INTRODUCTION: Obafemi Awolowo University (OAU), Ilé-Ife, 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-IFÉ

The era of the conception of the University of Ife (now ObafemiAwolowo 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...
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-Ife, 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-Ife 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 Igbo 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.
The Ilé-Ifé 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-Ifé 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-Ifé (Odudua), the administrative building integrated with the bookshop, and the library that 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].

UNIVERSITY OF IFE, ILE-IFE, NIGERIA.

“Scene From the Most Beautiful Campus in Africa”


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.
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].
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 a 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-Ifé 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 Bauhausers, including presentations on Arieh Sharon’s Ilé-Ifé 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-Ifé, 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-Ifé 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-Ifé architecture in modern architecture, design pedagogy, and campus construction as practiced pre and post-Nigerian independence in 1960. Obafemi Awolowo University Ilé-Ifé 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-Ifé
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-Ifé team and the experienced technical partners Brenne Architekten from Berlin with Winfried Brenne, Fabian Brenne and Janna Lipsky. The Ilé-Ifé 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-Ifé under the umbrella of an architectural consultancy supervised by project team members in Ilé-Ifé 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-Ifé 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 unequalled 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:

![Diagram showing levels of significance and measures for conservation](image_url)
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
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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E. Babatunde Jaiyeoba is a Professor of Architecture in Obafemi Awolowo University, Ilé-Ife and the project supervisor of the Getty Keeping-It-Modern 2020 Conservation Management Plan Project of Arieh Sharon’s Obafemi Awolowo University, Ilé-Ife (1962–1976) with complementary measures supported by Gerda Henkel Stiftung of Germany. His latest research interest is multidisciplinary and interdisciplinary studies at the interface of Architecture, Humanities and/ or Health and Conservation, Preservation, and Restoration of Heritage for the present and future. He is a member of ICOMOS-Nigeria and was part of the recently concluded Getty’s Conservation of Modern Heritage course of 2023.

Bayo Amole is a Professor of Architecture with a forty-four year teaching and research career at the Obafemi Awolowo University in Ilé-Ife Nigeria (Formerly University of Ille). During this period and in a pioneering role, his main work activities have been shared between teaching, research and administrative duties. He has taught and conducted research in Modern Architecture in Nigeria, Culture and Architecture and the broad area of Yoruba Domestic Architecture. For over ten years Bayo Amole was the chairman of the university Projects Advisory and Implementation Committee which advises on campus design and construction.