.

load-bearing walls of exposed masonry joined together. Horizontal lines mark the façades, encircling them with chains and lintels. Vertical lines of light and shadow are created with reinforced concrete framing, opposing the horizontality of the façade and highlighting a thick fringe materialized in the gallery.

The thin and slender pillars support prefabricated concrete sun shields, bringing a certain aesthetic and harmony to the whole of the blocks [FIGURE 05]. Even though the geometry and the structured composition of the façade represent its only ornamentation, the contrasting play of textures between masonry repointed walls and cut stone concrete gives a coherent aesthetic to the whole, marking the historical continuity of European classicism far from the doctrines of Le Corbusier preaching a modernity of tabula rasa. We can thus discern, in this work of Jean Pierre Ventre, the reference to the precursors of modernity of the early twentieth century, even if the references to Tunisian traditions are still visible in several other projects by the architect, namely the fish market in Bizerte in northern Tunisia [FIGURE 06].

05 Interior-exterior limits and façades conception with prefabricated breeze blocks. © Author, 2023.



06 Details of the façade, architect Jean Pierre Ventre. © AA n°20, 1948, p. 93.

THE EXTENSION OF THE 1980S

The project was extended in the 1980s [FIGURE 07] to ensure that it was up to the standards of that time and to meet its new capacity. This new extension, designed by Tunisian architect Hédi Derbel, adds accommodation blocks, a university restaurant, and laboratories to Jean Pierre Ventre's project. The extension was realized, truly respecting the original work and being built with the same materials. However, it was built at the expense of the sports fields.

Architect Hédi Derbel states in his presentation report of the preliminary project: "It is an architecture of sunlight that is developed by the interpenetration of open, closed, and open-covered spaces opened by the claustras. The architecture is sober, pure, and majestic, affirmed by the use of geometrically cut stone." The architect, faced with his first project for a civil building, was confronted with a rather delicate situation: firstly, to develop his extension project in a conceptual approach integrating it into the initial work of Jean Pierre Ventre and secondly, to come up against an administration that was too strict in terms of budgeting.

The preliminary design proposal was rejected at the time of its first submission and evaluation before the commission for exceeding the budget due to using stone as construction material. This did not slow down the designer,

07 The extensions of the 1960s and 1980s © Author, 2023.

08 The dilapidated state of the annexes: the wine cellar and the chapel. © Author, 2023.

who was determined to project an extension in perfect stylistic and conceptual harmony with the existing sections from the end of the 1940s and 1960s. An explanatory file was submitted comparing the use of cut stone and hollow brick, which was very popular at the time for the construction of state projects. This file showed the profitability of the project in the long term and the gain generated by the use of sustainable materials. A well-informed member of the commission representing the Ministry of Public Works supported Hédi Derbel's choice, who, despite his well-considered choices, suffered due to the reluctance of a sometimes overly bureaucratic administration and later from a public limited company with the lowest level of approval. The 1960s extension suffered certain difficulties compared to the original built by contractor Mr. Mohamed Kriaa. Considered to be one of Tunisia's finest builders at the time, he is credited with several major projects, including Souk Jdid in Sfax, commonly known as Souk Kriaa, designed by architect Etienne Laingui (1905-1995).

CONSERVATION STATE OF THE PROJECT

The initial project has undergone several other transformations and additions over time, such as the circular fountain built on the axis of the entrance hall or the transformation of a meeting space into a technical room. Other buildings annexed to the main blocks have been neglected over time, such as the wine cellar, a space that existed even before the school was built, the chapel, and some function houses that are unfortunately falling into ruin [FIGURE 08]. This leads us to question the safeguarding of this university complex with a heritage character and the problem of the rehabilitation or the reconversion of these buildings annexed to the main entity.

Indeed, the School of Mograne represents an emblematic building of the period of the post-war Tunisian reconstruction and includes several ideals of the Modern Movement contextualized in Tunisia. The choice of materials and mainly the cut stone played a fundamental role in the durability of the building. Nevertheless, the lack of means poses a problem in the maintenance of the various entities of the school, where some entities are dilapidated, abandoned, falling into ruin. Over the years, the succession of directors has led to different choices and strategies that modify the entities and do not necessarily fit in with the poetics of the place. These transformations should be well thought out to not stain the memory of this place and its singular atmosphere. It is imperative to put this architectural work in the spotlight and to make it known nationally and internationally. The patrimonialization of the school of Mograne is, therefore, a process that urges us to guarantee the durability of this referential set.

CONCLUSIONS

The School of Mograne by Jean Pierre Ventre is a witness of a universal modernity transposed from the doctrines and ideologies of some protagonists of the Modern Movement onto Tunisia. By its architectural and architectonic style, rigorous, rational and geometrically designed, the architect wanted to emphasize the monumentality of the project and its durability through time. Through the use of carved stones and bush-hammered concrete, the result of Ventre's work testifies to the rich reference to the local ancient heritage on the one hand and to those half-modernity, half-classicism projects advocated by Auguste Perret. The extension carried out in the 1980s by Tunisian architect Hédi Derbel does not disfigure in any way the initial work; rather, it fits perfectly with the language adopted by Jean Pierre Ventre. All the units forming the higher education institution continue to function properly and meet the needs of its students and its teaching and administrative staff. However, attention should be paid to the annexes, which are now in a state of disrepair and call for rehabilitation and conversion into functional spaces for the institution. More than that, the School of Mograne calls to be protected and classified as a modern heritage and national historical monument for its modern architectural values.

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Hédi Derbel *is an architect and has taught for several years at the National School of Architecture and Urbanism of Tunis (ENAU), Carthage University in Tunis. His agency "Architecture, Research, Continuity" is a forum for theoretical and practical questions about architecture. He is the architect of the extension of the Mograne School in the 1980s.*

ENDNOTES

1 The Docomomo Tunisia chapter was recently created and will work on the documentation and conservation of the plural modern architecture that Tunisia has known in the twentieth century.

2 The "Faculté des Sciences de Tunis" (FST) was founded by decree no. 98 of March 31, 1960. It constituted the first core of higher scientific education in independent Tunisia. The contract for the Faculty of Sciences awarded to architect Bernard Zehrfuss is a mark of exceptional architectural value and structural prowess, which should also be documented. The two extensions to the El Manar University Campus–the Faculty of Law and the School of Engineering (ENIT)–were designed by American and Russian architects respectively.

3 These architects have ideals of modern architecture. They believe in the influence of climate on architecture, in the authenticity of constructive expression, in the sincerity of simple and unadorned volumes, in the regular and rational organization of ensembles. (Huet, 1995, pp. 9-10)

4 Marc Breitman states in "Rationalisme et tradition: Tunisia 1943-1947": "Their entire architectural and urban production oscillates between these two extremes. On the one hand, they continued the tradition, even to the point of mimicry, while on the other hand they applied the rules of the Athens Charter and aligned themselves with the ideas of the modern movement." (Breitman, 1990, p. 25).

5 "The workshop of the Reconstruction" or "l'Atelier de la Reconstruction", created by Bernard Zerhrfuss in 1943, grouped a number of architects who had studied at the Ecole des Beaux-Arts de Paris in the studios of Eugène Beaudouin (1898-1983) and Emmanuel Pontremoli (1865-1956). Initially, this workshop included Jean Drieu La Rochelle (1903-1986), Jacques Marmey, Roger Dianoux (1913-1998), Michel Deloge (1903-1979) and Jean-Pierre Ventre (1913-1979). In October 1944, two other architects joined the team: Lu Van Nhieu (1902-?) and Jason Kyriacopoulos (1909-2002). Later, Etienne Laingui and Jean Le Couteur (1916-2016) joined the team to form the "Services architectures et d'Urbanisme".

6 Auguste Perret (1874-1954) is considered the precursor of architectural modernity. He pioneered the use of reinforced concrete, emphasizing functionality and simplicity while merging classical and modern architecture. His vision influenced many architects and his works became iconic examples of his innovative approach. Auguste Perret's project in Le Havre was of immense importance. It represented a major achievement in architectural history and urban planning. Perret's innovative use of reinforced concrete, combined with his thoughtful urban layout, transformed the city into a modern and vibrant center. His work in Le Havre remains a UNESCO World Heritage site and continues to inspire architects and urban designers worldwide.

REVIVING THE MODERN ARCHITECTURE OF ARIEH SHARON'S OBAFEMI AWOLOWO UNIVERSITY, ILÉ-IFỊ̀, NIGERIA

Babatunde Jaiyeoba, Bayo Amole

ABSTRACT: Obafemi Awolowo University (OAU), Ilé-Ifẹ̀, Nigeria, was established after Nigeria's independence in 1960 as the University of Ife. Bauhaus architecture school graduate Arieh Sharon (1900-1984) designed the master plan and most of the initial buildings in the university core through Israeli-Nigerian technical development relations. The often written about campus is one of the most prominent modern architectural exemplars in Africa and one of the exhibits during the one-hundred-year celebration of Bauhaus–Bauhaus 100–in 2019. Like many examples of modern architecture around the world, this campus needs conservation measures for various reasons, including being out of contemporary functional use. However, this campus is in intensive use; in fact, the expanding use and minimal awareness of inherent values coupled with maintenance issues are the major reasons for conservation measures. Local and international collaboration of concerned partners resulted in the Conservation Management Plan (CMP) of the Ilé-Ifẹ̀ campus being one of the 13 projects funded by the Getty Keeping-It-Modern (KIM) 2020 program with complementary measures funded by Gerda Henkel Stiftung. This paper details the actions taken so far in conserving the unique modern architecture of the university and the future actions needed to ensure it continues to occupy its place in architectural discourse.

KEY WORDS: Modern architecture, Campus architecture, Tropical Architecture, Conservation, CMP, Bauhaus, Future.

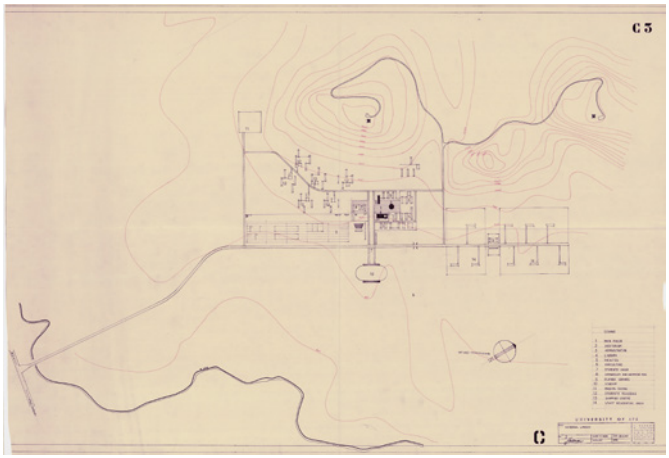
INTRODUCTION: Obafemi Awolowo University (OAU) , Ilé-Ifẹ̀, Nigeria, is one of the first-generation universities in Nigeria, established as the University of Ife post-independence in 1960/61 by the defunct Western region government in Nigeria. It was converted into a federal university in 1975 by a military government decree. The master plan of the university and the initial buildings were designed by Bauhaus graduate Arieh Sharon (1900-1984) as part of the Israel-Nigeria technical cooperation in that era; it is his largest project outside Germany and Israel. The university campus, whose choice of location was jointly decided by the client and the designer (Sharon, 1976), is a prominent site of modern architecture outside Europe, Asia, the Middle East, and what used to be referred to as the New World North and South America and later Australia and New Zealand [FIGURE 01, FIGURE 02].

SIGNIFICANCE OF THE OBAFEMI AWOLOWO UNIVERSITY CAMPUS IN ILÉ-IFỊ̀

The era of the conception of the University of Ife (now Obafemi Awolowo University) is notable in the history of Nigeria and many nation-states in Africa and the developed world as a period of independence from colonialism and the emergence of post-colonial states. Also, it is one of the products of international cooperation of the new nation-states of Israel and Nigeria (Jaiyeoba, 2019). Educationally, it marked the turning point in the expansion of university education in Nigeria and indeed West Africa towards local context-directed technical and scientific education after the establishment of the University College, Ibadan, now University of Ibadan, as a college of the University of London in 1948.

Further, the international cooperation between Israel and Nigeria led to the choice of Arieh Sharon, who was the head of the Israel government planning department and studied architecture in Bauhaus Dessau under Hannes Meyer (Bauhaus director 1928-1930). The campus design

01 University of Ife, aerial view of campus core, c. 1980. © Arieh Sharon Digital Archive – ariehsharon.org / Yael Aloni Collection.



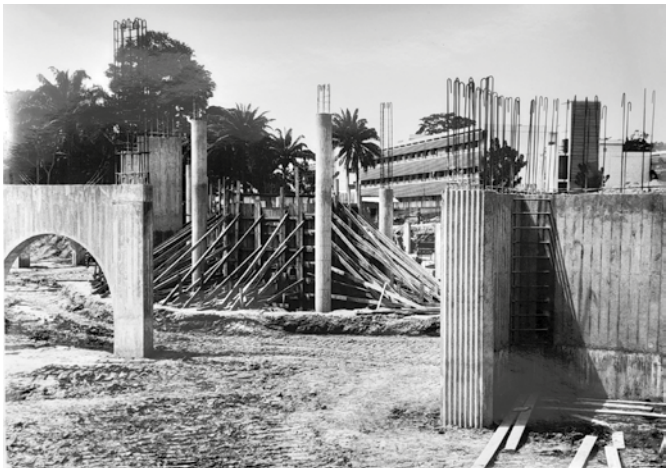
02 University of Ife, early master plan, general layout, No. 3, June 20, 1961, signed: Sharon (no scale). © Azrieli Architectural Archive; Arieh and Eldar Sharon Collection, 965000000204.

features machine-age aesthetics, unity of arts and crafts, honesty to materials, and context in terms of weather, climate, and culture in a version of tropical architecture, contrasting the earlier interpretation in the University of Ibadan by Maxwell Fry and Jane Drew. The modern architecture of this campus has been written about by Arieh Sharon and other researchers (Jaiyeoba & Efrat, 2022; Amole, 2019; Asojo, 2019; Efrat, 2019; Ben-Asher Giltler, 2019; Jaiyeoba, 2019; Levin, 2022, 2021, 2015, 2012) and was recognized as one of the authentic interpretations of Bauhaus international style during the centennial celebrations of the Bauhaus school of architecture in the form of a documentary. The documentary *Scenes from the Most Beautiful Campus in Africa* by architecture historian Zvi Efrat was part of the worldwide exhibitions by *Bauhaus imaginista* during Bauhaus 100 in 2019 (Efrat, 2019). Arieh Sharon was directly involved in the execution of the campus design between 1962 and 1980, aided by partners Benjamin Idelson and later his son Eldar Sharon with Lagos-based architects Egbor and Associates. Initial construction work on the campus until the late 1960s was by Nigersol Construction Company Limited, while Solel Boneh Overseas (Nigeria) Limited took over around 1972. Other contractors involved in the execution from then on included P. Comazzi & Co. Nigeria Limited and L. D'Alberto & Co. Limited [FIGURE 03].

A proposal for the conservation of the modern architecture of the university campus titled *Arieh Sharon's Obafemi Awolowo University Ilé-Ifẹ̀, Nigeria (1972-1976); Development of a Conservation Management Plan Project* was one of the 13 projects selected for funding by the Getty's Keeping-It-Modern 2020 program, and the complementary measures were funded by Gerda Henkel Stiftung. The Getty initiative seeks to safeguard modern heritage by bringing into prominence great works of modern architecture and diversifying conservation knowledge, processes, and practice in retaining and adapting them for contemporary and future use. This project has generated the necessary interest of stakeholders on the importance of the university campus in the history of architecture and the need for national listing as a precursor for other deserved recognitions.

Even before the international recognition, the national and local community have continued to acknowledge the aesthetics of the university's buildings and landscape through organized campus visitations and tours, especially by students from primary, secondary, and tertiary institutions around the country. Also, it is an additional tourist destination for the international Diaspora Black community that likes to visit Ilé-Ifẹ̀ Nigeria as the historical source of the Yorubas of Western Nigeria, West Africa, South America, and North America for historical, cultural, and religious tourism. The Yorubas are one of the three prominent ethnic groups in the most populous black nation -Nigeria, the two other ethnic groups are the Igbos of South Eastern Nigeria and the Hausa-Fulanis of Northern Nigeria.

Utilizing the twentieth-century historic thematic framework (Marsden & Spearritt 2021), theme 9–Religious, Educational and Cultural institutions is central to the assessment of the campus as a heritage with theme 6–Internationalisation, new nation-states and human rights; theme 7–conserving the natural environment, buildings and landscapes; theme 2–Accelerated scientific and technological development, and theme 8–Popular culture and tourism as subthemes.



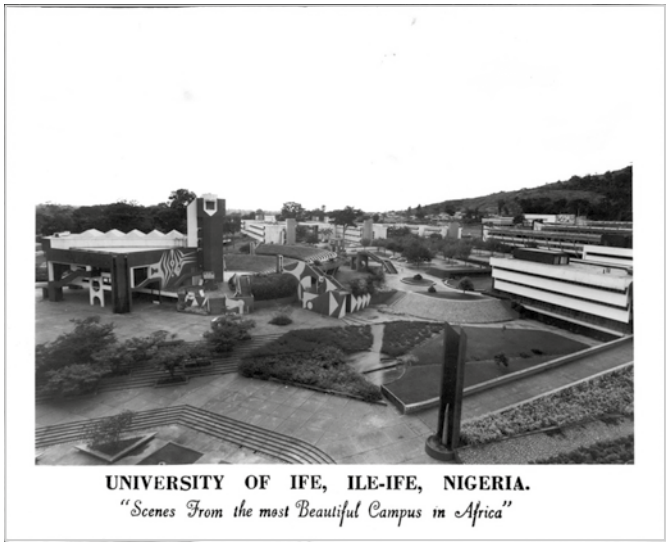
03 University of Ife, Assembly Hall, corrugated reinforced concrete column under construction, November 5, 1973. © Israel Kainy.

The Ilé-Ifẹ̀ university campus is unique in terms of how it came to be: the setting, landscape and buildings, and continuing contribution to all aspects of national and international development of architecture and education, and its potential for history, tourism and heritage management in theory and practice.

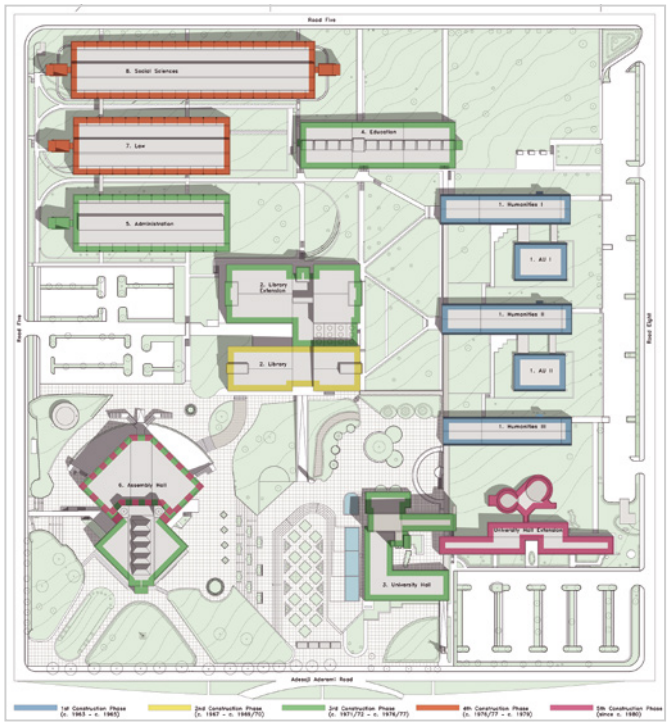
DESCRIPTION OF BUILDINGS, SETTING, AND LANDSCAPE

Arieh Sharon's first assignment was to choose between 16 medium-sized towns for the university's location while comparing geography, demography, infrastructure, and other socioeconomic structures, services, and amenities (Efrat, 2013). Selecting Ilé-Ifẹ̀ may have been a political and historical choice since the level of development of these towns was similar post-independence. However, Sharon's self-reported source of inspiration leading to introducing sculptural Yoruba elements on the buildings and landscape elements around the campus suggests the cultural-historical factor may have been the overriding one.

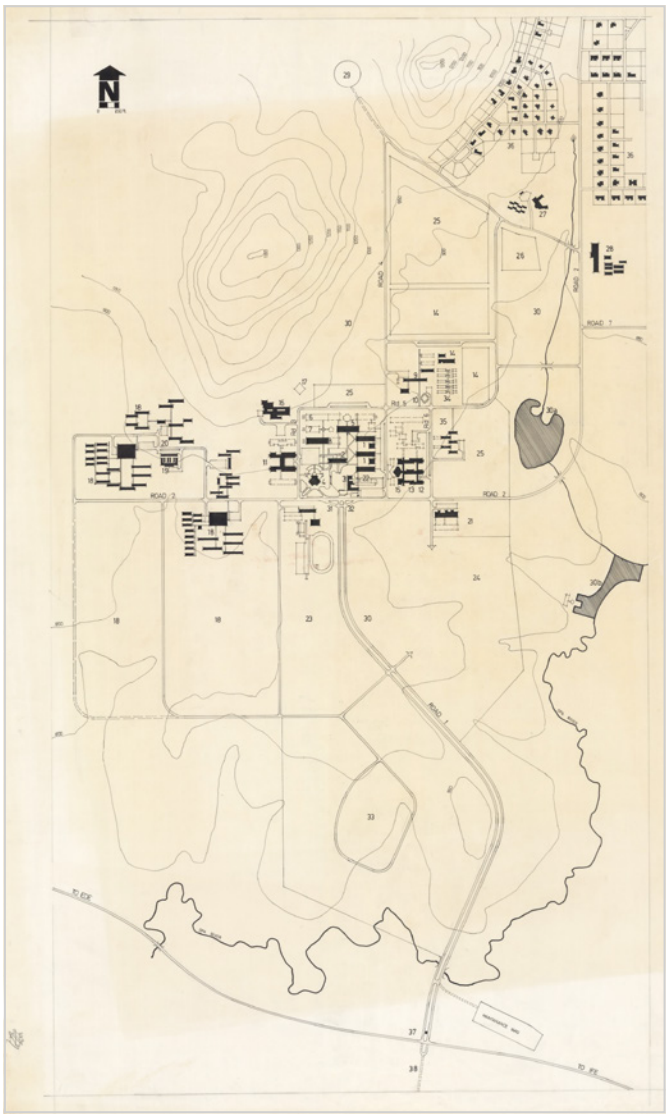
The original master plan occupies less than a tenth of the acquired land for the university, and the original core is accessed through a windy road that makes the buildings visible only in the last 0.5 km stretch. The first set of buildings to be sighted are the ceremonial hall, named after the mythological progenitor of the Yorubas who first appeared in Ilé-Ifẹ̀ (Oduduwa), the administrative building integrated with the bookshop, and the library that is in-between the administrative building and the library seemingly terminates the axis of the windy road. The three ensembles of ceremonial hall, administrative building, and set-back library buildings are connected with a plaza as a formal court with a pedestrian entryway that visually aligns with the entry ramp to the library and terminates the access road from the university's main entrance gate [FIGURE 04, FIGURE 06, FIGURE 05].



04 University of Ife, Square, Assembly Hall and Library, postcard, c. 1980. © Courtesy of Arieh Sharon Digital Archive – ariehsharon.org / Yael Aloni Collection.



05 Obafemi Awolowo University, campus core, site plan, mapping of construction phases, 2022 (no scale). © Brenne Architekten, Stagray Associates, 2022.



06 University of Ife, Master Plan, (undated) early 1970s, unsigned (no scale). © Courtesy of the Azrieli Architectural Archive; Arieh and Eldar Sharon Collection, 965000000218.

07 University of Ife, Assembly Hall, view from south, November 1976. © Alan Johnston, 1976. CC BY-NC-SA 2.0. Source: https://www.flickr.com/photos/29228869@N07/albums/72157714757440096/.

08 University of Ife, entrance road to campus core, view from south towards library (left) and university hall (right), November 1976. Photo: © Alan Johnston, 1976. CC BY-NC-SA 2.0 Source: https://www.flickr.com/photos/29228869@N07/albums/72157714757440096/.

This forecourt or plaza and the buildings fit into the undulating topography of the campus with a background of natural hills and mountains and vegetation in grey to dark green colors; the natural materials punctuated only by predominantly horizontal white lines. The buildings suit the physical context with a uniformity of expression and balance of buildings and landscape (Asojo and Jaiyeoba, 2016). Sculptural Yoruba elements are used as landscape features and architectural elements at the library entry ramp from the formal plaza and the administrative/bookshop buildings entry ramp from the access road, which runs orthogonal to the road from the university's main gate. The horizontality of the buildings, further emphasized by the white color of the continuous horizontal elements, dwarfs the buildings to make the landscape and topography tower above them and make the greens visible from below to complement the other building colors [FIGURE 06, FIGURE 08].

The buildings in the original university core have a predominantly north-south axis, which means they are predominantly stretched from east to west to better utilize the south-west and north-east trade winds of this tropical context and minimize the effect of the low-angle west and east sun rays where there are no openings. Most fenestration is in the north and south elevations to maximize wind and breeze capture, but openings are protected from heavy tropical rains and direct sun rays by the adopted variants of inverted pyramid forms. The inverted pyramid variants are achieved by increasing cantilevers on the north and south elevations to provide increasing floor area. One variant has continuous balconies on the north elevation in addition to increasing cantilevers from the ground level to the upper levels and a broader cantilevered roof plane so that the space between the ceiling and the roof is ventilated. Another variant with slanting columns to support the widely cantilevered roof lifts two long building parts above the ground level around a courtyard. It features a raised roof to allow for cool air from below to displace warmer air in the courtyard by stack ventilation [FIGURE 09, FIGURE 10, FIGURE 11].

09 Obafemi Awolowo University, Faculty of Humanities, Block I, Auditorium I, Block II, Auditorium II, Block III (from right to left), view from east, 2021. © Deyemi Akande, 2021.

10 Obafemi Awolowo University, Faculty of Education, view from south-east, 2022. © Brenne Architekten, 2022.

11 Obafemi Awolowo University, Faculties of Administration (right) and Law (left), view from west, 2022. © Brenne Architekten, 2022.

12 CMP project meeting at Obafemi Awolowo University, Ile-Ife in March 2022. © Brenne Architekten, 2022.

13 CMP project meeting at Azrieli Architectural Archive, Tel Aviv in May 2022. © Azrieli Architectural Archive, 2022.

The two variants of inverted pyramid shapes are used for two different ensembles of buildings on either side of the library building in the original central core of the campus. The first variant with the roof as the base of the inverted pyramid without a courtyard was the first option adopted in the first academic building–the three Faculty of Arts blocks known as the Faculty of Humanities (c. 1963-1965). The three Faculty of Humanities blocks and the two auditoria/lecture theatres, as well as the connecting walkways (covered and uncovered), are terraced along the topography of the site. Corresponding soft and hard landscape elements are integrated with levels of landscape and natural materials to complement the buildings and topography in an exemplary man-nature relationship with respect to the physical context [FIGURE 09].

The Faculty of Education (c. 1972-1974) combines the two variants with both cantilevered slabs and slanting columns, an open ground floor, an inner courtyard, and a raised umbrella roof [FIGURE 10].

The inverted pyramid shape with the open ground floor, inner courtyard, and raised umbrella roof for stack ventilation is used in the Faculties of Administration, Law and Social Sciences (c. 1972-1979) buildings connected by steps and suspended, covered walkways terraced along the slope like the buildings that hug the topography [FIGURE 11].

In this original academic core, the extension, and other sectors of the original master plan, including the students' halls of residence, the staff quarters, the sports center, and their extensions, including the Vice Chancellors residence, pedestrian movement is made supreme over vehicular movement. Vehicular circulation adequately links the different sectors of the master plan with minimal interference with pedestrian circulation; each serving appropriate purposes.

CONSERVATION MANAGEMENT PROJECT CONCEPTION

The conservation management project conception cannot be separated from the worldwide celebration of one of the first schools of architecture in the world, the Bauhaus, established in 1919 by Walter Gropius in Germany. The build-up toward the one-hundred-year celebrations of the Bauhaus School of Architecture in 2019, which featured worldwide exhibitions and events also known as Bauhaus 100, marked the turning point in the formal appreciation of the Ilé-Ifẹ̀ University campus as an extension of modern architecture *a la* Bauhaus influence to West Africa. The June 2013 edition of the Bauhaus Dessau Foundation magazine, themed *Tropen*/Tropics, initially thought Bauhaus' influence was limited to the United States, Europe, Israel, and Japan. However, contributions confirmed the legendary school's influence on Latin America, Asia, and Africa. It is perhaps the first edition where the tropics were seen as a source of inspiration to Bauhauslers, including presentations on Arieh Sharon's Ilé-Ifẹ̀ university project. The magazine also featured a conversation with culture manager Martin Heller in the Humboldt Forum to discuss the modernism-tropics-Prussian legacy relations in the reconstructed Berlin Palace proposed to take place in 2019.

This build-up to the 100th anniversary of the Bauhaus in 2019 included the previously mentioned filming of the documentary on the Obafemi Awolowo University, Ilé-Ifẹ̀, *Scenes from the Most Beautiful Campus in Africa* by Israeli architectural historian Zvi Efrat, assisted by Keren Kuenberg started in 2018. This documentary was part of the *Bauhaus Imaginista,* the worldwide traveling exhibition of Bauhaus 100 curated by Marion von Osten and Grant Watson. The campus documentary was presented to the Ilé-Ifẹ̀ University community before another presentation in a workshop at the University of Lagos, Nigeria, in November 2018. The Lagos workshop featured a dialogue between local and international academics, researchers, and practitioners on the location of Obafemi Awolowo University, Ilé-Ifẹ̀ architecture in modern architecture, design pedagogy, and campus construction as practiced pre and post-Nigerian independence in 1960. Obafemi Awolowo University Ilé-Ifẹ̀ was represented in Berlin at the two-day conference and workshop program "A New School" in May 2019 as part of the Bauhaus 100 program. The great idea of developing a Conservation Management Plan project was hatched during the Berlin workshop in a meeting of the Bauhaus team and Ilé-Ifẹ̀

team. The application for the Getty Keeping-It-Modern 2020 program was put together, and a later proposal for Gerda Henkel Stiftung to fund the complementary measures was made after the success of the Keeping-It-Modern 2020 application.

PROJECT ACTIVITIES

The Getty Keeping-It-Modern 2020 project is the preparation of a Conservation Management Plan (CMP) for the university core designed by Arieh Sharon. A comprehensive CMP first includes a general overview of the campus core of Obafemi Awolowo University before a detailed examination of one block of the Faculty of Humanities. Block I of the Faculty of Humanities ensemble was selected as the exemplary building (OAU & Brenne, 2023).

The project team, coordinated by project coordinator Annette Schryen, evolved during the Berlin workshop meeting between the Bauhaus team, the Ilé-Ifẹ̀ team and the experienced technical partners Brenne Architekten from Berlin with Winfried Brenne, Fabian Brenne and Janna Lipsky. The Ilé-Ifẹ̀ team was led by Professors Bayo Amole and Babatunde Jaiyeoba from the Department of Architecture of Obafemi Awolowo University [FIGURE 12, FIGURE 13].

The need to deepen and complete the conservational investigations of the campus and the exemplary building and anchor the project locally in the long term necessitated the application to Gerda Henkel Stiftung for more funding for the complementary measures. After that, a team of local professionals, including architects, landscape architects, engineers, land surveyors, building physicists, and photographers, worked on-site in Ilé-Ifẹ̀ under the umbrella of an architectural consultancy supervised by project team members in Ilé-Ifẹ̀ and directed by Brenne Architekten, Berlin. Also, Gerda Henkel Stiftung graciously sponsored a research student's architectural PhD program on the modern architecture of the campus to further deepen the CMP through historical survey, documentation, analyses, and syntheses. The CMP had to search for necessary information from stakeholders and archives in Nigeria and Israel, and the PhD program further contributed in this regard. Activities and measures undertaken in the process of the CMP project include:

Digital measurements of the exemplary building to create drawings as built and a substantial CAD inventory measurement of the façades and floor plans with a level of detail of 1:50 and visualized as a 3D model.

Restorative examinations of the exemplary building to record the materials and surfaces relevant to monument conservation in selected areas of the exemplary building and compilation of a systematic photographic building catalog, a catalog of historic building elements, and a material catalog as the basis for the overall monument conservation concept.

Also, a conservation engineering survey was carried out. Assessment and evaluation of an exemplary building, assessment of its structural condition, and recording of structural damage, if any, in concrete and other materials was done. If there was any structural damage, determination of structural damage such as reinforced concrete corrosion, cracks (including crack widths and lengths) and mapping and determination of the causes, such as thermal stresses, settlements or similar, exposure to moisture; determination of the concrete quality and allocation to compressive strength class and exposure class was done. Location and interpretation of visual observation were done. A catalog of measures was also developed.

Further, a limited energetic and bioclimatic survey was done. Limited assessment and evaluation of the exemplary building (Block I) with regard to energy issues, building climate, and physics was also conducted. The temperature and humidity of sampled rooms and spaces expected to be representative of other rooms and spaces were taken during the two main dry and wet seasons. Localization and interpretation of the limited test results were done, and a catalog of measures was developed. The IESVE software allowed for minimal simulation of temperature and humidity data. Future CMP of other buildings, when necessary equipment and infrastructure is available, may include an investigation of salt contamination of components in contact with the ground; the examination of building component wetness (outer walls and floor basement/solid components under the flat roof sealing); determination of the existing building component structures, their U-values and areas of the entire building envelope; creation of isothermal calculations (external walls/coatings/ceiling connections/doors/windows); room-related simulation for thermal protection;

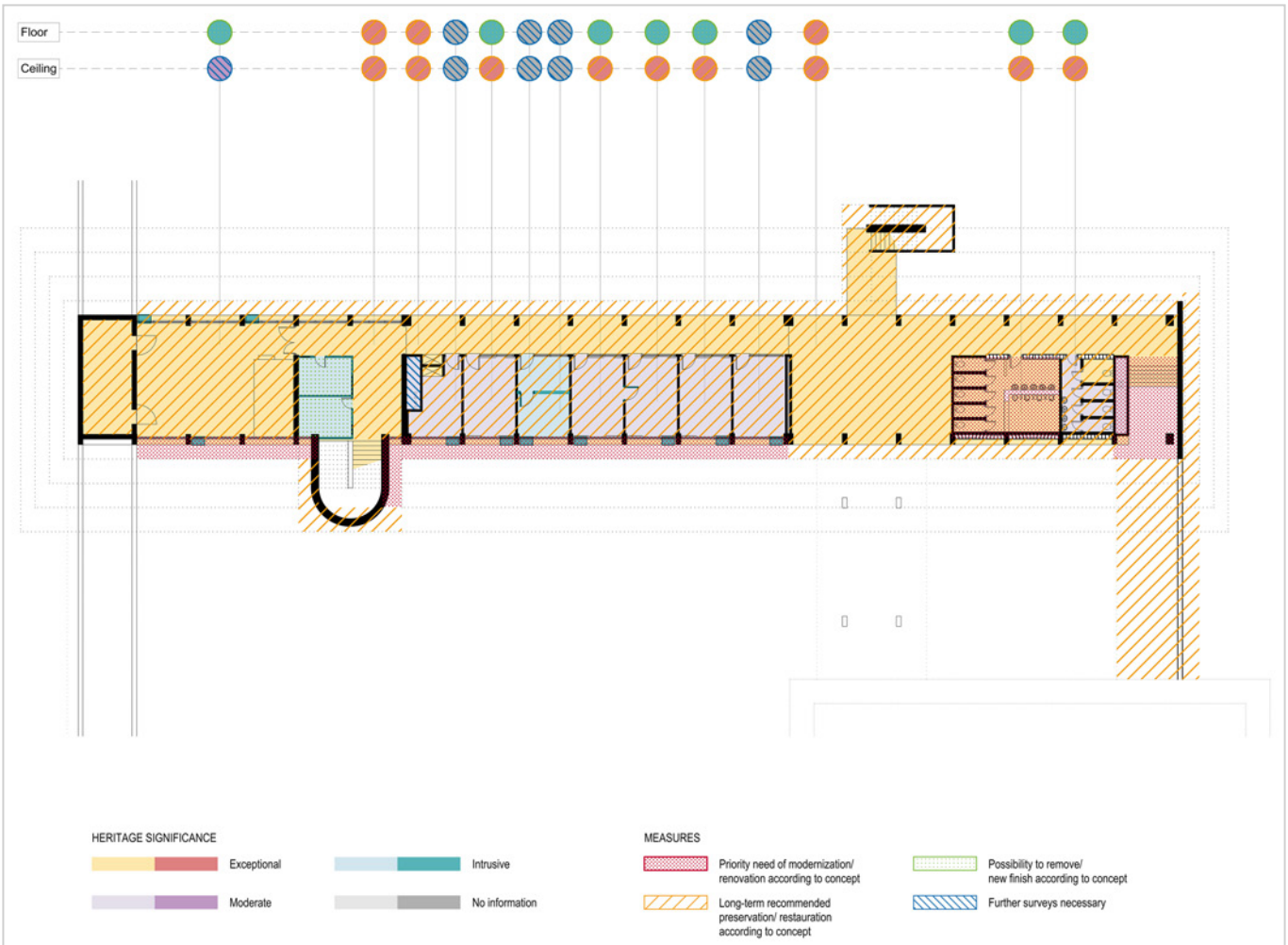
In addition, there was a survey of the landscape in the original core of the campus. This was made possible by surveying and documenting the overall original academic core by locating all buildings, the soft and hard landscape. An assessment and evaluation of the outdoor facilities with regard to the overall concept, vegetation, and materials was done relative to the available archival research on open spaces, planting, and vegetation. Also, a drawing survey of all open space areas, the entrance zones, the planting and vegetation, and outdoor furniture such as tables, benches, lights, bicycle stands, and garbage dumps was done. Identification of soft and hard landscape materials, colors and surfaces in the outdoor area and location was presented in an appropriate scale. Interpretation of the results and a catalog of measures were presented.

The CMP established the significance of the campus after presenting the historical, sociocultural, aesthetic, and scientific aspects of the campus core, including the buildings, landscape, and immaterial aspects; historical accounts and design principles. The historical events leading to the founding of the university, the importance of Ilé-Ifẹ̀ in the life history of the Yorubas, and the meaning of the campus to past and present users, immediate and far away communities confirm the historical and sociocultural values. The design principles in terms of the artistic, structural, and functional elements relations in the buildings, group of buildings, and landscape affirm the aesthetic value of the campus. The continuing productivity of the university in academics and research of national and international importance reiterates the scientific value of the university in local and global affairs. The CMP, in the introduction of the statement of heritage significance, infers

> *By virtue of its authenticity and integrity, the campus core as a whole has great heritage significance. It is an unequaled example of modernist campus architecture. The Obafemi Awolowo University (OAU) is the most important large-scale international project by Bauhaus graduate Arieh Sharon and is part of the international Bauhaus heritage. Of particular merit is the aesthetic value of the urban design and the architecture.*

A concluding section of the CMP is the recommendation of measures for conservation management and conservation policies to preserve the heritage value of the campus's modern architecture. The conservation policies are based on the classification of the levels of heritage significance of different elements, components, and principles in the campus buildings and landscape. The elements, components, and principles of exceptional or high heritage significance are recommended for preservation. Elements or components that are no longer in the original state and have moderate or low heritage significance are to be replaced or partially repaired with heritage-compatible alternatives suitable for present functionality [FIGURE 14].

Details of key areas for conservation measures as in the CMP are:



14 Obafemi Awolowo University, Faculty of Humanities, Block I, ground floor plan, mapping of levels of significance, key areas for heritage conservation (yellow, red), modernization areas (purple, green), 2022 (no scale). © Brenne Architekten, Stagray Associates, 2022.

URBAN DESIGN, ARCHITECTURE AND LANDSCAPE

LEVEL OF SIGNIFICANCE: EXCEPTIONAL

Historic preservation objective:

- Preservation of the original design
- No building additions
- No building densification (except for the originally designated development site in the northeast)
- Reversal of substantial structural modifications

PASSIVE CLIMATE CONCEPT

LEVEL OF SIGNIFICANCE: EXCEPTIONAL

Historic preservation objective:

- Preservation of the original passive climate control concepts
- Heritage-conscious adaptation to current use requirements on the basis of a modernization concept that follows conservation principles
- Dismantling and, if appropriate, heritage-conscious replacement of decentralized air conditioning units [FIGURE 15]

FAÇADES AND ROOFS

LEVEL OF SIGNIFICANCE: EXCEPTIONAL

Historic preservation objective:

- Preservation of the original design principles and massing of buildings
- Preservation, repair, or restoration of original materials and coatings
- Preservation or restoration of the original color scheme
- Heritage-conscious concrete and roof refurbishment [FIGURE 16, FIGURE 17]
- Reversal of substantial structural modifications

UTILIZATION CONCEPT

LEVEL OF SIGNIFICANCE: HIGH

Historic preservation objective:

- Preservation of the original circulation zones
- Preservation of the original spatial organization

INTERIORS (INTACT)

LEVEL OF SIGNIFICANCE: HIGH

Historic preservation objective:

- Preservation, repair, or restoration of original materials and coatings that are intact [FIGURE 18]
- Preservation or restoration of the original color scheme

15 Obafemi Awolowo University, University Hall, north façade, 2022. Over the years decentralized air conditioning units were successively installed in the window frames. © Brenne Architekten, 2022.

16 Obafemi Awolowo University, Faculty of Education, east façade, 2022. Damages to reinforced concrete pillars due to moisture ingress. © Brenne Architekten, 2022.

17 Obafemi Awolowo University, Assembly Hall, open corridor area, 2022. Damages to reinforced concrete surface due to insufficient concrete coverage. © Brenne Architekten, 2022.

18 Obafemi Awolowo University, Library, circulation area with terrazzo flooring, raked spray render wall surfaces, wooden ceiling cladding and handrails, painted concrete, blue metal railings, 2022. © Brenne Architekten, 2022.

The other elements and components with moderate or low levels of significance that may be modernized as stated in the CMP are as follows:

LANDSCAPING OF THE OUTDOOR SPACES

LEVEL OF SIGNIFICANCE: MODERATE

Historic preservation objective:

- Preservation of original plantings if intact and sustainable
- Heritage-conscious and sustainable new plantings

INTERIORS (ALTERED OR NOT INTACT)

LEVEL OF SIGNIFICANCE: MODERATE

Historic preservation objective:

- Heritage-compatible replacement of damaged or damaged and contaminated materials
- Reversal of modifications
- Heritage-conscious modernization (with due regard to fire protection, security, accessibility, sustainability)

FIXTURES, FURNISHINGS AND LIGHTING

LEVEL OF SIGNIFICANCE: MODERATE

Historic preservation objective:

- Preservation or repair of original fixtures, furnishings, and light fixtures that are intact and functional
- Heritage-conscious modernization (with due regard to fire protection, security, accessibility, sustainability)

SANITARY FACILITIES AND MEP SYSTEMS (BUILDING SERVICES)

LEVEL OF SIGNIFICANCE: LOW

Historic preservation objective:

- Heritage-conscious modernization (with due regard to fire protection, security, accessibility, sustainability

These preservation objectives for each category of element and component have implications for the preservation of values and the heritage significance of the campus. Preserving the campus requires forethought about actions and activities that can aid the conservation of inherent values.

CONCLUSION AND FUTURE EXPECTATIONS

The present CMP project takes a comprehensive overview of the campus core and a detailed case of a building in one of the building groups in the original academic core of the university designed by first-generation Bauhausler Arieh Sharon. In this original core, six buildings are considered representative of the buildings at the final stage of national listing in Nigeria. These buildings are in varied states of condition due to minimal maintenance. CMP projects are needed for many of the original buildings within and without the original academic core of the 1962 master plan.

Many of the buildings are due for conservation and preservation measures, but, at present, corrective maintenance has been the usual mode. Conservation policies in this project are to be communicated to stakeholders to minimize disruptive maintenance interventions in the short term to sustain the significance of this unique modern architecture. In addition, with the CMP of the exemplary building in place and as a template, full CMP for the other buildings is needed, and restoration of the exemplary building as a case study for the others is important.

A comprehensive survey of the whole campus with progressive CMP preparation for buildings with high significance or buildings that contribute to the high significance of the campus as a modern architectural heritage is necessary. International collaboration is important to deepen knowledge of conservation, preservation, and restoration among local participants in this project through continuous collaboration and engagement in conservation activities, programs, and projects of this nature. For example, the local team in Nigeria that worked on the complementary measures with Brenne Architekten is a skilled hub that needs training, retraining, and engagement to expand their knowledge of conservation and preservation to train others within and outside of Nigeria.

Further, international collaboration with institutions and consultants in the developed world is beneficial for enhancing learning, practice, and research in conservation, preservation, and heritage management for students, academic and non-academic staff, and professionals in the university, public, private agencies, and non-governmental organizations in the developing world including Nigeria. Education and training of administrators and facility maintenance officers and raising the general awareness of historic conservation, preservation, and restoration have become critical within and outside of the academic community.

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REFLECTIONS ON THE IMPACT OF TROPICAL MODERNISM ON AFRICAN PRIMARY SCHOOLS

A comparison of two schools in Sub-Saharan Africa

Emmanuella Ama Codjoe, Justicia Caesaria Tegyeka Kiconco

ABSTRACT: The architectural design of educational spaces in Sub-Saharan Africa after the 1950s was heavily influenced by Tropical Modernism, an architectural style that rose to prominence in Africa during the period of independence movements across the continent. Notably, in growing independent countries such as Rwanda and Ghana, educational buildings assumed profound symbolic significance as tangible representations of progress and development. This article explores the architecture of two primary schools, École Belge in Kigali, Rwanda and Republic Road School in Tema, Ghana. It highlights the role of standardization as well as the role of landscape and climate responsiveness in school designs and today's impact of the school buildings on their respective communities. The two schools in Ghana and Rwanda were selected in order to draw on themes related to Anglophone and Francophone colonial influences. Through site visits and document analysis, general conclusions were drawn to describe how two schools built at the same time but in completely different parts of Sub-Saharan Africa are very similar and yet so different.

KEYWORDS: primary school education, tropical modernism, standardization and modularity, Rwanda and Ghana, climate responsiveness.

INTRODUCTION: Unlike most schools today, educational spaces in precolonial East and West Africa were not confined to designated structures. Later, they transitioned into specific wattle and daub structures, typically made of a framework of woven branches covered with a mixture of mud, clay, and other locally available materials. During the era of colonial rule, various missionaries or religious denominations set up camps to establish mission stations, which included churches, schools, and dispensaries for the purposes of Evangelism and community development (Uduku, 2018).

After the historic 1884 Berlin conference, at which Africa was divided into colonies (Chamberlin, 2014), the European powers started establishing institutional infrastructures such as schools in their major cities and towns; funds were set aside to finance the construction of these buildings. The establishment of colonial schools aimed to supplement the missionary schools (Uduku, 2018); the purpose of these schools was to raise a workforce to run economic and social development projects, as well as occupy administrative positions in the colonies.

The Western educational systems introduced by the Europeans brought about changes in the physical manifestation of educational spaces. According to Uduku (2018, 37), this inspired the establishment of "colonial" schools that had improved permanency due to the use of "modern" materials, which lasted longer and required less maintenance unlike the traditional thatch and mud. The architectural designs of these colonial schools were largely modeled after European standards, with little consideration for the local environmental conditions and appropriate building materials. It was not until the 1940s and 1950s that colonial 'tropical' school design in Africa began to consider environmental conditions and building with appropriate materials (Uduku, 2018; De Raedt, 2014).

The mid-20th century, 'the era of independence in Africa' (Meredith, 2011), specifically from the 1950s to the 1970s, marked the emergence of Tropical Architecture (Fry & Drew, 1964). The era witnessed a surge in the design and construction of schools with a new modernist style, influenced by various factors, including the emerging

UNESCO international school design guidelines and the involvement of transnational architects. These architects from diverse contexts and backgrounds embraced this opportunity to transfer their expertise by spreading their unique modernization concepts across the continent (De Raedt, 2014). As a result, some standardized schools based on tropical modernist principles stemmed from the need for quality and rapid construction. Standardization, emphasizing regularity and repetition, "offered an efficient design that improved construction and provided cost certainty" (Pasquire & Gibb, 2002). Decades after independence in Ghana and Rwanda, many educational spaces designed with tropical modernist principles are still in use and thriving.

ÉCOLE BELGE (NORRSKEN KIGALI HOUSE), KIGALI

In Rwanda, educational spaces first started to develop at the beginning of the last century. Prior to 1900, education in Rwanda was primarily informal, relying on family and 'Amatorero' training schools (Galvin, 2017) to teach various skills such as military training, craftsmanship, and pottery. However, after 1933, which led to the classification of the population along ethnic and racial lines in the Belgian census (Galvin, 2017), Western education gained popularity by providing educated Rwandans with basic skills to occupy administrative positions under the Belgian colonial government. Due to the limited availability of informationon twentieth-century architecture in Central Africa (Lagae, 2003), Congo Belge (now the Democratic Republic of Congo) was referenced to gain insights into education and Tropical Modernist schools. The education policy in Congo Belge notably influenced the education practices in Ruanda-Urundi (now Rwanda and Burundi) (Bud, 2020). In 1948, primary schools underwent reform in Congo Belge and Ruanda-Urundi; the education system in Rwanda was highly exclusive and favored those who completed education in these schools. The primary school reforms aimed to standardize and enhance the overall educational system and school infrastructure in the region.

During the post-colonial era in Belgian colonies in Africa, renowned architects like John de Bosch Kempler, responsible for UNESCO's school construction, and Eugenio Palumbo, who arrived in Congo in 1962, were involved in constructing primary schools (De Raedt, 2014). These schools, following the principles of tropical modernist architecture, went beyond addressing climate concerns and aimed to address the complex reality of education and school construction in Africa. The knowledge gained from these endeavors was shared through Regional Centers, resulting in standardized modules for primary schools that were adapted to local context and climate, as in the case of École Belge in Rwanda. However, after Rwanda gained independence in 1962, the government shifted its focus to increasing primary education access by making it free for all. In 1965, in this climate of independence, École Belge was constructed and established for Belgian children. Consequently, discrimination in Rwanda's education system continued after independence, with limited opportunities and a quota system favoring social group and location. By 1975, primary school enrolment had significantly increased to 386,000 children, compared to 250,000 at the time of independence (Wolhuter, 2014). Following the devastating impact of the 1994 genocide against the Tutsi, the educational system and school infrastructure were left in ruins, causing a significant loss of human resources (Byanafashe & Rutayisire, 2016). In response, a crucial post-conflict education policy was implemented to restore the educational system. As a result, primary schools reopened after the genocide, leading to a substantial increase in access to education, now education for all.

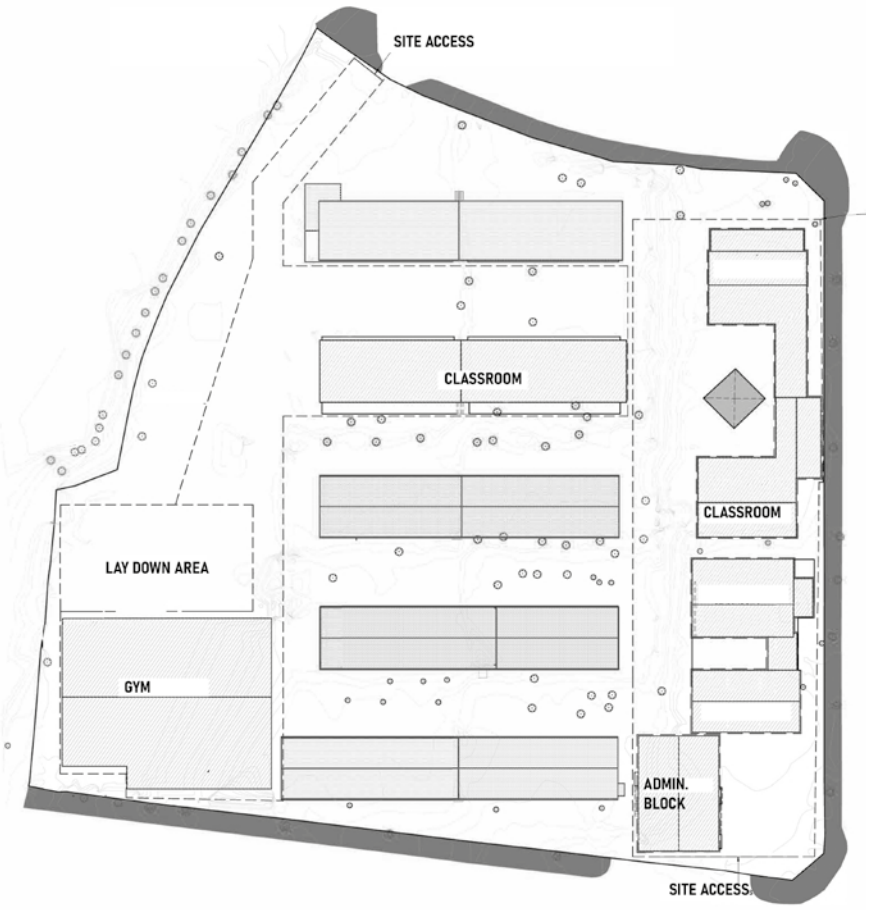
École Belge, situated on Nyarugenge Hill in the Kigali Central Business District (CBD), played a significant role in the early development of the city. As the capital of Rwanda, Kigali was established by Belgian colonialists who initially constructed the school along with other civic and commercial structures. The school was established in 1965 for the children of the Belgian community. It became a pillar in Rwanda's educational system. As a prominent educational institution and symbol of the Belgian presence, it provided education primarily for the Belgian and Rwandan elite, offering a European-style curriculum and teaching methods. The strategic location of École Belge was evidence of its prominence due to its proximity to iconic buildings like the German ambassador's residence, St. Famille Church, Nyarugenge Prison, and Hotel Mille Collines. In 2018, Ecole Belge relocated to another city called Gisozi. This was as a result of the replanning of the Kigali CBD to cater for high-end contemporary business development, contrasting with the historic and low-rise medium-density architectural character of the city. Meeting the architectural and functional criteria of the new CBD, Norrsken Kigali House is situated on the historic École Belge site. As a start-up hub run by a Swedish tech entrepreneur, Norrsken Kigali House, is the first adaptive reuse project in the area.

Erected on the site of the École Belge, the school buildings were not—as is usual in these circumstances—dismantled but extended and adapted to their new functions. This stresses the quality of the original architecture and showcases how educational spaces can be transformed for alternative uses.

Unfortunately, the architects of the École Belge are unknown. What is evident today is that the school was designed with the essence of environmental principles for tropical climates. The site layout was planned, highlighting the main spaces, such as the administration blocks, nine classroom blocks, a gym, and a playground [FIGURE 01]. The school consisted of blocks with repeated structural columns, louvered windows, a mono-pitched roof, and the interplay of brick finish and plaster, creating a rhythmic façade throughout the school. Access to the site was on the northern and southern ends. The northern entrance of the school leads to the gym and five classroom blocks, oriented east-west, strategically capturing cool breezes to promote optimal ventilation. On the other hand, the southern entrance led to the administration block and to four blocks oriented north-south. A central walkway extended towards the northern end of the site with intersecting courtyards between the classroom blocks. The site included the thoughtful incorporation of landscape principles, with trees and plants strategically positioned in relation to the buildings. These innovative landscape concepts were endorsed and aligned with the recommendations of tropical modernist principles aimed at guiding architects and planners (Uduku, 2018). École Belge's architects emphasized the importance of vegetation selection. Adjacent to the classrooms, carefully selected plant species were planted to reduce glare and prevent overheating. Further exploration revealed stairs integrated into the landscape design, accommodating the natural terrain and seamlessly shifting levels. Considering the intense heat, the school buildings were strategically placed on the site to maximize natural ventilation.

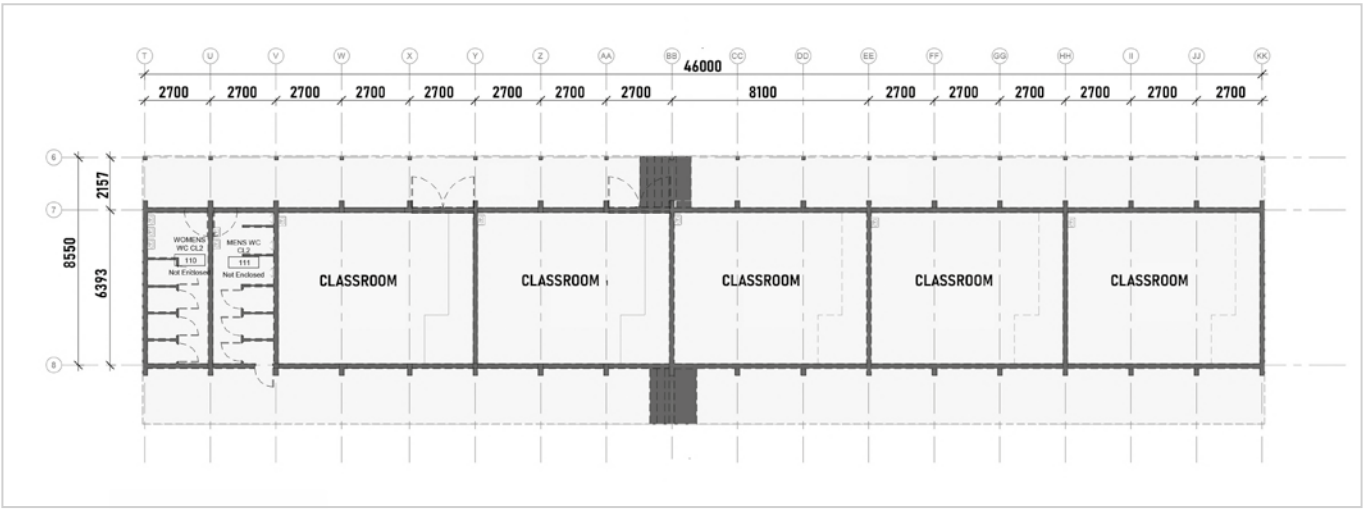
The north and south façades of the classroom blocks featured openings, including windows, doors, and vents, with characteristic openings designed to respond to the climate. These openings maximized natural light during the day, reducing the reliance on artificial lighting and fostered a connection with the outdoors, while the verandas acted as bridges between the classrooms and the beautifully landscaped courtyards. Additionally, the spacious verandas placed on the northern end of the building were characterized by repetitive elements such as columns while offering appropriate shading, keeping the classroom walls pleasantly cool [FIGURE 02].

École Belge was a thoughtfully arranged and environmentally conscious school where aesthetics and functionality harmoniously blended to create an optimal learning environment. Centrally positioned on the site, the classroom blocks followed a basic rectangular layout, featuring five classrooms and washrooms with mono-pitched roofs. The floor layout of each classroom block employed a grid system with uniform grid lines at 2.7-meter intervals



01 Original site plan of École Belge redrawn by Author © MASS Design group, 2018

02 École Belge showing a front view of one of the classroom blocks. The walls and structural columns of the blocks follow a logical pattern of repetition, creating a rhythm on the façade.
© École Belge de Kigali, 2015



03 Typical floor plan of one of the classroom blocks of École Belge. Redrawn by the author © MASS Design group, 2018

[FIGURE 03]. A single classroom within the block had a width of 8.1 meters, consisting of three intervals of 2.7 meters. The washrooms in the block spanned a width of 5.4 meters, encompassing two intervals of 2.7 meters. A single classroom measured approximately 6.4 meters in length, while the veranda was around 2.2 meters. In summary, a classroom block had a total length of approximately 8.6 meters and a height of about 3.0 meters.

In 2019, MASS Design intervened to preserve the historic École Belge classrooms and playgrounds from demolition, emphasizing adaptive reuse and the creation of public green spaces. The site was transformed into an entrepreneurial start-up campus known as the Norrsken hub [FIGURE 04], showcasing the potential for repurposing educational spaces in Rwanda. Norrsken's site layout encompasses three refurbished classroom blocks (classroom 3, 4 and 5) and a new pergola (classroom 2), from the original school and a newly constructed main building called Norrsken House. While the southern area of the site retains four preserved classroom blocks, the northern part repurposes two smaller blocks as a gallery space (compare [FIGURE 01]). The architectural design includes an interconnected passageway that serves to unite all four classroom blocks. Adjacent to this passageway, semi-open collaborative outdoor zones seamlessly connect to compact garden spaces designed for collaborative use. These architectural features serve a dual purpose: they harmonize the coexistence of the old and new constructions while also fortifying the integration of the indoor and outdoor realms. The design of these connecting spaces deliberately blurs the demarcation between the built and landscaped spaces, creating a holistic and unified environment. The

04 The main Norrsken House and refurbished classroom blocks designed by MASS Design Group. © Author, 2023

school has transformed from being enclosed by perimeter walls to embracing the surrounding neighborhood, with a notable boulevard defining its eastern boundary and the integration of green spaces, creating a welcoming atmosphere.

REPUBLIC ROAD SCHOOL, TEMA

In pre-colonial Ghana (known as the Gold Coast), knowledge was primarily transmitted through apprenticeship in trades like smithing, drumming, and herbalism. Children learned by observing the skills of adults and through the use of proverbs, songs, and stories, which taught them proper roles and behavior. Missionaries introduced a Western educational system to the Gold Coast as early as 1765, with a prime focus on primary education and a partial goal to replace Europeans with educated Africans in administrative positions (Berry, 1994).

After 1945, British architects like Maxwell Fry, Jane Drew, James Cubitt, and Kenneth Scott established architectural practices in Ghana. Inspired by the international Modern Movement, these British-trained architects introduced innovative approaches to architectural design suited for the hot and humid conditions of the tropics; their designs took the local climate into account (Fry & Drew, 1964). Soon after, in 1957, Ghana became the first country in Sub-Saharan Africa to achieve independence and remained a testing ground for experiments in climate-responsive architecture as the architectural guidelines established by the early colonial modern architects continued to be relevant (Le Roux, 2003).

Upon coming into power, one of Kwame Nkrumah's, Ghana's first president's priorities, besides industrialization, was to improve the education system. He believed that by providing quality education, children could be nurtured into a skilled workforce capable of managing the economic and social affairs of the country. Nkrumah intended this agenda to generate results as soon as possible, which is why he selected Tema as a pilot project for educational reform in Ghana. The central government of Ghana, through the Ministry of Education, took responsibility for this agenda by allocating a significant portion of the national budget to fund educational projects and the construction of schools all across the country. Between 1951 and 1966, the total number of children attending primary schools grew substantially from 154,000 to 1,480,000 (Provoost, 2020). The bond between the former British colonizing power and newly independent Ghana remained, as reflected in the nationalities of professionals employed in the country. The initial master plan of Tema was proposed by English planner Alfred Alcock, who designed what looked like a typical English New Town. However, Nkrumah sought the expertise of Constantinos Doxiadis to deal with the large scale and the fast pace of development. Undoubtedly, this decision aimed to distance the project from English designers who were closely linked to the colonial power (Provoost, 2021).

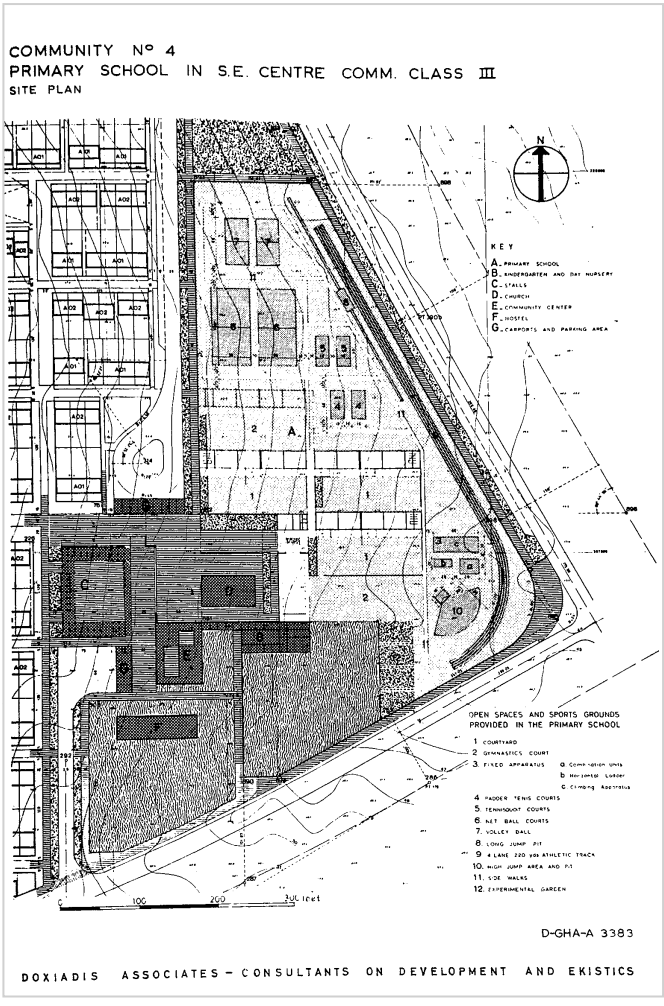
Tema, a planned city on the outskirts of Accra, was to serve as a cosmopolitan city that welcomed immigrants from different places to work in industry. The city was laid out to resemble modern New Town planning (Provoost,

2016); encompassing various elements that ensured a holistic experience for the people living within the city and its environs. The orthogonal grid layout of the city, based on mathematics and hierarchy, was oriented to take advantage of the prevailing direction of the south-west winds. The Tema master plan consisted of five community classes: Community class I, II, III, IV & V. Within every community class III was a primary school, strategically placed so that children could get to school without crossing any highways; thus, the longest distance from home to school was 500 meters. It was mandatory for every child to attend school, and free of charge, these primary schools reflected the ideas of post-independence (Provoost, 2020).

The Republic Road School is situated in the industrial city of Tema (Community 4), established in 1965 by the Ghanaian government. This primary school was designed by Constantinos Doxiadis. The school represents the aspirations for progress and development that emerged in Ghana following its independence. The site layout of Republic Road School is organized into four main classroom blocks, all of which have the same aesthetics, and a playing field for sporting activities on the northern boundary of the site [FIGURE 05]. The school follows a logical pattern of repetition through the use of prefabricated barrel roofs, breeze block walls, and structural columns, creating a rhythmic façade [FIGURE 06]. According to Doxiadis, such repetition was necessary for the rational formation of schools and an essential part of aesthetics (Choudhury, 2006).

The main access to the site is from the northern side, adjacent to a 'cul-de-sac', which serves as a drop-off area, enabling easy access to the school. This entrance leads to a walkway, seamlessly blending with the natural slope of the site and extending towards the southern end. The straight linear path connects with intersecting classroom blocks and courtyards, purposefully designed to evoke a strong sense of order through the use of axes and symmetry. Landscaping played a crucial role in enhancing the aesthetics of both Tema and the school, with vegetation strategically planted in the courtyards to reduce heat gain and enhance the overall beauty of the space.

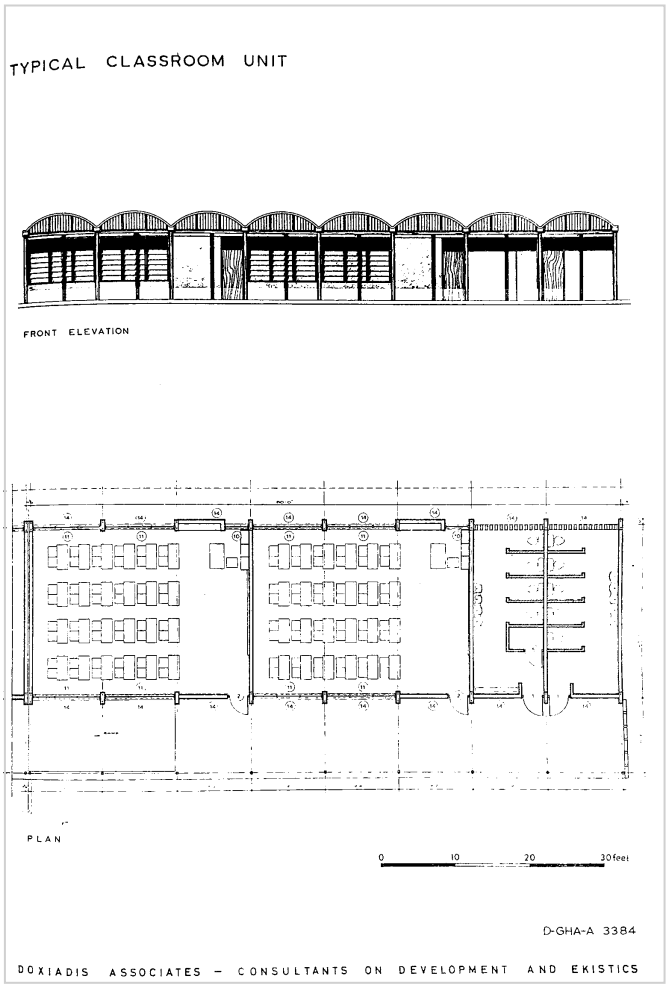
The floor layout of each classroom block has a linear configuration with courtyards situated in between the individual blocks, enabling free airflow through the site. The classroom blocks have an east-west orientation except for one classroom block, which has a north-south orientation. On the southern side of each block, there is a veranda designed for circulation, in addition to roof overhangs that serve as solar shading [FIGURE 07]. The verandas also have ramps designed to facilitate movement over the natural terrain of the site. The exterior walls of the classroom blocks are made of breeze blocks, which double as openings to



05 Site plan of Republic Road School emphasizing the north-south orientation of classroom blocks. © GHANA REPORTS TEMA DOX-GHA-A 91, 1964.

06 Façade of Republic Road School showing the use of repetition of roofs, breeze blocks, and columns. © Author, 2022.

07 Veranda for circulation and roof overhangs for solar shading © Futurestars Charity, 2018



08 Typical classroom unit showing the grid system with approximately 3.0-meter (10-foot) intervals © GHANA REPORTS TEMA DOX-GHA-A 91, 1964

ensure adequate daylighting and ventilation throughout the day, eliminating the need for artificial lighting.

The basic rectangular layout of a classroom block has four classrooms and washrooms sheltered by barrel roof. The use of standardization in this tropical modernist school design is evident through the placement of columns, beams, breeze block walls, and doors, ensuring uniformity and regularity throughout the structure. The floor layout incorporates a grid system with 3.0-meter intervals [FIGURE 08], aligning with the centerline of structural components such as columns and beams. Each classroom is approximately 9.0 meters wide, consisting of three 3.0-meter intervals, while the washrooms are around 6.0 meters wide, consisting of two 3.0-meter intervals. A single classroom has an estimated length of 7.0 meters and the veranda has a length of approximately 3.0 meters, suggesting that single-depth or non-double banked plans achieved the optimum benefits of cross-ventilation in warm, humid climates. The classroom block has a total length of approximately 10 meters and a vertical dimension of 3.0 meters, extending from the concrete flooring to the exposed barrel roof. The spatial configuration includes student seating areas, a desk area for the teacher, an in-built cupboard for books and stationery, and a chalkboard attached to a wall.

WHERE TROPICAL MODERNIST PRINCIPLES AND STANDARDIZATION COINCIDE

École Belge and Republic Road School, as primary schools embodying tropical modern principles and standardization, share notable architectural characteristics despite their disparate locations. However, within these shared principles, they possess distinct features that contribute to their individuality. The school designs exemplify an architectural approach that combines the benefits of modern design, environmental responsiveness, and efficient construction practices to create functional and sustainable educational spaces in the tropical context. Categorizing the distinctive characteristics of each school under landscape, climate responsiveness, and standardization provides insight into the fundamental principles that guided the design of tropical modernist schools at that time. Landscape principles incorporated in the design of École Belge and Republic Road School, ensured harmony with their surroundings. Both schools strategically utilize courtyards and vegetation to improve airflow and create visually appealing spaces. These approaches showcase the significance of landscaping in creating comfortable and inspiring educational environments within tropical settings.

The façades of École Belge and Republic Road School embody aesthetics and functionality. École Belge achieved a rhythmic pattern through the interplay of brick finish and plaster, while Republic Road School utilizes a logical

repetition of prefabricated barrel roofs, breeze block walls, and structural columns. These rhythmic compositions contribute to the overall aesthetic appeal of the buildings and create a sense of uniformity. Generally, the two schools also demonstrate a commitment to climate-responsive design principles, although approaches are tailored to specific contexts. The strategic building placement, façade design, and courtyards between classroom blocks capture cool breezes and maximize natural ventilation. Verandas, included in both schools, act as solar shading and circulation spaces while the openings allow for ample natural light, reducing the reliance on artificial lighting.

The well-designed classroom spaces of the two schools played a pivotal role in shaping the overall learning atmosphere. The comparison of floor plans revealed how the schools prioritize functionality, flow, and accessibility for students, teachers, and staff. The schools utilized standardization, characterized by regularity, repetition, and efficient design for improved construction and cost certainty. Standardization extended to all aspects of the primary schools' design, with prefabricated building components, such as structural columns, beams, doors, windows, breeze blocks, walls, and even entire rooms. While the concept of standardization and the replication of elements are similar in both cases, specificities such as dimensioning differ. For instance, both schools were designed based on a grid system, but the grid interval of École Belge is 2.7 meters while that of Republic Road School is roughly 3.0 meters. Additionally, a classroom block in École Belge comprises five classrooms, while Republic Road School has four classrooms; a single classroom in both schools can be divided into three equal parts.

The use of standardization in these schools creates flexible spaces that allow for adaptability and potential changes in use or reuse without premature demolition, thus extending the building's useful life. École Belge, now transformed into Norrsken Kigali House, serves as a prime example of adaptability, which was made more feasible due to its design's inherent regularity and standardization. This characteristic facilitated changes in its function while preserving a significant portion of the original building. In contrast, Republic Road School has undergone minimal renovations, and the utilization of classroom spaces has remained unchanged. The school is, however, occasionally subject to minimum maintenance and upkeep to preserve its aesthetic appeal.

The use of tropical modernist design principles and the standardization of spaces highlights the longevity and success of these schools' architectural designs, making them enduring examples of thoughtful and environmentally conscious educational spaces shaped by the era in which they were built. This article suggests that the exchange of architectural ideas through the emerging UNESCO international school design guidelines (De Raedt, 2014) and the involvement of transnational architects influenced the school designs to be similar. The emphasis placed on cost-effectiveness, functionality, and climate responsiveness during the design process allowed these schools to adapt and thrive within their contemporary contexts. Remarkably, even after more than 50 years since their establishment, both schools continue to exhibit robustness and are actively used, serving as a testament to the success of the architecture of that era.

CONCLUSIONS

This article explored the evolution of the architectural design of two primary schools, École Belge in Kigali, Rwanda, and Republic Road School in Tema, Ghana, both constructed in 1965. Despite being located in different countries, these schools share similarities in their use of standardization, climate responsiveness, and emphasis on landscape integration. The schools' similarities were attributed to the exchange of architectural ideas during independence, such as the influence of transnational architects, and UNESCO's international school design guidelines. While the schools share common characteristics, they also possess distinct features such as roof design, grid dimensions, openings, and the composition of the classroom blocks. École Belge has undergone a transformation into a start-up campus (Norrsken), demonstrating the concept of adaptive reuse and showcasing its ability to adapt to new functions. In contrast, Republic Road School has remained resilient over time, retaining its original form and function. These enduring buildings demonstrate the significance of thoughtful architectural design in creating comfortable and inspiring learning environments. The similarities and differences identified between these schools offer a deeper understanding of their current implications and potential significance for future research in the design of educational spaces. In current design thinking, educational spaces are expected to be flexible places where different modes of teaching and learning can take place. Analyzing how standardization influences adaptability sheds light on the importance of designing spaces that employ uniformity and regularity. Educational institutions can leverage this insight to create adaptable spaces that accommodate diverse learning experiences. Future research could examine the lasting effects of school design based on UNESCO international school design guidelines and climate-responsiveness in Africa. This could assess students' academic performance, social development, and overall satisfaction to provide a comprehensive understanding of the influence of well-designed educational spaces.

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RUKURATO HALL, BANYORO, UGANDA AND THE GREAT HALL, KNUST, GHANA

Two case studies from Africa

Timothy Latim, Jonathan Kplorla Agbeh

ABSTRACT: This article presents two modernist building case studies, one each from East and West Africa which explore approaches to modernist public building conservation. The Rukurato Hall in East Africa, formerly used as a regional assembly hall for the Bunyoro Kingdom in Uganda, is now used as the parliament building of the Bunyoro Kitara Kingdom.
The Great Hall in West Africa at the Kumasi University of Science and Technology (KNUST) serves as an institutional hall; it is a monument of academic and cultural significance in Kumasi. This article delves into the historical evolution of the Great Hall, which has hosted numerous essential events, ranging from local academic gatherings to distinguished international conferences since 1967. The Great Hall's rich heritage and architectural prominence have been subject to various interventions aimed at conserving its essence. The examination of these interventions in maintaining the integrity of the building while adapting to the changing needs of the university underscores the delicate balance required between modernization and safeguarding cultural and architectural legacies.
Both case studies present contrasting views on the challenges of conservation in the African context, resulting in different conservation efforts. In the case of the Rukurato Hall, arguable the loss of function for a significant period, before reinstatement in the late 1990s and challenges of funding have greatly influenced the ability to realize conservation ambitions. In the Great Hall, whilst conservation funds were secured, and the conservation effort was successful, the use of the Hall has been 'controlled' and various actions have arguably tested the authenticity of the conservation process transforming the building aesthetic in the process. This article employs methods of document analysis, archival research, and interviews with key stakeholders.

KEYWORDS: Rukurato Hall, Bunyoro-Kitara Kingdom, Great Hall, Kwame Nkrumah University of Science and Technology (KNUST), Conservation.

CASE STUDY: THE RUKURATO HALL, BANYORO, UGANDA

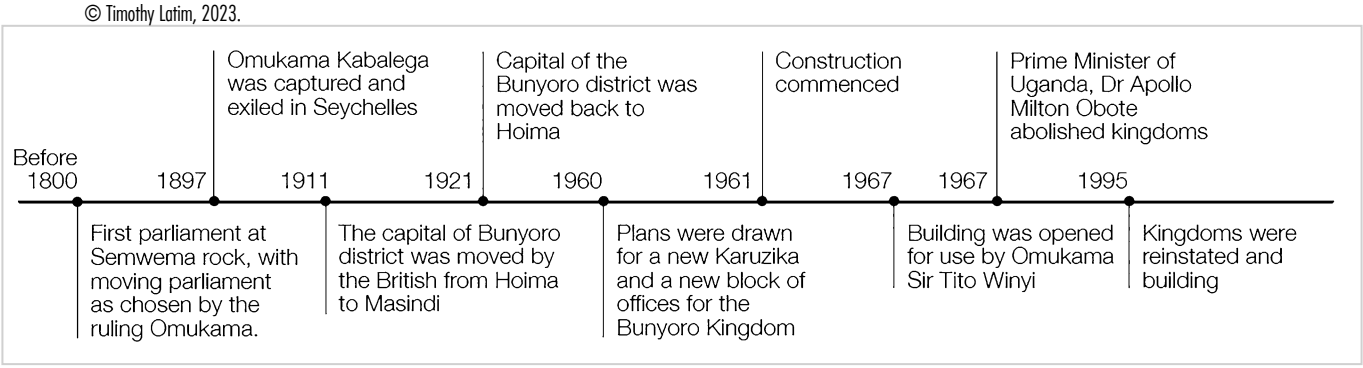
HISTORICAL AND ARCHITECTURAL CONTEXT

There is little information about the Rukurato Hall available, and the information gathered here is a record from the varying site visits, literature studies and interviews. The lack of information was exacerbated when the Bunyoro Kingdom was abolished in 1967 as part of Uganda's new constitution. Sadly, many of the elders and carriers of tradition and history have since passed away, before transferring the knowledge on. Uganda as country has undergone several political instabilities since its independence. For these various reasons the more one looks at the building and information about it, the more questions arise about its history and culture.

The Rukurato Hall is sited on an approximately 3-acre site adjacent to an administrative office building (which is currently part of Gulu) and a court house (currently closed) as indicated in [FIGURE 01].

The site is relatively flat and the site next to it is the palace of the king. This may not have been the preferred choice for the building, given that Bunyoro has been host to several previous parliaments. Before the coming of the British, the first being at Semwema in Kakumiro District as revealed in an interview with Mr. Francis Mugerwa (2023). Kiwanuka (1968) states that Mukama Kabalega

01 Google earth Map adapted to show the entire grounds. 1 - Rukurato Hall, 2 - Administrative Building (Gulu University), 3 - Court House, 4 - New administration building, 5 - Palace of the King. © Timothy Latim, 2023.



02 Timeline indicating main events leading to the construction and use of Rukurato Hall. © Timothy Latim, 2023.

was captured and exiled in Seychelles in 1897 and according to Dunbar (1965), in 1911 the capital of Bunyoro was moved by the British from Hoima to Masindi, to facilitate a road linking Lakes Albert and Kyoga, which made Masindi a center of activity for public works. However, Dunbar further states that the capital of the Bunyoro was moved back to Hoima in 1921 following a decision by the British Governor in Council. However, Mugerwa (2023) argues that the king at the time, Omukama Sir Tito Olwiny was said to have commissioned the building, and had a hand in deciding which capital would host the parliament and where the parliament and palace would be placed. According to Dunbar (1965) in 1960 plans were drawn for a new Karuzika and a new block of offices for the Bunyoro Kingdom government including a hall for the Rukurato. Construction started in 1961 [FIGURE 02].

CLASSICAL PREDECESSORS OF RUKURATO HALL

In comparison to the other kingdom parliaments that were completed around the same time, there is deliberate effort to make the building distinct. The Parliament of the Buganda Kingdom, the Bulange, reflects a different style of building [FIGURE 03]. It was designed by the British firm, Cobb, Powell and Freeman and completed in 1956. The front facade is symmetrical along its center. The vertical rhythm of the facade starting with larger windows then

gradually reducing the size of the openings at the building approaches the roof. The hipped roof was crowned with a spire that was to denote the aspirations of the building.

The Parliament and offices of the Tooro Kingdom, the Mucwa chambers, were completed in 1966 [FIGURE 04]. The front facade is also classical, designed symmetrically along its center. The windows and doors follow the same style complete with the architectural embellishes. In vertical rhythm, the base is finished in a different material from the shaft and a thin line denotes the roof. The main difference between the two building typologies is in the wings of the Mucwa chambers. Unlike the Bulange the Mucwa chambers have a flat roof, while the Bulange has a hipped roof all throughout. However, the hipped roof at the center of the Mucwa Chmabers is also crowned with a spire.

Compared to these earlier parliament buildings, the Rukurato Hall shows a much more modern approach. Its facades and its loadbearing structure bear all the markers of a modern building. The exposed structural members, the concrete columns and beams create the vertical rhythm of the building, which is repeated on all four facades. The envelope is set back from the main structure creating a threshold between the outside and the inside [FIGURE 05a]. The symmetrical building with eight columns (even number) on each facade allows for the access to be in the center of the facade. A similar device found in Greek temples. After the colonnade the building has a main hall (cella) and a series of offices, which can be compared to the Adyton (innermost shrine) in a Greek temple, a peripteral typology [FIGURE 05b].

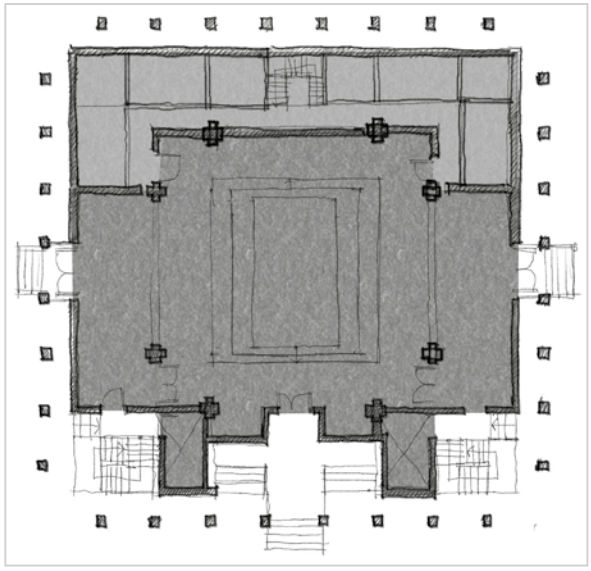
MOVEMENT AND CIRCULATION

The public access to the galleries is through outside staircases on the east and west facades. On the ground level, the hall has three main access doors, and two discrete doors at the east and west façade. The main access is at the north façade with a staircase protruding from the building, and flanked by two staircases on either side. The east access connects to the administration block and the west one to the landscape. However, the space left between the envelope and the columns is barely enough for two people to move through side by side, encouraging people to walk further away from the building to move to the next access. On the ground level, the seats for the kingdom cabinet members are lowered by three steps while the platform for seat for the speaker is the same level with

03 Front elevation of the parliament and offices of the Buganda Kingdom, the Bulange. © Timothy Latim 2018.

04 Front elevation of the parliament and offices of the Tooro Kindgom, the Mucwa Chambers. © ccfu_ngo, 2020.

05 a & b: The Rukurato Hall entrance façade with eight columns and a central staircase. © Timothy Latim 2022.



the general public gallery downstairs. Most of the public seating is on the first level gallery looking down at the cabinet members. The gallery overlooking the chambers can only be accessed from the balcony outside the building [FIGURE 06].

The first level has a balcony on the outside of the building that wraps around three facades (north, east and west) of the building. The balcony connects the staircase to the offices. Peculiar to note, is to access the offices on the ground level one has to use the staircase (outside) then proceed to the south and finally down the only internal staircase, or move through the chamber, behind the speaker, then access the office. This roundabout way of accessing the offices is similar to the treatment that the Greeks gave to their important chambers.

06 Ground level of Rukurato Hall with kingdom cabinet and upper balconies. © Timothy Latim, 2023.

07 Detail of the hollow blocks at the east and west facades of Rukurato Hall. © Timothy Latim, 2023.

08 Plaque on the Rukurato Hall, © Timothy Latim, 2023.

VENTILATION AND LIGHTING

Hollow blocks along the east and west facades, as well as a central skylight are the only sources of natural light to the main debating chambers [FIGURE 07]. Ventilation is achieved by cross ventilation through the hollow blocks on the east and west facades. While the offices on the south are lit by louvres, which is the only glazing in the building. Rukurato Hall has vents on the first floor instead of windows and a skylight on the roof that consists of a thin flat concrete slab.

PROGRAM AND USE

The Bunyoro-Kitara had parliamentary sessions prior to the coming of the Europeans. These sessions were held where the ruling king had set up headquarters (Mugerwa 2023). This is supported by Dunbar (1965), who states that prior to the British and African conflicts in the late 1800s, the King, Mukama of Bunyoro Kitara Kingdom, had several courts and councils which he used to administer the kingdom. Orukurato Orukuru rw'Ihanga, or parliament, was an assembly of all the senior chiefs and officials from all over the kingdom who met three or four times a year. The current parliamentary sessions are held once every three months, and previously it was not uncommon for the Omukama to open the sessions (Mugerwa 2023).

A plaque on Rukurato Hall states that it was opened on 12th April 1967 by Omukama Sir Tito Winyi [FIGURE 08]. In the same year of its completion, the then Prime Minister of Uganda, Dr Apollo Milton Obote abolished kingdoms in Uganda. It was in effect used for about five months before being closed. After which it was used as a public hall with government offices according to Mugerwa (2023), further used as a theatre, for regional national music festivals, public gatherings and boxing matches. In 1994 the Bunyoro-Kitara kingdom was re-established by the President, Yoweri Kaguta Museveni and added into law by the 1995 constitution.

CURRENT STATUS

The hall is currently used as the parliament for the Bunyoro-Kitara Kingdom. The first threat to the building was in 2019, following debt amassed by the Kingdom. An advertisement was placed in the newspaper for auction of the hall which is supported by an article by Lutaaya (2019)—but it was never sold. The structural skeleton, made of off shutter concrete, is exposed and has been painted over. The concrete had started peeling off and

steel reinforcement was getting exposed on, the plumbing faulty and derelict was in need of a change [FIGURE 09].

In 2021, the Kingdom placed an advertisement calling for proposals for the renovation of Rukurato Hall. The building has since been closed off pending the renovation works. The tender was won by an architectural firm in Uganda and the work scope includes, upgrade of the parking, a change of the seating and redesign of the offices. They are also building perimeter wall to stop the encroaching of the grounds. The Kingdom spokesperson maintains that the renovation will be as true to the original works, to maintain the architectural legacy. But as per the writing of this article the project is currently undergoing renovations and the outcome is yet to be seen.

09 Leakage on level 01 on the Rukurato Hall, © Timothy Latim, 2023.

CASE STUDY: THE GREAT HALL, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KNUST), KUMASI, GHANA

HISTORICAL AND ARCHITECTURAL CONTEXT

The Great Hall was designed to serve as the prime congregational space for the Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana. Since its completion in 1967, it has served as a venue for various university, national and international events including conferences, graduation ceremonies, and public lectures. The article examines the evolution of the Great Hall and the use of a number of interventions that have or are protecting the heritage of the building.

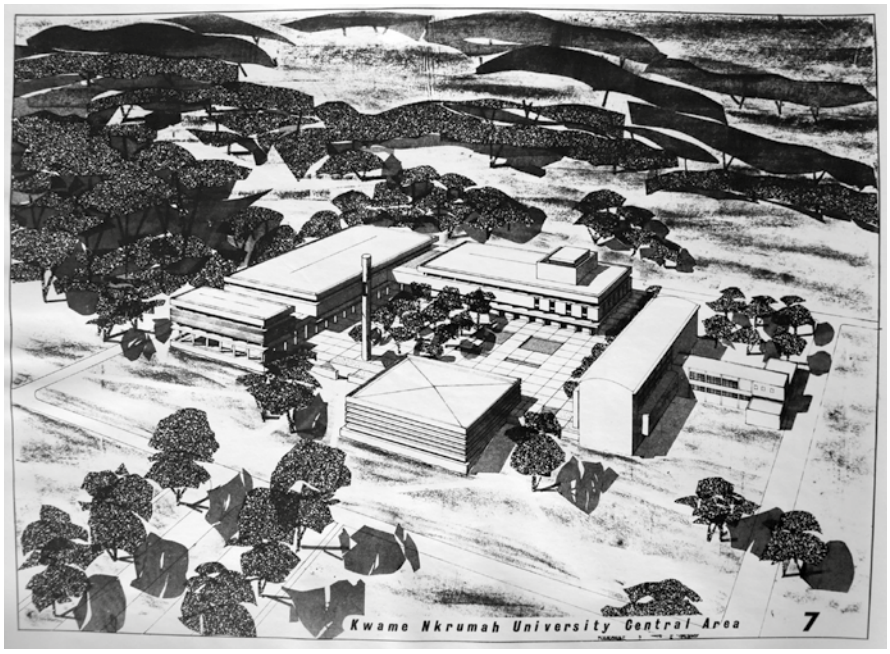
In 1951, an ordinance was enacted to establish and inaugurate the Kumasi College of Science, Technology and Arts (KNUST). This followed the submission of the Elliott Report to the British parliament six years earlier (Lartey & Marful, 2021). The then Asantehene, Otumfuo Nana Osei Tutu Agyeman Prempeh II[1] followed this upshot with a 6.4-square kilometer plot of land for the development of the college. English architects James Cubbitt and Kenneth Scott, were commissioned to develop the site, and construction swiftly followed in March, 1952. Cubitt and Scott proposed a modernist masterplan for the college, orienting buildings in the east-west direction and segregating development into five major phases (Jackson, 2022). By 1958, the pair's association with the college got severed, warranting other architects stepping in. In 1960, Max Gerlach and Gillies-Reyburn were commissioned by the college authorities to design the Great Hall. The newly-employed architects produced two design options for the multipurpose hall; the selected design comprised a 1,600-seater auditorium, chapel, theatre, obelisk and other supporting facilities [FIGURE 10]. Works to construct the multipurpose hall started in 1963, and only the auditorium saw the light of day.

Sitting on elevated grounds, the Great Hall is a two-storey edifice with a basement and a modern architectural character. It was designed to rightly announce itself as one of the most important—if not the most–buildings on campus. Its facade exhibits a strong emphasis on both vertical and horizontal elements, with hints of the 'kente'[2] pattern giving it a bold and striking appearance. The building blends with the surrounding landscape and offers to onlookers a breathtaking vista. The entrance to the foyer is graced with a touch of greenery as plants beautify the stairs which facilitates movement over the site's natural terrain [FIGURE 11].

The hall's ground floor foyer is adorned with busts of past vice chancellors and murals painted by students, adding a sense of history and artistry. The foyer is characterized by a sense of openness, with Pilotis evenly arranged to support the floor above, providing ample natural lighting and ventilation. The openness draws attention to a uniquely-designed staircase which leads to the auditorium's gallery and other ancillary spaces [FIGURE 12].

The auditorium has a distinctive cloud ceiling design which greatly enhances its acoustic performance. The neatly-aligned seating arrangements ensure good views of the elevated stage. Originally intended for passive ventilation, the Great Hall incorporates air conditioners as an adaptation, offering the ability to switch between passive and active ventilation. This remarkable feature stands as a testament to the design's flexibility.

The first-floor houses meeting rooms, offices and the university's radio station. The veranda in front of the offices, along with the precast concrete facade envelope, function as effective shading devices. These elements not only



10 Hand-Rendered selected design option of the quadrangle showing the Great Hall, Chapel and Obelisk as designed by Gerlach & Gillies-Reyburn. © Archives, KNUST Development Office, 1965.

minimize glare but also contribute to cooling the indoor spaces, ensuring a comfortable and pleasant environment. Concrete, timber and glass, feature as the predominant construction materials of the Great Hall.

USAGE AND CONSERVATION

Since its completion in 1967 (Lartey & Marful, 2021), the Great Hall was the only auditorium in the university and catered to a wide range of events and gatherings, including examinations. In 1999, the ceiling and roof slab collapsed during one of the sessions where the Hall was being used as an examination venue (KNUST Development Office, personal communication, September 17, 2022). There was thankfully no casualty, but warranted an immediate closure of the Hall for major renovation works which took two and a half years. The renovation was funded by the Ghana Educational Trust Fund (GETFund)[3] and reopened on 27th September, 2002. The overexertion on the Hall before its closure was apparent and the new university administration at the time was eager to find a solution to that challenge after its reopening. A policy was set in motion to have all the six colleges[4] of the university have their own multipurpose auditoriums. The resulting success of this policy meant that the Great Hall was no longer overexerted and was reserved for only special functions while ordinary events could be held in the other multipurpose halls. General public opinion considered this as a threat to the Great Hall and argued that a lot of the traffic that kept the hall 'relevant' had been taken away from it. Conversely, controlling the frequency of usage of the Great Hall is good for its conservation as a cultural heritage (Clemente, 2018). This is an age-old method of keeping the relevance and longevity

11 South-east perspective view of the Great Hall. © Jonathan Kplorla Agbeh, 2022.

of buildings (Zavadskas et. al 1998). The Old Parliament House of Australia in Canberra and Bonython Hall at the University of Adelaide are a few examples of numerous buildings that have utilized controlled usage to enhance their values as sacred and cultural heritages.

MURAL PAINTINGS

The mural paintings on the walls of the Great Hall of KNUST were retouched between 2005 and 2006 (Annum, 2012). Adjei & Oppong (2017) observe that some quarters believe the addition of paintings to the Great Hall do not fit the modernist philosophy of architecture and rather adulterate the design's originality. They cite the theory of 'ornament and crime' where Loos (1998), in his thesis postulates that ornamentation has no place in modernist architecture. On the contrary, the colour-rich and precisely-outlined mural paintings have proven to be a unique means of conserving the heritage status of the Great Hall. This alludes to Conway & Roenisch's assertion that architectural styles could be personalized through the use of different materials or contexts to capture the essence of time to a particular setting or locality (Adjei & Oppong, 2017; Conway & Roenisch, 2005).

The Great Hall's mural paintings depict a range of themes, such as Ghanaian culture, education, and one of the nation's totems, the black star. [FIGURE 13], for example, shows traditional authority, religion, female industry and democracy. These representations have been observed to evoke a sense of pride and ownership, fostering a stronger connection to the Great Hall as a symbol of cultural heritage. In ancient times, buildings that housed frescoes received special care as they served as a means of memorializing important events and literature (Annum, 2012; Fleming, 1970). Similarly, the murals adorning the Great Hall play a comparable role and consequently inspiring a sense of responsibility and dedication to the conservation and maintenance of the building.

Furthermore, the mural paintings contribute to the physical conservation of the Great Hall by shielding the underlying surfaces from scuffs, scratches, and physical impacts as well as reducing the need for frequent upkeep and repainting. It takes an average of five years for a typical paint job to start showing signs of fade but the murals on the walls of the Great Hall were last retouched seventeen years ago and still look bright and vibrant (Annum, 2012).

ART INSTALLATION

In 2018, a renowned Ghanaian artist known as Ibrahim Mahama was invited by the university to adorn the Great Hall with a unique art installation. Using layers of jute sacks, the artist transformed the building's appearance and prompted contemplation on themes of labor, identity, and materiality [FIGURE 14].

The Great Hall, which served as the infrastructural base for the installation, was transformed into an exhibition space that staged alternative narratives and inspired reflections on socio-political and cultural ideologies. During an interview by Louisiana Channel (2021), the

12 Entrance foyer of the Great Hall showing busts of previous chancellors and an iconic staircase adorned with a mural painting. © Timothy Latim, 2022.

13 Mural painting depicting unique Ghanaian culture; traditional authority religion and industrious indigenous women. © Jonathan Kplorla Agbeh, 2023.

14 Jute sack art installation using the Great Hall as infrastructural base. © Ibrahim Mahama, 2018.

artist said "there is a relationship between the material and the building being covered. Covering the building is a way of highlighting the building. When the cover is taken off, you look at it very differently". The artist chooses specific buildings or sites based on their form and monumentality. His art installations stir up a discourse of longevity, transformation and evolution of monumental buildings with socio-political footprint, just like the Great Hall. Furthermore, the majority of the labor force used for the installation were volunteers from the university community. For them, it presented the opportunity to be a part of the Great Hall's heritage, amidst a renewed feeling of affinity towards the building (Najafi & Shariff, 2011).

The Great Hall has become more than just a physical building; it transcends a living representation of the university's essence and aspiration as it also reflects the nation's identity and values. These interventions act as symbols that represent the shared experiences, struggles, and successes of the Ghanaian people, reinforcing the sense of belonging and care for the place where these representations reside.

CONCLUSIONS

The two case studies witness the difficulty of conservation in the African context are clearly highlighted. A few key themes including the availability of funding, the approach to conservation processes; and the need for public engagement and appreciation of the building and its conserved function are highlighted in these case studies.

In the case of the Rukurato Hall, the function of the hall has become superseded as that assemblies for historic Kingdoms such as Banyoro no longer take place, and the building lay redundant for years. Although it has now been reinstated as an assembly building local public involvement with the building is limited. It remains in poor condition. There is no clear information about when its future renovation will take place despite the funding recently being secured for the repair and conservation of the building.

In the case of the Great Hall KNUST Ghana, funding through the government "GET" fund was soon secured for the making it structurally sound and secure subsequent conservation. Also organizational measures were put in place before the completion of the Hall conservation. This included the creation of several autonomous faculty hall facilities, and on completion restricting (controlling) the numbers using the hall. This in effect has meant that the Hall has had less central focus and use than it had in the past. A series of actions have since ensued to raise the profile of the hall, for example the use of the hall for artworks and temporary installations. Whilst the non-permanent nature of installations being staged does no long-term difference to the Hall, the creation of permanent artworks does challenge the success of the conservation process as recreating the authenticity of the Hall's original interior. However, as noted this did cover up unsightly (authentic) parts of the original building. Does this then constitute a transgression of the original conservation objective?

This paper has thus presented two very different case studies showing how architectural conservation in Africa can have varying forms of success. With the key issues of cost and future function, material and aesthetic qualities and local-social engagement being critical drivers to success, each Hall conservation study telling its own original story. With the original architects being of much less importance (and in the Uganda case being unrecorded and unknown) to this process than would be the case in the Western conservation context. This difference is to be

noted and supports the need for a different, but equally critically challenging and rigorous approach to modern building conservation in Africa and elsewhere in the Global South (MacDonald, 1996).

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ENDNOTES

1 The Asantehene is the traditional ruler of the Ashanti people of Ghana. He wields the highest authority in the land. Osei Tutu Agyeman Prempeh II was Asantehene between 1931 and 1970.

2 Kente is a type of silk and cotton fabric made of interwoven cloth strips and is native to the Akan and Ewe tribes in Ghana.

3 The Ghana Education Trust Fund (GETFund) is a public trust set up by an Act of Parliament in the year 2000 to fund and maintain academic facilities and infrastructure in Ghana.

4 The six colleges that make up the Kwame Nkrumah University of Science and Technology are; Agriculture and Natural Resources, Arts and Built Environment, Humanities and Social Sciences, Engineering, Science and Health Sciences and the School of Graduate Studies.

INTERNATIONAL CONFERENCE CENTRE AND NILE HOTEL

A faint memory of past geopolitical alliances and ideals in Kampala, Uganda

Milena Ivković, Frank van der Hoeven

ABSTRACT: The International Conference Centre and the adjacent Nile Hotel in Kampala were built in 1971-73 to facilitate the 12th Heads of State Summit conference of the Organisation of African Unity (OAU) by architects from one of the founding countries of the Non-Aligned Movement: Tito's Yugoslavia. Being too young to be considered historic, both buildings appear out of place and out of time, undervalued and overlooked in a city without a registry and planning control. While the conference center is in a well-maintained and original condition, the hotel's renovation has transformed it beyond recognition. Their historical significance, particularly of the conference center, would hold value in any other context. However, in Uganda, it seems to bear no weight beyond the faint memory of past geopolitical alliances and ideals. The fact that the facility is disregarded as the venue for the upcoming Non-Aligned Movement summit reinforces this perception. This article describes these intricacies because they are rarely documented elsewhere. Consequently, it is a part of the Shared Heritage Africa project, aimed at rediscovering masterpieces of the Modern Movement.

KEYWORDS: International Conference Centre, Kampala, Organization of African Unity (OAU), Non-Aligned Movement, Energoprojekt

01 Interior International Conference Centre. © Cletus Lwalijja, n.d.

INTRODUCTION: Kampala, the capital of Uganda, has transitioned from colonial rule to independence, civil unrest, and now relative calm. Historic buildings have survived from various periods but often lack proper maintenance and are at risk of demolition or redevelopment. In a city without an official heritage register and planning control, initiatives to protect historic buildings and sites do exist. However, these initiatives currently only extend to the 1960s. For instance, as part of the 2019 African World Heritage Day, the Cross-Cultural Foundation of Uganda launched an app and a photo book in partnership with the European Union (Cross-Cultural Foundation of Uganda 2019). The app and photo book lists a wide range of architectural styles from periods up to the year 1969, after which it abruptly stops. The absence of buildings built after 1970 may be attributed to a common practice of not considering buildings younger than half a century for protected status. In Uganda, this coincides with the beginning of the regime of Idi Amin in 1971 and a prolonged civil war in the country. Thus, there are numerous reasons these buildings are not considered for protection, which presents a challenge for protecting Modern Movement buildings in Uganda that were constructed from 1970 onwards.

This article is written in the context of the Shared Heritage Africa (SHA) project, which "aims to provide an African perspective on the documentary rediscovery of modern university campuses and other significant buildings in West and East Africa" (Architectuul, 2022). It focuses on the Uganda International Conference Centre (built in 1971, [FIGURE 01]) and Nile Hotel (built in 1972-1973) in Kampala—today known as Serena International Conference Centre and Serena Hotel.

A TURBULENT CAPITAL

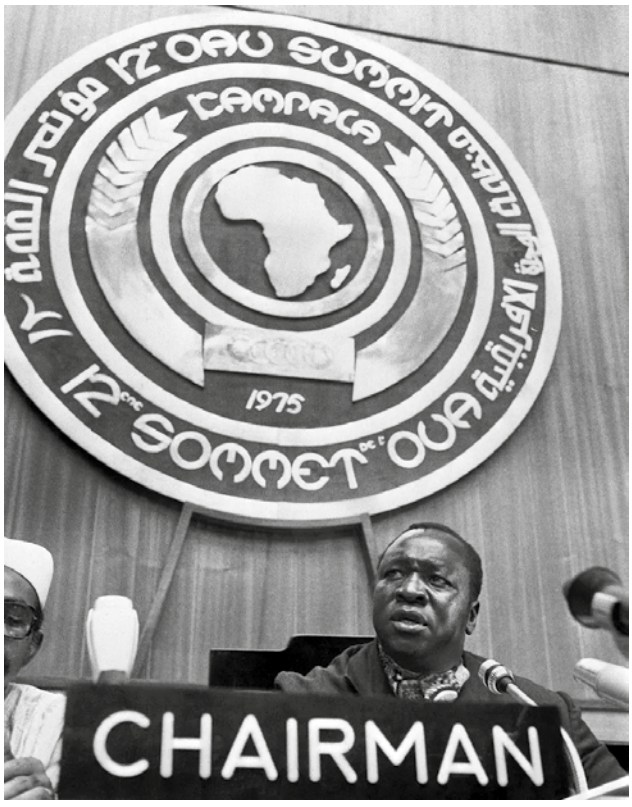
The conference center was commissioned by President Milton Obote in 1970 to host the 8th Organization of African Unity (OAU) Summit that was scheduled for June 1971. It was built by the Yugoslav engineering firm Energoprojekt during the heydays of the Non-Aligned Movement. Since then, the OAU has transformed into the African Union (AU), and Yugoslavia has disintegrated. The Non-Aligned Movement lost much of its influence after the end of the Cold War and the disintegration of its founding member Yugoslavia.

The Nile Hotel and Conference Centre buildings are unique due to their political dimensions, which make them simultaneously exceptional and vulnerable. This article does not offer an assessment of the heritage values of the buildings, nor does it provide an architectural review. Instead, it emphasizes the complexity of their historical significance. As both buildings have lost their cultural and political frameworks, they face a lack of interest and documentation that renders them vulnerable, which becomes evident in the radical transformation of the Nile Hotel building.

A POLITICAL BUILDING

The conference center should primarily be understood as a political structure. If Uganda had not hosted the summit of the Organization of African Unity (OAU), this building would not have been constructed. The OAU, established in 1961, aimed for the political and economic integration of the African continent, aiming to end (neo)colonialism. President Obote of Uganda had requested to host the 8th Heads of State Summit of the OAU in Kampala in 1971. However, shortly after his request, Obote was ousted from power in 1971 through a coup d'état staged by Idi Amin. The scheduled OAU Summit was hastily relocated to Addis Ababa. It was much later, in 1975, that the OAU agreed to host the 12th OAU Summit in Kampala. In that same year, Nigerian President General Yakubu Gowon handed over his responsibilities in the organization to Idi Amin as the outgoing chairman of the OAU (Lubega, 2021)

The OAU Heads of State Summit in Kampala, Uganda, held from July 28 to August 1, 1975, was a significant event (The National Archives, 2009, [FIGURE 02]). Prominent figures such as Yasser Arafat, Muammar Gaddafi, Muḥammad Anwar Sādāt, and Yakubu Gowon attended the conference. Drama ensued during the summit, with Yakubu Gowon overthrown by a coup d'état back in Nigeria (Reuters, 1975). At the summit's conclusion, the Ugandan Army held a mock air and sea assault on an



02 Amin as Chairman of the OAU. © BBC News, 2015.

03 International Conference Centre. 1970s. © History in Progress Uganda, n.d.

04 International Conference Centre next to Nile Hotel, now Serena Hotel. 1970s. © History in Progress Uganda, n.d.

05 FINDECO House in Lusaka, Zambia. © Niebyl, 2022.

island in Lake Victoria, simulating a battle to conquer Cape Town, South Africa.

An impressive collection of press photos, videos, and even a postage stamp still document the events surrounding the OAU Summit, with the Hotel and Conference Centre as the backdrop.

A NON-ALIGNED CONTEXT

The hotel and conference center were designed and constructed by Energoprojekt, an engineering and construction firm from Belgrade, Yugoslavia [FIGURE 03, FIGURE 04]. During the 1970s, Energoprojekt was one of the top ten construction companies in the world (Energoprojekt, 2011 and 2021). Yugoslavia's prominent role in the Non-Aligned Movement is said to have significantly contributed to Energoprojekt's success and its international portfolio (Sekulić et al., 2013).

The Non-Aligned Movement was established in 1961 in Belgrade by Josip Tito (Yugoslavia), Jawaharlal Nehru (India), Kwame Nkrumah (Ghana), Sukarno (Indonesia), and Gamal Nasser (Egypt) (Miskovic, Fischer-Tiné, and Boskovska, 2014). As a founding member of the Non-Aligned Movement, Yugoslavia chose an independent course distinct from both the West and the East. It engaged in relationships with the Global South that critics often overlook in the contemporary discourse on (de)colonialism. Other North-South exchanges existed alongside those influenced by British-French late-colonialism or American imperialism (Van der Hoeven and Ivković, 2021).

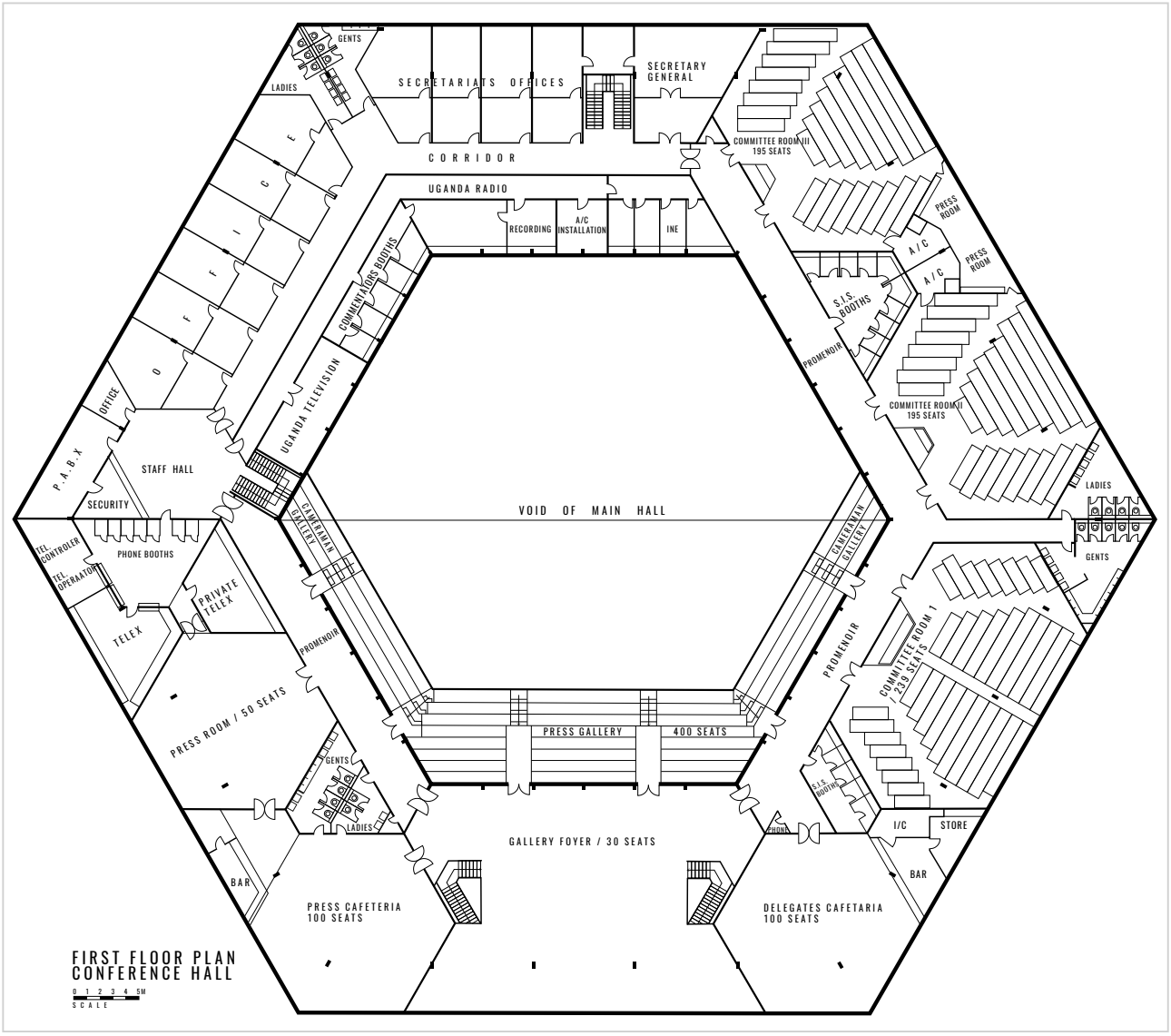
Yugoslav architects and engineers benefited from the unique non-aligned position of their country. Their work reflects influences from the capitalist West, the communist East, and their experiences in Africa and the Middle East: countries such as Ethiopia, Gabon, Ghana, Iraq, Kuwait, Nigeria, Uganda, Zambia, and Zimbabwe (Niebyl, 2022). Experts point to the high quality and diversity of architectural production in former Yugoslavia, resulting from a practice of organizing design competitions. Unfortunately, all of this was lost due to the disintegration of Yugoslavia and the brutal civil wars that followed in the 1990s.

SPARSELY DOCUMENTED

Perhaps it is no wonder that fifty years later, it is not that easy to pinpoint precisely when both buildings were completed. Some sources claim the International Conference Centre was 'unveiled' in 1975 (Niebyl, 2022). Others refer to 1971 as the completion date of both buildings (Energoprojekt, 2021). More detailed references include a construction timeline: 1970-1971 for the conference center and 1972-1973 for the hotel (Sekulić et al., 2013).

In a similar fashion, it is not easy to pinpoint who the actual architects were. While both buildings were built by the same engineering firm and for the same OAU summit, they do not constitute an ensemble. A small booklet published by the Museum of Contemporary Art in Belgrade (Sekulić et al., 2013) reveals that the conference center in Kampala was the work of Dušan Milenković, who, during the same period, designed the FINDECO House in Lusaka, Zambia, in collaboration with Branimir Ganović. [FIGURE 05]

The conference center is a large, elevated, hexagonal structure [FIGURE 06]. As such, it bears a strong resemblance with the Palais de Conferences by Energoprojekt in Libreville, Gabon, completed in 1977 (and demolished in 2014), which hosted the 14th OAU Summit Conference.



06 International Conference Centre, floorplan first floor, redrawn by author based on original scan. © Government of Uganda, 1971.

The conference center in Kampala has a floor space of 13,000 m² and was built in 181 days (Wakabi, 2021) between November 1970 and May 1971. Its façade is adorned with decorative aluminum panels to shield against the sun while enhancing the building's aesthetics. [FIGURE 07, FIGURE 07]

The Nile Hotel, with its 140 rooms, was built to accommodate the heads of state [FIGURE 09, FIGURE 10]. It was linked to the conference center by a covered walkway. The hotel was designed by Aleksandar Keković, who also designed the passenger terminal at Entebbe Airport and later became the Dean of the Faculty of Architecture in Belgrade (Architectuul, n.d.).

07 International Conference Centre, today Serena International Conference Centre. © Author, 2023.

08 Today's Serena International Conference Centre, façade. © Author, 2023.

09 Nile Hotel before renovation. © Nile Hotel International Ltd, n.d.

10 Stamp showing the International Conference Centre and Nile Hotel. © British East Africa, 1975.

UNDERVALUED AND OVERLOOKED

Currently, both buildings have been rebranded under the name Serena Hotel and Conference Centre. The conference center appears to be well-maintained and largely in its original state, while the hotel underwent an extensive makeover. It reopened in July 2006 after 18 months of refurbishments and renovations, being "inspirationally styled as a showcase for Ugandan art" according to Serena. All modernist features are now concealed under decorative façade elements. [FIGURE 11]

Both buildings seem orphaned. The OAU is transformed, Yugoslavia has disintegrated, and even the Non-Aligned Movement is no longer what it once was. Initially founded in Yugoslavia's capital, Belgrade, the only remaining European member is Belarus. In 2024, it will be Uganda's turn to host the 19th Non-Aligned Movement (NAM) Heads of State and Government Summit. The old conference center could have been a symbolic place to host such an event, designed as a summit of heads of state of an international organization by architects from one of the founders of the Non-Aligned Movement. However, the purpose of hosting the summit is no longer focused on anti-colonialism or the balance between East and West. President Yoweri Museveni has made it clear that the summit is an opportunity to market Uganda and boost tourism. As such, the conference will be hosted at the Munyonyo Commonwealth Resort and Conference Center, 13 kilometers to the south of Kampala, on the shores of Lake Victoria.

CONCLUSION

The complex political history of the International Conference Centre and Nile Hotel would add additional layers of significance to any other cultural environment that values heritage buildings. In the context of Kampala, however, it seems that this history has put both buildings at risk. The hotel has been recognized mainly for its residual redevelopment potential and has been refurbished beyond recognition. The conference center is no longer considered to be the place to host summits of heads of state. Both buildings are considered too young to be deemed historic. The organizations that could have acted as patrons for their protection and renovation (OAU and Yugoslavia) no longer exist. As a result, these built artifacts from a time of different geopolitical alliances might simply disappear, much like the OAU hexagon conference center in Gabon, also designed by Energoprojekt. [FIGURE 12]

Name: Serena International Conference Centre and Serena Hotel (actual name)

Location: Kampala, Uganda

Architect(s): built by Yugoslav architects of the Energoprojekt engineering/construction firm: Dušan Milenković (International Conference Center) and Aleksandar Keković (Nile Hotel)

Year completed: 1971-73

Coordinates: 0°19'03.4"N 32°35'11.2"E

11 Today's Serena Hotel after renovation. © Tripadvisor, n.d.

12 a, b: Palais de Conferences by Energoprojekt in Libreville, Gabon (super resolution and rectifying by author). © unknown, n.d.

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CONNECTING THE DOTS

A global exploration of local Docomomo inventories

Meriç Altintaş Kaptan, Aslihan Ünlü, Uta Pottgiesser

ABSTRACT: The Modern Movement encompasses a diverse collection of both iconic and ordinary treasures of architecture worldwide, among which some are safeguarded with respect to their values, while others were demolished, have undergone alterations, neglect, or lack of maintenance and preservation over time. Docomomo has been playing a pivotal role in documenting and safeguarding significant architectural works of the 20th century. Its National and Regional Working Parties (WPs), spread across the globe, have diligently compiled archives of photographs, drawings, historical records, and research materials related to Modern Movement architecture, town planning and landscape design. However, the decentralized nature of these archives poses challenges in terms of accessibility, coordination, and attaining a more comprehensive record of the Modern Movement with a global perspective. Therefore, this study undertakes the explorative task of compiling data from these separate online-available archives of the WPs to attain a broader overview of the documented objects of Modern Movement architecture on a global-scale. The collected data is analyzed to identify patterns, trends, and influential architects and to elaborate on the potential factors contributing to the current status. The study involves analysis of the predominant format of building use/function among documented architectural works, examination of the geographical and chronological coverage of available lists, and the distribution of intervention status within the inventory. These aspects provide valuable insights into the functional diversity, geographic spread, and preservation status of architectural works documented in the dispersed archives. This study also facilitates comparative studies between different regions and countries, shedding light on the shared characteristics and unique contributions of the Modern Movement across diverse cultural contexts. The results help identify trends, gaps, and areas of focus for future research and documentation efforts, ensuring the holistic appreciation of architectural works, and contributing to the scholarly understanding and preservation of this modern heritage.

KEYWORDS: built heritage, Docomomo, documentation, modern architecture, systematic review

INTRODUCTION: This paper is a systematic mapping review and exploration of the local archives, documenting the Modern Movement (MoMo), by Docomomo.[1] The study exclusively concentrates on the publicly available online catalogs and records, published by various Docomomo National or Regional Working Parties (WPs). The primary goal is to present and describe the current state of the global-scale online availability of documentation of MoMo architecture, and to provide a comprehensive overview of the reviewed inventories that are dispersed across slightly varied formats. Acknowledging the substantial efforts of Docomomo International, its International Specialist Committee on Registers (ISC/Registers), and WPs, this overview aspires to compile and derive meaningful insights from the information presented online, recognizing the dynamic nature of the inventories within the Docomomo network. Despite the extensive datasets readily accessible in the digital realm and ongoing digitalization efforts, these inventories continually evolve, undergoing regular updates and refinements. Additionally, it is essential to note the presence of numerous Docomomo documentation fiches. Although not yet completely digitally accessible, they form a vital part of the archival material.

The main research objectives are to identify the predominant format of building use and function among documented projects, the geographical and chronological coverage of available register lists, and the distribution of intervention status within the registers' inventory.[2] The

systematic collection and review of buildings, sites, and neighborhoods on Docomomo's records leads to a compilation of a global-scale building inventory, enabling the identification of common and dominant traits of MoMo architecture, based on Docomomo experts' selection.[3] The results primarily serve to designate data availability, distribution, and research needs by particular attributes. This will offer guidance in establishing a documentation and data acquisition framework, to address content gaps in the building inventory and complement incomplete data, emphasizing the geographical locations or chronological periods requiring further investigation, documentation, and support. The findings aim to contribute to the field in identifying MoMo architecture prevalence based on specific function clusters, their geographical and chronological distribution, and where to access them.

DOCOMOMO DOCUMENTATION EFFORTS AND ONLINE INVENTORIES

Docomomo is an international non-profit organization dedicated to advance the documentation, and conservation of buildings, sites, and neighborhoods of the Modern Movement (Henket & de Jonge, 1989). In 2023, operating through 79 National or Regional Working Parties (WPs), Docomomo International has a network of academics and practitioner members across Europe, the Americas, Asia, Oceania, and Africa.[4] Within the confines of preserving the legacy of the Modern Movement, the WPs are accountable for local activities and respective lists. Given its worldwide inclusiveness and diverse network, Docomomo embodies a vast body of knowledge on modern architectural heritage through a variety of cultures and experiences.

One of Docomomo's key activities is contributing to an international register of important Modern Movement buildings to be preserved and/or documented.[5] WPs collaborate to identify significant modern buildings, document their architectural and historical relevance, potential interventions, and develop strategies for their preservation. Although not aiming for full coverage, these documentations provide valuable background information on noteworthy MoMo landmarks in various countries, contributing to a comprehensive record of the Modern Movement's achievements and informed decision-making on preservation and conservation.

Despite notable endeavors in archive and inventory building, such as Architectuul,[6] SCI-Arc Media Archive,[7] and particular online archives dedicated to renowned architects,[8] a comprehensive international inventory or framework for analyzing the recent past remains challenging. Over the past years, each WP has been contributing to an international register, based on the documentation forms called 'fiches', focusing on the modern legacy deemed most significant in terms of functional, technological and/or social innovation (Bronson & Jester, 1997). The fiches catalog notable buildings, structures, and urban areas, providing comprehensive information about their architectural features, historical context, and significance.[9] Two distinct types of fiches are the "Minimum Documentation Fiche" and "Maximum" or "Full Documentation Fiche", both containing similar sections with the latter offering more comprehensive details.[10] In addition to the regularized 'fiches' format, provided for worldwide data collection and publication, WPs are presenting their local selections differently in the digital world, influenced by their specific organizational setups, opportunities, circumstances, and perhaps, the nature and extent of information obtained.[11] Consequently, the Docomomo repository consists of diverse inventories, varying in levels of detail, display, and consistency, spread across individual national archives worldwide. These inventories undergo continuous updates, editing, and improvement, constituting an ever-evolving process. It is crucial to highlight the numerous fiches that have not yet been made available online.

The decentralized nature of the Docomomo archives is grounded in practical and organizational reasons, reflecting the autonomy of WPs, local focus, and contextual differences. This approach allows for nuanced and region-specific documentation of MoMo heritage, while collectively contributing to a comprehensive understanding of the era. The unique "fiches" and other WP archives and inventories have not yet been integrated into a single centralized repository, although the Docomomo Virtual Exhibition (MoMoVe) can be seen as an important step in that direction.[12] Consolidating this valuable knowledge and documentation into a unified archive could enhance data accessibility, ensure consistent documentation, and provide a cohesive presentation. Therefore, this study collects and integrates the dispersed inventories of the WPs to portray the global situation of MoMo heritage. Additionally, it seeks to acknowledge, praise, and further advocate for these commendable efforts.

PURPOSE AND APPROACH

This paper aims to provide a comprehensive global overview of Docomomo's organized efforts in documenting MoMo architecture. The exploration and data compilation relied primarily on the respective expert selection and building inventories curated by Docomomo WPs, which are available online. Employing a systematic mapping review approach, the study examines, delineates, and categorizes available evidence and potential evidence gaps within the inventories accessible on the web. The

research's key output, a global-scale record of individual WP inventories, serves as a foundational resource for identifying common and dominant traits of MoMo architecture, and conducting comparative analyses. In addition to the reviewed inventories, which are presented either in the standardized format of "Documentation Fiche" or other formats of cataloging and recording, visual representations such as photographs and drawings of the pertinent buildings and sites, were also taken into account throughout the review process.

The main stages of the research, targeted to achieve the stated objective, were (i) identifying data sources and data collection; (ii) data preparation and categorical organization; and (iii) data analysis and evaluation, all of which will be described briefly in the following sections.

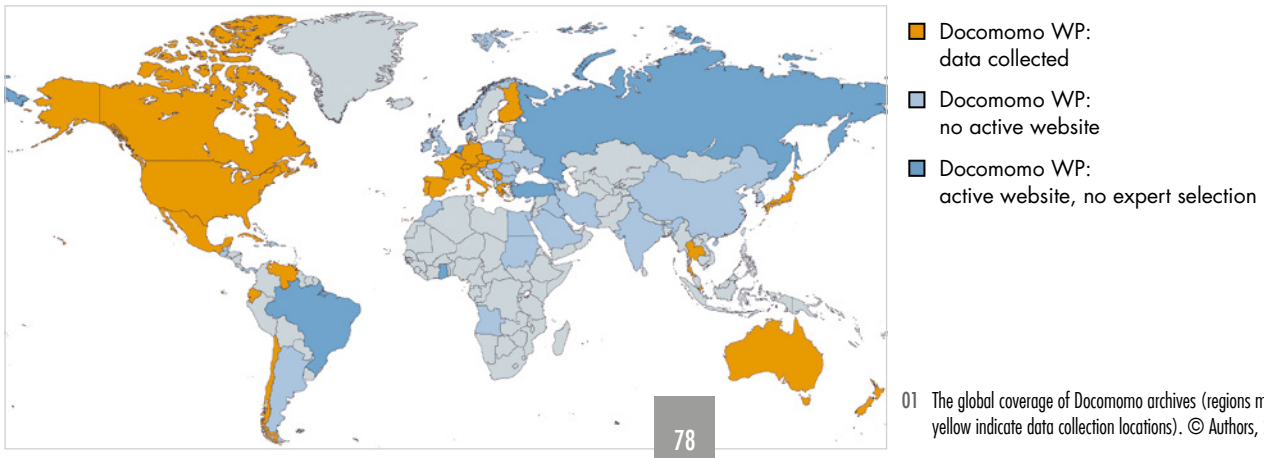
DATA COLLECTION

The data collection process was conducted from June 2021 to September 2022. Thereby any updates after this time frame were not included in this dataset and analysis.[13] Notably, this exclusion indicates that the outstanding and extensive documentation of Docomomo Iberico with 2,442 objects was not included in this inventory. Furthermore, the inventory compiled by Docomomo Turkey, comprising more than 2000 buildings, was omitted from the scope of this study due to its display in poster presentation and summary booklet format on the website. The data collection approach followed was three-fold; firstly, the review and compilation of Docomomo WPs and their digital contact details from the Docomomo International website; secondly, browsing through the WPs' official websites and social media pages to confirm and locate digital data availability; and thirdly, collecting the generic information on buildings and sites (i.e., identification, location, use, status, and further details) using the respective expert selections and building inventories. Throughout the data collection process, no distinction or exclusion was applied between 'minimum' and 'full' documentation fiches; all accessible forms of documentation were incorporated.[14] However, the numerous fiches that have not yet been made accessible online were omitted. Figure 1 visually represents the global coverage of Docomomo by highlighting its members and showcasing the WPs from which the data was collected. Accordingly, all of the 79 WPs' websites were visited and no expert selection was found for 51 of them. Thus far, 2,540 examples were collected from 43 active websites of WPs [FIGURE 01].

DATA ORGANIZATION

Based on the content and quality of data compiled, the dataset was systematically categorized according to four types of attributes identified: Geographical attributes (AG); Chronological attributes (AC); Building use/Function-related attributes (AF); The status of intervention (AI).

- **Geographical attributes (AG):** A region-specific and geography-based approach has been used in the primary organization of data groupings. The regional classification system of United Nations (UN) geoscheme was used, in which countries are divided into five regional categories namely, Africa, Asia, Europe, America (North America & South/Latin America), and Oceania.[15] Turkey is planned to be kept as a separate category among others.[16] Based on the content and attributes of the collected data locations, the geographical attributes were organized into separate input sets of region, country, address, and coordinates.
- **Chronological attributes (AC):** Chronological dating is used for the purpose of obtaining information about the average and age distribution of the registered buildings, and the classification process was carried out with some rounding errors, taking into account the size of the dataset. Ideally, the collected data included information on the year for design commission, construction, and interventions (additions and extensions, if any). However, not all of those dates were available for all buildings. In some cases, a date range was provided for the design and/or construction phases whereas in some cases, only a year was given either for the design or construction of the relevant building. For this reason, all these varying data were collected and saved aside, and a new input set was generated based on them which presented only the initial date relating to each building entry. By this means, every building entry has only one date that could be used over a timeline and other chronological analysis.



01 The global coverage of Docomomo archives (regions marked yellow indicate data collection locations). © Authors, 2023.

- **Building use/Function-related attributes (AF):** One specific focus of this study is to identify the intensity and distribution analysis of the original use of the collected buildings and sites. For this purpose, the WPs own coding was utilized primarily, when collecting data on cases from their website. However, it was observed that there were slight variations in building classification codings among different working groups. In response, supplementary sources such as the ICOMOS 20th Century Thematic Framework (Marsden and Spearritt, 2021), which defines its own categories, were reviewed—but their thematic approach was found unsuitable for this study. Therefore, Docomomo's building classification guide list (2003) was adopted as the foundational reference, and a new two-level classification systematic was devised to ensure consistency and accuracy in the analysis [TABLE 1].[17] The proposed grouping includes nine macro-categories and sixteen sub-categories of building use.
- **The status of intervention (AI):** The information regarding the intervention status of the collected buildings and sites was not readily available in all Docomomo records.[18] Therefore, the status of intervention was designated by the author based on the available information on the condition of the buildings and sites, including any alterations made since the construction (if applicable). In instances where no pertinent information regarding the significant alterations was obtained from the official website or documentation 'fiches', the intervention status of the relevant building was recorded as "n/a (not available)".

DEFINING THE CRITERIA FOR ANALYSIS

The analyses performed in this study aims to identify focus areas across a global-scale building inventory, to understand the characteristics of the available dataset to derive meaningful insights, and to find patterns across qualitative data. As the dataset is determined by textual information, frequency, dispersion and variation of pre-defined attributes were investigated based on data groupings and attribute categorization using contextual keywords.

Based on the embedded information and content availability of the collected data, certain properties and attributes surfaced that characterize the dataset and were

Table 1 Proposed groupings of building use.

CATEGORY	SUB-CATEGORY	BUILDING EXAMPLES
assembly & leisure (ALE)	recreation (REC)	Cinemas, concert halls, museums, art galleries, pavilions, club houses, private halls, clubs, public parks, gardens, sports centers, gymnasia, stadia, sports grounds, movie and opera houses, theaters, drive-in theaters …
institutional (INS)	administration (ADM)	Parliamentary, government, civic and public buildings, professional institutions …
	commercial (COM)	Banks, markets, offices, public houses, restaurants, cafés, retailing, service premises, storage buildings …
	defense (DEF)	Fortifications, military installations …
	education (EDC)	Libraries, archives, record offices, research establishments, schools, universities and colleges …
	health (HLT)	Hospitals, surgeries, nurseries, health centers …
	law (LAW)	Law courts, penal institutions, police buildings …
	religion (REL)	Cathedrals, chapels, churches, mosques, synagogues, temples and other places of worship, church halls, meeting houses, religious centers, seminaries, presbyteries, manses, monasteries, convents, religious houses, shrines, places of pilgrimage …
public services (PBS)	infrastructure (INF)	Cleansing services, district heating, electricity supply, fire, ambulance services, gas supply, hydraulic power supply, sanitary provision, water supply, drainage, sewage disposal
	transport & communications buildings (TRC-b)	TV and radio broadcasting stations, networks, and facilities; telecommunications and postal facilities; stations and terminal facilities, public transport interchanges and urban mass transit stations …
	transport & communications environs (TRC-e)	Roads, freeways, and motorways; paths (including pedestrian, bicycle access); bus and coach services/networks; bridges, canals; civil aviation; railways; shipping and port facilities; broadcasting and telecommunications networks
production (PRO)	farming, fishing (FAF)	Farming, fishing, fish farming, forestry, horticulture …
	industrial (IND)	Building industries, ceramics, chemicals, engineering, extractive industries, food and drink processing, marine construction, metal industries, textiles, wood-working industries …
residential (RES)	Architect-designed houses (RES-a); group of buildings, complex (RES-c); experimental (RES-e); hotels (RES-h); single-family housing (RES-s); apartment block/multi-family housing (RES-m); student accommodation (RES-s)	
urban elements (URE)	funerary (FNR)	Cemeteries, graveyards, crematoria, funerary monuments, mausolea
	landscape (LND)	Agricultural settlement, botanic gardens, arboretums, forestry, land reclamation, national and regional parks
	monument (MON)	Public, commemorative monuments, sculpture (free-standing)
unclassified (UNC)	-	
urbanism (URB)	no sub-categories	New towns and villages, town extensions, urban development, reconstruction
mixed use	administration (ADM) & law (LAW); residential (RES) & commercial (COM); commercial (COM) & education (EDU); residential, event hall, cafe, and discotheque; war memorial and civic hall …	

later used for defining analysis criteria. Among those were primarily the information on building use, location, and year of design/construction. The status of intervention was additionally generated by the authors, as it was considered essential to this research.

This study entails a two-level analysis approach to derive meaningful and to-the-purpose outcomes. The initial stage encompasses a preliminary/exploratory analysis, wherein individual attributes are examined separately. Subsequently, in the second stage, a cross-cluster examination is conducted to analyze all attributes collectively, aiming to identify and comprehend their interrelationships. The analyses were carried out on the categorized data according to (AG), (AC), (AF), and (AI).

RESULTS AND ANALYSIS

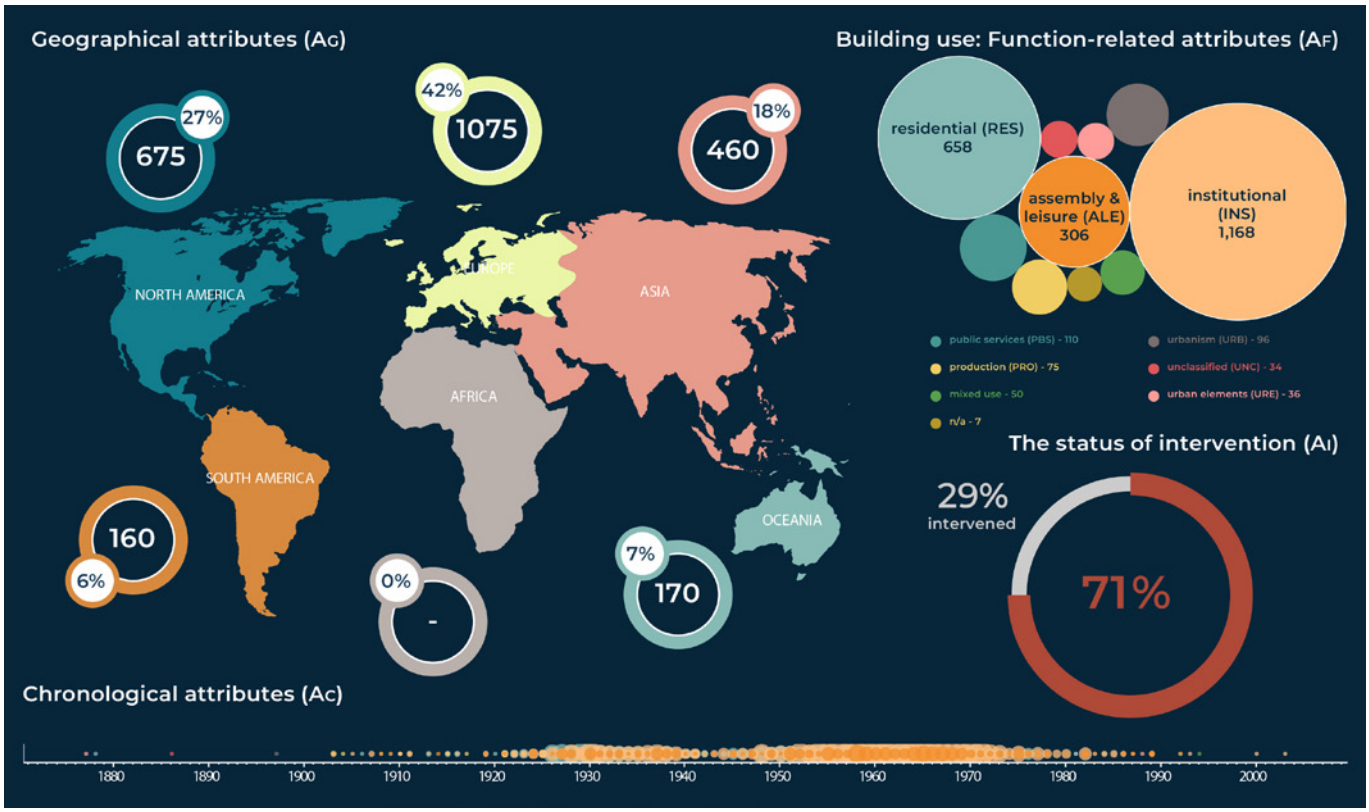
The first stage of analysis, exploratory data analysis, includes the individual examination of attributes, namely (AG), (AC), (AF), and (AI). The exploratory analysis is about performing initial investigations to explore data relationships and discover patterns among the variables that are aforementioned attributes.

The geographical attributes of the dataset indicate that the majority of collected data is from Europe (42%), North America (27%), and Asia (18%) respectively [FIGURE 02]. This information flow is followed by Oceania (7%) and South America (6%). Since there was no online inventory of buildings or data on expert selection available from working groups located in Africa, there are currently no data collected there. The chronological attributes of the dataset suggest that a considerable measure of buildings and sites collected from Docomomo national/regional building inventories were designed and constructed within the period between 1920-1980, with a notable break roughly during 1940-1950. The predominant formats of building use among collected data are observed to be 'institutional (INS)', 'residential (RES)', and 'assembly & leisure (ALE)'. Lastly, only about 29% of the entire dataset had 'intervened' information available, which corresponds to 729 of 2,540 entries.[19]

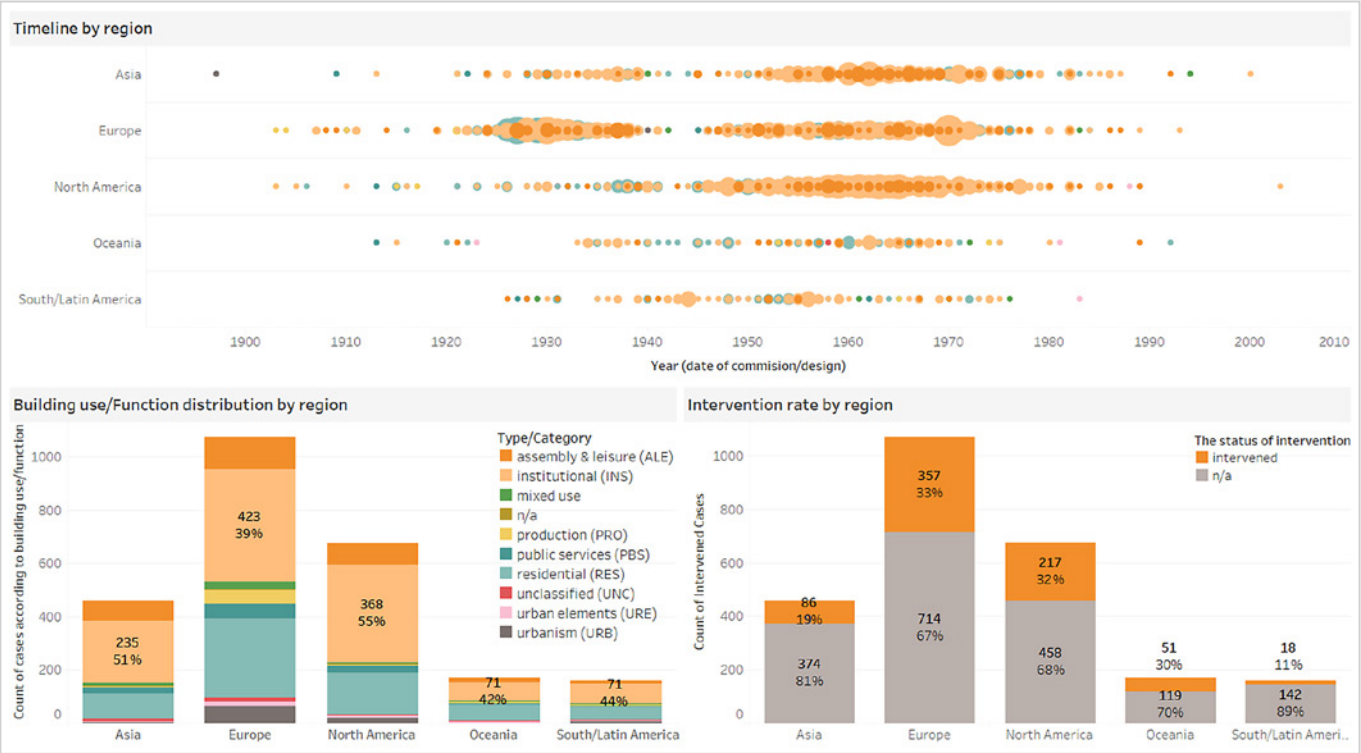
The second stage of analysis includes cross-attribute examinations of each ascribed quality in relation to others. The grounds for comparison include the previously mentioned attributes of the dataset, which are geographical, chronological, function-related and intervention status characteristics.

ANALYSIS BASED ON GEOGRAPHICAL ATTRIBUTES (AG)

The region-/country-wise examination of collected building use intends to clarify the intensity and distribution of modern buildings based on specific function clusters, for certain time periods, and by filtering intervened cases. This analysis also aims to uncover the data availability as well as lack of content (building inventory) where further investigation might be needed in the future to expand the scope and comprehensiveness of the inventories. Accordingly, (AC), (AF), and (AI) were analyzed according to the region, which is one of the (AG) of the dataset [FIGURE 03].



02 Data infographics on 'Geographical attributes (AG)', 'Chronological attributes (AC)', 'Building use: Function-related attributes (AF)', and 'The status of intervention (AI)' of the dataset. © Authors, 2023.



03 Timeline by region, building use/function distribution by region and intervention rate by region. © Authors, 2023.

First of all, the interruption in the timeline during the period of 1940-1950, which undoubtedly demonstrates the effects of World War II, is prevailing in Europe, North America, Asia, and Oceania, but with less to no impact in South/Latin America. When the frequency and distribution of building use/function clusters are analyzed across regions, (INS) buildings and sites come forth as a commonly predominant function cluster in all regions, and is followed by (RES) in all. The status of intervention, on the other hand, remained as a minority in all regions, but the region with the highest rate of intervention is documented to be North America with 32% and 217 cases.

Examining the frequency distribution of the original building use/function clusters from a slightly more detailed geographical perspective, it is determined that (INS) buildings and sites are predominating in almost all Docomomo WP inventories except for Germany, Greece, Iberico (Spain and Portugal), and Belgium where (RES) cases are overriding and for Kosovo, where the functions could not be identified due to the inaccessibility of information in all cases.

ANALYSIS BASED ON CHRONOLOGICAL ATTRIBUTES (AC)

The data on chronological dating of building inventory is used for the examination of information organized on a timeline, in order of occurrence. Thereby, the chronological order and analysis of modern building activities are provided which could be linked to the historical events calendar and used in the determination of obvious gaps in the time diary. In this regard, the timeline for different function clusters can be investigated.

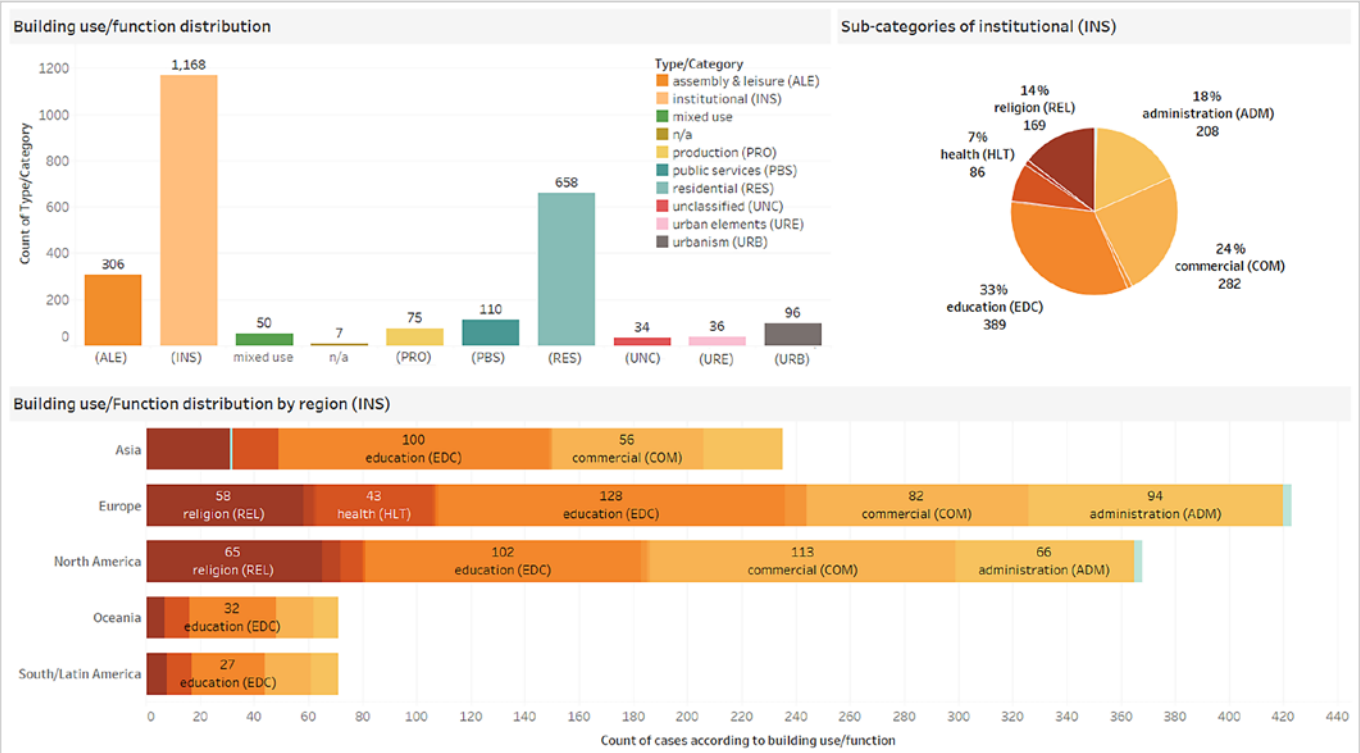
Examining the chronological dating of the data inventory according to the original building use/function clusters on a timeline, it is observed that the design and construction of certain typologies, in particular (INS), (RES), and (ALE), continued escalating in the post-war period, especially between 1950-1980. The remarkable break of the war period is evident for all function clusters however, it is not statistically easy to deduce for categories with fewer cases.

ANALYSIS BASED ON BUILDING USE: FUNCTION-RELATED ATTRIBUTES (AF)

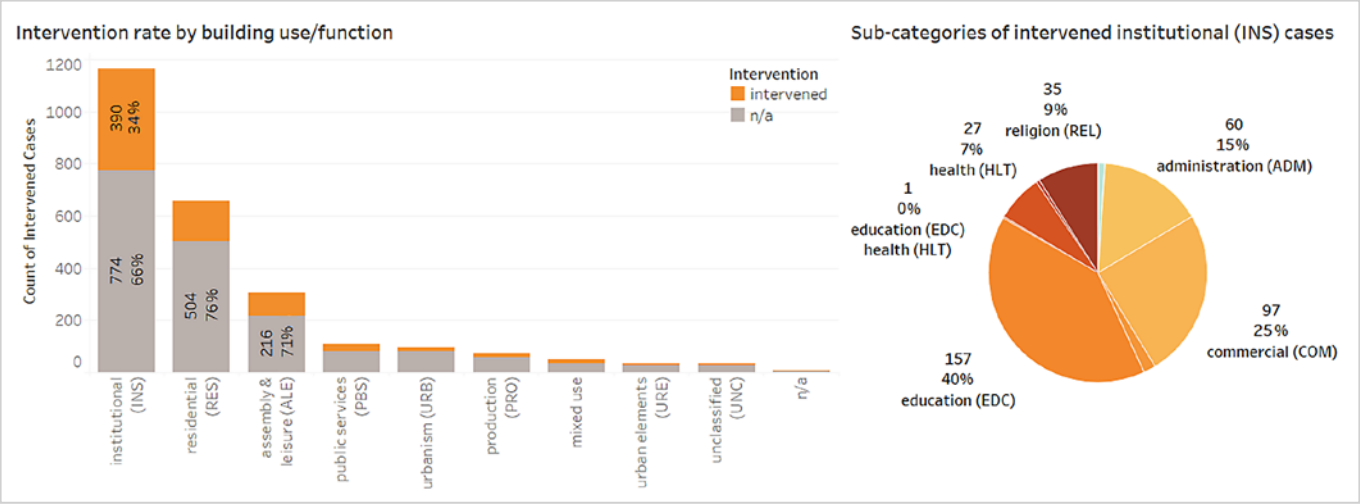
The cross-attribute analysis on selected and prominent function sets is essential to gain a deeper understanding of their breakdown, and indeed, to discover linkages with other attributes among dataset.

Exploring the leading building use/function groups across the dataset, the most data-intensive clusters observed are (INS) and (RES), respectively. The category of (INS) buildings, with 1,168 data entries, is the prevailing cluster which also involves many sub-categories [FIGURE 04]. Among those sub-categories, the functions of (EDC) and (COM) emerge as prevailing original uses by 33% and 24% respectively. (EDC), being the cluster where the most data convene, is the prime in every region except for North America, where (COM) buildings stand out.

The second main building use/function group across the dataset, (RES) is comprised of 654 data entries and involves several sub-categories. Among those, the sub-category (RES-s) is leading by a long way (31%). Examining the regional distribution of sub-categories, an interesting result revealed that in South/Latin America, (RES-h) appears as the prime sub-cluster in which the most data convene.



04 Unravelling the function-related attributes (AF). ©Authors, 2023.



05 Intervention rate. ©Authors, 2023.

THE STATUS OF INTERVENTION (AI)

The status of intervention, which was generated following the data collection process, is used in the extraction and filtering of intervened cases among the dataset. This elimination facilitates selective examination of intervened cases according to other analysis parameters. As presented in [FIGURE 05], the group with the highest percentage of intervention among the building use/function clusters is reasonably (INS), which can be rationalized by its highest data density. The pie-chart shows the breakdown of sub-categories belonging to institutional buildings that have undergone intervention, and the ranking of sub-categories remains unchanged compared to previous analysis. Based on the data-density hierarchy of sub-categories, the functions (EDC) and (COM) emerge as prevailing original uses that have undergone an intervention by 40% and 25% respectively.

Examining interventions according to (AG), and (AF) provides information about the building use/function cluster with the highest number of altered buildings and their geographical distribution.

RESULTS AND DISCUSSION

Understanding the functional diversity of MoMo heritage, the geographic representation of registered structures, and the level of interventions or alterations they have undergone contributes to a comparative view of the architectural documentation. By compiling data from the decentralized and publicly available archives of Docomomo, a broader understanding of the development and impact of MoMo heritage, on a global-scale can be achieved. Analyzing the collected data provides valuable insights into the chronological evolution, influence, and distribution of modern architectural works, contributing to the scholarly

understanding and preservation strategies of this heritage. Through the results presented in this study, patterns, trends, and influential architects can be identified, and more elaborations on the potential contributing factors to the current status (of the documented buildings) can be made.[20]

KEY FINDINGS

A total of 2,540 items from the years 1877 to 2003 were collected and analyzed. The data collection process took place from June 2021 to September 2022. The primary source of information was designated as Docomomo WPs' official websites. Any new WP or website activated or updated after this period is not included in this database and analyses, such as the outstanding and extensive documentation of Docomomo Iberico, comprising 2,442 objects. It is also noteworthy that, to date, no local inventory of MoMo heritage in Africa has been made publicly available by Docomomo WPs.

The findings indicate a comprehensive geographical coverage of data, with the exception of the African continent. The historic time period covered in register inventories spans from 1877 to 2003, with a notable break roughly during 1940s and 1950s. The prevailing building use/function identified within the collected data is observed to be (INS), accounting for 46% of the records. In regards to the entire dataset, information pertaining to 'intervened' entries is available for approximately 29%.

The WP that demonstrated the greatest influence in terms of national/regional inventories was the United States with 475 cases. Beyond that, the notable working group in Europe was Docomomo Germany with 196 cases; in Asia, Docomomo Japan with 264 cases; in Oceania, Docomomo Australia with 154 cases; and in South America, Docomomo Venezuela with 111 cases. The chronological distribution of the entire dataset revealed concentrations primarily between 1925-1940 and 1950-1980 in Europe. In North America and Asia, while the intensity before the 1950s was not as pronounced in Europe, similar patterns were observed. Finally, examining the intervention rates by building use/function, the (INS) buildings, which are the most common building use cluster, were the cases that received the most intervention here as well.

Inevitably, the study is confronted with certain challenges and limitations due to the inherent individuality and localized nature of distinct Docomomo archives, and problems associated with online data collection.

LIMITATIONS OF THE STUDY

The Docomomo archives provide valuable information and documentation on MoMo heritage; however, deriving definitive conclusions from these living archives presents a challenge. The dynamic nature of the inventories, including ongoing updates and refinements in data, organization, and structure of the inventories within the Docomomo network and WPs, adds complexity to this study. Notably, the presence of numerous fiches, yet unavailable online, further highlights the depth of the archival material. Additionally, the distinct characteristics and attributes of individual inventories also affect the results; the fact that each WP operates autonomously, resulting in variations in the data provided online, level of information detail, and overall organization of catalogues, documents, and records. The main challenges faced during the data collection process and potential limitations posed by the nature of national/regional inventories database that might have impacted or influenced the interpretation of the findings are briefly discussed under six categories as follows:

- **Regional focus:** The Docomomo archives primarily emphasize specific regions and countries where Docomomo WPs are active. However, the active WPs alone may not capture the entirety of the global Modern Movement. The absence of certain regions or buildings in the archives does not imply their lack of significance nor value.
- **Presence in the digital world:** The availability of active websites, online catalogs and records of various Docomomo WPs impacts the data collection process. Challenges arise when WPs' websites are inactive, under maintenance, or non-existent, preventing access to their inventories and records. Additionally, some records may not be fully digitized (e.g. due to copyright issues and capacity limitations) or may have errors during the digital transfer of data.
- **Diversity in coverage and selection:** The documentation efforts of Docomomo WPs are influenced by various factors, including available resources, local trends, priorities, tendencies or needs, and individual expertise. Consequently, variations in the representation and coverage within the archives may occur. The selection of buildings and sites for documentation can be subjective, potentially leading to unintentional oversights or underrepresentations, especially when prioritizing heritage in imminent danger. These selections are occasionally guided by certain 'themes' identified in the plan of action and documentation priorities (referred to as 'homework') outlined by Docomomo International.
- **Data consistency and detail:** Online catalogs, documents, and records in individual Docomomo WP archives may lack a cohesive and standardized online data structure. The level of information detail varies among WPs, posing challenges when trying to access and compare information across different Docomomo archives.
- **Evolving knowledge and research perspectives:** The information and interpretations within the Docomomo archives represent the knowledge available at the time of their compilation. Over time, new research

and insights may emerge, potentially reshaping our understanding of modern heritage. This challenge extends to variations in the recency of relevant websites and building data among WPs; leading to differences in regular record updates and website maintenance practices. Such variability may complicate the process of accessing accurate and up-to-date information from the individual Docomomo archives.

The Docomomo archives are a valuable starting point for ongoing investigation and exploration. Eventually, further work is advisable to supplement the information with additional research from other sources, including academic publications, local archives, and other preservation organizations. Embracing multiple perspectives and diverse sources of information is key to attaining a more comprehensive understanding of modern heritage.

CONCLUSIONS

This study and its process have demonstrated and substantiated the dynamic nature inherent in these online inventories. It is widely acknowledged that a substantial portion of the inventory collected and documented over the years still awaits digitization, owing to a variety of reasons. During the course of data collection, and in the subsequent phases of statistical analysis and manuscript preparation, ongoing efforts among various WPs deserve specific acknowledgement. Docomomo Austria, Docomomo Belgium, Docomomo Iberico, Docomomo US, and several others, have been consistently expanding, restructuring, and digitizing their register lists, or transferring their previously documented records, which may have existed in hardcopy formats, into the digital realm. Furthermore, this transformative shift toward digitization has been accompanied by significant updates to their respective websites. These updates encompass a range of substantial modifications, including individual building-specific enhancements, expansions or reorganization of register lists, and adjustments to the overall website layout. Most WPs are actively exploring various innovative presentation methods designed to capture readers' attention and enhance information accessibility. These multifaceted efforts collectively signify a dynamic evolution in the digital representation of architectural heritage resources.

In the realm of Docomomo online architectural inventories, various formats coexist, but the cornerstone of comprehensive conservation lies in detailed documentation fiches. Unlike other formats, these structured documents serve as repositories of expert knowledge and provide standardized, in-depth information encompassing architectural intricacies, historical contexts, and conservation methods, offering insights beyond visual representation. Beyond the extensive documentation efforts conducted over the years, the present state necessitates a systematic compilation, analysis, and collaborative presentation of these accumulated archives. This 'meta-documentation' study, characterized by its comprehensive nature and the potential for regional and national categorization, holds the potential to significantly augment Docomomo's future documentation initiatives and strategic research initiatives.

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ENDNOTES

1 See https://docomomo.com/

2 The research objectives of this paper are primarily driven by an ongoing doctoral study conducted by the corresponding author.

3 The term 'Modern Movement (MoMo)' as used by Docomomo refers to modern architecture characterized by functional, technological and/or social innovations aimed at addressing and adapting to contemporary conditions and challenges.

4 See https://docomomo.com/organization/

5 See Docomomo Constitution. https://docomomo.com/wp-content/uploads/2022/09/Revision-2022-DOCOMOMO-Constitution.pdf

6 See https://architectuul.com/

7 SCI-Arc Media Archive serves as an online showcase of videos featuring prominent architects, designers, and theorists — including 11 Pritzker Prize winners—from 1972 to the present. https://www.youtube.com/sciarcmediaarchive

8 Here is a compilation of freely accessible online archives of renowned architects, often hosted by universities or foundations, encompassing a rich collection of photos, drawings, sketches, and writings. However, these archives focus on specific architectural figures and may not provide a comprehensive outlook. https://exhibits.stanford.edu/bucky; https://breuer.syr.edu/; http://www.fondationlecorbusier.fr/; https://open-archive.bauhaus.de/eMP/eMuseumPlus; https://www.fondazionerenzopiano.org/en/project/?mode=box

9 Systematic 'fiches', some of which have been featured in the Docomomo Journal, biennial international conference proceedings, and various book publications, serve as a structured documentation method. Noteworthy examples were compiled by Dennis Sharp and Catherine Cooke in 2000 in the book *The Modern Movement in Architecture: Selections from the Docomomo Registers*, which includes around 800 entries sourced from the fiches within the Docomomo International Register. While Sharpe and Cooke edited the book, the material was written and provided by each of the represented WPs based on 'fiches'. This significant effort in documentation and compilation, exemplifies the comprehensive approach taken to understanding the broader architectural landscape.

10 Contrasting the two, the 'Full Documentation Fiche' offers a more comprehensive level of detail. It encompasses additional sections, such as those exploring the historical context, evaluation criteria, and extensive documentation of the building or site. Consequently, the 'Full Documentation Fiche' serves as a more exhaustive and in-depth tool for recording information related to Modern Movement buildings and sites.

11 Across several WPs, including Austria, Belgium, Czech Republic, Finland, France, Greece, Iberico, Switzerland, and numerous others not explicitly mentioned here, variations in the presentation and arrangement of selections and archives were observed.

12 See https://exhibition.docomomo.com/

13 It is imperative to underscore that individual WPs possess yet unshared resources. The substantial number of fiches or documentations derived from it, that remain unpublished online, may notably be constrained not only by copyright issues but also by capacity limitations. Ultimately, this network thrives on the dedication and efforts of volunteering experts in the field, each contributing years of invaluable experience and commitment. For instance, the inventories of Docomomo Iberico, as presented in this study, differ from their current status. The authors recognize the outstanding and extensive inventory of this WP, which has been expanding its online presence, and updating its website recently. However, since the data collection was completed prior to these updates and with the purpose of maintaining consistency with all other WPs, the study refrained from incorporating updated data.

14 MoMove was excluded from consideration in this paper due to its specific purpose on consolidating the dispersed archives of WPs. Notably, MoMove has not received regular updates since 2015. In contrast, the local archives, as a general practice, undergo more frequent updates and revisions by their respective WPs, and therefore served as the primary source for this study.

15 See https://unstats.un.org/unsd/methodology/m49/

16 For clarity, it is important to note that Docomomo Turkey maintains an active website with over 2000 cases of Modern Movement architecture. However, these cases are recorded in the form of poster presentations, compiled in annual summary booklets, rather than in the regularized format of 'documentation fiche' or as part of experts' selection. Given the substantial number of these cases, which is nearly equal to the world-wide collection, Turkish cases were not included in this dataset to maintain consistency with all other WPs. Nevertheless, this extensive documentation effort deserves recognition and acknowledgement.

17 See http://www.docomomo.ec/Portals/0/Old/Building-classification.pdf. The categories of 'type/category' and 'sub-category' were reproduced and reformatted by the authors.

18 It is noteworthy that Docomomo commenced its collection of 'Good Conservation and Restoration Practice' fiches only in 2010. These fiches provide more comprehensive information on interventions as compared to the previous documentation fiches.

19 Identifying altered examples was an important aspect of this study. However, the intervention status was not readily available for every case collected. In some instances, case descriptions from the respective WP records were used to extract this information; otherwise, it was marked as 'not available.' Consequently, the number of altered examples is significantly low, potentially not reflecting the actual situation.

20 The global-scale overview and findings outlined in this study shall serve as a foundation for future research within the doctoral studies aiming to explore potential connections between the documented works and urbanization, urban/rural population growth, cultural and socioeconomic factors, and macroclimatic conditions. While this study does not definitively establish these relationships, it hypotheses for further investigation.

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WHAT IS SHARED ABOUT AFRICAN MODERNISM? WHAT IS AFRICAN ABOUT MODERN HERITAGE?

Immaculata Abba, Tubi Otitooluwa, Jonathan Kplorla Agbeh, Christine Matua, Timothy Latim, Justicia Caesaria Tegyeka Kiconco, Bola Oguntade, Emmanuella Ama Codjoe

ABSTRACT: The Shared Heritage Africa (SHA) project focused on the rediscovery of modern university campuses and seminal buildings in West and East Africa from the 1950s to the 1970s. The project involved nine research fellows from Ghana, Nigeria, and Uganda, who conducted heritage research, local writing and photography workshops, exhibitions, and published content to document Africa's built cultural heritage, eight of them are presented here. This initiative aimed to promote sustainable urban and social development, drawing on African and international efforts and targeting students and young professionals to foster social, cultural and political awareness.

With varying political, economic, and social scenes in sub-Saharan Africa during the mid-20th century, modernist buildings served as a representation of post-colonial progress and development for newly-independent countries. The emergence of modernist architecture in Africa during the 1950s led to a host of architectural legacies across the continent. Universities, as emphasized by Livsey (2017, 2), played a pivotal role during the process of decolonization. This significance was mirrored in the campus architecture of this period, reflecting the high aspirations of post-colonial societies to advance education and nurture the next generation of leaders.

During a time of ample financial support from colonial governments, international agencies, and later the new national governments, these modern university campuses were constructed using modern materials like concrete and glass, along with innovative construction techniques such as prefabrication (Uduku, 2003). Literature on 20th-century architecture in Sub-Saharan Africa is rather limited. However, the selection of university campuses allowed for convenient access for photographic documentation and archival research. Thus, photography emerged as a great tool for interpreting the architecture of these campus buildings.

The university campuses served as experimental grounds for expatriate architects, encouraging innovative approaches to architectural design tailoed for the hot and humid conditions of the tropics. Modernist architecture, characterized by elements like spatial configuration, material choices, climate-responsiveness, and rectilinear forms, found a shared interpretation in these designs. Furthermore, the design of campus masterplans typically followed an axial layout, with enclosed courtyards that housed most congregational spaces and landmarks of the respective universities. In West Africa, specifically in Ghana and Nigeria, several prominent architects were associated with the masterplan development of university campuses. Notable names include James Cubitt (University of Nigeria, University of Jos, Nigeria and Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana), Kenneth Scott (KNUST), Maxwell Fry and Jane Drew (University College Ibadan, Nigeria) or the Israeli architect Arieh Sharon, who then partnered with the Nigerian architect Augustine Akhuemokhan Egbo (Obafemi Awolowo University (OAU) in Ife, Nigeria). In East Africa, architects such as Peatfield and Bodgner (Kyambogo University in Kampala, Uganda) and Blackburne Norburn and Partners (Makerere University in Kampala, Uganda) contributed significantly to the architectural landscape.

It has been interesting to observe Africa's participation in the global narrative of modern architecture, and not merely as consumers but also as innovators. In this documentation, African modern architecture has been broadly categorized into two schools of thought: the first encompasses buildings commissioned by colonial governments during their rule, while the second comprises buildings commissioned post-independence by African governments. Notably, the architecture from the latter demonstrates a more significant exchange of ideas, as African governments had the autonomy to select architects who aligned with their visions and aspirations. This shift in commissioning reflects a sense of agency and independence, allowing

African nations to shape their architectural landscape in alignment with their own cultural, social, and developmental goals. For example, Obafemi Awolowo University (OAU) in Ife, Nigeria, employs Yoruba motifs and symbolism, such as a replica of Oranmiyan's famous Opa (staff) framed by a tall half-cylindrical concrete obelisk which serves as a vertical accent to the library building.

In essence, the university campuses symbolize a shared heritage that speaks to our rich history, culture, and values. The modern buildings embody our collective aspirations and the sacrifices of the fore-fathers such as Nkrumah, Azikiwe, and Nyerere, who advocated for education and self-determination. The future major questions for architecture in Africa are: How can we conserve our architectural heritage? What lessons can we draw from the past to inform our new designs? In what ways can we further adapt modern buildings to our evolving environment, as well as social, aesthetic, cultural, political, and functional needs?

Another critical question grappled with during this fellowship was whether modern buildings in Africa should be considered heritage or not. For some, modern architecture cannot be classified as African heritage because it is often associated with the international Modern Movements originated in the West. The primary influencers of the movement are perceived to be primarily outside of Africa. However, for those who view modern architecture as African heritage, the key argument centers around the dynamic nature of culture, which is never fixed. In this line of conviction, culture is constantly evolving and transcending borders, finding new forms of ownership where it proves useful.

Seventy years later, these university campus buildings still function within the contemporary contexts to which they have adapted. They serve as a bridge connecting our past and present, forming the foundation upon which we build our collective aspirations for the future.

USE AND MAINTENANCE | Immaculata Abba

For an architectural style that proliferated in the 1960s, when many African countries had very recently gained their independence, African modern architecture became an expression of the 'triumphs, contradictions and disappointments of decolonisation and independence' (Duerksen, 2018). As modern nation-building projects sought to create new cultures, these efforts manifested in the built environment. The university campus was one of the key sites of this manifestation as it was both the physical and conceptual cultivating ground for new, postcolonial education policies, mindsets, and ways of problem-solving for the new nation.

The presented projects show some of the physical characteristics of early buildings at the University of Nigeria (Enugu campus) and the University of Ghana (Legon campus). Placed side by side, there is a marked difference in the maintenance state of these structures, which could point to the countries' different journeys through economic crises, political instability, and educational ambitions.

THE WATER TOWER STRUCTURE, UNIVERSITY OF NIGERIA, ENUGU CAMPUS, NIGERIA

Built in the 1950s as one of the first constructions on campus, these twin structures survived the Nigerian Civil War (1967-1970). With unpolished and angular features, their style can be classified as a brutalist variant of Modernism. The water tower [FIGURE 01] is the higher building, while the water tank [FIGURE 01] is the longer building. Today, the twin structures [FIGURE 01] no longer serve their intended function (supplying water) due to lack of maintenance but have instead turned into an informal reading hub for students (Nnaemeka-Okeke et al., 2021).

01 The water tower and tank, University of Nigeria Nsukka (Enugu Campus), Enugu, Nigeria. © Ikedi Chukwuka, 2023.

02 The water tower and tank, University of Nigeria Nsukka (Enugu Campus), Enugu, Nigeria. © Ikedi Chukwuka, 2023.

THE UNIVERSITY LIBRARY AND REGISTRAR'S OFFICE, UNIVERSITY OF NIGERIA, ENUGU CAMPUS, NIGERIA

As one of the first buildings constructed on campus, also in the 1950s, this building features the typical vertical and horizontal concrete screens used to protect the building and its users from the harsh weather [FIGURE 03]. It is still being used as intended but the faded paint, damp walls and missing letters on the 'Office of Registrar' plaque point to a lack of building maintenance.

SCHOOL OF NURSING AND MIDWIFERY, UNIVERSITY OF GHANA, LEGON CAMPUS, GHANA

This building has the style of American late modern buildings, though we were not able to ascertain when exactly it was built. The tropical modern emphasis on natural ventilation is evident in its design, with bands of balconies on either side of the building [FIGURE 04]. It is still in use as it was designed for.

LEGON HALL ANNEX 'A', UNIVERSITY OF GHANA, LEGON CAMPUS, GHANA

Legon Hall was built in 1952 as the first student accommodation built on the University of Ghana campus. This hostel was built in the classic British post-WWII modern style of social housing blocks that prioritised efficiency over customisation. Typical of this style, its ground level was originally dedicated to storage space, also making space for a pedestrian bypass. Like the School of Nursing and Midwifery building, this hostel building is also being used as it was intended to be used [FIGURE 05].

03 The University Library and Registrar's Office, University of Nigeria Nsukka (Enugu Campus), Enugu, Nigeria. © Immaculata Abba, 2022.

04 School of Nursing and Midwifery, University of Ghana, Legon, Ghana. © Immaculata Abba, 2022.

05 Legon Hall Annex 'A', University of Ghana, Legon, Ghana. © Immaculata Abba, 2022.

PASSIVE DESIGN | Tubi Otitooluwa

In tropical climates, protecting pedestrians from the elements is important, especially during the heavy rainfall months. Lagos, being a coastal city, is majorly influenced by the SW Trade wind due to the dominance of the tropical maritime air mass from the South Atlantic (Uchechukwu et al., 2018). Using strategic orientation and engineering, indoor air constantly exchanges, hereby cooling building and regulating indoor comfort levels. A strategy, referred to by Hannah le Roux as "an architecture for all seasons", which was inspired by the work of "several architects who had experimented with alternatives or additions to the sheer and well-glazed facades of modernism that although useful in the winter of western Europe, performed as a greenhouse in warmer conditions" (Le Roux, 2003). The architecture of the University of Lagos (UNILAG) campus provides many examples of implementing and facilitating pedestrian circulation, natural ventilation, as well as natural lighting and shading.

06 Bursary building showing a covered walkway, part of the connected main concourse covered walkways. ©Tubi Otitooluwa, 2022.

PEDESTRIAN CIRCULATION

Many buildings use recessed or completely open ground floors of interconnected buildings, especially within faculty complexes and occasionally between clusters of buildings. These promenades create a network of circulation that facilitates movement between buildings without exposure to the elements, advertently creating social spaces for interaction and breaks. This is further emphasized in the architecture of the Main Concourse, which is a cluster of seven large buildings (council chambers, bursary building, main library, library extension, old cafeteria, and the subterranean dining hall). While these buildings are accessible through the plaza rooftop of the dining hall, they can also be accessed by connected promenades protected from the climatic and environmental elements. The Bursary building [FIGURE 06] features a sheltered walkway leading to the semi-basement dining hall, creating a covered path

07 Faculty of Engineering complex showing a semi-subterranean promenade connecting a cluster of buildings in the faculty. © Tubi Otitooluwa, 2022.

08 Figure 03: Faculty of Arts building showing south-facing façade. © Tubi Otitooluwa, 2022.

09 Faculty of Arts building from the courtyard, showing the shaded balcony and corridor of the administration with the faculty offices in the distance. © Tubi Otitooluwa, 2022.

that provides protected access to other buildings in the Main Concourse. The Faculty of Engineering and the Faculty of Sciences complex [FIGURE 07] offer recessed accommodation on the ground floors to accommodate a continuous link of pedestrian circulation that connects different functions of the faculty without exposure to the outdoor elements. This solution enables the normal function of the facilities even in the most inclement weather situation.

NATURAL VENTILATION

The two predominant air masses that impact the climate of Lagos are the trade winds: the North East Trade (between the end of November to mid-March), which heralds the Harmattan season, and the South West Trade wind (April to October), which brings the rainfall. The South-West Trade wind is dominant due to the tropical maritime air mass from the South Atlantic (Uchechukwu et al., 2018). This information is critical because the wind direction is a major factor in maximizing the passive ventilation capacity of the campus buildings. The Faculty of Arts building is an example of this orientation. It consists of two rectilinear buildings joined by connected vertical circulation and corridors with their shorter sides skewed slightly off west/east axis, exposing the longer sides to southwest and northeast winds [FIGURE 08]. The large fenestrations on the façades and open ground floors allow a constant airflow through the buildings. The open ground level plays a crucial role here as a central courtyard, framed by the connection between these two buildings. The Pilotis base architecture ensures a continuous flow of air by channeling it through the courtyard from the southwest during the wet seasons and from the northeast in dry seasons. The air is constantly replaced by fresh air, thereby keeping the internal temperature regulated [FIGURE 09]. The southern block (Block A) consists of faculty and administrative offices, while the northward block (Block B) has classrooms on each floor. The external façade of both blocks is finished with precast concrete overhang cells spanning from floor to floor in a 2.7 x 2.7m grid, providing shading for the internal spaces from incident sun. On the courtyard side of the office block, only clearstory windows have been provided as they are adequate for ventilation and satisfy the need for privacy [FIGURE 09]. At the classroom block, openings on the courtyard walls extend along the entire length, except at the levels where students are seated in the classroom. This design fulfills the requirement for substantial air exchange in areas with high occupancy, while also minimizing distractions to classroom activities. Classrooms feature louvered openings with focus panels [FIGURE 10, FIGURE 11].

NATURAL LIGHT AND SHADING

The design of the Faculty of Engineering Lab building ensures multiple points of entry for both natural and ambient light, with deep overhangs keeping internal spaces dry during the heavy rain months. These labs serve a variety of purposes, including metalwork, concrete testing, and fabrication, among others. To achieve optimal lighting conditions for diverse activities, levels ranging from 100-250 Lux are maintained, depending on the specific task being done. The façade reveals an array of precast louvered concrete fenestrations that allows indirect lighting along the laboratory walls and a series of north-facing skylights on the roof of the lab building to filter in the natural light FIGURE 12]. Unfortunately, both the north-facing skylights and the concrete roof have been covered with corrugated aluminum roofing sheets. This modification was necessary due to the concrete's inability to maintain a watertight seal.

10 Faculty of Arts building, showing east-facing façade. © Tubi Otitooluwa, 2022.

11 Faculty of Arts building from the courtyard, showing louvered classroom opening with focus panels. © Tubi Otitooluwa, 2022.

12 Faculty of Engineering Lab Building showing concrete louvered wall fenestration and north light roof. © Tubi Otitooluwa, 2022.

TROPICAL CUBES | Jonathan Kplorla Agbeh

During the 1960s, many African countries had recently gained independence and started establishing new universities to train the next generation of leaders locally. The campus architecture of this period reflected the high aspirations of post-colonial societies, emphasizing the advancement of education. This resulted in a harmonious blend of modern and traditional elements, with designs focusing on functionality and climate-responsiveness, acknowledging the importance of creating buildings that catered to the practical needs of educational institutions while considering the local climate conditions. Here, three buildings located on three different university campuses are presented, highlighting their common features. These buildings exhibit distinct physical characteristics such as cubical forms, extensive use of concrete, prefabricated shading devices, clean lines, just to mention a few. These characteristics run through most of the campus buildings in Sub-Saharan post-colonial Africa and altogether, showcases the pursuit of a forward-looking vision for education and modernization that defined the architectural landscape of the time.

THE SENIOR STAFF CLUB, KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KNUST), KUMASI, GHANA

The clubhouse was designed in 1964 by Niksa Ciko and John Owusu-Addo, the latter being one of Ghana's earliest and finest modern architects. It serves as a social center for senior academic staff and is nestled in the lush senior staff residential zone of the campus. It possesses an interesting form, making it resemble a floating cuboid [FIGURE 13].

DEPARTMENT OF NUTRITION AND FOOD SCIENCE, UNIVERSITY OF GHANA, LEGON, GHANA

The distinct cubical building makes heavy use of concrete which gives it a bold presence, while effectively minimizing the ingress of sunlight. At the entrance, visitors are greeted by a towering structure that serves as a defining architectural element. The façade is characterised by a perforated concrete shading screen and recessed windows, allowing for natural light to filter in while maintaining a pleasant indoor atmosphere [FIGURE 14].

FACULTY OF AGRICULTURE, OBAFEMI AWOLOWO UNIVERSITY (OAU), ILÉ-IFẸ̀, NIGERIA

Designed in 1962 by Israeli architect Arieh Sharon, the faculty building was the first to be put up on the current OAU site. The building's strong cubical form is complemented by its flat roof which aids rainwater harvesting, and an 'eggshell' concrete screen. The 'eggshell' is an intersection of prefabricated vertical and horizontal elements, creating a visually striking, rhythmically-spaced pattern that efficiently shades the building. The distinctive form and design have solidified the faculty building's status as a landmark on the evergreen campus.

The three buildings, all predominantly cubical/cuboidal in forms, are extensively shielded by sunscreens and are seamlessly integrated with nature. This broader perspective underlines the shared architectural heritage of the three different cities of Kumasi, Accra, and Ilé-Ifẹ̀. It emphasizes that architecture communicates more than mere brick and mortar; it characterizes and captures the way of life of a people while accommodating their climatic conditions [FIGURE 15].

13 Senior Staff Clubhouse, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana. © Jonathan Kplorla Agbeh, 2022.

14 Department of Nutrition and Food Science, University of Ghana, Legon, Ghana © Jonathan Kplorla Agbeh, 2022.

15 Faculty of Agriculture, Obafemi Awolowo University (OAU), Ife, Nigeria. © Jonathan Kplorla Agbeh, 2022.

NON-INCLUSIVE ACCESS POINTS | Christine Matua

The documentation of modern structures highlights a disconcerting trend toward a lack of accessibility for individuals with disabilities. Some of the most exquisitely designed staircases can be found in modern buildings; many of these staircases take on a life of their own and articulate the grandeur of the places they connect. One could critique the modern architects working in Africa for being aware that the likelihood of lifts or escalators was unrealistic, and by only providing inaccessible stairs, etc., access for those with disabilities was pretty challenging.

Many contemporary structures share this characteristic. The question is whether everyone can enter, and the answer is no, not at all. What can be done, then, to ensure the accessibility of these buildings? How would one go about making these structures more accommodating? What can be done without destroying the building's historic significance? Do we replace the stairs with a ramp? Ramps are infamously heavy. They cannot be hidden like a delicate curtain rod, for instance. Do we affix the lift? What other options do we have?

The challenge is that numerous heritage buildings are under threat of demolition. While many of them sit on prime property, they can only accommodate a limited number of people, as they were designed for a time when populations were less dense. The lack of inclusivity in heritage structures benefits those who might seek to demolish them in favor of more contemporary construction.

So, the issue of inclusivity must be resolved as quickly as feasible to justify the preservation of modern structures. Again, the question is how. Given that the world is trying to become more equitable, how can we adapt these structures to align with contemporary concerns? According to modern conviction, no individual should be excluded from experiences due to their physical environment.

THE MAIN HALL WEST END, KYAMBOGO UNIVERSITY, KAMPALA, UGANDA

The main entryway of this structure is magnificent. Its entrance with two stepped stairways is like the legendary stairway to heaven in that it heightens one's anticipation for the play or show that will be presented in the hall. A physically fit person can enjoy this experience as intended by the architects, but it will look different to someone who uses a wheelchair [FIGURE 16].

COMPUTING SYSTEMS, UNIVERSITY OF GHANA, ACCRA, GHANA

This building [FIGURE 17] houses infrastructure and personnel that provides IT services and systems support to the university. The sturdy balustrade and cantilevered concrete staircase are intriguing modern features. These details and elements raise questions about the potential for more inclusive access points that could accentuate the building with the same glandeur.

STUDENT ACCOMMODATION BLOCK, LEGON HALL ANNEX 'B', UNIVERSITY OF GHANA, LEGON, GHANA

The student housing complex was constructed in 1956 [FIGURE 18]. Its design is identical to around six other housing complexes nearby at the University of Ghana's Legon campus, reflecting a common theme prevalent in modern campus buildings.

16 Entrance at Main Hall West End Kyambogo University, Kampala, Uganda. © Christine Matua, 2022.

17 Staircase at the Computing Systems Building, University of Ghana, Legon, Ghana. © Christine Matua, 2022.

18 Accommodation block, University of Ghana, Legon, Ghana. © Christine Matua, 2022.

Indigenous architecture in Uganda has long adapted to the climate and the needs of its people. The climate allows for year-round outdoor activities, and as a result, many dwellings–related functions could be placed outside the building. Everyday activities conducted outdoors were equally important as those indoors. The varying dry and rain seasons account for the most significant weather changes. The architecture responded through form, locally available materials, and the incorporation of intermediate spaces between the built fabric. Inextricably linking the architecture to the context.

With the advent of colonization came several new administrative requirements, building types, and functions, leading to the modernist architecture in Uganda. Modern architecture introduced new materials, technologies, building methodologies, and larger scale buildings. With the change in building size came a change in the landscape and an adaption of the relationship between the outdoor and indoor environment.

As indigenous architecture carefully merged the indoor and outdoor, some modern buildings were designed with careful consideration for this relationship. This photo documentation looks into the development of the space in between buildings in three different projects: The Barclays Library, the Faculty of Industrial Fine Arts, and the Faculty of Education in Kampala, the central region of Uganda.

The buildings reflect three different approaches to the creation of space in between buildings. These spaces are primarily occupied throughout the day. The concept behind this creation shows an attempt to restrict the building size to allow for passive climate control year-round. Although the topography was not always respected as in the case of the School of Fine Art and Industrial Design, the courtyard still plays an important role in the use of the building. The buildings are also characterized by different levels and types of prefabrication, from screen walls to wall and roof structures, which are key features of the design.

THE BARCLAYS LIBRARY, KYAMBOGO UNIVERSITY, KAMPALA, UGANDA

The Barclays Library is located on the western side of Kyambogo University. The buildings were completed in 1965. The complex comprises two buildings parallel to each other and an ablution building on the eastern edge. The courtyard is formed by all three buildings and a hollow block wall on the western edge [FIGURE 19 - FIGURE 21].

19 Courtyard view of the Barclays Library, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

20 The Barclays Library, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

21 Façade detail of the Barclays Library, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

SCHOOL OF FINE ART AND INDUSTRIAL DESIGN, KYAMBOGO UNIVERSITY, KAMPALA, UGANDA

The School of Industrial Fine Art is located on the west side of the university. It consists of two semi-circular buildings designed concentrically. It features a circular courtyard actively used by students [FIGURE 22 - FIGURE 24].

22 Total view of the School of Fine Art and Industrial Design, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

23 Main entrance of the School of Fine Art and Industrial Design, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

24 Roof details of the School of Fine Art and Industrial Design, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

FACULTY OF EDUCATION, KYAMBOGO UNIVERSITY, KAMPALA, UGANDA

The Faculty of Education includes a small courtyard on the interior and a backyard. The faculty comprises of three buildings that form a U-shape. It was designed in 1988 by Peatfied and Bodgner [FIGURE 25 - FIGURE 27].

25 Main entrance of the Faculty of Education designed by Peatfield and Bodgener in 1988, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

26 Aerial view of the Faculty of Education, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

27 Courtyard of the Faculty of Education, Kyambogo University, Kampala, Uganda. © Timothy Latim, 2022.

SHIFTING BOUNDARIES | Justicia Caesaria Tegyeka Kiconco

The Belgian school, École Belge, established in 1965, was one of the oldest elite schools in Kigali and an educational pillar of the country. Initially built by Belgian settlers, the history of the school is linked to the first expansions of Kigali, after it was declared the new capital in 1962. École Belge, which was transformed and repurposed by MASS Design Group into a start-up co-working space campus, is now known as The Norrsken Kigali House, part of the Swedish Norrsken Foundation. This transformation demonstrates the harmonious coexistence of conservation and redevelopment through mixed-use development; at the same time, it illustrates how Kigali is part of a global network, reflected in the global nature of its architecture and design.

Norrsken, a Swedish nonprofit that provides collaborative coworking spaces for entrepreneurs, sought to establish its startup hub in a historic building. The choice to preserve and adapt the former École Belge was significant, as it can serve as a model for future projects, given the limited number of historical structures remaining in central Kigali. The adaptive reuse was made possible by the school's initial design rooted in modern principles. Notably, the financing for this project came from the Swedish company, highlighting the global nature of the design. Well-designed buildings, like the École Belge, often possess an enduring relevance and usefulness beyond their original purpose, which is an attribute of tropical modern architecture. By adhering to timeless design principles that transcend specific trends, the campus' aesthetic appeal and significance endure even as architectural styles evolve.

The Norrsken Kigali House, opened in January 2022, represents and reveals spaces characterized by the shifting and

From left to right, up and down.

28 New design of buildings and landscape for Norrsken Kigali House, Kigali, Rwanda. © Justicia Caesaria Tegyeka Kiconco, 2023.

29 Corridors of Ecole Belge, Kigali, Rwanda. © Justicia Caesaria Tegyeka Kiconco, 2018.

30 Corridors of Norrsken Kigali House, Kigali, Rwanda. © Justicia Caesaria Tegyeka Kiconco, 2023.

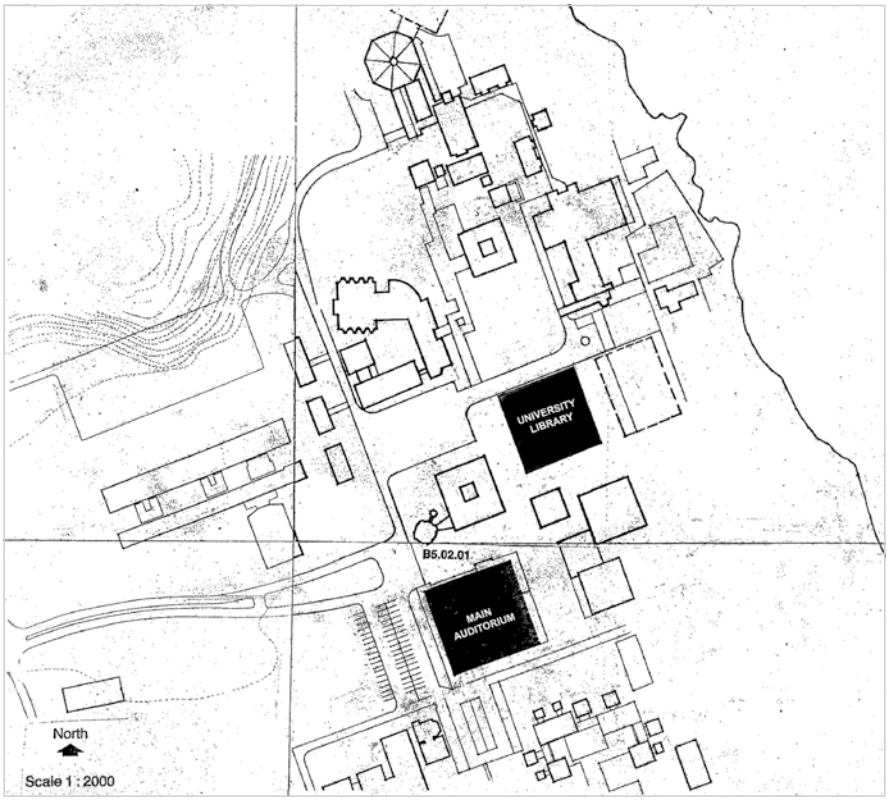
31 Connected outdoor spaces at Norrsken Kigali House, Kigali, Rwanda. © Justicia Caesaria Tegyeka Kiconco, 2023.

blurring of boundaries, as imagined in the interplay of the landscape, buildings, and urban context. The masterplan involves repurposing existing classroom blocks and allowing for the creation of an inviting, transparent, and engaging new frontage. The campus comprises four buildings, including three renovated École Belge classroom blocks, and the newly constructed main Norrsken House. The old school's architecture was based on landscaped design to improve opportunities for natural ventilation [FIGURE 28, FIGURE 29]. The strategic positioning of plant species adjacent to classrooms reduced glare and overheating. Similarly, the new campus design by MASS prioritized the school's existing architecture and landscape whilst providing a new paradigm for how restoration can be accomplished. The design demonstrates nature as an asset to embrace aspects of balance and harmony to the built-up space while considering the landscape, terrain, and surroundings [FIGURE 28]. In order to create an intimacy that complements the repurposed classroom blocks, the design has niches for seating areas and large openings on the façade to encourage collaboration and interaction within and outside of the site on an urban scale. These thresholds are a key design element of the campus, creating spaces within spaces. Features from the original school [FIGURE 29] have been modified to suit the urban connection by using new materials [FIGURE 30]. The use of new natural materials is successful because of the tactile nature and richness in texture and color, which complements the contemporary space with steel, solar panels, large glazed openings, and clay tiles on the corridor façades [FIGURE 31]. The façades provide a direct connection between the indoors and lush outdoors.

This conversion of a school into a start-up campus is a good example of how the spatial experience attached to knowledge acquisition and learning has changed over time. The Norrsken Kigali House echoes the historical features still seen on other old buildings from the early 1960s. The innovative use of construction materials like glazing and steel, coupled with the restored connection between indoors and outdoors [FIGURE 31], exemplifies an excellent approach to conserving heritage buildings while introducing contemporary skills.

African Modernism, as opined by Manuel Herz, is the 'architecture of independence'. In an elaborate work of research that spanned five African countries, Herz demonstrated that many young African nations expressed their national identity principally through modernist buildings and sites like parliament buildings, central banks, universities, etc. These buildings feature daring and heroic designs that mirror the ambitions and aspirations of the former colonies between the late 1950s and late 1970s. The political independence of African countries was championed by visionaries who used rhetoric as well as grand architectural pieces to announce and project the essence of the newfound freedom. It, therefore, became a new habit to name institutions and buildings after such individuals, for example, Kwame Nkrumah University of Science and Technology (KNUST) after the first Prime Minister of Ghana. Similarly, in Nigeria, Obafemi Awolowo University (OAU), formerly University of Ilé-Ifẹ̀, was named after the first premier of the Western Region of Nigeria. But, the case of the Mary Stuart Hall at Makerere University in Kampala, Uganda, reveals alternative narratives about the history and nomination of university buildings (Adengo, 2018).

The University of Lagos (UNILAG) was founded in 1962 as a public university. Before the construction of the Senate House in 1985, the main auditorium, now renamed J.F. Ade Ajayi Auditorium, at the Central Court and administrative district was the primary landmark at the University of Lagos [FIGURE 32]. This structure, one of the venues for the 1977 Fringe FESTAC (Second Festival of Black Arts and Culture), shares a multi-level and vast concourse with the University's Main Library. Unlike the other structures on the Central Court, the main library and main auditorium share an uncanny resemblance. Both buildings have a simple block-like form yet are very functional, with massive use of precast concrete evidenced in the external finishes like the fair-faced concrete columns, fair-faced concrete fascia (a massive overhang), and fair-faced concrete wall elements [FIGURE 34].



32 Map of the Central Court of the University of Lagos (UNILAG) from 1970s. The Central Court serves both as a node and the administrative district of the institution. © UNILAG, Department of Works, n.d.

The significant difference in terms of building function is expressed with the inclusion of sun breakers at the Main Library, intended to reduce the intense tropical heat, while in the Main Auditorium, light access significantly controlled with a concrete façade embellished with gold and yellow mosaic tiles filling the openings between the cruciform columns [FIGURE 34].

33 Left: The University of Lagos Main Library. Right: The Main Auditorium (J.F. Ade Ajayi Auditorium). © Bola Oguntade, 2022.

34 Synthesized picture of the main library and main auditorium, showing the similarities in structure and external finishes of both buildings. © Bola Oguntade, 2022.

35 The main auditorium, University of Lagos, at night © Bola Oguntade, 2018.

Both buildings depend on electric power to function effectively. Although the main library benefits from the generous supply of diffused light, it remains insufficient. The main auditorium relies on electricity for both ventilation and lighting, and the temperature is maintained via a central air conditioning system, while the special lighting system is in place that supports functions like lectures, musical performances, plays, convocation ceremonies, etc..

The grids of the cruciform columns elevate the large concrete roof overhangs above the buildings' volumes; expressing a strong sense of order, permanence and monumentality. The building forms reflect heavy use of reinforced concrete in its raw form. The surface of the concrete is generally unadorned for both buildings except in the Main Auditorium, where the use of gold and brown mosaic tiles with sodium vapour lights accentuate the cruciform columns and repetitive wall panels in a manner that produces a visual outcome that is striking and arresting (particularly when viewed at night [FIGURE 35]).

SHADING THE TROPICS | Emmanuella Ama Codjoe

Tropical architecture is a term given to modern architecture that emerged in the tropics during the 1950s (Le Roux, 2003a). It was spearheaded by a group of expatriate architects who drew inspiration from the Modern Movement. Through experimentation, these architects developed innovative approaches to climate-responsive architecture suitable for hot and humid conditions (Le Roux, 2003b). One of the invented solutions devised to block direct sunlight and keep the exterior walls of a building shaded, is the use of sun-shading devices or sun-breakers. Indigenous solutions to climate control encouraged colonial architects to create inventive environmental solutions. This aided the development of the Modern 'Tropical' Architecture Movement and its embodiment of environmental design in a tropical setting.

There is an increasing awareness of the importance of enhancing comfort conditions in tropical buildings (Godwin, 2003). These buildings often require external shading by the use of large overhangs and other devices for protection against intense sunlight and driving rain. The provision of appropriate sun-shading devices is crucial in ensuring thermal comfort within these buildings. The orientation, design, and effectiveness of shading devices affect the level of solar penetration at different times of the day through the interplay of sunlight and shadows (Fry & Drew, 1964). These shading devices serve not only as functional elements that improve comfort conditions in tropical buildings but also create aesthetically pleasing facades.

In this context, three buildings with distinct shading devices chosen from modern university campuses found in Ghana, Nigeria, and Uganda are presented.

THE HUMAN RESOURCE DIRECTORATE, UNIVERSITY OF GHANA, LEGON, GHANA

The Human Resource Directorate building employs a brise-soleil on its eastern façade to prevent direct sun rays from hitting its exterior surface. This arrangement of sun-shading elements, formed by shorter horizontal panels

joining longer vertical fins, is known as an 'egg crate' (Ogunyemi et al., 2015). In effect, when light rays hit the egg crate, pockets of shadows are formed that augment the building's thermal comfort [FIGURE 36].

THE FACULTY OF ENGINEERING, UNIVERSITY OF LAGOS, NIGERIA

The Faculty of Engineering is characterized by a brise-soleil, made up of slanted horizontal louvres and vertical fins, which is the most dominant feature of the building. These slanted horizontal louvres wrap around the upper half of the building with openings at specific intervals to allow free airflow. The pronounced depth of the louvres minimizes the sun's angle of incidence on the building, reducing solar heat gain within the space [FIGURE 37].

THE SCHOOL OF INDUSTRIAL ARTS, KYAMBOGO UNIVERSITY, KAMPALA, UGANDA

Unlike the above-mentioned buildings which have brise-soleils or sun-breakers attached to their facades, this building has generous roof overhangs which provide adequate shading and prevent internal heat gain from direct solar radiation. It has a circular shape with a width-to-length ratio of 1:1 approximately; this is considered the optimum shape and ratio for minimizing the total solar insolation [FIGURE 38].

36 Human Resource Directorate, University of Ghana, Legon, Ghana. © Emmanuella Ama Codjoe, 2022.

37 Faculty of Engineering, University of Lagos, Nigeria. © Jonathan Kplorla Agbeh, 2022.

38 School of Industrial Arts and Design, Kyambogo University, Kampala, Uganda. © Emmanuella Ama Codjoe, 2023.

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Bola Oguntade *is an urban planner with over a decade of experience in photography, communication design, and print management. Documenting the physical changes in Lagos has opened his mind to the need to curate and understand the urban processes, devise ways to maintain the environment in a pristine condition through research, and explore how urban photography can be enhanced. He is the co-founder of Top Rank Images Limited, a media outfit that works with organizations to develop top-notch content and images for academic, industrial, and social consumption. He is also a winner of the German Academic Exchange Service (DAAD) Bilateral SDG Graduate Scholarship (2021-2023).*

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DOCUMENTING THE REUSE OF MODERN BUILDINGS

An appraisal of a 2022 British Academy writing workshop of postgraduate students and researchers

Adeyemi Oginni, Oluwaseyi Akerele, Ademola Omoegun, Nnezi Uduma-Olugu

ABSTRACT: This paper looks into the 2022 writing workshop sponsored by the British Academy with Nigerian and Ghanaian participants. It was focussed on the present status of modern buildings, which are quickly replaced by newer ones, eroding the prevailing vernacular of the landscape of African university campuses. A new approach was adopted to documenting the stories of these buildings, which had existed prior to the time, by Africans, not foreigners. Postgraduate students were co-opted to participate in a five-day writing workshop across three universities in Nigeria. The teams were headed by Early Career Researchers (ECRs) led by a Nigerian Co-Investigator (Co-I), similar to a workshop held in Ghana just a week before. The Principal Investigator (PI) was based in the United Kingdom and assisted by two co-investigators, one from Nigeria and one from Ghana. For the Nigerian contingent, the loci group comprised four participants per group (12 participants in each of the three universities in Lagos, Jos, and Enugu campus). At each university, the participants selected modern buildings on the campus to write about, guided by the ECRs. Scheduled meetings were arranged for expert presentations, site visits, and group meet-ups to discuss their working papers. Recommendations were made for architectural histories and criticisms to be introduced into the students' curriculum, from which publications and documentation of these buildings can be carried out concurrently. Grants and awards can also be targeted at universities both locally and globally to further improve this approach. Emphasis on the cultural point of view was encouraged in the writing exercise to preserve the heritage aspects of the buildings.

KEYWORDS: Architectural styles, ECR, modern buildings, university campuses, writing workshop

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INTRODUCTION: Cities across the globe are overwhelmed with population pressure, and many old facilities are undergoing retrofitting or total replacement for newer, more efficient ones. This results in a gradual effacing of neighborhoods and buildings, leading to a loss of the prevailing cultural identity of such places (Melenhorst & Bastos, 2018). One of the programs developed to tackle this urban issue in Nigeria is the *Reuse of Modern Buildings (RMB)* program, through which students document these buildings before they are completely destroyed. Students and graduate architects also participate in practical workshops where they are instructed in writing, critical thinking, documentation and evaluating the present state and possible reuse of such buildings. One such workshop took place under the supervision of Early Career Researchers (ECRs), with a series of seminars conducted by visiting speakers revolving around the preservation of heritage modernist buildings.

In all the workshops, participants were involved in deploying their analytical and descriptive skills in evaluating sketching or taking photographs and documenting how they experienced the buildings, a brief background history on them, the departure from the initial use, and the present state of these buildings. This included archival reviews of plans and documents used in the construction of these facilities.

The students were from various departments ranging from architecture, archaeology, and urban planning to languages. They were mentored by various ECRs who served as tutors, as well as experts in the field of academia, advocacy, and practice. The participants were also from both local and international backgrounds, encouraging cultural blending and opening up to new ideas from each of the students. The forum provided the students with the initial data and information they included in their write-ups.



01 A cross-section of the team members, students, ECRs, and the Co-Is. © Oginni Adeyemi and the teams, 2021.

THE WRITING WORKSHOP

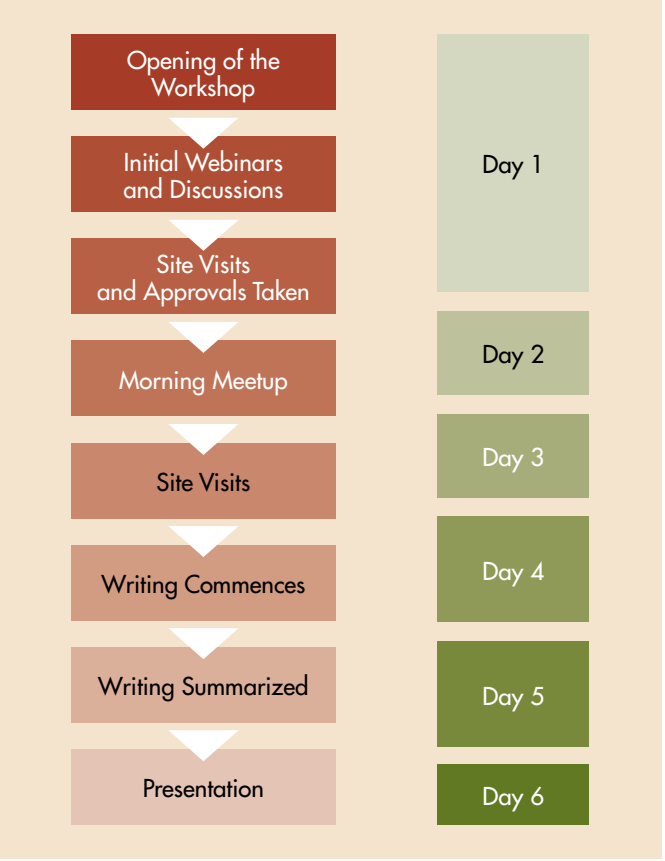
The workshop, which was held in both Ghana and Nigeria in 2021, ran from 11 to 16 June 2021 in Ghana and from 18 to 22 June 2021 in Nigeria, respectively.

The 2021 workshop focussed on Modernist Architecture on university campuses in West Africa. Workshop mentors guided participants to develop their writing skills to write critically in academic publications and contemporary media about architecture in Africa. It was decided that the workshops would have candidates work in groups of four. In essence, there were 12 students working simultaenously in three groups each at the workshops in Lagos, Jos, and Enugu campus. For each school, the aim was to identify three campus buildings for the 12 student groups to work on. This was coordinated by the Principal Investigator (PI) via scheduled timetables and delivery dates. Participants attended seminars and workshops online daily for one and a half weeks.

A short open call was made to encourage students who might have learned of the scheme online to apply. Invitations were sent out via Google application forms, which were filled out prior to shortlisting. Shortlisting involved certain criteria, including gender, level, location, school, interest in the workshop, etc. A decision was made cutting across various related disciplines and sexes to ensure gender balance. Each team was then headed by an ECR who were PhD students or graduates, supervised by the Co-Is, and headed by a PI who presided over the workings of all groups [FIGURE 01].

The workshops were run simultaneously, while panel discussions were done synchronously online. At the commencement of the project, a timetable was drawn to schedule all the activities of the teams, which included an opening program, daily site visitations, daily meet-ups, and presentations of daily 'work in progress' on the write-ups [FIGURE 02].

On the first day, the opening session was carried out with all the members in attendance. The units in charge of each building were visited to get approvals and to ensure the smooth running of the workshop. Students were informed of the scope of the work they were expected to deliver by the end of the workshop. Panel discussants were introduced to serve as resource people for the writing workshop. Afterward, the students were released to start their writing until the penultimate day of the workshop, when they were to present to their ECRs and then the entire group.



02 Diagram of the activities and course schedule. © Oginni Adeyemi, 2021.

03 Online presentation by one of the students and the PIs. © Akerele Oluwaseyi, 2021.

On this final day, an online presentation was done by each member of the four groups [FIGURE 03].

Each team member made an oral presentation of their write-ups on inspirations and experiences they had acquired while visiting the buildings. All the writings were now collated by the ECRs, vetted by the Co-Is, and prepared as working documents for publication in journals.

DOCUMENTED BUILDINGS

THE UNIVERSITY OF LAGOS MAIN AUDITORIUM

The main auditorium is located at the heart of the University of Lagos [FIGURE 04]. It is bounded by the Council Building, the University Main Library, the Senate building parking, and the Department of Architecture. It was built in the late 1970s by American architecture firm Mac Millan and Associates as an auditorium for stage plays, performances, inaugural lectures, and, most recently, for both matriculation and convocation ceremonies. The main auditorium, located in the administrative area of the campus, speaks boldly with its rugged exterior and then more calmly as you explore the interiors.

The building was perceived as a mighty giant of solids, lines, and spaces that has found a place to rest and manifest its scale; the building shows off a balanced play of solid forms and lines to define its spaces. As one walks towards the entrance, the walls reveal grove-like lines on the solid faces. Further into the space, linearity is created by the wooden panels, floor finish, staircase, and gridded plus-sized columns. The overall plan of the building is an interaction of shapes; a hexagon in a square, all together in an outer square. The hexagon is placed diagonally in the smaller square, leaving a buffer region between the exterior and interior. This space houses the lobby adorned with wooden panels similar in pattern to the concrete exterior form. It subtly welcomes you into a calmer textural expression of the initial rough exteriors.

The dexterity of space planning, material use, scale, and sensitivity to the environment, the majestic columns appearing in a fine grid, create this sense of dominance compared to human proportion. The solid concrete base on which the building stands emphasizes the sense of stability, making it appear as though it was etched out of the landscape. The stairs connecting different building levels to the outside further amplified the appropriateness of its position on campus.

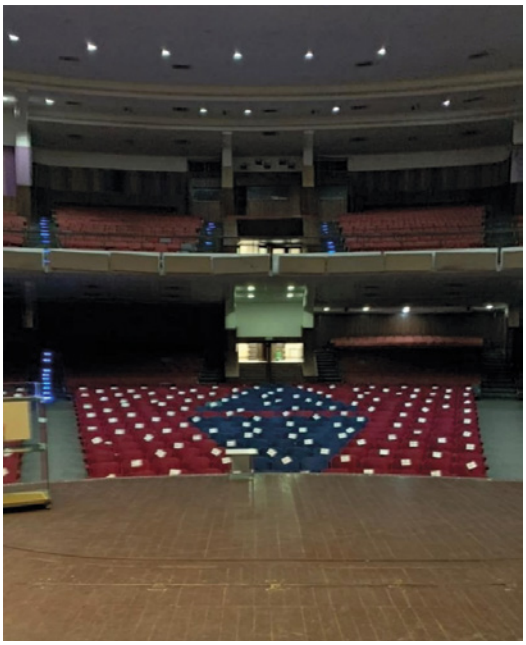
The building is brutalist in nature, although it has soft elements both in its interior and exterior. It has an outdoor space with a double volume and columns coming right down from the roof that reminds one of a caryatid as it carries the large roof; this space is located on two sides of the building connected by a walkway. The concrete overhang serves as balconies.

The interior speaks to a much different look than the tough exterior; it shows the contractors' expertise and level of thought and precision that can only be appreciated. On entering the central lobby, one immediately notices the interesting use of materials for space definition, from the wooden wall finish to the terrazzo floors. Right at the entrance, one sees a security machine very alien to the rest of the space, which says it is an addition. The building layout is open, and one can see several directions, each showing where to go without having to look at the signage. The design engages the use of straight lines, angles, and geometry, which are translated all through every element of the building, from the floor to the walls, the ceiling, and the stairs; indeed, a carefully planned work of art that interprets the building's language.

The lobby's entrance to the auditorium hall is lined by wooden wall finishes that blend with its wooden doors as one steps down into the main hall. On pushing the doors open, one gets a view of the entire auditorium, the stage, and cascading rows of seats. The seats are covered in wine and blue velvet covers, and the ceiling is perforated with acoustic ceiling boards [FIGURE 05].

On entering the auditorium, you are welcomed with the soft feel of the carpet underneath your feet, used along

04 The University of Lagos Main Auditorium. © Oginni Adeyemi, 2021.



05 Interior of the main auditorium. © Oginni Adeyemi, 2021.

the aisles to serve as a sound absorber while accessing the seats. There is an introduction of curves from the stage design, which was translated to the gallery arrangement, giving a wide-angle view of the stage from every level. The interior of the building is very colorful. The chair arrangement in the main auditorium can seat about 2,000 people.

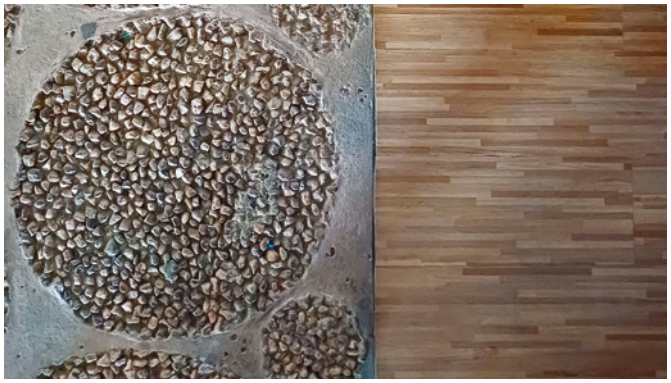
THE UNIVERSITY OF LAGOS GUEST HOUSE

The subtle interplay of levels characterizes this building [FIGURE 06] as one is led through the volumes into the interior and gradually toward the waterfront on the other side. The building's solid form masks the interior impressions made with light, sound, texture, and color; the hard exterior contrasts with the sense of warmth felt as one walks through the interiors. Despite its relative obscurity, the building is nestled between the Faculty of Management Science to the south, the Faculty of Law to the southwest, the Tayo Aderinokun auditorium to the north, and the Lagos lagoon to the east along Otunba Payne Street. The monotonous treatment of the shading devices, as well as the rectilinear arrangement of the spaces make it easy to dismiss the building as one of the many others that exist on the campus. However, it is not until one has a chance to see beyond this prevailing vernacular, tropical style that dominates the campus that the building actually comes to life. The wrought iron artwork is a signature element on the outer layer that incites curiosity about the combination of an artistic feel and the modernist building.

Despite its strong visual characteristics, experiencing the building creates a totally different impression from what was initially perceived. Its subtle and unassuming approach gives nothing away, revealing very little about what lies underneath. The building opens up more and more with every step, every sound, and every encounter. Every view allows for a deeper appreciation of the building and the spaces within, around, and in between and sets the stage for various human actions and interactions. The experience of the spaces can be likened to a hug from a distant family member, one only known from pictures or stories, meeting them for the first time. The sense of familiarity that accompanies the exchange, despite not knowing them at all. The building is situated at the northernmost point of the campus, away from focal activities. In spite of the activities that take place around the building, the guest house provides a place to rest amongst the prevailing activities of work and school. The building can be accessed primarily from Otunba Payne Street, which comes from the University's senate building. It is a road shaded from the sun by leaves and branches of trees that flank either side. The drive on Otunba Payne Street is calming, with the bright yellow walls of the guest house ready to receive one at the end.

The architect's use of contrasting materials is evident from the first step into the building. Shoes clacking on the stone-coated concrete floors announce one's entry into the guest house. The sound forces you to immediately look down at the pattern of circular patches cast within the concrete floor beneath your feet. The rugged character of the building carries through the entire space, and every material used begs engagement. As a result, one might

06 The University of Lagos (UNILAG) Guest House. © Omoegun Demola, 2021.



07 The UNILAG guest house stone-floor finish against the tiled walls. © Omoegun Demola, 2021.

08 The hexagonal skylights beaming light inwards into the interiors of the main conference hall. © Omoegun Demola, 2021.

find oneself running one's fingertips over the tiled walls of the lobby or rubbing the soles of one's feet against the rocky ground plane. The texture or finishing of the floors of the guest house is shown in [FIGURE 07].

The architect consciously used a change in materials as a way to define space as well as spatial elements. As a result, the stark contrast between the treatment of the ground, floor, and roof planes is immediately evident. The rough floors differ from the smooth brick walls, which were painted over and over again in an attempt to preserve them. The white asbestos ceiling boards differ from the concrete columns to which they are attached. Conversely, the stones used on the floor of the entrance lobby differ from the ones used in the waiting area despite their proximity.

Within the space, it is also evident that light is treated as an element of the building [FIGURE 08]. Sunrays from the adjoining courtyards filter through the arches of the walkway, punctuating the darkness of the semi-enclosed spaces. This use of light is particularly evident in the rotunda conference hall that sits above the auditorium. Upon entry, the light beams from the skylight above filter through the dark, dusty air and slightly illuminate the velvet seats below.

The building's response to the site is simple, as the individual blocks cascade towards the Lagoon front to accommodate the site's slope [FIGURE 09, FIGURE 10]. As movement drops downwards, one gets closer to the lagoon and a sense of calmness permeates the space. The administrative block and the rotunda auditorium are situated at the highest point of the site, while the restaurant and the senior staff club are situated at the lowest point towards the lagoon.

As a result of the play-in-levels, one would often hear something before realizing what it is, as everything is hidden from a direct plane of sight. From the noises of the receptionists talking at the welcome desk to guests making conversation in the lobby, sounds from the business administration building seeping in through the courtyard along with the buzz from the students leaving the coffee shop, the sound from the auditorium as students gather for their weekly church fellowship, and the sound of a man hidden behind the hedges eating his lunch after a long day of work. The chatter of students at the surrounding auditorium talking about their day, the quiet of the quadrangle that invites contemplation.

09 The differences in levels of the spaces within the complex. © Omoegun Demola, 2021.

10 The UNILAG guest house quadrangle. © Omoegun Demola, 2021.

FACULTY OF SCIENCES

The Faculty of Sciences, University of Lagos, [FIGURE 11] is a building that welcomes you with uniformity of forms and layers. This structure was designed by John Godwin and Gillian Hopwood and constructed in the 1970s. On approaching the complex, one is overwhelmed by the building's four-floor façade; a concrete interplay of walls and columns. Rows of windows punctured by unsightly outcrops of air conditioning systems are complemented

11 The Faculty of Sciences. © Akerele Oluwaseyi, 2023.

12 The courtyard of the Faculty of Sciences. © Akerele Oluwaseyi, 2023.

by the vertical members on the façade. The courtyard is shown in [FIGURE 12].

On one's journey through this old building, one is struck by the stark differences between its original form and its current status, resulting in an impression of disconnection between the years of use.

The concrete members with stratified wall finishes have been repainted in many areas. Mosaic tiles on the first-floor walls have narrowly escaped renovation as they are still preserved in their original form, albeit worn out with age. Unfortunately, the wooden ceiling panels have not been so lucky. Most wooden panel ceilings on the ground floor have been replaced with PVC ceiling boards. Regardless, the building still works well for its intended purposes. However, there is a clear mark of discontinuity of use in the building materials. One cannot help but wonder how these contrasting features have materialized. Understandably, social and economic conditions have influenced these changes, but it seems that few attempts have been made to preserve or continue the building's theme with the new installations.

The building is a complex of blocks connected by a network of stair halls, walkways, and lobbies, all located on varying levels. Outcrops of stair halls on the otherwise seamless façade provide multiple accesses to the building. These areas, opened up on both sides, encourage the appreciation of the site's views for students ascending into the building. The stair halls serve a more definitive purpose as departments in the faculty are marked by each staircase landing. True to its architectural style, the complex entry stands on a series of *pilotis* interrupted by closed spaces of security posts. As one walks into the entrance area, one is greeted with the sight of students sitting at the quadrangle–reading, laughing, and chatting.

The building does not hide its purpose. However, there is a stark contrast between the outward minimalist appearance and the vibrant colors, activities, and scientific exhibits that characterize the interior space. Students lounge in curvilinear concrete seats that appear to have emerged from the ground. Alongside these are typical classroom pieces of furniture that seem misplaced in this scene. On the ceiling, plastic-based ceiling materials try to imitate the original wooden look but have failed with the fading of the panels.

Walking further inwards, one leaves the sensory overload of the bustling activities behind and is soothed by the view of the building's landscape. The second half of the complex comes into view and calls you through the connecting walkways flanked by courtyards of green areas. This space is a transition from the outer social and administrative activities to the quietness of learning. You can feel the building's age as you walk down the hallway. Large water tanks elevated on slabs have replaced lush vegetation in green areas. On the walls of the staircase connected to the walkways is a plethora of students' posters, either newly pasted or already bleached. The landings are made of terrazzo floor tiles showing the same age as the walls and steel railings.

On arriving at the basement floor, one stands face to face with the most glaring evidence of the building's adaptation–the walls now doused in cream-colored paint. The attempt to renovate the walls may have proved abortive as this is the only outdoor section to have undergone this drastic change. This level of classroom blocks is adjoined by a long lobby directly opposite the courtyard [FIGURE 13].

The painting of the fair-faced concrete expresses a disconnection between the building's original form's texture and its renovation attempts which may have occurred as a result of the disregard of the building's initial brutalist architecture language which emphasized the use of concrete in its natural form. Inspite the users' appreciation of the building that functions well for their needs. However, to some, the Faculty of Science is seen as boring, lacking ornamentation, and color.

13 The wall treatment (painting) now. © Akerele Oluwaseyi, 2023.

THE POSSIBILITIES AND LIMITATIONS OF THE WRITING WORKSHOP AND ITS ROLE IN ARCHITECTURAL PEDAGOGY

The workshop proved to be an efficient process of studying and documenting the modernist buildings on each of the campuses. By the end of two weeks, descriptive write-ups had been produced by the students and presented on the final day of the workshop.

The documentation of these buildings served as an eye-opener for the students by improving their knowledge and appreciation of history, structures, and architectural detailing. However, one drawback was their poor knowledge of photography, which is key to documenting historical buildings. Another was the students' limited knowledge of architectural history, especially the architecture students, resulting from not having these courses taught earlier in their curriculum.

Architectural histories, being a course of study in the PhD curriculum, should already be implemented in the Master's levels of architectural studies at African universities. This will promote continuity in the documentation of these modernist buildings, increase the awareness of their historical value, and prevent the demolition of more structures in the nearest future. The workshop proved to be a successful tool for the documentation of the buildings.

CONCLUSION

Writing workshops serve as a tool for active pedagogy. They allow students to be hands-on on any particular theme for discussion, in this case, the adaptive reuse of modernist buildings. The exposure during this workshop was good for students as they learned the essence of modern historical buildings and appreciated them after the exercise. Engaging postgraduate students in this activity served to help document these African modern buildings, detailing their experiences while they studied them. This increased their knowledge of their history and why they should be preserved despite their current adapted use.

ACKNOWLEDGEMENT

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CAMPUS UTOPIAS

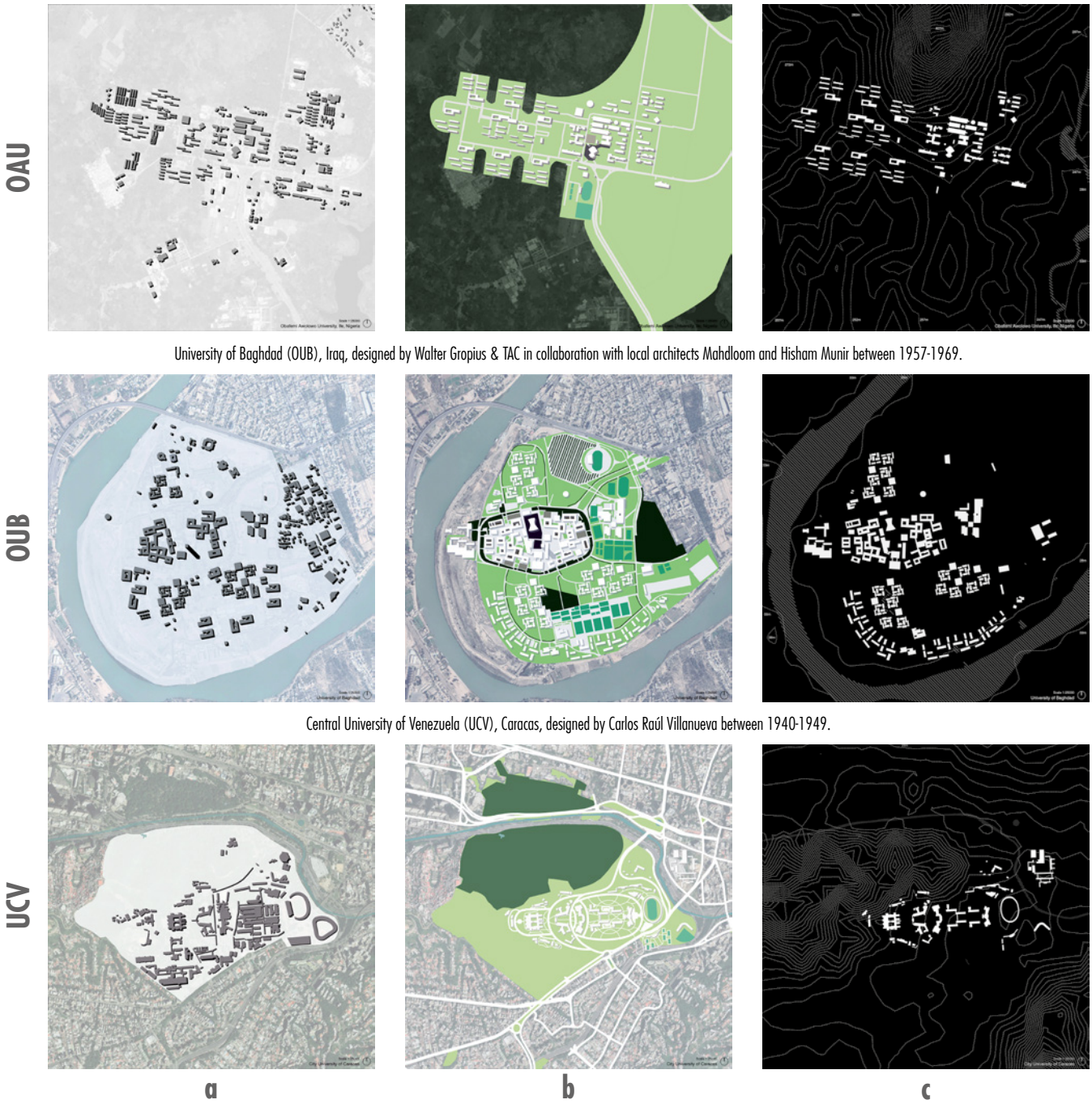
A visual re-reading

Ayşen Savaş, Esther Gramsbergen, Yağiz Söylev

ABSTRACT: "Campus Utopias: A Visual Re-reading" describes a multidisciplinary graduate course conducted collaboratively by TU Delft and METU Ankara's Architecture Departments in 2022. The research course focused on the key urban and architectural features of selected campus projects, examining how the modernist architects engaged in these designs were able to use them as a basis for the experimentation of new educational-residential models for living.
This research paper explores the formal aspects of these campuses and their architectural significance. It recognizes the diverse geographies where the modern architectural movement took root and the active role played by political, economic, and cultural agents in shaping these projects. Working with local agents and situating modern architecture within its surrounding infrastructure and landscape helped master architects to integrate local architectural values and new building technologies.
The article presents three case studies: Obafemi Awolowo University in Nigeria, the University of Baghdad in Iraq, and the Central University of Venezuela in Caracas. These campuses were designed and built after World War II, representing the aspirations of newly installed governments. The article highlights the architectural approaches that incorporated environmental considerations and cultural inspirations and the socio-economic considerations in each project.
The research methodology involves a comparative analysis of the campuses, focusing on their formal qualities and in-between spaces. The students involved in the graduate research course utilized various media and techniques of representation, including 3D digital drawings, models, collages, and physical reliefs. The work results were presented in the form of an exhibition titled "Campus Utopias" at TU Delft Faculty of Architecture and the Built Environment in April 2022. The student projects in this photo essay show the diversity of scale and make visible the similarities and differences in the overall campus design approaches of the three projects. The major focus is on the in-between spaces and the outcomes of the multidisciplinary work of architects, engineers, landscape architects, and artists.

KEYWORDS: Modernist university campuses, cross-cultural influences, campus utopias, creative analysis

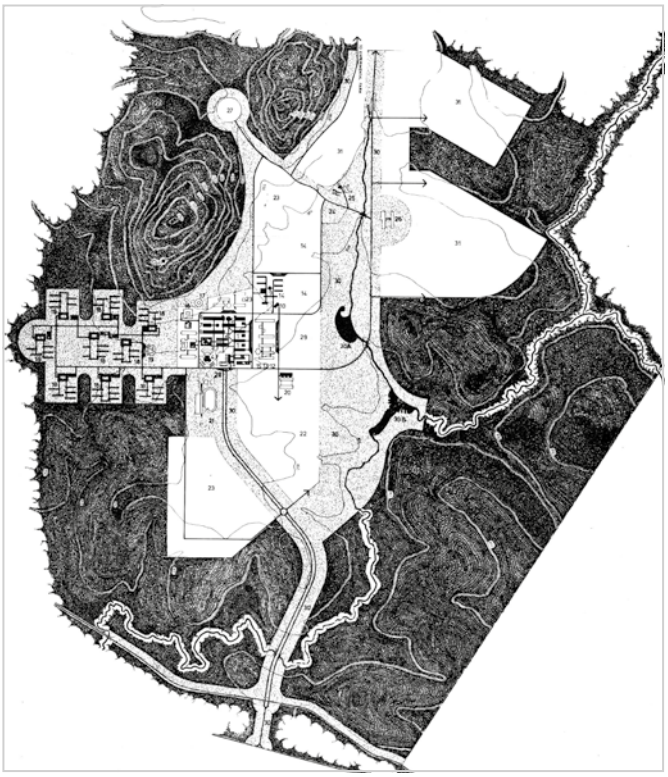
INTRODUCTION: "Campus Utopias" is a multidisciplinary graduate course conducted as a collaboration by TU Delft and METU Ankara Architecture Departments.[1] Since 2019, this design research course has focused on the key urban and architectural features of selected campus projects. For modernist architects, the campus was a challenging field of experimentation that informed new urban models. Conceived as a community or a small city, it offered the opportunity to reflect on some of the most ambitious visions for a better society. In the search for the ideal living and learning environment, radical spatial experiments were carried out that led to some of the most emblematic buildings in modern architecture. In the 2021-2022 spring semester, the course investigated the formal aspects of a series of university campuses selected from the so-called Global South. The list included Oscar Niemeyer's University of Brasilia, Walter Gropius & The Architects Collaborative's (TAC) University of Baghdad, Louis Kahn's Indian Institute of Management (IIM), Arieh Sharon's Ife Campus in Nigeria, Mario Pani and Enrique del Moral's UNAM in Mexico, Carlos Raúl Villanueva's City University of Caracas, S.J. van Embden's National University of Singapore, Maxwell Fry and Jane Drew's National University of Ibadan in Nigeria, and Pierre Jeanneret's Panjab University in Chandigarh, India, designed under the guidance of Le Corbusier. This list



01 a) Current condition, map based on OpenStreetMap and Google Maps; b) greenery and water elements on the campus (original plan drawn in current condition); c) figure-ground map of original plan in relation to topography. © Aaltje Smit, Olivier Bierens, Judith Oostherhoff, Valentin Gies, Christina Sarra, Steven ter Schure, Wendy Wu, Shanshan Xie, Sare Genç, Casper Laan and Harin Naik, 2022.

indicates the diversity of geographies where the influence of the Modern Movement can be identified. Various political, economic, and cultural agents played an active role in this development, and architects responded creatively to these complex and challenging conditions.

From this list, three projects from three continents were selected for this photo essay to illustrate the outcome of the course in which students focused on the architectural significance of university campuses. Obafemi Awolowo University (OAU) in Ifẹ̀, Nigeria, the University of Baghdad (UOB) in Iraq, and the Central University of Venezuela (UCV) in Caracas, Venezuela. All were designed and built after World War II and represent the aspirations of newly installed governments. The significance of two of these projects has been recognized by international and local conservation organizations in different ways. The UCV campus was declared a World Heritage Site by UNESCO in 2000, followed by OAU in 2020, which was included in the Getty Conservation Institute's "Keeping It Modern" initiative (KIM). The DOCOMOMO Iraq chapter was established in 2016, and its founders were members of UOB's Architecture Department, which can be considered a promising sign. Recent publications and exhibitions have already put these experimental projects into a historical context.[2] Socio-political investigations focused on the role of architects as an agent in mobilizing development resources as an alternative to dominating colonial expertise. Architects, responding to local concerns with construction techniques and materials, contributed to discourses on international modernism.



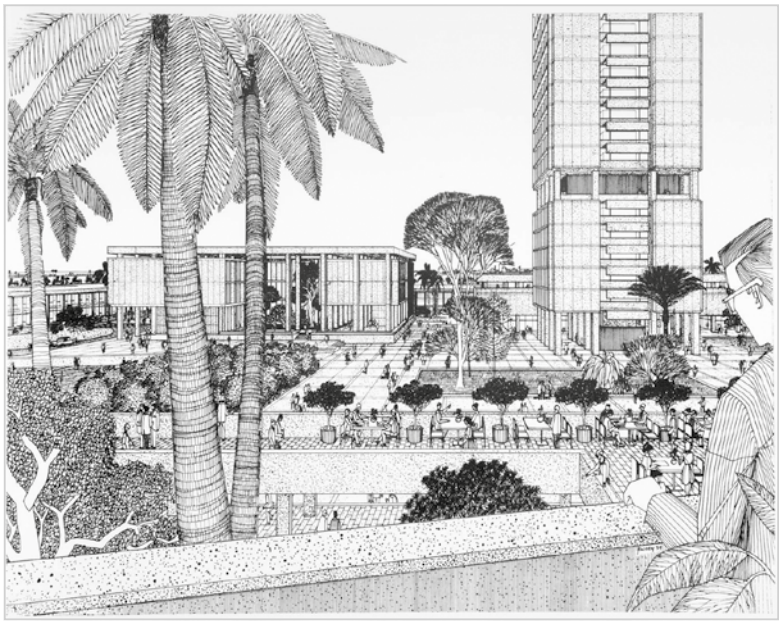
02 1962 Masterplan of the OAU Ifẹ̀ campus by Arieh Sharon. © ariehsharon.org, 2022.

OBAFEMI AWOLOWO UNIVERSITY (OAU), IFẸ̀

After Nigeria declared independence in 1960, the University of Ifẹ̀ (renamed Obafemi Awolowo University in 1987) was designed between 1962 and 1976.[3] Arieh Sharon (1900-1984), a Bauhaus-trained Israeli architect, designed the campus together with his son Eldar Sharon (1933-1994) and artist Harold Rubin (1932-2020). Ayala Levin, in her recent book "Architecture and Development", explains the reasons behind choosing a non-European architect as an alternative to the established "settler colonial imagination" and an unorthodox way to plan for the architectural development of Sub-Saharan Africa.[4] The university project was initiated within a decade of when political relations were realigned between Israel, which gained independence from the British mandate in 1948, and Nigeria, decolonized from the British Empire in 1960. As an Israeli architect, Sharon was chosen as an alternative to British or other European architects to represent Nigeria's independence and new democratic national identity. Israel's neutral position during the Cold War and the capacity of Israeli architects, planners, and consultants to provide aid from international organizations such as the US Agency of International Development (USAID) and made it possible to operate at different scales and meditated among international institutions, government agencies, and domestic stakeholders. The layout of the campus is a combination of modernist schemes and local planning and architectural traditions. Inspired by the Yoruba palace design, the main core is designed on a loose grid that fuses between abstract arrangement and freeform. Starting from the selection of the site located in Ifẹ̀ (also Ilé-Ifẹ̀), considered the cradle of Yoruba culture, aesthetic inspirations combined with international influences made possible diverse readings of the campus architecture. Environmental considerations were a major concern for the campus architects. The pyramidal grading of the building blocks and recessed terraces were intended to cope with the glaring heat and monsoons and to emphasize sculptural horizontality. Murals on concrete facades emphasize the scale and geometry of the buildings and present contemporary interpretations of Yoruba Art.

THE UNIVERSITY OF BAGHDAD (UOB)

In 1957, Walter Gropius (1883-1969) was commissioned by King Faisal II to build a university with 273 buildings that would become "a small town"[5] on the banks of the Tigris. At the time, Gropius, the founder of Bauhaus, was already in the United States and shared the responsibility of the campus design with the Harvard-based The Architects Collaborative (TAC) and local architects Mahdloom and Hisham Munir. After World War I, Baghdad became the capital of the newly created British mandate, and British influence remained dominant until 1958. During the post-war period, the city underwent a period of political turbulence, with a succession of coups and military regimes, which ended when the Arab Socialist Party came to power and started the policy of socio-economic development. The pursuit of national identity and the claim of modernization were reflected in the art and architectural works of the period. In the 1950s, King Faisal II channeled oil revenues to development projects. He convened a development board that invited modern architects such as Frank Lloyd Wright, Alvar Aalto, and Gio Ponti and sought to instill Western forms while adapting to vernacular



03 Walter Gropius & TAC and Hisham Munir, perspective drawing of the central plaza from the student center, University of Baghdad, 1960 © Canadian Centre for Architecture, Walter Gropius c/o Pictoright Amsterdam.

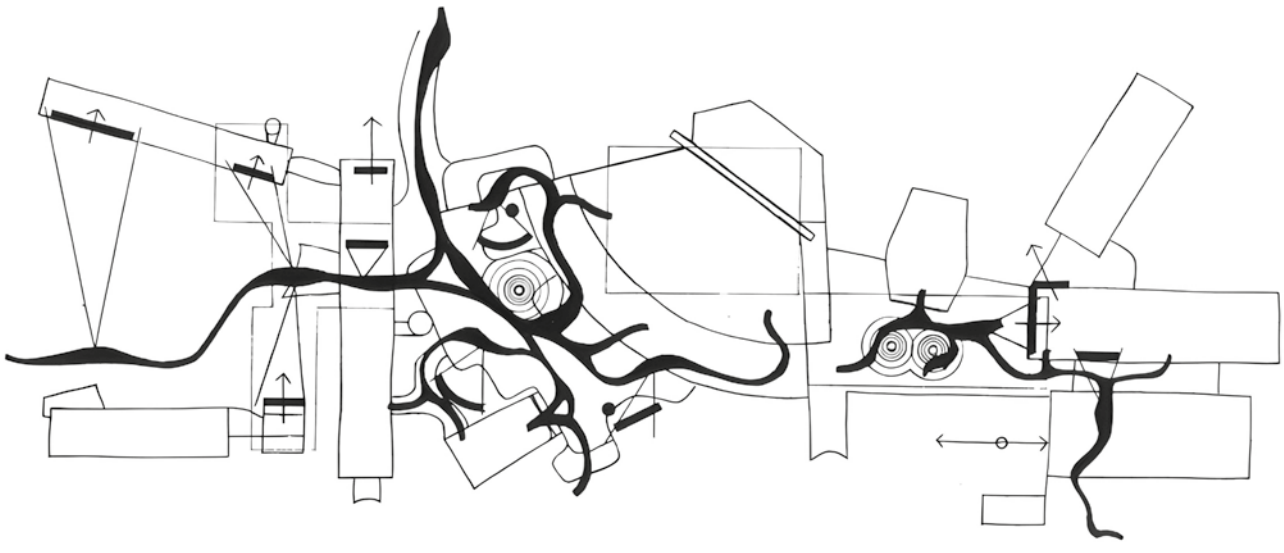
architecture and using local materials. Meanwhile, local architects who studied in the West incorporated Western ideas in their designs.

The members of TAC envisaged a low-rise, dense development, like those of a traditional Arabian settlement: "The basic concept has been the idea of the balance of unity and diversity, integration and differentiation."[6] All buildings were designed around patios and connected with continuous walkways. The central campus, enclosed by a ring road, was surrounded by clusters of student dormitories and public functions. "The interrelationship of the individual buildings and the landscaped open spaces with their water fountains between them, as well as the shadow effects from the strong sunlight obtained by cantilevers and undercuts, will cause a significant rhythm.",[7] Gropius explained. Due to political upheavals in Iraq in the following years, execution was delayed, and only part of the design was ever realized.

CENTRAL UNIVERSITY OF VENEZUELA (UCV), CARACAS

The Central University of Venezuela in Caracas was designed between 1940-1949 by a local architect trained in Europe, Carlos Raúl Villanueva (1900-75). He was born in Venezuela and completed his architectural education in France. In his publications on the design of the campus, architectural historian Enrique Larranaga underlines the significance of Villanueva's friendship with August Perret in Paris and follows the traces of modernist architecture illustrated in both architects' interpretation of Beaux-Arts training.[8] Venezuela was separated from Colombia in 1830, followed by a dictatorship that built a new infrastructure network with funds from the oil industry. The waves of immigration that followed World War II contributed to the diverse culture in Venezuela and led to an orientation towards modern architecture. The plan of the old city, divided into identical squared blocks, was used as a model for the expansion of Caracas.

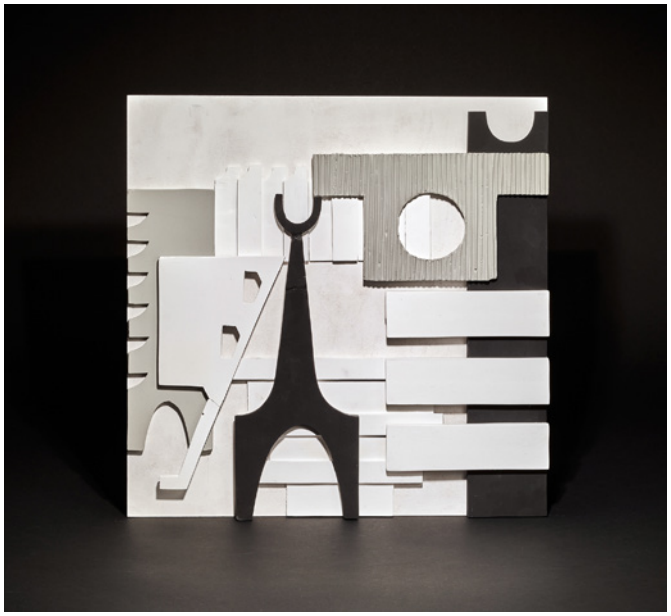
The city plan proposed by Maurice Rotival in 1938 was based on ideas of modern city planning with a grand central avenue that cuts through the existing gridded urban fabric. During Simon Bolivar's colonial era, Villanueva proposed a central axis plan for the Central University of Caracas, formally based on the Beaux-Arts traditions with volumes arranged on either side, including a botanical garden.[9] Later transformed by modern explorations, the final design of the campus lost its initial east-west axial symmetry with the introduction of a series of public buildings with opposite orientations. It was the organization of the pedestrian circulation that broke the rigid order of this rigid axiality. Art played an important role in the overall design of the campus. Artists such as Alexander Calder, Alejandro Otero, Mateo Manaure, Fernand Léger, and Jean Arp installed murals and sculptures to enhance the spatial organization on the site. Based on the American university campus typology, the project revealed modern trends without compromising the values of traditional architecture with its climate-appropriate streets, squares, courtyards, and patios. The free plan drew attention with its volumetric transparency, perforated walls, in-between public areas, brise soleil, and covered walkways. Despite the prolific use of concrete, the campus, with a daily population of 150,000 people, impresses with its ability to cope with the wild tropical nature and harsh climate.



04 Carlos Raúl Villanueva, sketch indicating the movement through the campus in relation to buildings and artworks. © Moholy-Nagy, S. (1964). Carlos Raúl Villanueva und die Architektur Venezuelas, Gerd Hatje, p.97.

05 Layers of cross-cultural inspiration at the OAU campus, four reliefs by Valentin Gies: 'stairs and structure', 'the wall as a canvas', 'the Island in the forest', 'social utopias'. © Max Hart Nibbrig, 2022.

06 Collage showing the relationship between inside and outside, between buildings and landscape at the OAU campus. © Aaltje Smit, 2022.

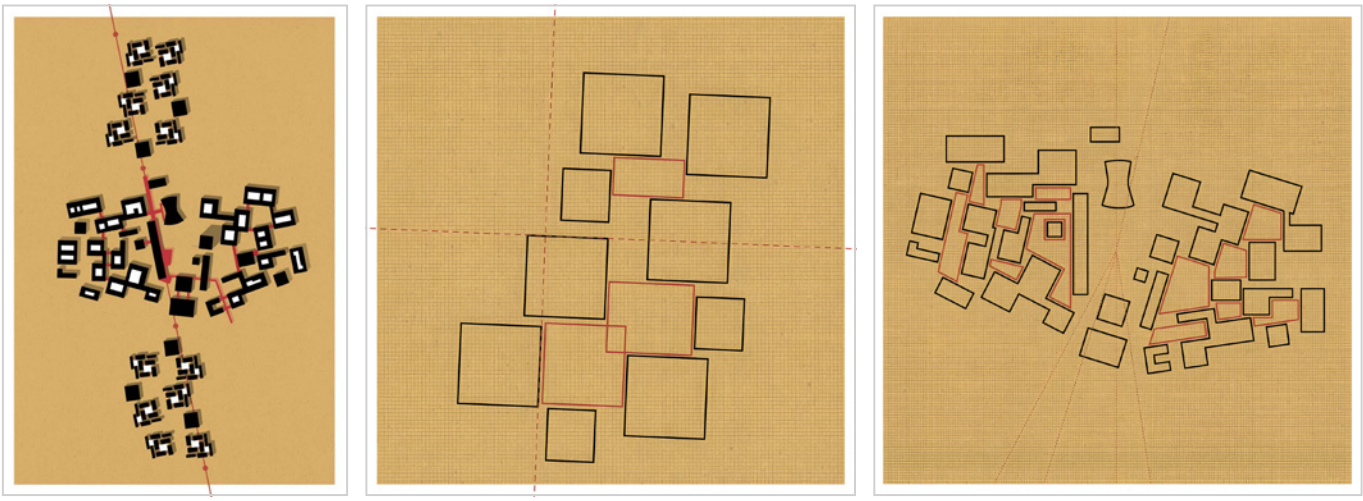


07 Relief by Olivier Bierens, interpretation of formal languages that define the character of the OAU campus. © Max Hart Nibbrig, 2022.

08 Relief by Judith Oosterhoff, the main structure of the OAU campus represented as a carved-out tree branching into the forest landscape. © Max Hart Nibbrig, 2022.

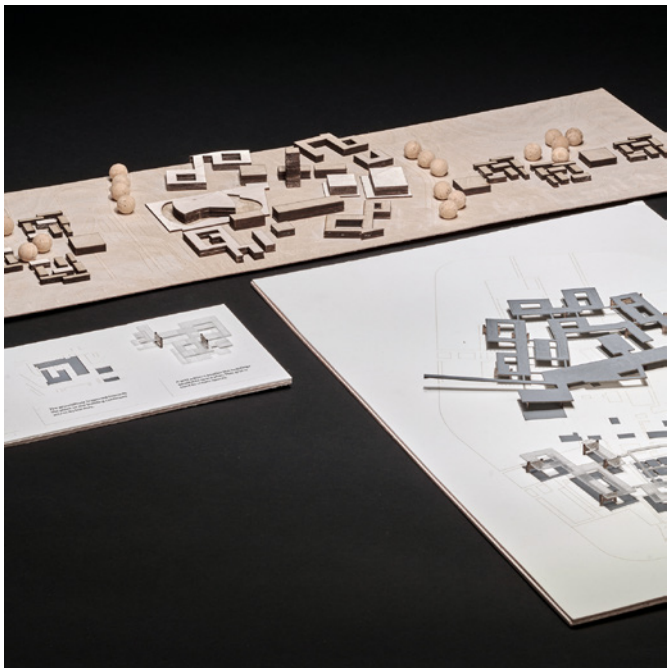
GENERAL CHARACTERISTICS

In all these experimental projects, the new governments presented the establishment of new universities as an important means of development towards a modern country. Universities understood themselves as a showcase of the contemporary lifestyle and facilitators to raising a new generation that adapts to new living conditions. Dormitories, staff houses, cafeterias, central buildings, and sports facilities were included in the architectural program besides educational buildings, and the open spaces between the buildings were meticulously designed and became a tool for organizing social life. These campuses also served as models for infrastructure projects, which are tools of new modern-focused forms of urbanization. The separation of pedestrian and vehicle traffic, the landscape-producing space together with architecture, and the fact that works of art are one of the significant inputs of campus design were the sources of the success of these interdisciplinary design exercises. Instead of separating the local from the international, working with and putting modern architecture within its surrounding infrastructure and landscape helped master architects to integrate local architectural values and new building technologies. While the main pedestrian circulation axes, arcades, and urban platforms suggested new, informal social spaces, works of art diversified the architecture as alternative meeting points and landmarks.



09 Analysis of compositional elements of the UOB campus, compositional pattern of the dormitories and courtyards, compositional pattern of the central zone. © Shanshan Xie and Wendy Wu, 2022.

10 Model of the central zone at the UOB campus by Steven ter Schure, emphasizing the connection between the courtyards and the continuous circulation on the first floor. © Max Hart Nibbrig, 2022.



11 Series of models by Christina Sarra, Steven ter Schure, Wendy Wu, and Shanshan Xie, showing the coherent design approach in different scales at the UOB campus. © Max Hart Nibbrig, 2022.

CREATIVE RE-READINGS: AN ARCHITECTURAL EXHIBITION

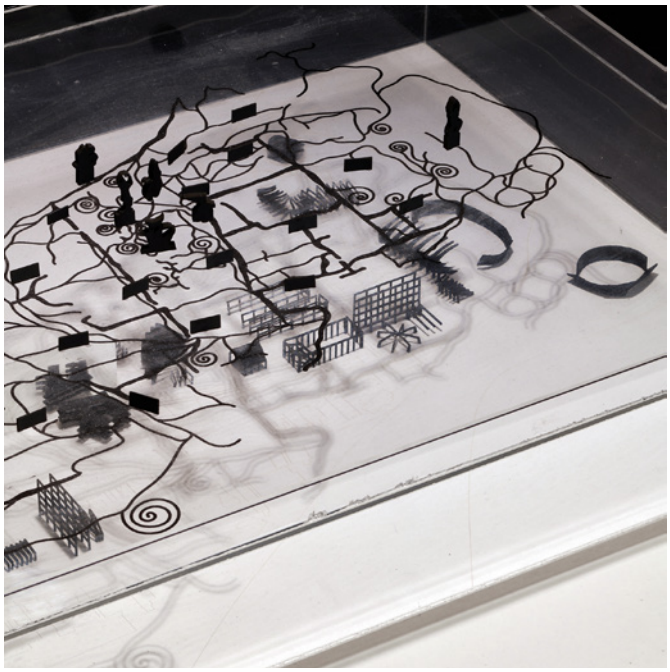
The "Campus Utopias" course explored a large spectrum of archival material and specifically focused on the visual and textual documents related to the formations of campus architecture. Rather than in-depth explorations of contextual studies, the formal qualities of these environments were the main themes of students' work. "Comparative Maps" is the first group of drawings illustrating the formal characteristics of the campuses. These studies, abstracted from the master plans drawn at the same scale (1:25,000) and showing the architect's first idea, the final state of the campus, alternative figure-ground relations, and the landscape, enabled the campus projects to be read and interpreted by morphological comparison. These maps provide a common ground for comparative re-readings by representing the initial ideas behind the site selection decisions, interpreting topographic slopes, riverbeds and valleys, landscape interventions, and infrastructure layout.

design processes of these complex projects. The course is conducted with the conviction that the methods architects develop to visualize ideas are also operational in understanding these precedents. Based on major published sources and original drawings, students create 3D digital drawings and models to understand their urbanistic, architectural, structural, and infrastructural characteristics. The final works are presented in 3D collages, conceptual physical models, clay and wood reliefs, site sections, and plans. Students have the opportunity to explore the potential of different media to represent their ideas. In addition to the booklets they prepared, they experienced the creative environment of the exhibition space and visual collaboration software such as Miro. The course proposed a method of critical re-reading, paying attention to five different scale levels and their inter-scalar relations: from the territory to the campus, the building, the interior, and finally, the materials. The object of study, the modern

12 Collage showing the relation between the covered walkways and artworks at the UCV campus. © Sare Genç, Casper Laan, and Harin Naik, 2022.

13 Photo montage showing the construction of the buildings, walking routes, and artworks in juxtaposition at the UCV campus. © Sare Genç, Casper Laan, and Harin Naik, 2022.

14 Impression of the circulation in-between buildings at the UCV campus. © Sare Genç, Casper Laan, and Harin Naik, 2022.



15 Model of the UCV campus, by Sare Genç, Casper Laan, and Harin Naik, consisting of transparent layers, synthesizing the built elements and artworks through the effects of light and shadows. © Max Hart Nibbrig, 2022.

campus, is conceived as "a total work" of architecture, displaying design ideas in various scales starting from the urban design decisions to material details; and sub-themes emerge from its multidisciplinary aspects: urban design, art, landscape, infrastructure, and engineering. Beginning with rather formal analyses, and as a next step, exploration of different representation techniques was encouraged.

The final product of the course was an exhibition in which students compiled their re-readings in a display at the Faculty of Architecture and the Built Environment of TU Delft from April 12 to May 6, 2022. Exhibition preparation was handled as a continuation of the creative thinking process. The exhibition installation process brought students and educators together in an educational environment where representing, curating, or exhibiting architecture became an architectural production in itself.[10] The preparation of content and spatial design offered an opportunity to reinforce the relationship between thinking and making within and for architecture. This process is conceived as a tool for students to face the challenges associated with implementing a design project in the physical environment.

ACKNOWLEDGEMENTS

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Ayşen Savaş *(1962) graduated in architecture from Middle East Technical University (METU) and The Bartlett School of Architecture (UCL). She completed her PhD at Massachusetts Institute of Technology (MIT), and has conducted courses on various modes of architectural representation. She has been involved in academic research, exhibition design, and museum projects, collaborating with institutions worldwide. For her work, Savaş has received numerous national and international awards and fellowships, including the AIA Architectural Award and the Getty 'Keeping it Modern' Grant for the Faculty of Architecture Building of METU. Her innovative display theme for the Turkish Pavilion at the 2010 World EXPO in Shanghai earned her the Silver Medal.*

Esther Gramsbergen *(1964) graduated in architecture from Delft University of Technology in 1989. She has worked for various architectural firms, including Karelse van der Meer Architecten and ArchitectenCie. Since 1999 she has been employed as an assistant professor in architectural design at Delft University of Technology's Faculty of Architecture and the Built Environment, and since 2009 as an editor of the journal OverHolland. In 2014, she obtained her PhD at Delft for a dissertation entitled Kwartiermakers in Amsterdam: ruimtelijke transformatie onder invloed van stedelijke instellingen, 1580-1880. Her current research focuses on the role of institutions, such as universities, in urban transformation processes.*

Yağiz Söylev *(1991) graduated in architecture from Delft University of Technology in 2018. He works at the Department of Architecture at TU Delft and is involved in various research projects including the OverHolland Journal. His research interests involve global knowledge transfer networks in the post-war period from the decolonial perspective. Söylev was the associate curator of the Pavilion of Turkey, at the 16th Venice Architecture Biennale in 2018. His work has been displayed in international exhibitions like Istanbul Design Biennial, Dutch Design Week, and Shenzhen UABB. He has practiced as an architect at KAAN Architecten and kpm architecture studio.*

ENDNOTES

1 The work is embedded in a larger research program initiated with the Getty Conservation Institute "Keeping It Modern" Project. Both the Aula Building at TU Delft and the Faculty of Architecture Building at METU Ankara received the Getty KIM grant in 2017.

2 For a thorough investigation of the political, economic, and social contexts in which these campus projects emerged and related bibliography, please see: Levin, 2022; Wright, 2008; Larranaga, 2005; Stanek, 2020.

3 Levin, 2017; Livsey, 2017.

4 Levin, 2017.

5 Gropius & Harkness, 1966.

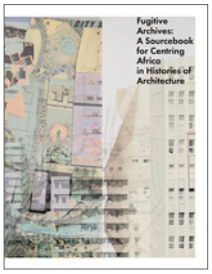
6 Gropius, 1959, 292.

7 Ibid.

8 Larranaga, 2005.

9 Carranza & Lara, 2014, 166-169.

10 Arrhenius et al., 2014.



FUGITIVE ARCHIVES: A SOURCEBOOK FOR CENTERING AFRICA IN HISTORIES OF ARCHITECTURE

2023
CLAIRE LUBELL AND RAFICO RUIZ, EDS.

Fugitive Archives is the outcome of the project Centring Africa: Postcolonial Perspectives on Architecture. It is a collection of primary sources chosen by the research fellows Doreen Adengo, Dele Adeyemo, Warebi Gabriel Brisibe and Ramota Obagah-Stephen, Rachel Lee and Monika Motylinska, Ikem Stanley Okoye, Cole Roskam, Łukasz Stanek, and Huda Tayob. According to the editors, Claire Lubell and Rafico Ruiz, the 'Fugitive' emerged in one of the conversations, in which Ikem Okoye talks about 'fugitive architecture' which "seemed to operate under the radar of European colonists but that has since also escaped the attention of architectural or urban historians."

Fugitive Archives is not a book about African architecture or its history, but a collective reflection on ways primary research can shift established bodies of knowledge to position Africa at the center of modern and emergent architectural histories. Appreciating that traditional archival material is unavailable the authors had to develop new ways of 'finding', 'seeing', and 'listening'. The sources presented here are starting points for engaging with experiences of African architecture that were considered irrelevant or difficult to access and therefore not included in the canon of global architecture references.

The sourcebook emerged from a shared goal to have the projects intersect in various ways and to generate something useful for emerging scholarship. It is structured in three sections with projects grouped according to analogous approaches to primary research with the researchers developing their own logic for how their sources intersect.

Archives 1 - 3 have Ikem Okoye, Cole Roskam and Łukasz Stanek bringing together multilingual texts, largely written, and published from the 1960s through 2010s, that capture the transnational circulation of spatial ideologies, practices, and influences in post-independence Africa. The texts are first-person accounts and manifestos and though not in direct dialogue, their adjacency offers glimpses into how different individuals in countries like Guinea, Nigeria, and China considered the goals, tools, and responsibilities of architecture beyond colonial precedents. Presented chronologically, they reveal practices, positions, and unexpected connections often overlooked in overarching historical narratives.

Archives 4 and 5 are presented by Dele Adeyemo and Huda Tayob, drawing on works of cultural production from the 1950s through the 1970s as lenses for spatial critique. This section attests that urban and architectural archives are widespread, but we have to rethink where to look for them. They select music, films, theatre, and exhibitions produced, in for example Johannesburg and Accra, within the context of urbanization, decolonization, and pan-Africanism. These works often provide an alternative to contested state narratives and the ongoing coloniality of social and economic networks.

The final section, comprising Archives 6 - 8 are provided by Doreen Adengo, Warebi Brisibe & Ramota Obagah-Stephen, and Rachel Lee & Monika Motylinska. The authors expand what is understood as architectural evidence, arguing for the place of oral histories and ephemera as part of official archives. Ephemera can be a sketch of the setting of a conversation or an administrative memo of colonial and postcolonial planning as seen in Port Harcourt. It can be a fragment of narrative evidence found in the margins that foreground the positionalities in a German design office operating across Africa. Or it can be documentation of how young women living in a modernist university residence in Kampala had to find ways to live in an under-maintained, precarious space.

Interwoven with these archives are conversations with the authors about the different methods and the challenges encountered when locating, accessing, and constructing archives. The edited transcripts are the principal texts of the book, consistently foregrounding the voices of the researchers, becoming primary sources themselves—records of connections between diverse methods and positionalities.

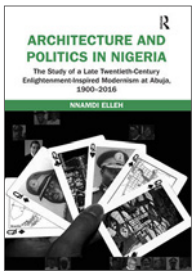
The notion of centring that Fugitive Archives puts forward is not an argument about geography but rather about methods that can emerge by privileging actors who are rooted in diverse knowledges and experiences of space. At the heart of this exploration is the desire to move marginalized perspectives back to the center. This cannot simply be reoriented toward the contexts they originate from; it must be grounded in specific modes of recording, communicating, and learning. It posits that in the creation of African architectural archives that are appropriately situated, new forms of evidence need to be constructed that disrupt the colonial or Western knowledge frameworks which still determine what is worth archiving. The sources collected in this landmark publication have emerged through these disruptive practices. They are also finite and highly subjective, not suggesting a conclusive portrait but rather opening new lines of inquiry for

uncovering and reconstructing many more hidden histories.

This sourcebook is fugitive in that is a sort of transitory archive itself, reflective of a moment in time. The sources themselves were often produced covertly under colonial and early postcolonial structures of oppression, by those living within conditions of fugitivity. We also cannot ignore the inherent contradictions: only one source is not in a colonial language; there are few sources produced by women; and the reproductions mostly originate from Western collections and libraries. These limitations only reinforce the need to recognize the ceaseless emergence of new histories of modern architecture and to record and amplify the evidence created by researchers who embody Africa's diverse spatial lineages, experiences, and knowledges. It is an argument for the primary as an inherently situated and material experience.

Fugitive Archives is intended as a critical resource for students, educators, and researchers, to expand existing archives and offer different and alternative perspectives of what constitutes the history of modern African architecture.

Mark R. O. Olweny



ARCHITECTURE AND POLITICS IN NIGERIA: THE STUDY OF A LATE TWENTIETH-CENTURY ENLIGHTENMENT-INSPIRED MODERNISM AT ABUJA, 1900–2016

2020
NNAMDI ELLEH

In 1976, the Nigerian military government under General Murtala Muhammed decided to move the country's capital from Lagos to a geographically central location, Abuja. The origins and aftermath of this decision are the primary concern of this monograph by Professor Nnamdi Elleh, an eminent scholar of African architecture and urbanism. In *Architecture and Politics in Nigeria*, Elleh tells a multi-perspective story about post-colonial modernism and nation-building, the power struggle between military and civilian politicians, and "the complicity of international planning and architectural 'stars' …. those global professionals concerned primarily with making their name on projects such as this one."1

Architecture and Politics in Nigeria is a result of decades of research—it was the subject of Elleh's doctoral dissertation at Northwestern University, USA. Its premise is that the plan for the Federal Capital Territory (FCT) and the Federal Capital City (FCC) was rooted in the colonial boundaries that created and later amalgamated the Northern and Southern Protectorates into one Nigeria, as well as in the national reconstruction and modernization projects after Nigeria's civil war (1966-1970). The book shows how the architects who designed the FCT master plan regarded the capital-city building project as a means to communicate and shape the principles of democracy in the public sphere in Nigeria. And yet, the new capital city's civic and public spaces quickly became arenas where access, uses, and meanings of citizenship became monitored under the threatening gaze of the [political] elite, thereby challenging the very principles of democracy the city postures.

The book begins with a literature review and grounds the research in the theoretical concepts of Edmund Husserl's 'lifeworlds' and Jürgen Habermas's 'public sphere'. While these theoretical groundings are convincing, the integrity of the book's research might stand without them. In Chapters 3 and 4, the author traces the desire for a capital city back to the imposed borders of British colonial rule and to the post-civil war reconstruction program. Chapter 5 looks at how the oil economy enabled and fueled this desire to fruition. Chapters 6, 7, and 8 delve into the details of the architectural designs and influences from American Thomas Todd, Japanese Kenzo Tange, the British Milton Keynes Development Corporation, and the Greek Doxiadis Associates2. Through these chapters, the book reveals the foundational extent to which the FCT project was a global endeavor in its conceptualization and execution. The book culminates in Chapter 9 and an epilogue, both of which examine the case to be made for Abuja as a modern capital city and, as such, a site for social transformation and power struggles.

The book departs delightfully from the usual academic history monograph by demystifying some of the processes that went into its making, including the author's own experiences and interview transcripts with key insiders involved in the making of Abuja. In unmasking his research process, the author allows us to see the challenges involved in the process of gathering his research material—from being picked up by the police in Abuja to a seemingly futile research trip to Kenzo Tange's office in Japan. These animations of the history-making process make the book easily readable while adding depth and texture to the national reconstruction story so often told in the abstraction of the past and political concepts. For instance, in Chapter 4, when Elleh interviews Nseigbe, one of the three Nigerian architects involved in the original FCC masterplan. Elleh asked if they had intended to use Abuja to invigorate African architecture, and Nseigbe replied, "There is nothing cultural about such monumental projects. They should be for functional purposes."3 Later, Nseigbe added that the Abuja project was part of a 'political pacification' for different constituencies around the country. (This pacification was explained as compensation for other political losses, defeats, or debts owed.)

Elleh's research masterfully examines the pull factors that moved the government in the direction of Abuja, and so, push factors that stood as reasons to move away from Lagos fell outside its scope of inquiry. Scholars like Salau (1977)4 and OluSule (1985)5 discuss these push factors, and future research in the history of Abuja could benefit

from connecting the research on both push and pull factors. What more, beyond geographical preference, can the abandonment of Lagos tell us about the founding desires and principles of Abuja?

For researchers particularly interested in African modernism, this book offers a resource for thinking about spatiality, urban planning, and civic space in relation to the design ethos of modernism. Its chapters (6, 7, and 8) on global actors connect the Abuja master plan to a global ideology of modernism via foreign contractors and partners, many of whom situated the ethos of their practice—and hence, their contribution to the master plan—in the modernist tradition. As the first significant study of Abuja's history, planning, and development, this book serves as a point of reference for scholars of African modernism, African architecture, the socio-politics of architecture, and African politics.

Immaculata Abba

ENDNOTES

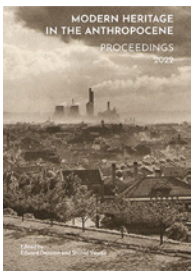
1 Watson, Vanessa. 'Introduction' in Elleh, N. (2016). *Architecture and politics in Nigeria: The study of a late twentieth-century enlightenment-inspired modernism at Abuja, 1900–2016*. Taylor & Francis.

2 For more literature on foreign collaborators, see:
Fenk, A.-K., Lee, R., & Motylińska M. "Unlikely Collaborations? Planning Experts from both Sides of the Iron Curtain and the Making of Abuja." *Comparativ*, vol. *30* no.1, 2020, pp. 38–59. https://doi.org/10.26014/j.comp.2020.01-02.03

3 Elleh, N. (2016). *Architecture and politics in Nigeria*, p.88.

4 Salau, Ademola T. "A New Capital for Nigeria: Planning, Problems and Prospects." *Africa Today*, vol. 24, no. 4, 1977, pp. 11–22. *JSTOR*, http://www.jstor.org/stable/4185727. Accessed 2 July 2023.

5 OluSule, R. A. "The Arguments against Very Large Cities in Nigeria: A Non-Western Urban Planning Angle." *GeoJournal*, vol. 10, no. 4, 1985, pp. 401–07. *JSTOR*, https://www.jstor.org/stable/41143860. Accessed 7 July 2023.



MODERN HERITAGE IN THE ANTHROPOCENE
PROCEEDINGS

2022
SHAHID VAWDA AND EDWARD DENISON, EDS.

MoHoA is a global collaborative founded on an equitable and restitutive agenda aimed at decolonising, decentring, and reframing the recent past to achieve equitable and sustainable futures. It was established in the wake of the 20th anniversary of the Modern Heritage Programme, jointly initiated by UNESCO, ICOMOS, and DOCOMOMO, which presented a timely and important opportunity to critically reflect on the transformative cultural experiences and global consequences of the recent past that heralded the Anthropocene and its planetary impacts. Despite these impacts, the 'modern' era and its legacies are comparatively undervalued and overlooked, while simultaneously being concentrated in 'the west' and interpreted through 'western' values.

Since its inception in early 2020, MoHoA has hosted numerous thematic workshops and two international conferences. The first, *Modern Heritage of Africa,* was hosted by the University of Cape Town in September 2021, and the second, *Modern Heritage in the Anthropocene,* was hosted by The Bartlett School of Architecture (UCL) in partnership with the School of Architecture, University of Liverpool. These events provided diverse platforms for marginalised voices, underrepresented histories, and the presentation and advancement of knowledge associated with modern heritage through the publication of two Conference Proceedings and two MoHoA special editions of *Curator: The Museum Journal* (65:3 and 67:1). https://onlinelibrary.wiley.com/toc/21516952/2022/65/3

MoHoA is also responsible for the publication of the *Cape Town Document on Modern Heritage*. Conceived in the spirit of the *Nara Document on Authenticity* (1994), which successfully achieved a paradigmatic shift in the conceptualisation of authenticity globally, the *Cape Town Document* seeks to reconceptualise 'modern' heritage by relieving it of its Eurocentric, homogenising, universalising, developmental, and colonial associations and references. By recasting it as a plural and planetary phenomenon, this wider reframing seeks to enable a fuller and more complete account of modern heritage by recognising and ascribing value to experiences that have been overlooked, marginalised, trivialised, or excluded from the existing canon.
https://mohoa.org/resources/symposium-on-modern-heritage-of-africa/

IN MEMORY OF

Jean-Louis Cohen
1949—2023

We say *adieu* to Jean-Louis Cohen (1949–2023), who died unexpectedly on August 7, while he was in his country home in the Ardèche region, France.

Born in Paris in 1949, Cohen was trained as an architect at the École Spéciale d'Architecture before completing his doctoral thesis in 1985 at the *École des hautes études en sciences sociales* on André Lurçat, a communist architect whose work had fallen out of the canon. The problematic position that Lurçat occupied within the narrative of modernity with his works and his reputation for being a critical dissident among his avantgarde fellows, offers an early witness of the intellectual breadth that enabled the young Cohen to engage in unpaved directions. The publisher Mardaga (Liège) produced the book, titled *André Lurçat (1894-1970). Autocritique d'un Moderne*, in 1995. In 2018, a confirmation of Cohen's scholarly foresight came with the *World Monument Fund Award* assigned to the preservation of Lurçat's Karl Marx School in Villejuif, France.

From the very beginning of his Promethean career, Cohen positioned himself as a fervent advocate of a transversal reading of the 20th-century historiography, which resonated immediately in the project of creating a shared ground among scholars, professionals, writers, and critics for an engagement in the preservation of the architecture of modernity.

Since the first International Docomomo Conference in 1990, the aims expressed in its Constitution became a mantra that transformed our beliefs on how to respond to the worldwide challenge of decay and destruction of 20th century masterpieces and of the more ordinary and/or overlooked treasures.

Founding Director of the *Cité de l'Architecture et du Patrimoine* in Paris (1997–2003), under the aegis of the *Ministère de la Culture et de la Communication*, Cohen was among the first in Europe to envision architecture as the ground for a research center, where collections could enhance the knowledge of the built environment, expanding its domain to interdisciplinary fields and embracing multiple diversities. In many respects, the Cité's program endorsed the two faces of the architectural domain —the past and the future— and identified its mission with the preservation of the modern heritage and the promotion of contemporary architecture.

Therefore, Docomomo International would offer an innovative response to that mission, which resulted in the decision to move its headquarters from Eindhoven (the Netherlands) to Paris, followed by the election of a new chair, from Hubert-Jan Henket to Maristella Casciato. The new leadership became operational at the Institut Français d'Architecture (then on rue de Tournon) in September 2002. *The Direction de l'Architecture et du Patrimoine* (DAPA) at the French Ministry of Culture generously provided the annual budget for the activities (secretariat, Journal, biennial conferences, network and logistics among which the International Specialist Committees) that Docomomo had launched. Dr. Émilie d'Orgeix was selected, after an open call, as secretary general.

Cohen, who had followed Docomomo's development since its foundation, attached great importance to its international reach from Paris. From the very first months after the new secretariat moved in, he took a keen interest in the Docomomo Journal and the creation of its new layout, which he wanted to be completely renewed and in full color. He was involved from the very first issue published in Paris and participated throughout the 16 issues printed between 2002 and 2010 (nos. 28-41). His vision of the Docomomo Journal was clear: he saw it as a major tool for linking and cohesion between the various chapters, open to cross-cutting themes likely to create bridges between different expressions of modernism, with a format more accessible than that of an academic journal. Throughout the years, Cohen supported the development of the Docomomo chapters and supervised the successive relocations of the international headquarters from the Institut français d'architecture (2002-2003) to the Palais de la porte Dorée (2003-2007), and ultimately to the grand Cité de l'architecture et du patrimoine at the Palais du Trocadéro inaugurated in December 2007. Even when "ousted" from the Cité's project under a right-wing administration in 2003, he remained careful to convey to the new Direction the importance of Docomomo to the Cité's international policy. He then kept on following with great attention our endeavors and safeguarding campaigns. He was always among the first to rejoice in Docomomo's successes, such as the fruitful discussions led with Renzo Piano regarding the *transformation of* the Ronchamp chapel hill, or the obtaining of the status of "NGO with official operational relations with UNESCO" in 2008.

In 1994, Cohen moved to NYU, where he held the Sheldon H. Solow

01 Jean-Louis Cohen/Amos Gitai, Double Portrait, © Amos Gitai, Paris, 2022.

Chair in the History of Architecture at the Institute of Fine Arts. In 2013, he was the first architectural historian to be invited to the Collège de France in Paris as the international chair on Architecture and Urban Form.

Many adjectives have been used in the past weeks to describe his prolific academic, curatorial, and pedagogical engagements, all of which were marked by a plurality of themes extending to global geographies. Cohen was a leading architectural historian, with an interest spanning from architecture and urban history of the 19th to 21st centuries; he will be remembered as such by colleagues, friends and critics, as well as a multitude of students.

In a recent interview he said of himself: "I am a multitasking character and I work on many parallel projects, which are inscribed in different temporalities." Most recently, he had been curating two exhibitions, one in Porto on the work of Brazilian architect Paulo Mendes da Rocha, and one at Shanghai's Power Station of Art, titled *Paris Moderne, 1914-1945* Art - Design - Architecture - Photographie - Littérature - *Cinéma - Mode*.

Jean-Louis Cohen belonged to the first group of scholars who inaugurated the Getty Research Institute Scholar Program in the fall of 1985 under the theme "Aesthetic Experience and Affinities among the Arts." Cohen never stopped experimenting with that subject. Most recently, Cohen was in the midst of researching and writing the second and third volume of *Frank Gehry: Catalogue Raisonné of the Drawings*, with the first volume, covering the years 1954-1978 published in 2020.

His bibliography is protean and includes more than fifty books, published in many countries and translated in several languages (see https://www.ifa.nyu.edu/people/faculty/cohen.htm).

Jean-Louis, your warm presence, affection and gentle smile will be missed worldwide.

Maristella Casciato
Émilie d'Orgeix

IN MEMORY OF

Maija Kairamo
1935—2023

On a summer day in June 2023, our dear Docomomo friend, the elegant architect Maija Kairamo (born Santaholma) passed away.

She was born in the Osterbotinan harbor city of Oulu Finland in 1935. Together with her first husband, the architect Erkki Kairamo, she ran a practice until 1968. From 1963 to 1998 she worked for the Museumbureau of the Finnish state. In that capacity, Maija contributed tremendously to the protection and restoration of key Finnish icons of Modernity and continued her efforts after her retirement until 2015 - as a volunteer for the Alvar Aalto foundation-. Her most important contribution was undoubtedly as secretary general of the highly complicated restoration project of the Alvar Aalto library in Vyborg (Viipuri). Until 1945 this town was located in southeast Finland, and since then belongs to Russia. For this organizational, financial and technical miracle the project was awarded the Europa Nostra Award and the Knoll Modernism Award of the World Monument Fund. Maija was also awarded the Order of the Finnish Lion, 1st class.

Maija's presence in Docomomo started right on the first day of our founding conference in Eindhoven, the Netherlands in 1990. Since then, we enjoyed her ever-present smile and optimism, as well as her energy and participation in our endeavors.

Together with her occasional Argentinian tango partner Jorge Gazaneo, they formed the stars of the tango competition in Sliac, Slovakia at the 4th international Docomomo Conference. Maija was one of the organizers of the 12th international Docomomo Conference in Finland in 2012. She contributed with several lectures and articles, participated in many round tables, and formed a vital liaison between Docomomo and ICOMOS. In 2016 in Lisbon, former Docomomo Chair Ana Tostões presented Maija with the Docomomo Award for all her contributions and hard work in reaching our goals.

Dearest Maija, always wearing something Finnish blue, we will sincerely miss the everlasting joy and energy you brought to the Docomomo family. Thank you so much on behalf of all of us.

Hubert-Jan Henket

01 Maija Kairamo honoured with the Docomomo Award 2016. © Docomomo International, 2016

APPENDIX

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INTERNATIONAL SPECIALIST COMMITTEES

Docomomo International has six International Specialist Committees (ISC) comprised of experts on Registers, Technology, Urbanism+Landscape, Education+Training, Interior Design, Publications working under Docomomo International's supervision. An ISC will consist of approximately five specialists of different countries as well as a chairperson appointed by the Council.
https://docomomo.com/iscs/

ISC/REGISTERS

The docomomo ISC/Registers was created to engage national/regional chapters in the documentation of modern buildings and sites. Its mission is the development of an inventory of modern architecture, including both outstanding individual buildings and 'everyday' examples.

- Louise Noelle (chair, docomomo Mexico), louisenoelle@gmail.com
- Horacio Torrent (vice-chair, docomomo Chile)

ISC/TECHNOLOGY

The mission of the docomomo ISC/Technology is to promote documentation and conservation through studies of, and research into, technology, and into the material qualities of modern architecture. The committee organizes seminars; it also supports and participates in workshops related to the technology of modern buildings.

- Robert Loader (co-chair, docomomo UK), studio@gardenrow.net
- Rui Humberto Costa de Fernandes Póvoas (co-chair, docomomo Iberia/Portugal), rpovoas@arq.up.pt

ISC/URBANISM & LANDSCAPE

The mission of the docomomo ISC/Urbanism+Landscape is to promote research, documentation and protection of modern ensembles and environments, as opposed to individual 'setpiece' monuments. In practice, our current work focuses almost exclusively on research and documentation.

- Ola Uduku (chair, docomomo Ghana), o.uduku@liverpool.ac.uk
- Miles Glendinning (vice-chair, docomomo Scotland), m.glendinning@ed.ac.uk

ISC/EDUCATION & TRAINING

The docomomo ISC/Education+Training has the mission of educating to protect "by prevention". This means to preserve not by action-reaction to specific threats, but by creating a general awareness and appreciation of modern buildings in the younger generation, general public and the society at large. The workshops in the framework of the Docomomo International Conferences are increasingly successful and prove that young people like to be involved in assignments concerning modern heritage. The ISC on Education and Training would like to provide these young people the possibility to excel in the Documentation and Conservation of modern heritage.

- Andrea Canziani (co-chair, docomomo Italy), andrea.canziani@polimi.it
- Wessel de Jonge (co-chair, docomomo The Netherlands), w.dejonge@tudelft.nl
- Daniela Arnaut (secretary, docomomo Iberia/Portugal), daniela.arnaut@ist.utl.pt

ISC/INTERIOR DESIGN

The docomomo ISC/Interior Design focus on Interior Design, an issue of major relevance for the Modern Movement and Modern Living. Interior Design gives us important spatial, ideological and aesthetic information necessary for a full awareness and experiencing of Modernity. The Modern Movement considered Interior Design as being in close relation with architecture and the other arts. This implied the demand for a new aesthetics in response to new technology and a need for a total work that embraces all the expressions into a unitary (and also utopian) environment for humanity. The Modern Interiors' identity is characterized by a strong and coherent style which results from a unity between architecture, furniture, design, decorative arts, utilitarian objects, equipment, textiles and light.

- Bárbara Coutinho (co-chair, docomomo International), barbara.coutinho@tecnico.ulisboa.pt
- Zsuzsanna Böröcz (co-chair, docomomo Belgium), zsuzsanna.borocz@kuleuven.be
- Marta Peixoto (secretary, docomomo Brasil), marta@martapeixoto.com.br

ISC/PUBLICATIONS

In order to have more coordination between the ISC's and other docomomo bodies regarding publications, the Advisory Board unanimously agreed on the creation of a Docomomo International ISC/Publications, integrating all the ISC chairs and the Docomomo International Chair. This may concern their content and editing status (indexed) but also the use of funding and external resources and the contacts with publishing houses.

- Ana Tostões (chair, docomomo Iberia/Portugal)

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AIMS AND SCOPE

Docomomo Journal is the open-access, international, peer-reviewed journal of docomomo International that, since 1990, has provided a twice-yearly summary of recent and original research on the documentation and conservation of Modern Movement buildings, sites and neighbourhoods.

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