



JUNE 2019 | #6 | WWW.NIALAGOS.ORG

EQ

Ekotecture Quarterly

EXCLUSIVE INTERVIEW WITH
ARC YINKA WILLIAMS

**EKO ATLANTIC
CITY**
THE NEW HUB OF LAGOS?

**NOTRE DAME
CATHEDRAL:**
A MIRROR OF THE
FRENCH SOUL

BUILDING ENERGY
EFFICIENCY
**GUIDELINES
FOR NIGERIA**

**LAGOS ARCHITECTS
FORUM 2019 – LAGOS 10.0**

THE **LHDC DESIGN
COMPETITION
WINNING ENTRIES**

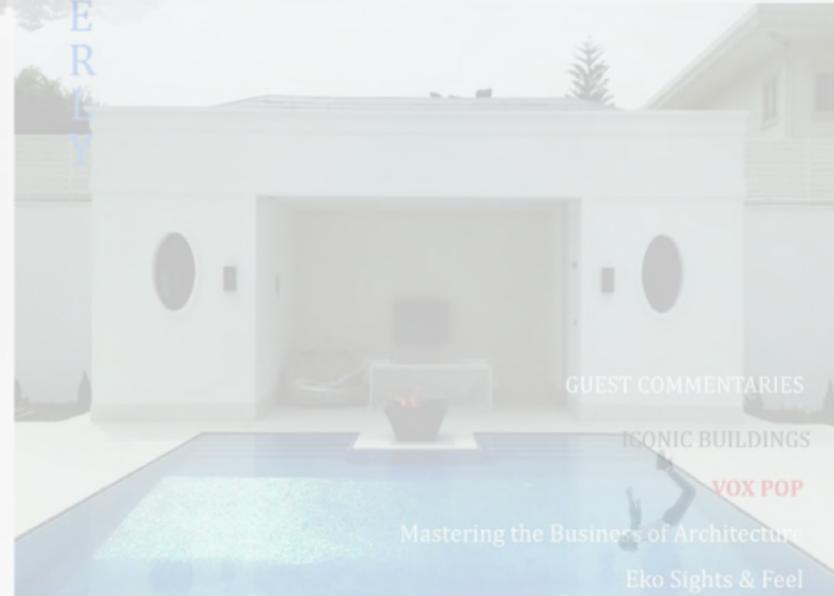
THE NEW LOOK
OF THE EQ
MAGAZINE



EQ COMPENDIUM

IS NOW
AVAILABLE AT THE
STATE CHAPTER SECRETERIAT

COMPENDIUM EDITION
ARTICLES FROM
EQ#5
N500



PREVIOUS EDITIONS



NOVEMBER 2017

Address: 197 Babs Animashaun Street,
Off Bode Thomas Street, Surulere.

Contact/Enquiries: 0802 227 9111

[Map Here](#)

Call for Submissions

Call for submissions for the #7 edition of the EQ Magazine. Submission should be made to eqmagazine1@gmail.com. Deadline is 16th August 2019

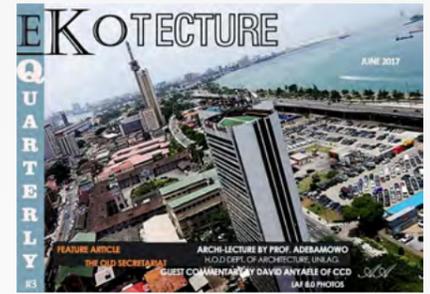
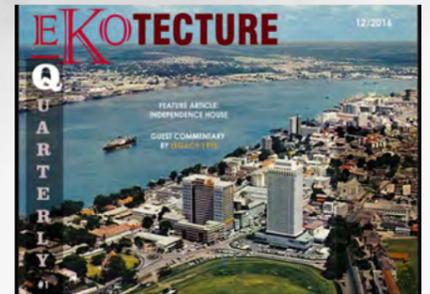
Call for Sponsors

Become an EQ Magazine sponsor and reach out to a highly qualified audience from all corners of the world. Please contact for Sponsorship at eqmagazine1@gmail.com.

Feedback

If you would like to help support the EQ Magazine, and make it better, Kindly feel free to drop your feedbacks here at eqmagazine1@gmail.com.

EQ Edition 1 - 5





FROM THE CHAIR'S DESK

Dear colleagues,

I welcome you to this edition of Ekotecture quarterly, the EQ re-loaded promises to be very exciting. This edition will look at the Eko Atlantic City: our new Lagos city with beautiful architecture set to be the beautiful bride of Lagos.

The Chapter in the last few months has been deeply engaged in the promotion of Architecture, the just concluded Lagos Architects Forum was a great conference with new exhibitors and great products. The sessions were inspiring and the Design Competition was the climax of the event with design solutions for the Affordable Home Scheme. There was also a bootcamp for the winners of the competition to further engage them to work together and learn from others.

The Chapter also sent delegates to the Future Building 2019 held in Vienna Austria from 4th - 5th June 2019. The team was led by my humble self with the Advantage Austria being the host. The program was brilliant with a showcase of Austrian Innovation in the Building Industry. We also interacted with companies with good solutions to building problems and also smart solutions to Building.

Great colleagues, the Chapter will continue to be the flagship of the institute with your support and we the Executive will continue to do our best to keep Lagos ahead.

Thank you and welcome to Ekotecture Quarterly June Edition.

“This edition will look at the Eko Atlantic City: Our new Lagos city with beautiful architecture set to be the beautiful bride of Lagos.”

-Arc Fitzgerald Umah
MNIA, RIBA, NIA LSC Chairman

EDITORIAL

Warm welcome to **EQ#6**, the first edition by the new Publication committee of NIA Lagos and we are building on the great work done in previous editions by the Arc. Claude Opara led team.

In this issue we had Arc. Sunday Kuti write on the hugely successful LAF 9.0 the 10th edition which held from 8th - 11th of May 2019 at the Eko Hotel and Suites, Lagos. The theme of this year's edition was 'Architectural Regeneration 2 - The Lagos Response. The well attended event also featured Students'/ Young Architects Competition based on affordable housing. We are featuring some of the winners of the design competition in this issue.

Architecture is seen as a male dominated profession, we sought the perspective of Arc. Yinka Williams on challenges that female architects face in pursuit of careers in the profession. It is an article that a lot of our female colleagues can relate to and would be a great resource for young women getting into the field of architecture.

The fire that engulfed the Norte Dame Church in Paris created an opportunity to look at issues regarding restoration and preservation of heritage buildings. Arc. Olabisi Olumide and Arc. 'Deremi Akande provided great insights in their article on this subject.

BY ARC EROMOSELE ANETOR
Chairman Publications Committee NIA LSC



In the face of insufficient electricity generation and increasing load demand, the need for creating buildings that are more energy efficient in response to this challenges cannot be over emphasized. The kernel of Arc. Anthony Okoye's article was the need for guidelines for design, construction and operation of energy efficient buildings.

Our cover for this issue is the Eko Atlantic City, an ambitious project on reclaimed land from the Ocean and fortified by a long sea wall, also known as the Great Wall of Lagos. We traced the evolution of the Lagos CBD from Marina to Victoria Island and wondered if Eko Atlantic City will be the new Economic hub of Lagos.

I wish to express appreciation for the invaluable support received from Arc. Fitzgerald Umah (Chairman NIA, Lagos), the past chairman of the Publication Committee, Arc. Claude Opara and all the members of the new committee.

A lot of work has gone into producing this magazine, we hope you enjoy reading it and would appreciate your comments on any of the articles. Please do send your mails to **eqmagazine1@gmail.com**.

EQ PUBLICATIONS COMMITTEE / EDITORIAL TEAM

CLAUDE OPARA	(ADVISER)
EROMOSELE ANETOR	(CHAIRMAN PUBLICATIONS COMMITTEE NIA LSC)
SUNDAY KUTI	(SECRETARY)
ALFRED AGBOOLA	(MEMBER)
CHIAMAKA OSIGWE	(MEMBER)
TOLU AKA	(MEMBER)
BABALOLA TOBILOBA	(MEMBER)

ARC. (MRS.) YINKA WILLIAMS

Arc. (Mrs.) Yinka Williams is the Managing Director of Fola Alade Associates, A founding member of Lemon & Feathers, an advocacy group with a quest to use non-invasive interventions and ideas to “manipulate” the built environment for the ease of living and comfort of the ageing population and those living with physical and non-visible impairments. A Director on the board of Savant Integrated Concepts, a leading Project Management firm and a member of the Advisory Board of the College of Environmental Design of Joseph Ayo Babalola University, Ikeji Arakeji in Osun State.

ARC. ANTONY OKOYE

Presently the Managing Partner of Design Genre Limited. Mr. Okoye practiced architecture and urban planning with firms in the USA, UK and Nigeria in various capacities. He is a recipient of AIA President award for Design of a Green Community off the grid. International Cooperation (GIZ) and the Nigerian Energy Support Programme (NESP) to develop Guidelines for Energy Efficiency in Buildings in Nigeria.

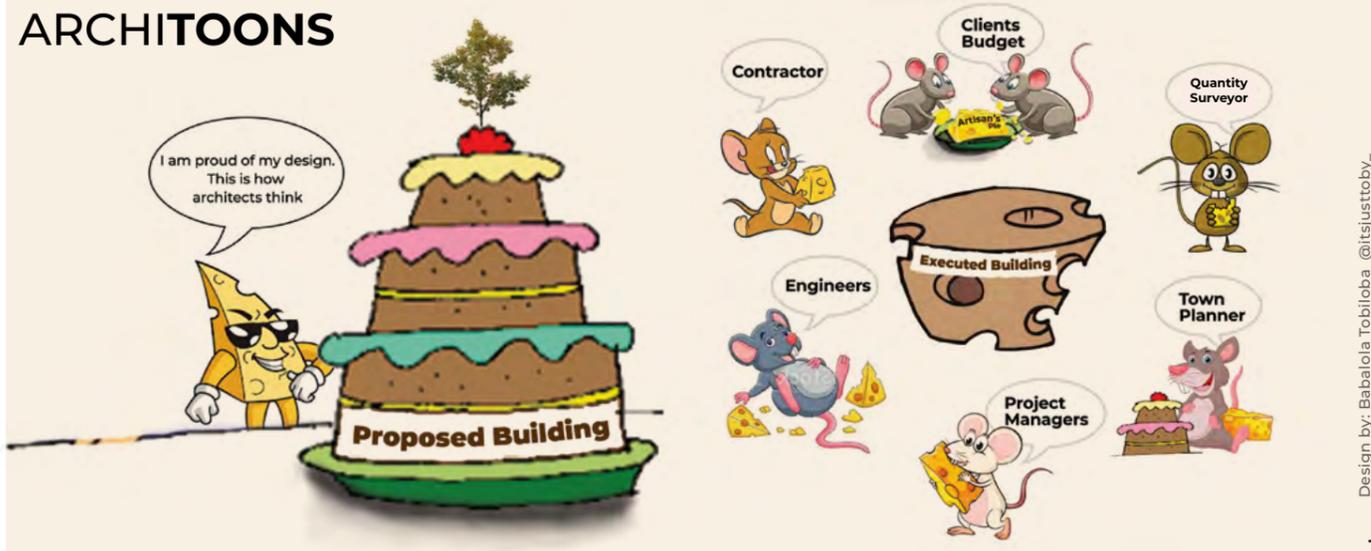
ARC OLABISI OLAMIDE

A researcher in Housing Studies, an alumnus of the University of Lagos where she received a combined Bachelors in Architecture and Environmental Studies B.Arch/B.ES. She is a Chartered architect with experience in both architectural consultancy practice and public service. She is a full member of the Nigerian Institute of Architects (NIA) and is registered by the Architects Registration Council of Nigeria (ARCON).



Photo Credit: Eko Atlantic Aerial view.

ARCHITOONS



Design by: Babalola Tobiloba @itsjusttoby_

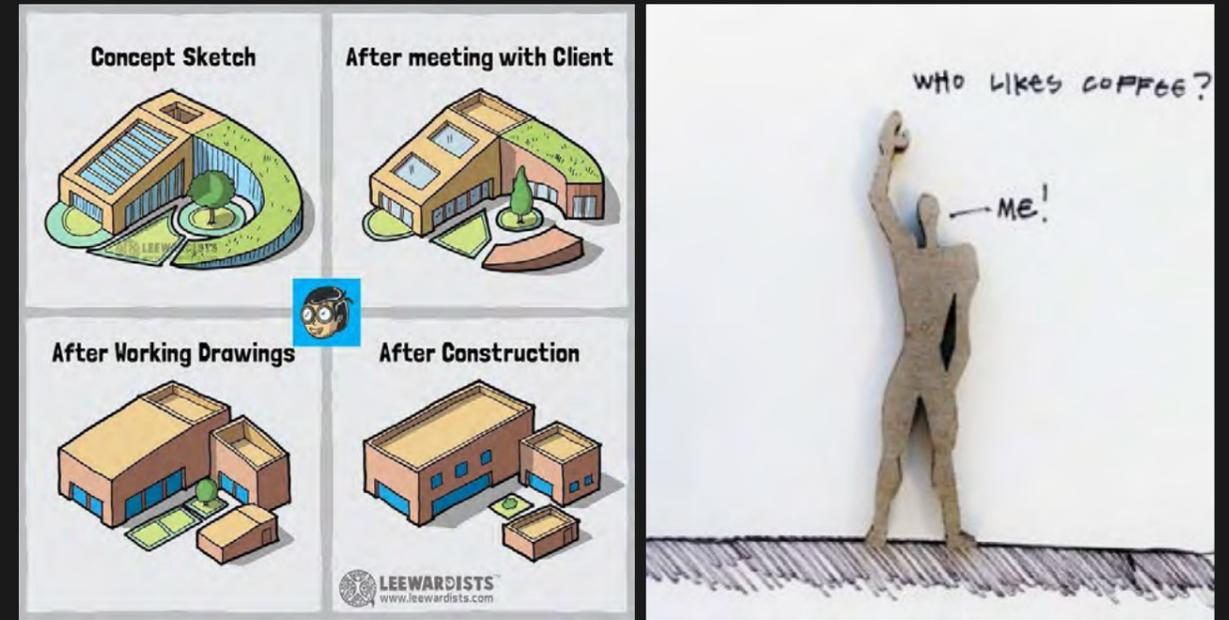


Photo Credit: <https://leewardists.com/>

Photo Credit: Lifeofanarchitect

ARCHITOONS

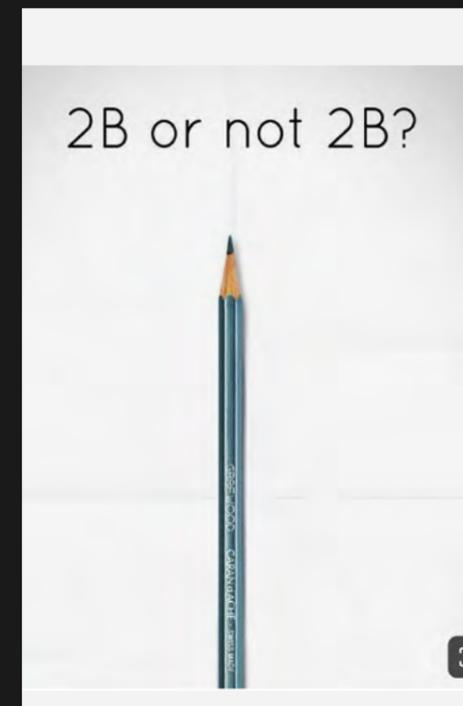


Photo Credit: www.pinterest.com

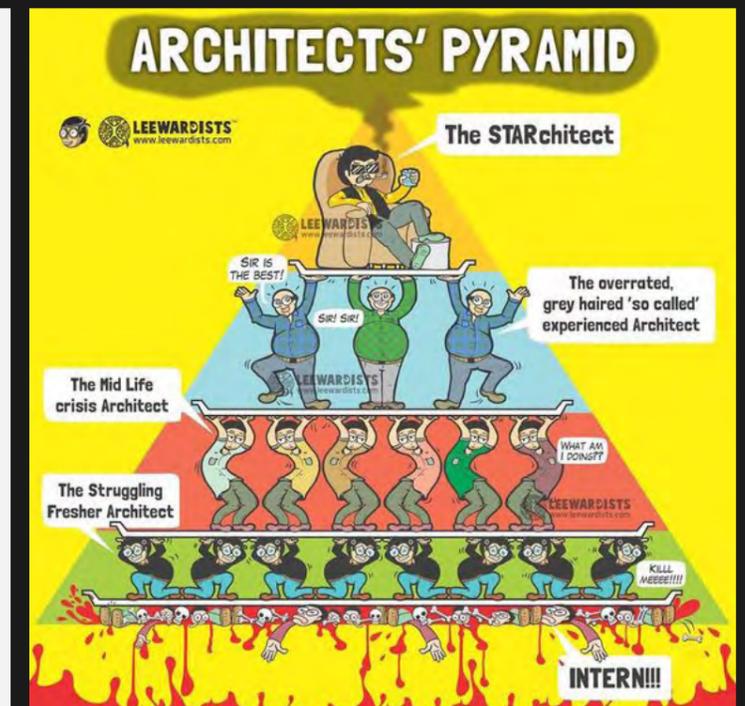


Photo Credit: <https://leewardists.com/>

CONTENTS

JUNE 2019 / #6

EKOTECTURE QUARTERLY



06

LAGOS ARCHITECTS FORUM 2019 – LAGOS 10.0

INNOVATIVE, INSPIRING, IMPACTFUL!

The Lagos Architects Forum 2019 with the theme, “Architectural Regeneration 2 – The Lagos response”, took place at the Eko Hotel and Suites, Victoria Island, Lagos, from Wednesday 8th to Saturday 11th May, 2019. The epoch-making annual event has once again, positioned the Lagos State chapter as the flagship chapter of the Nigerian Institute of Architects.



To do projects in complex environments, you have to carry out detailed research to fully understand the context.

Stefanie Theuretzbacher



13



09

LAGOS ARCHITECTS FORUM 2019 LAGOS 10.0



17



21

06 LAGOS ARCHITECTS FORUM 2019 – LAGOS 10.0

INNOVATIVE, INSPIRING, IMPACTFUL!

The Lagos Architects Forum 2019 with the theme, “Architectural Regeneration 2 – The Lagos response”, took place at the Eko Hotel and Suites, Victoria Island, Lagos, from Wednesday 8th to Saturday 11th May, 2019.

09 NOTRE DAME CATHEDRAL: A MIRROR OF THE FRENCH SOUL

A visitor will value whatever the owner also values or as is commonly said in Lagos, “whatever name you give to your Bingo (dog) is what others will call it by.” by Olamide Olabisi

13 BUILDING ENERGY EFFICIENCY

Building Energy Efficiency Guideline for Nigeria – Highlights by Anthony Okoye

17 THE CHALLENGES OF WOMEN IN A MALE DOMINATED PROFESSION AS ARCHITECTURE: Interview with Arc (Mrs) Yinka Williams

21 EKO ATLANTIC CITY

Eko Atlantic, The new economic hub of Lagos?

27 WINNING ENTRIES: LHDC COMPETITION 2019

1st Place & 2nd Place Winners

Press briefings and radio programmes were held days before the event by the Chairman, Arc Fitzgerald Umah, mnia, other executive members and guest speakers. A scintillating and thrilling road show, tagged “LAF AWARENESS WALK – Every building must have an Architect, who is your Architect” also took place on the 1st of May 2019.



Scores of excited Architects marched from the National Stadium through to Jibowu and back, a distance of about 5 kilometers. They were led in physical exercises before and after the “WALK” by experts in that field.

Eminent personalities, special guests, distinguished speakers from home and abroad, esteemed colleagues including fellows and fathers of the profession, national officers of NIA, including the 2nd Vice President, Arc. Enyi Ben-Eboh, fnia, ARCON President, Arc. Dipo Ajayi, fnia, allied professionals, partners, sponsors, exhibitors, students, the media and visitors all grazed the events from the beginning to the end. Lagos State governor, His Excellency, Mr. Akinwunmi Ambode, fca, was ably represented by the honourable Commissioner for Housing, Mr. Gbolahan Lawal.



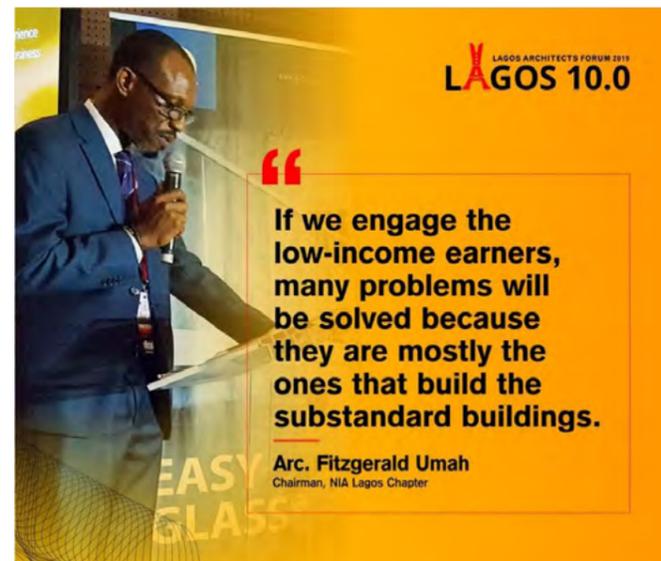
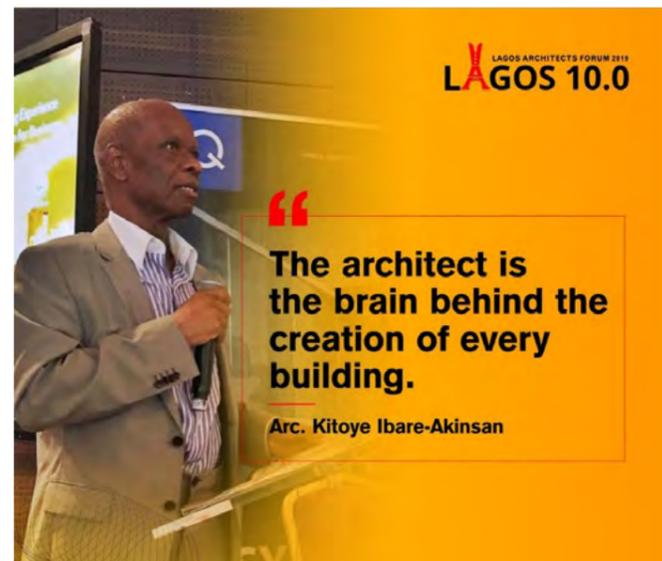
LAGOS ARCHITECTS FORUM 2019 – LAGOS 10.0

The programme included events such as Exhibitions, Opening/closing ceremonies, Keynote speeches/lectures, Roundtable discussions, Parallel sessions, Students Charrette, Networking, Side attractions and Site tours. LAF 10.0 is the 11th edition of Lagos Architects Forum. Over the years, it has impacted purposefully on the Built environment and the Construction industry in Nigeria.

It has dealt with areas such as Building Collapse (with a policy document titled, Architects Intervention Program), Architectural Practices and Partnership, threats to the traditional roles and future of Architectural practices, new technology, materials and products in the Construction Industry, discovering and exposing Students of Architecture through seminars and Design Competitions, educating the general public on the roles of Architecture, the Architects and other allied professionals. This year's edition aimed at building on previous ones. It addressed the issue of urban renewal and Regeneration, with a focus on the City of Lagos and its teeming population, and in particular, Lagos Island. Guest Speakers, home and abroad, presented models of global solutions, based on successful

applications in other countries that could be practicable in Lagos.

LAF 10.0 also focused on Affordable Housing with the aim of proffering solution to the ever increasing housing need in Lagos and Nigeria in general. The Students'/Young Architects' Competition was based on AFFORDABLE HOME DESIGN, in order to challenge the mindset of the upcoming architects towards the need to consciously recognize the need for housing for the low-income earners. The competition was sponsored by Sterling Alternative Finance, a brand of Sterling Bank PLC. There were monetary prizes for the winner, the runner-ups and other consolation prizes.



THE LAGOS HOME DESIGN COMPETITION 2019

The design competition winning entries will form the basis of a tripartite agreement between the State Chapter, the Lagos State government and Sterling Alternative Finance for affordable housing design to reduce the housing deficit in Lagos. The state will provide the land, the Architects will provide the chosen design and Sterling Alternative will provide the finance.

The 1st prize in the Associate category went to the team led by **Babalola Tobiloba** with a design titled "Ile Tiwa Tiwa". The 2nd prize was won by the team led by **Daniel Osuala** with a design titled "Rubicks Village". According the State Chairman,

the partnership was a response to this year's theme of Architectural Regeneration 2.

This year's LAF 10.0 has once again struck a vibrating chord that further extends the sonorous sound of the prominent place and position of the Architect in the Built environment and the Construction industry. With a new focus on next year's LAF 11.0 and the theme, "Architecture Now, The City of Lagos next 25 years", The Lagos State chapter of the Nigerian Institute of Architects is championing the awareness campaign for the sustainability of the Built environment and the Architect as the indisputable Leader and professional.



View of the winning entries on page 27 and 28 for more Information.

From Left to Right: Arc Fitzgerald Umar, MD sterling Bank, Babalola Oluwatobiloba. (Winner, Ile Tiwa Tiwa Professional Category)



At the exhibition



One of the parallel sessions



NOTRE DAME CATHEDRAL: A MIRROR OF THE FRENCH SOUL

Ask the average **Nigerian** to name a famous French building and the odds will be in favour of the Eiffel Tower. The steel behemoth paid tribute to a feat of engineering and secured France's entry and participation into the industrialised age. But to the average Parisian within whose domain the Eiffel is located, industry is important but there is something deeper.

Something that is intangible, unquantifiable, unexplainable and deep seated within the consciousness of the people; old and young. . The heart and soul of France was mortally wounded when on 15 April the edifice that had withstood wars and enjoyed peace was caught up in flames. The Cathedral of Notre Dame was forcibly enveloped in hues

of red, orange and gold and its glory covered in black soot after the energy of the fire was extinguished.

The Fire, the French

The historic spire was destroyed and other parts were also affected even while the much-needed restoration project was going on. As terrible as the fire was, it almost paled into insignificance by the weight of the collective response from corporate bodies, influential persons, governments, and also the man on the street.

While the outpouring of emotion was remarkable, the fact that the regrettable incident was followed immediately by monetary commitments to restore the edifice from a wide variety of contributors creates monetary commitments to restore the edifice from a wide variety of contributors creates a scenario that speaks to the city's value system and that is worthy of study.



Image © 'Deyemi Akande

“Ask the average Nigerian to name a famous French building and the odds will be in favour of the Eiffel Tower.”



Image © 'Deyemi Akande

Our Lady in History

Notre Dame has had a celebrated history. Borne out of a commission by Maurice Sully, Bishop of Paris, construction started in 1163 with a foundation stone laid by Pope Alexander III and continuing to 1345. Over a total of four phases, the construction which began with the choir included structural repairs and the rebuilding of the Episcopal palace at its last phase.

Admired as one of the finest examples of French Gothic architecture, Notre-Dame is 130m by 48m in plan. The 35m high vaulted ceiling leads the viewer's eyes to three world-acclaimed stained glass windows which separately

Approach to Notre Dame

portray Biblical texts. Bishop Sully's desire to have a light-filled church 'reaching to the heavens' is reputed to be the reason for the magnificent vaulted interior.

The resultant roof however was too heavy to be carried by conventional structural methods. The solution to curb the inevitable spreading of the walls from the enormous weight of the lead-covered roof bearing down was the introduction of flying buttresses (similar to those at Christ's Cathedral, Marina) but topped with drainage channels ending with gargoyles – ornate grotesque carved spouts - to channel damaging rainfall away from the absorbent ashlar stone structural material.

Gargoyles

The 100m tall spire was removed during the 18th century French revolution and several parts were destroyed by numerous acts of vandalism that included removal of twenty-eight statues of what were considered to be French kings but are actually Biblical figures, specifically ancestors of Jesus as mentioned in St. Matthew's gospel.

The **1844** restoration by Viollet le-Duc included replacement of the spire and repairs to the rose windows, requiring the learning of a lost 16th century glass and metalwork skill to maintain period

authenticity. It was designated a UNESCO World Heritage site in 1991 and is the most visited monument in France, averaging 30,000 visitors daily in the summer months.

What then does this have to do with us as professionals and people of Nigeria? Every stage of this unfolding event has deep relevance to our current situation.



Image © 'Deyemi Akande

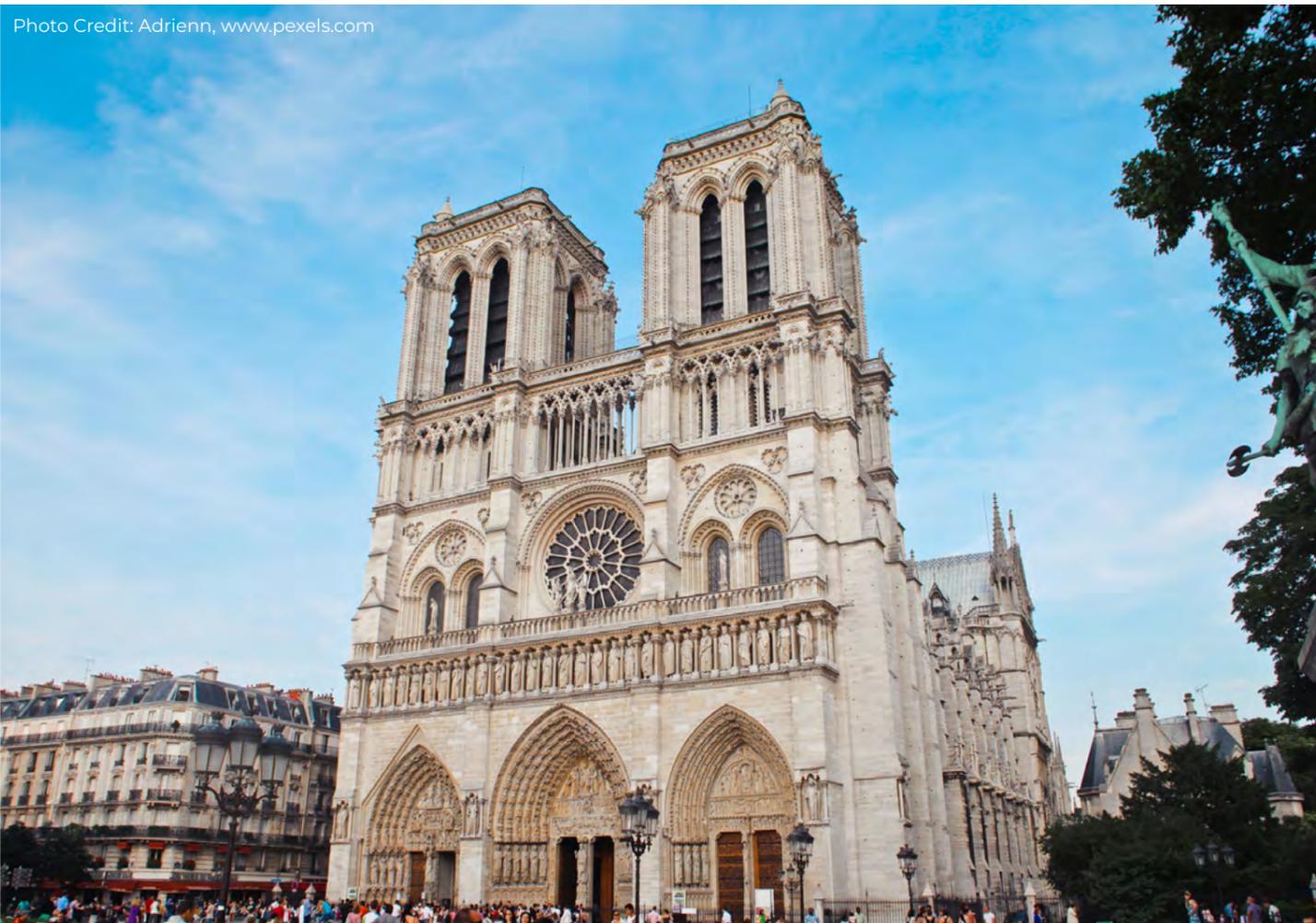
Notre-Dame In Lagos?

Let us consider what the scenario would have been if Notre-Dame was built on Nigerian soil. If it was lucky enough to have been listed as a monument what would have been the response to its imminent destruction by fire? We must note that the cathedral was undergoing repairs when the blaze began. This obviously indicates funding designed to ensure its longevity. Our agencies – the **National Commission for Museums and Monuments** and the **Lagos State Ministry of Tourism, Arts and Culture** - do not appear to have the wherewithal to replicate even periodic maintenance of the few listed buildings in Lagos State, how much more respond to a fire disaster.

“We must note that the cathedral was undergoing repairs when the blaze began. This obviously indicates funding designed to ensure its longevity.”



Photo Credit: Huy Phan, www.pexels.com



“We operate in an environment that does not acknowledge or accord recognition to physical built environment features that reflect a past historical period”

of hose which was unable to deliver water to douse the flames.

There is no comprehensive plan of action for the specific issues that concern heritage building degradation.

We operate in an environment that does not acknowledge or accord recognition to physical built environment features that reflect a past historical period.

Reminiscent of George Orwell’s Animal Farm, our design and therefore philosophical mantra seems to be ‘old is bad, new is good’ and this has impacted on the lack of reverence for our heritage architecture which is depleted daily - with impunity – by a people who refuse to see the value in the work of craftsmen of an earlier time.

The consequence of this is that all the current iconic glass-and-steel mega-structures we drool over today will likely not last beyond a 30-year generation as we attempt to satiate our desire for only the new. We will permanently alter our urban landscape and further make irreverent our indigenous local developmental history.

The status of France as a G7 nation notwithstanding, the citizen’s collective grief borne out of a sense of loss of ‘Our Lady of Paris’ shows more than a love for old buildings. It tells of a willingness to build on the past. It tells of the understanding that our today is inexplicably connected to and a product of our yesterday and that we are already making what others will term history, today.

Why are we afraid of our history?

The unity in both the commonly felt grief at the incident and the desire to contribute to its restoration amongst diverse citizens of Paris and others in France and beyond is what makes the difference between a country and a nation. A sense of worth, pride and value is self-instituted as a philosophy by true leaders not rulers. This collective value system ensures progress towards the future and constant recognition of achievements of those who enabled the foundations of what is being enjoyed today.

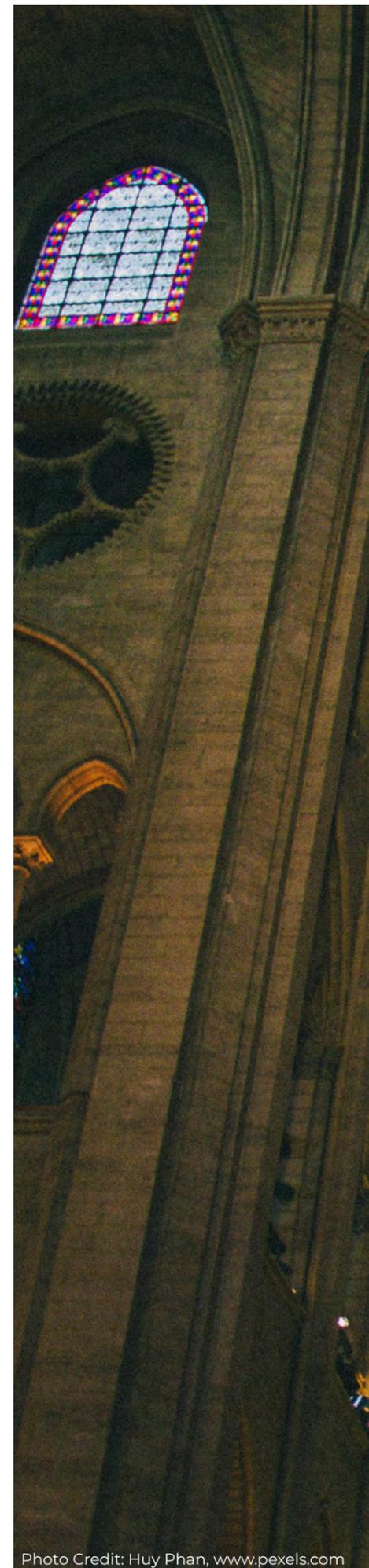
A visitor will value whatever the owner also values or as is commonly said in Lagos, ‘whatever name you give to your Bingo (dog) is what others will call it by.’ Let us decide what we want to be known for and respect that which was before our time. We must encourage discourse about the precious little that remain of our heritage and promote our built heritage, instead of dancing youth as embodiments of our continuing journey towards nationhood. We must challenge the creativity of younger minds to adaptive reuse projects of iconic buildings and not be afraid of the undercurrent of change, patriotism, and awareness of history it may bring.

Architecture transforms more than landscapes. Why don’t we allow it transform people too in Nigeria?

**Olabisi Olumide mnia
‘Deyemi Akande Ph.D**

Lagos May 2019.
images © ‘Deyemi Akande

“A visitor will value whatever the owner also values or as is commonly said in Lagos, ‘whatever name you give to your Bingo (dog) is what others will call it by.’ Let us decide what we want to be known for and respect that which was before our time.”



Building Energy Efficiency Guideline for Nigeria – Highlights



This guideline was developed as a contribution to the global effort to combat climate change as well as addressing Nigeria's insufficient electricity generation and increasing load demand. It aims to give practical advice to professionals in Nigeria on how to design, construct and operate more energy efficient buildings. The guideline also aims to educate the general public about energy efficiency measures and provides clients with information that help them choose energy efficient buildings.

The Federal Ministry of Power, Works and Housing (Housing) (FMPWH) in collaboration with the Nigerian Energy Support Programme (NESP), Arup, GIZ, European Union and Design Genre developed this guidelines through meetings and workshops with relevant stakeholders as well as literature review of relevant case studies and concepts. The guideline is technically divided into two parts – passive strategies and Active elements. The structure of the guideline follow the what, why and how about energy efficiency in Nigeria. Solutions were tested on the two main climatic zones of the country – the hot and dry(North) and the hot and humid(South).

Introduction to Energy Efficiency in Buildings

Energy efficient buildings are those which consume less energy while maintaining or even improving the comfort conditions for their occupants compared to standard buildings. Energy

efficient buildings result not only in less environmental impact but are also economically sustainable and resilient. The building sector accounts for the majority of electricity consumption in Nigeria. Energy in Nigeria is sourced from: 0.4% hydro; 17% oil/gas; and 82% biofuel & waste (mainly firewood)

Integrated Design Process(IDP): The process of Planning an Energy Efficient Building Currently in Nigeria, building designs are usually developed using a linear and conventional design process. An architect is appointed and delivers a concept and scheme design with limited input from other specialists. Structural, Mechanical and Electrical engineers are appointed at the detailed design stage to provide their expertise in line with the design provided but have no role in shaping the design for optimisation in operation.

“The guideline also aims to educate the general public about energy efficiency measures and provides clients with information that help them choose energy efficient buildings.”

Building Energy Efficiency Guideline for Nigeria – Cont

The design of energy efficient buildings is beyond the skills and expertise of only architects and, therefore, the integrated design process becomes an essential tool for the effective incorporation of expertise across different disciplines. IDP Process involves the following steps: Build a collaborative, open-minded team with communication skills early in the process – all consultants and stake holders; Establish the energy efficiency targets at an early stage; Lifecycle costs (operation and capital costs) should be adopted when budgeting; and an interactive design process including innovation, synthesis and decision making based on agreed objectives. Design workshops and charrettes take place at the concept development phase.

Energy Objectives in the Building Sector of Nigeria

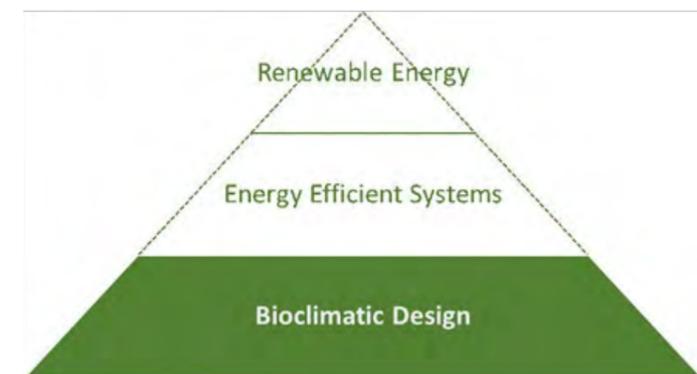
Energy efficiency in buildings is the main target, which goes hand-in-hand with the following objectives: Liveable buildings, more comfortable and healthy; Resilient buildings and with reduced dependence on energy supply; Economically viable and affordable buildings with lower capital, operation and maintenance costs.

Energy Efficiency strategy steps: Minimise energy demand, through climate adaptive design (passive design) taking into account local conditions and microclimates; Increase efficiency of systems - Improving mechanical systems, appliances and lighting efficiency; and Cover remaining energy demand with renewable energy - given the large renewable energy capacity of the country, use renewable energy sources to substitute fossil fuel energy whenever possible.

Bioclimatic Building Design: Concepts

Bioclimatic architecture can be defined as design based upon climate considerations and attempting to achieve physical comfort for occupants with minimum use of resources, while taking into account behavioural and psychological aspects. It does not impose any particular style on the

architect. The two main objectives which inform the design in Nigeria are: to minimise heat gains into the building; and to promote heat loss where possible. On larger sites it is possible to create a microclimate around a building through the use of landscaping and vegetation. Orientation of buildings so that the majority of windows face approximately North and South is crucial in reducing solar gains.



“The design of energy efficient buildings is beyond the skills and expertise of only architects and, therefore, the integrated design process becomes an essential tool for the effective incorporation of expertise across different disciplines.”



Tools for Designing Energy Efficient Building

Numerous tools have been developed across the world to help the decision making process, guiding design teams and future occupants. This section includes a preliminary shortlist of tools that can contribute to green building design. The tools include: Whole Building Design Tools - Athena, Green Building Studio, Eco-Bat' IES Virtual Environment; and Energy efficiency tools – eQuest, Energy Plus, Design Builder, Passive House Planning Package.

Sustainability Certification

Certification schemes aim to assess buildings in a quantitative and unbiased way, producing a simple score or rating. This can be used either to demonstrate the building's environmental cre-

entials, or a client can specify a desired rating as part of their brief to ensure that they obtain a building with sustainable features. It is hoped that the residential tools being introduced by the Green Building Council of Nigeria (GBCN) will gain traction and become popular in the residential market. Until a local rating is available, Green Star and LEED would seem best suited for building certification in Nigeria, although the challenges of using international rating schemes should not be underestimated. Outline of rating systems: BREEAM; LEED; Green Star; Passivhaus; EDGE; and GBCN.

-Anthony Okoye May 2019.
CEO Design Genre

“The design of energy efficient buildings is beyond the skills and expertise of only architects and, therefore, the integrated design process becomes an essential tool for the effective incorporation of expertise across different disciplines.”

tems; Solar Hot Water (SHW) - use sunlight to heat domestic water; Wind turbines; and Bio fuel - firewood is widely used in Nigeria, but is leading to deforestation and therefore is not encouraged. Bio-gas (methane) can be generated from organic waste and can be a useful fuel source especially in rural areas.

Result of the analysis of case studies

The analysis on various case studies, represented three different scenarios, the first scenario, where basic energy efficiency measures including bi-climatic design best practices such as improved building orientation, façade design, enhanced natural ventilation, efficient lighting and selection of insulating materials were included; an enhanced scenario where highly efficient façade and mechanical systems were added, and a third scenario where renewable systems were included. The results showed that the first scenario comprising basic design measures already enabled very significant energy savings, these measures achieved energy consumption reductions of 40% at the very least which increased to 75% against the business as usual buildings when improved envelope and efficient systems were included. According to the results, the addition of PV panels could contribute to reduce electricity generation from fossil fuel sources. Renewable energy from PV panels could satisfy between 18% and 100% of the annual electricity demand”



Active Systems – Mechanical and Electrical

The active mechanical and electrical systems in buildings should be made more energy efficient. In terms of cooling, once passive strategies have succeeded in alleviating external heat sources, the next step is to reduce internal gains such as those from lighting and equipment. This reduces cooling demand which should be matched with energy efficient cooling systems.

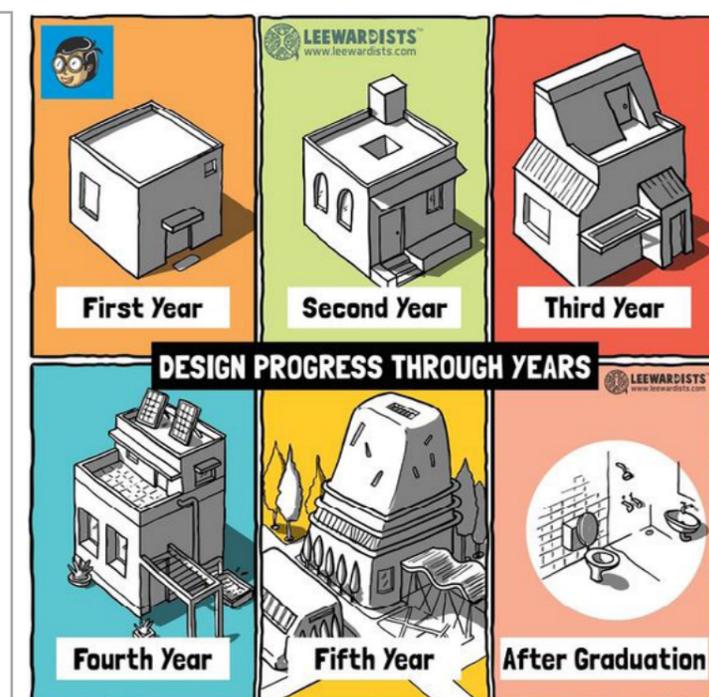
Renewable Energy (RE) Technologies

Renewable energy can be defined as energy whose source is replenished naturally on a human timescale. Once demand has been reduced by passive design and the necessary mechanical and electrical systems have been designed and selected to optimise their performance and efficiency, energy generation from RE sources can further improve building performance. Key Renewable Energy Strategies: Photovoltaic (PV) Sys-

ARCHITOONS



Source: Google Images



Source: www.Leewardists.com



Arc (Mrs) Yinka Williams

“THE CHALLENGES OF WOMEN IN A MALE DOMINATED PROFESSION AS ARCHITECTURE”

Interview with Arc (Mrs) Yinka Williams

Ekotecture Quarterly: Hello ma, may we meet you

Arc. (Mrs.) Yinka Williams: My name is Arc. (Mrs.) Yinka Williams (nee Fola-Alade), I was born in Ibadan in Oyo State, I hail from Aramoko Ekiti in Ekiti State. I completed O and A Levels at Christ's School Ado Ekiti and the Federal Government College Ijanikin, Lagos respectively. Then studied Architecture at the prestigious Ahmadu Bello University, Zaria

Ekotecture Quarterly: Why did you decide to study Architecture?

Arc. (Mrs.) Yinka Williams: I grew up in a very creative homestead and fascinating environment that impacted me. My father, Chief (Arc.) Fola Alade, OFR was constantly either adding extensions to all his houses, or modifying and retrofitting parts of them. His official residence in Ikoyi where we grew up was radically different from the other official prototype duplexes on that street by the time we moved out ten years after. So I picked up the interest in many things around our home and on construction sites while growing up. My dad's old drawing board was nested in a corner of his bedroom so i saw him at work a great deal.

However, I recall hearing names such as Arc. Joy Nsolo, Arc. P. N. F. Olumide, Arc. Dada Marquis (MMD), Arc. Doris Spiff and Arc. Gillian Hopwood being mentioned in conversations at home be-

tween my Dad, and his colleagues. So I knew that women had long since studied Architecture, Engineering, and Medicine. This inspired me to choose to study Architecture after which I was posted to the then Lagos State Ministry of Works and Transport in Alausa where I carried out my NYSC Primary assignment with Arc. (Mrs.) Bukky Ejiwunmi, PPNIA, FNIA while she was the Chief Architect. She was the first female Architect that i got to know closely.

Ekotecture Quarterly: How did the dominance of males during your time in the school impact on you?

Arc. (Mrs.) Yinka Williams: Studying at the prestigious Ahmadu Bello University in Samaru, Zaria from 1981-86, there were seven girls in our class of about eighty. Which must have been the highest number of females in any of the classes that were ahead of my set while I was in Zaria. Some sets had one, two or three girls only in their class if any. Women were always greatly outnumbered, but we found our colleagues all across the classes very easy to relate and work with because we carried out many projects in groups. So, we hardly felt that we were in the minority. Instead, we bonded closely and still do thirty-three years out of school.

Ekotecture Quarterly: What has been the impact of male domination in the profession of Architecture on your career?

Arc. (Mrs.) Yinka Williams: I guess that the training of Architecture inadvertently prepares women substantially for a lot of resilience and so usually, nothing really comes by surprise in most cases. At the best of times, I have more often than not been the only female wherever I worked, from working with my dad, to working at Nigerite Limited where at my grade level, I was the only female among thirty two or so other men in the Marketing Department. Mind you, these men were all from diverse backgrounds, QS, Engineering, Business Admin, Marketing, etc. Most site workers that we come across in Nigeria are men, we still don't have female roofers, carpenters, plumbers, electricians, masons, tillers, painters, etc.

Or let me re-phrase that, I have not met them yet. The construction sites are where the disparity between men and women and the impact of the male domination are most obvious. But then, we now have female mechanics and hopefully we will begin to see more women on the field in construction soon enough in the construction industry. Pertaining to my own case specifically, the domination of males in the industry was not an issue, but then I hope to encourage more women into the fold.

Ekotecture Quarterly: Why do you suppose fewer women are attracted to Architecture?

Arc. (Mrs.) Yinka Williams: A million-dollar question! looking at a few professions where there are equal ratios of men and women such as Law, Accountancy, Insurance, Banking, etc. I will like to assume that there must have been some things that attracted more women to these professions. Why fewer women attracted to Medicine, Architecture, the Engineering, Surveying, etc? Quite frankly, I am not quite sure myself. Besides the tedious time it takes to complete these courses of study, the nature of these jobs and the lifestyles of the professionals that engage in them may appear daunting and tasking.

Doctors are on call for days back to back, the Surveyor or Geologist is far away in the bush for days, and Architect is on one or more sites all day or for many days. So I reckon that most ladies may prefer to take to other lifestyle-friendly professions more easily. It was obvious from our school days that studio life was very copious in the professions

like Architecture and Engineering. You just have to like these professions enough to hang in there. Other than that, women are actually quite creative. Another factor is the time required to complete the training is too long and discouraging.

Ekotecture Quarterly: What challenges did you encounter as you built your career and how do you balance other aspects of your life.

Arc. (Mrs.) Yinka Williams: I was raised by a father who expected me to produce results whenever I was given any assignment to carry out. He wanted me to drive the way finding myself, and always instruct me to, “Go and be resourceful!” or “Go and use your initiative!”



“I was raised by a father who expected me to produce results whenever I was given any assignment to carry out. He wanted me to drive the way finding myself, and always instruct me to, “Go and be resourceful!” or “Go and use your Initiative!”



“THE CHALLENGES OF WOMEN IN A MALE DOMINATED PROFESSION AS ARCHITECTURE”

Interview with Arc (Mrs) Yinka Williams - Cont

And that ginger me to become creative at finding solutions to things. While working at Nigerite Limited in the nineties, the first daunting task that I was faced with was my boss requesting that we wrote our reports only about facts that we had observed on site by ourselves, and not hear say from our carpenters. Apparently that implied that I had to climb every roof that I worked on. I remember going to Arc. (Mrs.) Bukky Ejiwunmi in Alausa to complain thinking there must be a way to exempt a lady (myself) from such “hard life” work.

She gave me a good talking to, “Is it not with their legs that the men will climb the roof, you too better go there and do the same, go and start climbing,” and she sent me on my merry way. Subsequently, learning the art of dealing with my other thirty two male colleagues, those in the other departments of the organization, and the company drivers and carpenters who all my work depended on. So, yes I could climb roofs, and no, I could not use the hammer or drive the company trucks. Our overall boss once said that he had never expected me to last beyond two weeks in the company, shortly after I started working there. Till date, I do have to handle several men in the course of my daily work, and there are many ways to skin a cat, so there is always a way out (laugh).

Being a wife and mother means that I must com-

bine the task of managing the homefront (now colloquially termed the profession of “Domestic Engineering”) with all its own attendant issues, and my professional life concurrently. It was very tough in the beginning, but quite frankly, I can't sacrifice one aspect of my life for the other. I have been married for almost twenty nine years now, so I make bold to say that I have come full circle in juggling life in which I am still mastering everything. Women may have to make choices along with life's challenges, perhaps our physiology and gender may get in the way of some tasks and lifestyle. We can always be creative about how we adapt to things.

Ekotecture Quarterly: Will you encourage more women to study Architecture?

Arc. (Mrs.) Yinka Williams: Oh yes of course, one thing is for sure, whoever studies Architecture must first have the interest and desire to so, because it is not a walk in the park at all, be it for women or men. All said, I have found most women who have emerged Architects to be very strong, bold, often organized, very creative and tenacious. As a result, they are often quite resourceful and can attain decision-making positions at their places of work. In view of this however, I will encourage women to not only be solution providers, but to also make an impact on their communities. Yes, they can be a Zaha Hadid if they so desire to. But then they must possess the staying power coupled with the mental, emotional and physical fitness levels required to get through the study period required and all through life.

“whoever studies Architecture must first have the interest and desire to so, because it is not a walk in the park at all, be it for women or men. All said, I have found most women who have emerged Architects to be very strong, bold, often organized, very creative and tenacious.”

Ekotecture Quarterly: What challenges do you foresee in the profession for women?

Arc. (Mrs.) Yinka Williams: Male domination is not a serious challenge for most female Architect, indeed there is no competition or comparison between the two or known medical fact that there is any difference between the brain of a man and that of the woman, much as they are two clearly different human beings. But we have to look at the declining number of female to male ratio critically; many women are also migrating from Architecture after spending so long to train at school.

For cultural and religious reasons, where women Architects are preferred for some jobs unless the job requires some extraneous physical fitness or stamina, cultural, religious or intimate matters. The balance of home life with work especially when raising young children. It becomes tougher for women to cope with any job unless they find a way around daily domestic issues. In my own case, I could not have been travelling up and down to carry out any work when I had young children to raise. These are some of the things that I feel may pose a challenge to women, and there are now many creative ways to juggle life and keep afloat.

Ekotecture Quarterly: What advise do you have for women in the architectural profession?

Arc. (Mrs.) Yinka Williams: I will like to encourage women in Architecture to take a global look at their counterparts and how involved they are with everything up to the boardroom. It is sometimes not enough to be cerebral; tenacity, a positive focus, and staying power will take women in the industry to anywhere they desire to reach. I know the impact of Architecture and how it adds a lot of value to many areas of life apart from providing solutions to Lifestyle issues.

“For cultural and religious reasons, where women Architects are preferred for some jobs unless the job requires some extraneous physical fitness or stamina, cultural, religious or intimate matters. I will like to encourage women in Architecture to take a global look at their counterparts and how involved they are with everything up to the boardroom.”

-Arc Yinka Williams
Managing Director of Fola Alade Associates,
May 2019.



RELIABLE INFRASTRUCTURE, SUSTAINABLE DEVELOPMENT



Seamless Infrastructure
In addition to its notable construction, Eko Atlantic will be equipped with impressive 21st century amenities. The city will be clean and airy, with integrated systems and seamless connections to the world.

Transport Options
A high-speed roadway will connect Eko Atlantic with both Lagos and Victoria Island. Extensive public transport facilities will be further enhanced by an intra-island waterway that extends from east to west, linking the three marinas and all six districts. A ferry system will transfer passengers to the Lagos ferry network. When lightning-fast transit is needed to reach Lagos international airport, heliports can be made available.

Carbon Footprint
The city's planners have committed to minimizing Eko Atlantic's carbon footprint with the use of environmentally-efficient construction methods and locally-sourced materials where available and appropriate.

Independent Services

- Electrical Independence
- Modern Drainage
- Water Treatment
- Sewage Treatment

With Lagos Island as the previous capital of the state, growth in its financial capacity, as well as growth in technology especially the construction industry, gave rise in the number of high-rise buildings in Lagos Island, particularly Marina. There was a gradual shift of the economic/ financial power hub to Marina as the headquarters of major institutions were located in this area such as **NITEL House** which was considered Africa's tallest building and home to some magnificent sculpture,



The General Post Office building, CMS bookshop and the Anglican Church. In fact, it was unarguably considered as the king of property investment prior to the relocation of the seat of the Federal Government to Abuja. However due to the rise of miscreants, street trading, market activities, traffic congestion and the general dilapidation of infrastructure, we again saw the movement of the economic power house from Marina to Ikoyi / Victoria Island.

Victoria Island is presently regarded as the preferred and foremost business destination; hosting a diverse mix of large corporations, SMEs, indigenous and multinational organizations.

It is home to the headquarters of financial giants like such as **Guaranty Trust Bank, Ecobank, Zenith Bank** etc. Today, many premium, high-rise offices

“It is anticipated to house at least 250,000 residents and an expected daily flow of 200,000 commuters moving to the new city to make a living”

The relocation (consciously or unconsciously) of the economic hub isn't a foreign concept and not exclusive to Lagos state. Other areas around the world have experienced this economic shift at one time or the other. For example, experts have noticed a trend in Nairobi where big companies are relocating from the city's central business district for alternative areas like Upper Hill, Westlands, and parts of Kilmani in Kenya. It was reported that multinational companies like Coca Cola, Standard Chartered Bank and World Bank have all relocated their corporate address from Nairobi and Grade B office space in the CBD remains largely occupied by smaller local corporates.

This relocation is as a result of poor amenities, influx of hawkers and the heavily congested and dilapidated Central Business District.

This trend can also be seen in Mumbai as the Economic Times in 2017 tweeted “#mumbai central business district no longer a hit with companies”. This is because by year 2020 domestic corporations are expected to move up the value chain and as a result give its staff more attractive and conducive working environment which might be impossible to do in Mumbai due to challenges like traffic congestion, sanitation, pollution, etc.

EKO ATLANTIC

Eko Atlantic City: The new economic hub of Lagos?

The central business district of Lagos state which is the business heart of Lagos has been 'relocated' over the years as development improves in the state. The trend can be seen in the earlier years when Lagos was considered a port city as it was a collection of islands which are the present day Local Government Areas (LGAs) of Lagos Island,

Eti-Osa, Amuwo-Odofin and Apapa.

These areas were the financial heart of the state as the most profitable and booming business at the time (importation and exportation of materials and goods) were located in those areas.

Source: www.Lewardist.com





With the construction of Eko Atlantic City at this time, it can be assumed that we are witnessing development of the new economic hub of the state. Situated on a 10million square meters of reclaimed land from the ocean and fortified by the now famous 8.5km long wall popularly known as the “Great Wall of Lagos”, Eko Atlantic is predicted to be the size of Manhattan’s skyscraper district and upon completion it is anticipated to house at least **250,000 residents** and an expected daily flow of **200,000 commuters** moving to the new city to make a living.

Eko Atlantic is zoned into the following district:

- **The Business District (Orange on map)**

The Business district is expected to contain the district’s main feature which is the EKO BOULEVARD, (2km Long and 60m wide). The boulevard would accommodate areas of inspirational development and also a powerhouse for financial, retail and corporate activities. The materials adopted

in the construction of Eko Boulevard are interlocking pre-cast concrete paving blocks made in an on-site factory. The 80mm thick interlocking blocks are designed to carry a heavy load of traffic stretching over the 420m length of the Boulevard.

- **Marina District (Grey on Map)**

The marina district from the meaning of its name is one of the most stunning residential and commercial hubs in Eko Atlantic. It is specially designed for mixed use development with a sweeping pedestrian promenade that encircles the marina that would offer breath taking views from the sleek yachts to the dazzling architecture. It is expected to become a center for leisure and social activities.

- **Downtown (cream/beige on map)**

The epicenter of Eko Atlantic with highly desirable space for development is called the downtown. This district provides opportunities to develop lands for residential purposes, yet offering a sought-after-style of the city life. The Downtown district is surrounded by the canal thus providing an alternative water transport system.

- **Avenues (green on map)**

The Avenue districts is located centrally at the heart of the city. It connects the Eko Drive from the north, ocean front to the south and downtown to the west. Thereby accommodating both residential and commercial properties.

- **Eko Drive (lilac & purple on map)**

The Eko Drive is a well-designed mix of commercial and residential developments, providing swift commuter access between the city of Lagos and Eko Atlantic.

- Harbour Lights (Red/Horse red on map)

Similar to the Eko drive, the Harbour Lights is a cohesive blend of commercial and residential developments overlooking the entrance to Lagos Harbor and the Atlantic Ocean.

- **Ocean Fronts (Yellow on map)**

As the name implies the Ocean Front stretches along the coastline of Eko Atlantic, with breathtaking views of the Atlantic Ocean. Ocean front is a residential area with tree-lined streets and a variety of outstanding facilities for residents and tourists.

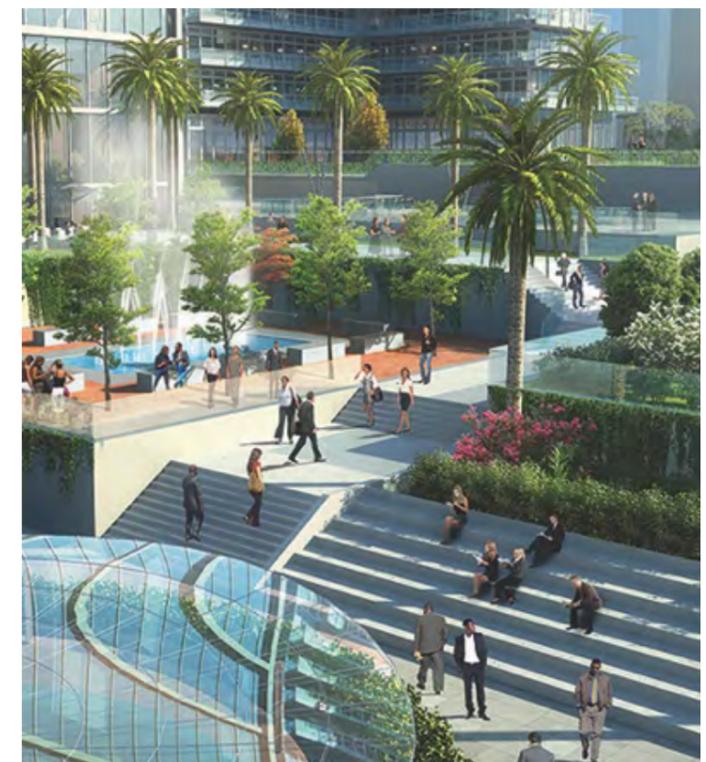
The project is privately funded by South Energyx Nigeria Limited a subsidiary of Nigeria Based Chagoury Group of companies working in partnership with the Lagos State Government and supported by the Federal Government of Nigeria. Notable and International financial institutions have capitalized on the opportunities such as FCMB, First Bank, Access Bank and Guaranty Trust Bank with the support of BNP Paribas Fortis and KBC. The project team for the project comprises of: MZ Architects as Architects, Dar Al-Handasah (Shair and partners) as Engineers, Royal Haskoning as consultant marine engineers, , AR+H architects as affiliated contractors.

The Eko Atlantic city slogan ‘live and work’ as well as the intentional attempt to have a self-sufficient and sustainable city implies that there is a conscious effort from the planning to the implementation stage for the city to have its own power generation, water supply, waste water treatment, solid waste management, fiber optics communication systems, good road network and underground surface drainage pipes across the new city. There are also efforts to ensure pleasant living condition by ensuring a sound demographic distribution so as to limit emissions to its surrounding environment.

Public Facilities like schools, hospitals, religious houses, recreational and leisure facilities such as

theatre and cinema and shopping centers will be provided. Tree lined boulevards, the ocean front promenade, canals and the marina will provide spaces for people to relax after their daily business and stress. Parking in the streets will not be permitted as all buildings will have parking garages. Recently the United State Consul-General in Lagos, Mr John Bray announced that the US government has secured about 1,000 hectares of land on the Eko Atlantic City in Lagos. Other companies like Afren PLC , Orlean Invest have commenced construction.

Despite all the promising feats Eko Atlantic City is expected to achieve in the future, the project has been greatly criticized by local residents and several experts. According to David Damiano the most frequent criticism of Eko Atlantic is that it will be highly susceptible to rising tides, as it is based on an artificial sandbar directly adjacent to the ocean. Experts have questioned what will happen when water moves towards the built wall as the water will either move left or right or look for a weak spot, with a city composed of a series of islands, this could be disastrous. The surrounding areas are not only unprotected by the wall, but are lower in sea level than Eko Atlantic meaning the water would naturally move to those areas. Dr. Blumberg asked “With sea walls, you have to figure out what you’re protecting against”.





Expected Views of the EAC Maga Project

Experts generally agreed that the Eko Atlantic City project lacks transparency, participation and doesn't always adhere to the rule of law. It was also stated that the EIA report was submitted three years after the commencement of the dredging activities. This brings up concerns about the testing of the tide and wind strength before commencement to ensure proper design that will withstand the forces. It can be said that factors for the design considered by the foreign experts is questionable. The need to ensure that the developers be responsible for the long term negative impact of the project cannot be over emphasized. Despite the above, the question still remains "is Eko Atlantic city the new economic hub of Lagos state?"

While it is safe to say that Eko Atlantic city has all that it requires to become the economic hub of the state, it is important to note that Victoria Island houses financial giants in the state and there is still a sense of prestige that comes with owing a property in Victoria Island. It is still regarded as a prime location due to easy access to other residential and recreational facilities and good security level is an added bonus.

As we watch the development unfold, there is a chance that we would witness a move in Lagos CBD or Lagos state will take a cue from New York City and have two major CBDs.



Location map showing the Eko Atlantic City

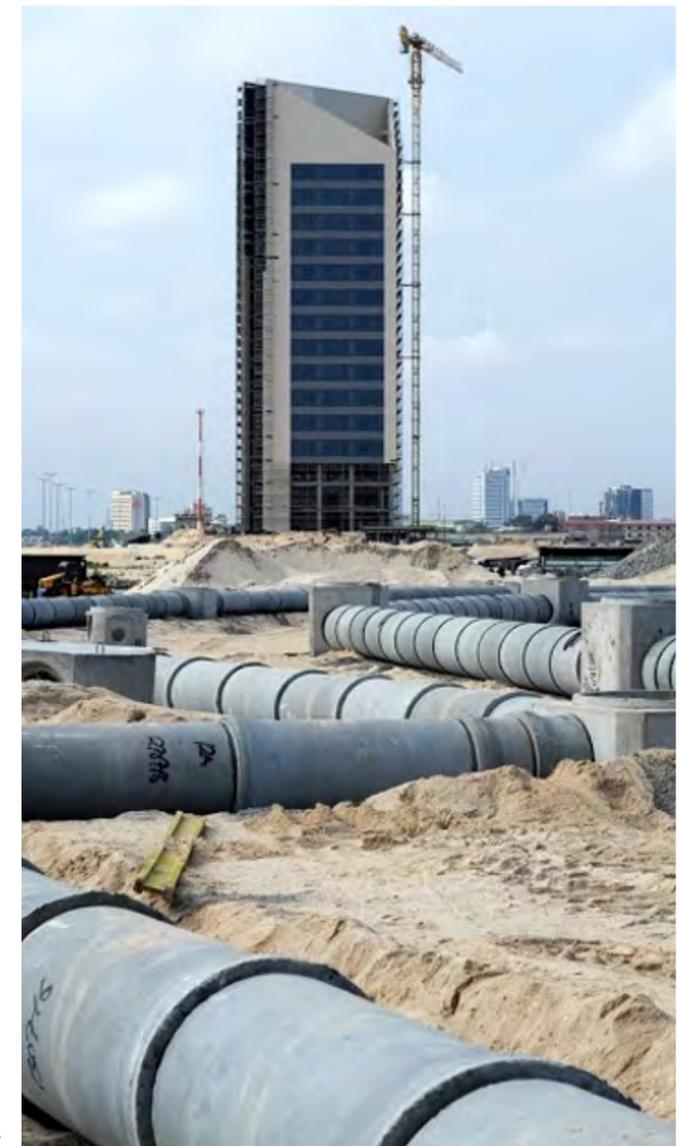


Proposed Skyline of the Eko Atlantic City

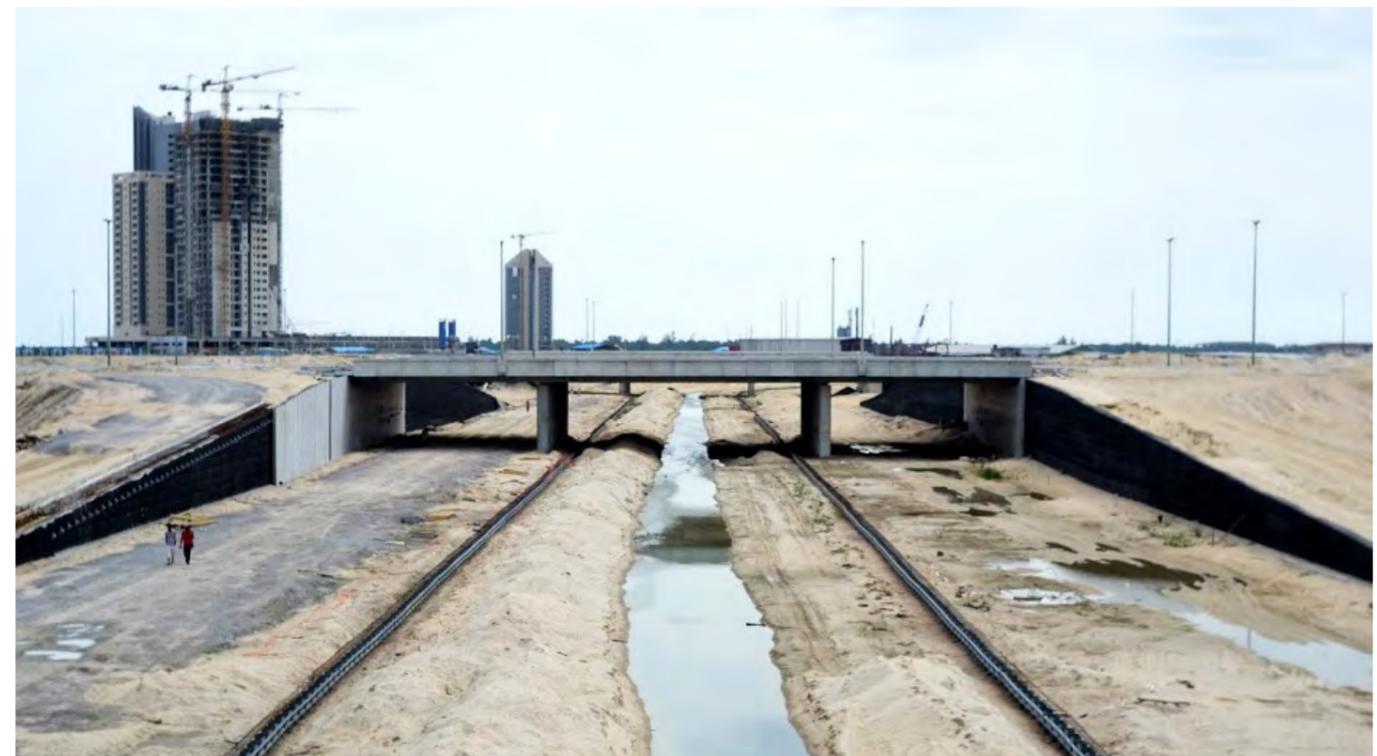
Read more at:

1. http://economictimes.indiatimes.com/article-show/65145388.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
2. http://www.coolgeography.co.uk/gcsen/Mumbai_Challenges.php
<https://www.standardmedia.co.ke/business/article/2001250177/why-nairobi-city-centre-no-longer-at-ease>
3. <https://economictimes.indiatimes.com/mumbai-central-business-district-no-longer-a-hit-with-companies/articleshow/65145388.cms?from=mdr>

4. <http://www.travelstart.com.ng/blog/the-city-of-lagos-then-and-now/>
5. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Nigeria_Eko_Atantic_ESIA_ESMP_Summary.pdf
6. <https://www.ekoatlantic.com/why-eko-atlantic/master-planning/>
7. <https://www.ekoatlantic.com/latestnews/press-clipping/eko-atlantic-city-worlds-biggest-project/>
8. https://en.wikipedia.org/wiki/Eko_Atantic#Milestones
9. <https://cbd.lagosstate.gov.ng/>
10. <http://saharareporters.com/2017/12/02/why-eko-atlantic-city-very-bad-idea-david-damiano>



Ongoing construction at the Eko Atlantic city



A view of the Eko Atlantic: The dualised road

