THE ROLE OF ARCHITECTURE IN ACHIEVING ENVIRONMENTAL SUSTAINABILITY IN NIGERIA: LESSONS FROM THE 2010 CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS

By

Olu Ola Ogunsoke & Bogda Prucnal-Ogunsote
Department of Architecture, University of Jos, Jos
Emails: profogunsote@gmail.com, bogdaogunsote@gmail.com
Web sites: sdngnet.com, sdecng.net, archnetng.org

And

Victor Ejiofor Ugwummadu
Artarc Ltd, Abuja
Email: artarc01@yahoo.com

Abstract

The 2010 convention of the American Institute of Architects was held between June 10 and 12, 2010 in Miami, Florida, USA with the theme “Design for the New Decade”. The importance of sustainable development was emphasized in many threads of the convention from pre-convention workshops to keynote speeches to exhibitions and even to the choice of the gold medallist. This paper summarizes the most relevant submissions and attempts to relate these to the Nigerian experience. Critical issues discussed include professional enlightenment through mandatory continuing education programmes, the impact of consumerism on the environment, demand side management of energy issues, tools used for green building design and assessment, the work of gold medallist Peter Bohlin and integration of sustainability into the architecture curriculum. The paper concludes that the environmental challenges facing American architects and the possible solutions are similar to those their Nigerian counterparts confront despite significant differences in degree of urbanisation, economic and technological environment, legislative framework, enforcement facilities and even climate.

Keywords: AIA, consumerism, environmental sustainability, green building, Nigeria.

1. INTRODUCTION

The 2010 National Convention and Design Exposition of American Institute of Architects (AIA) took place in architecturally vibrant Miami, located in the southern part of the state of Florida of the United States of America. This beautiful and architectonically diversified town is a gateway to the Caribbean and Latin America with a subtropical climate reminiscent of Nigeria. The event took place between June 10 and June 12, 2010 and was organized by the AIA 2010 National Convention Advisory Committee on behalf of the AIA and AIA Miami. The AIA was formed on February 23, 1857, that is over a hundred years before the Nigerian Institute of Architects (NIA). The NIA recently celebrated its 50th anniversary on April 1, 2010. The AIA represents the professional interests of more than 86,000 licensed architects, emerging professionals and allied partners in design (AIA, 2010a) while NIA has around 3,000 registered architects, even though Nigeria has roughly half the size of the USA. Despite the difference in age and size however, the associations share a similar organizational
structure and common ideals. The convention provided a unique opportunity to explore and experience how American architecture is contributing to the achievement of environmental sustainability on three physical scales – the building, the city and the world; and to learn lessons which can be applied in the Nigerian context. This paper is an attempt at documenting this intellectually satisfying and spiritually uplifting experience.

2. HIGHLIGHTS OF THE CONVENTION

The main theme of the convention and design exposition is Design for the new Decade. With design as the central focus, the event featured captivating keynote addresses, training workshops, seminars, general session presentations, design exposition and exhibition of building materials and technology. These events were organized at many venues in and around the Miami Beach Convention Centre. There were various educational tours, chapter and special interest group events as well as the routine business of the AIA - meetings, elections, award ceremonies, cocktails and dinners.

The major highlights of the convention which are discussed in this paper vis-a-vis environmental sustainability are:

- Pre-convention workshops
- Keynote speeches
- Design forums
- Exhibitions
- Award of gold medal

3. PRE-CONVENTION WORKSHOPS

There were twenty five pre-convention workshops. These prepaid events ranged in price from $155 to $310. They were usually fully booked and well attended. These workshops gave practitioners an opportunity to share their experience and participate in sessions with discussions, case studies, hands-on activities and small group interactions. The participants often brought their own materials, compared them and learnt how to apply leading-edge solutions. There were tutorial sessions, interactive and roundtable discussions, et cetera.

The workshops most relevant to this paper were:

**How to Build Green: A Step-by-Step Guide (WE005)**. It addressed how to effectively develop and incorporate green building goals into each phase of the design and construction process.

**Design for Resilience: The Challenges of Climate Change – Smart Growth Florida 2040 (WE007)**. It addressed climate change and its impact on land planning and site design at all scales.

**Zero Net Energy Design Workshop (WE0025)**. It focused on developing a schematic zero net energy design for a prototypical office building.

**AIA+2030 Professional Series (WE032)**. Creation of buildings that meet the ambitious energy efficiency goals of the 2030 Challenge.

**Achieving Energy Efficiency: Quantifiable Results through Whole Building Commissioning (WE050)**. Focus on how a properly implemented commissioning program can vastly improve a building’s energy performance (AIA, 2010b).

The workshops showcased new tools necessary to design for the new decade. The new tools and techniques are intended to expand and to inform the knowledge and experience base of
architects - specifically with regard to addressing climate change, green construction code, developing zero energy design, and optimization of building performance based on the rating systems for green buildings. They were also to increase knowledge of how traditional and new documents were updated to reflect current legal thinking and how they incorporated current issues in practice through presentations of AIA contract documents (updated in 2007); the International Building Code (approved by International Code Council in 2009) and also the International Green Construction Code (IGCC).

The most relevant lessons learnt from the workshops were:

- Different styles and techniques in which knowledge can be impacted and dissipated,
- The relevance of being up to date like in case of the legal documents listed above,
- Practical experience supersedes pure theoretical knowledge.

4. DESIGN FORUMS

There were six design forums organized as afternoon sessions. Two sessions took place on each day of the conference. The forums provided opportunities to gain experience on sustainability and technology, community design and international practice and bridged the gap between the seminars and keynote presentations.


This workshop focused on identifying a “good design” which takes into account the health, safety and wellbeing of the occupants and one that safeguards the environment that supports life. It was demonstrated how good design and sustainability come together to advocate an ambitious, comprehensive strategy for carbon neutrality.

4.2. 2+2: College of Fellows and Young Architects Explore Design for the Next Decade (TH022)

The works of two nationally recognized design architects from the College of Fellows and two 2010 recipients of the Young Architects Award were presented. The forum examined the impact that experienced architects have made in achieving outstanding design and the influence of the young generation and their potentials in raising the standards for the next generation. Forum members discussed the fundamentals of good design which relate to sustainability issues given the challenges of scarce resources (Kreilich, Stuth and Kodet, 2010).

4.3. City Design for the New Decade (FRO51)

This was a round table discussion featuring civic leaders, planners, and architects exploring city design for the new decade. Areas of focus included consideration of infrastructure, transportation, density and planning. The discussion explored city design for the new decade with emphasis on new challenges of technology, climate change and the environment.

4.4. Design for the Next Decade: A Next Generation Look at Design and Architecture (FR052)

The presenters made a leap into the future by showing a film. In the fantasised scenario architects from the future took up the challenge by embracing the New Design Paradigm (NDP) around which the entire convention evolved. The audience was asked to turn on their cell phones and to provide text message polling throughout the session and were sending
questions to the visiting next generation architects. This session was designed to be a guidance system to the future (Ogbu, Vazquez-Perez, Pelc and Kellogg, 2010).

4.5. **Design in a Global World: Design Challenges for the Next Decade—A Discussion with this Year’s Honorary Fellows (SA051)**

In 2010 the AIA bestowed the award of Honorary Fellow on ten foreign architects of esteemed character and distinguished achievements who made a significant contribution to architecture and to society on an international level (McKnight 2010). Two of the fellows (Carme Pigem Barcelo from Spain and Sheila O’Donnell from Ireland) shared insights into their design processes and products.

4.6. **Design in a Global Context (SA052)**

The forum deliberated on what American architects can learn from design colleagues living in places like Asia, Africa and South America. The focus was on performing within constraints.

4.7. **Lessons from the Design Forums**

Some of the lessons learnt from the design forums include the following:

- It is advisable to identify elements of good design and how they benefit clients, owners, and communities. Good design is key to short and long term sustainability.
- There are opportunities of designing for the new decade from different perspectives – the older generation of architects using their expertise while the young generation can have a strong influence on “raising the bar for the next generation”
- The projection of forces and the elements that influenced the cities today and that will be influencing the design in the future. Finding ways in which architects and designers can and should influence how the cities are shaped.
- Focus on creating healthier, more liveable and more sustainable communities.
- Diversification and broadening of traditional practice might contribute to sustainable buildings.
- The power of scenarios as a narrative tool may be used to envision the future.
- Interactive learning techniques can be effectively applied to address sustainability issues; to mitigate climate change and to address the environmental challenges.
- Insights into the design processes and products of other international architects from Africa, Asia, and South America, who are faced with similar challenges like Nigerian architects
- The concept of looking into the future can be adopted and may prove very beneficial. This can be done by visualizing the realms within which the environmental challenges could be met in Nigeria in the nearest future.

5. **KEYNOTE SPEECHES**

There were three professionally delivered keynote presentations by renowned and articulated professionals - one on each day of the conference. Each made great impact on the audience. The keynotes addresses focused on the main theme of the conference but each one from a different angle. All keynote speeches were delivered in the main hall (Plate 1).

Daniel Pink spoke about "Building Design for the New Decade: The Role of Right-Brain Thinking in a Modern Economy" during the opening session on Thursday. He opined that architects focus on the real challenges of affordable housing, better schools, and public buildings, and that as they recommit themselves to design as the discipline’s primary mode of
thought and action, it is imperative to understand how now, more than ever, right-brain thinking is essential in a modern world (Pink, 2010).

Drawing from his artistic portrayal of consumerism, the very eloquent artist Chris Jordan spoke about "Community Design for the New Decade: Consumerism and Responsibility" during the opening session on Friday. He said that architects have a responsibility to help shape and define the communities in which they live, work, and play and that “in our present state of mass consumerism, we are in a culture of taking, and that through this process we are doing irreparable harm to our planet and to our individual spirits — thus shaping our communities in unintended ways” (Jordan, 2010). He exhorted architects to turn their attention inward to awaken their souls and to challenge their minds as they look to shape and re-shape their communities in the decade to come.

Robert Ivy moderated the discussion on "Global Design for the New Decade: A Discussion with the 2010 Gold Medallist and Architecture Firm Award Recipients" during the closing session on Saturday. The discussion focused on “what sort of evolution in design will be required to repeat success in the decade to come, given the rapid pace of changes and technology in the world today” (AIA 2010b). The gold medallist, Peter Bohlin, also gave an acceptance speech and answered questions from the audience. These questions were submitted using Twitter during the discussion.

The keynote speeches demanded that architects claim responsibility for shaping and defining the communities in which people live, work and play and that people should be more accountable for the consequences of consumerism.

6. EXHIBITION OF NEW PRODUCTS, TECHNOLOGIES AND SERVICES

The exposition showcased more than 800 exhibitors of new products, technologies, and services - professional resources that can be implemented in practice or projects. Participants
had the opportunity to see and touch products, to get detailed information, and to ask questions of the manufacturer representatives.

The exhibition also featured a virtual expo for those exhibitors unable to attend. Almost 100 exhibitors had three dimensional virtual exhibit spaces with the company's logo, contact information, company's branding, product information and a brief description. PDF versions of sales collateral materials were uploaded. During the show hours, exhibit booth personnel created their own "avatars" and virtually chatted with attendees who "stopped by" the virtual exhibit booths.

The exhibition space was a huge hall about the size of a stadium with exhibitors grouped according to their products (Plate 2). Some of the exhibitions that were directly linked to environmental sustainability are described below.

Plate 2: View of one of the dozens of exhibition alleys. Source: Photograph by Ogunsoye, 2010.

6.1. **Solarmotion Controllable Solar Shading**

The new Solarmotion system by Construction Specialties, Inc. adjusts automatically with the movement of the sun to reduce solar heat gain and glare and significantly reduce energy usage. These controllable sunshades are also remotely adjustable so building occupants can enjoy the benefits of natural daylight, year-round. Minimising solar heat gain can substantially reduce annual cooling energy demand (Environmental Design and Construction, 2010).
6.2. **Energy Saving Natural Light**

Translucent panel skylights by Major Industries, Inc. illuminate interior spaces with energy-saving natural light. They are backed by industry-best warranties and 3 decades of innovation, and are a cost-effective and environmentally friendly alternative to artificial lighting. See Plate 3.

![Plate 3: Major Industries Guardian 275 translucent panel skylights. Hargrave High School. Source: Major Industries (2010).](image)

6.3. **Bradley’s Advocate Lavatory System**

The Advocate Lavatory System by Bradley Corporation provides an “all-in-one” hand washing experience. It is a personal hand washing station that provides an all-in-one experience, since access to water, soap and hand dryer are available within the user’s space. With all hand washing elements in immediate reach, dripping water is minimised. Designed with recycled content, 0.38 gpm faucet and low-energy consumption hand dryer, the advocate is environment friendly. See Plate 4.

![Plate 4: The Advocate Lavatory System by Bradley Corporation. Source: Broadley (2010).](image)
6.4. Airxchange Energy Recovery Wheels

With the slogan "change the air, recycle the energy", Airxchange energy recovery wheels are a prime component in energy recovery ventilation systems, recommended by the EPA and DOE for occupant health and energy efficiency. They recycle up to 80% of the energy in exhaust air – the largest source of waste building energy. They also reduce HVAC equipment size and initial capital equipment cost.

6.5. Sustainable Forest Initiative

The Sustainable Forest Initiative (SFI) programme is an independent, non-profit organisation with a science-based, internationally recognised forest management standard for North America. The SFI program is based on the premise that responsible environmental behaviour and sound business decision can coexist to the benefit of communities, customers and the environment, today and for the future generations.

7. Critical Issues Discussed and Lessons Learnt

There were many issues discussed from which lessons can be learnt which are directly applicable in Nigeria. Some of these issues include:

- How to combat climate change
- Continuing professional education programmes
- The Impact of consumerism
- Demand-side management of energy issues
- Water management
- Tools used for green building design and assessment

7.1. How To Combat Climate Change

Nigerian architects need a lot of guidance concerning what building designers must do in the years ahead to ensure that building-related greenhouse gas emissions are appropriately reduced. Raman (2010) in his presentation provided the basis for setting specific building emissions targets that designers can start to advocate and, hopefully, implement immediately.

According to Goldstein and Neuman (2010) in the past 50 years, humans have consumed more resources than in all previous history (Figure 1). Around 90% of them are the non-renewable materials. Among the raw materials consumed in the U.S. the construction materials (related to buildings), dominate the industry (Figure 2).

The strongest point made by the presenter has a global relevance. He advocated doubling the life span of the building and thus reduce the environmental impact by half. This is achievable through renewal and reuse. He advocated that “renovation creates 30 to 50 per cent less greenhouse gases than new construction, produces less construction waste, and utilizes existing resources - buildings” (Goldstein and Neuman, 2010).

Some of the other means of combating climate change include developing workplace strategies that merge efficiencies with people-focused design; sharing facilities such as copy centres, kitchens & conference rooms; making meeting areas and large spaces multipurpose; efficiently scheduling to fully utilize facilities; and right sizing for work needs.
7.2. **Continuing Professional Education Programmes**

The attendees actively participated in education programmes and gained credits for their Continuing Education Programmes. They had the opportunity to earn all the continuing education units they need for 2010 in just four days. The sessions were scheduled as early as from 6am and the latest sessions rounded up at 7pm daily. The entire programme of the conference enabled them to advance their knowledge and score points by attending paper presentations, expo education sessions and design forums. The participants could choose from more than 200 program offerings, including preconvention workshops and keynote presentations. Issues discussed spanned from business planning to marketing and business development, from zero net energy design to building codes. It allowed them to enhance their knowledge of design, practice management, and career development. The experienced and articulate speakers who are creative and provocative thought leaders in a variety of design, building performance, practice, leadership, collaboration, research, technology, training, and mentoring fields shared their experience on the wide variety of topics related to the conference theme. Some sessions attracted more participants and some venues were fully occupied in no time leaving other participants to choose from less attractive options or to stand, even in the corridors. However, participation in seemingly less attractive sessions did not diminish the benefits and lessons learnt especially in the area of sustainability which was extensively covered by most of the presentations.

Furthermore, architects who were not able to attend the convention had access to an Internet conference resource - the AIA Virtual Convention. The Virtual Convention will be available for one year to registered participants. It is possible to listen to the speakers anytime and anywhere (Figure 3). It is a form of online training whereby after viewing a training session participants are given the opportunity to complete a quiz after which a certificate is generated for those that passed the quiz. In addition to the virtual convention, there was life coverage of
the three keynote presentation and over 30 seminars via simultaneous webcasts, and architects could earn points by remote participation.

Figure 2: Materials, Products and Services by Resource Use. Consumption of construction materials among the raw materials is positioned as number 1. Source: Goldstein and Neuman (2010) after US EPA (2010).
7.3. **The Impact of Consumerism**

The keynote address by Chris Jordan in which he discussed the very disturbing and alarming issue of consumerism had a great impact on participants. The speaker alerted the architectural community about the culture of taking, and that through this process people are doing irreparable harm to the earth and to the individual spirits. The eloquent speaker supported his points with visual images – his artistic works. He plainly explained that the communities are shaped in an unintended ways and that today’s societies are focusing on consumption – on taking. He emphasized the need for reorientation and a change of the unsustainable attitude of making no one accountable for the consequences. He gave examples from his research work by presenting a multitude of artistic images which were able to speak to listeners’ conscience. In the speaker’s words:

> As architects, we have a responsibility to help shape and define the communities in which we live, work, and play. Given the current challenges we face, we must renew our commitment to design in our communities, and this begins with an exploration of where we have been and where we are headed (Jordan, 2010).

In conclusion the presenter focused on turning listeners’ attention inward to be more conscious of the adverse effect of consumerism. He aroused architects’ imagination in order to set their minds towards reshaping and reorienting communities away from the culture of taking.

7.4. **Demand Side Management of Energy Issues**

Demand Side Management (DSM) is the process of managing the consumption of energy, generally to optimize available and planned generation resources. It refers to actions taken on the customer's side of the meter to change the amount or timing of energy consumption.
Utility DSM programs offer a variety of measures that can reduce energy consumption and consumer energy expenses (Demand Side Management Website, 2010).

The issue of Demand Side Management of energy issues was extensively covered in many presentations. They all target how to reduce or eliminate carbon emissions and greenhouse gas emissions. Some aim at super high efficiency solar energy systems and net zero energy buildings upgrades, at improving the building’s energy performance, optimizing the performance of mechanical equipment to reduce air, water, and sound infiltration or exfiltration through the building enclosure. The presentations that targeted buildings with Zero Net Energy are the following:

**WE025:** Zero Net Energy Design Workshop.

**WE050:** Achieving Energy Efficiency: Quantifiable Results through Whole Building Commissioning.

**TH003:** The Environmental Benefits of Peak Energy Efficiency: Strategies for a Zero Carbon Solution.

**TH004:** Lighting and Daylighting for Sustainable Commercial Spaces.

**TH011:** Driven by the Envelope: Redefining Sustainability through the Building Envelope—Energy Efficiency, Cost Effectiveness, and Aesthetics in German Architecture.

**TH012:** Commissioning for New and Existing Buildings: Building Commissioning for Quality, Energy, and LEED Certification.

**TH045:** Landscape Architecture and High Performance Buildings.

**TH051:** Implementing the 2030 Challenge: Design for the Coming Decade — Four Firms’ Approaches to a Carbon Constrained Future.

**FR004:** The Next Generation of Advanced Energy Design Guides.

**FR024:** Sustainable Envelope Tools with the Living Building Challenge.


**FR087:** Lighting the Way: Creating Meaningful Organizational Change.

**SA009:** International Green Building Methods and Regulations: Lessons Learned from Around the World.

### 7.5. Water management

The sessions spotlighted low-impact designs that use natural systems to provide cost-saving, sustainable solutions through effective landscaping and water features. Presentations include:

**TH062:** Roof as Floor: Lessons Learned from 30 Years of Designing Green Roofs.

**FR025:** Ecological Balance and Stormwater Best Management Practices: Discover, One Drop at a Time, Beautiful Solutions that Enhance the Building.

### 7.6. Tools Used for Green Building Design and Assessment

There are many tools used in assessing the level of sustainability in the United States. Prucnal-Ogunsote, Okwoli and Ude (2010) defined green and sustainable architecture and presented many of the rating systems and energy rating software and tools for sustainable...
projects used around the world. However there are no quantitative measures in place to certify how efficient buildings in Nigeria are in terms of energy use and thus the lessons from the Miami Convention can be very useful especially since the Nigerian building industry is yet to adopt its own rating system.

This conference revealed that among the rating systems for sustainable projects used in assessing American buildings are: LEED, Energy Star, EnergyPlus, the National Green Building Standard, and the NAHB Model Green Home Building Guidelines. The ultimate target of using these tools and software is to attain low energy design where the energy use will be minimal. This can be possible through reduction of greenhouse gas (GHG) emissions through peak energy reduction and energy storage strategies.

**Life Cycle Assessment (LCA)**

This tool was introduced to analyze the impact that the building may have on the environment and to help with the decisions which will reduce those impacts. It quantifies materials and energy flow to and from the environment during entire life cycle of a building. Although it still has a very limited application, there were discussions in two presentations about how architects will use it in the future:

**FR006**  
Life Cycle Environmental Assessment of the Building Envelope: A Case Study of Four Building Envelope Wall Systems and Three Structural Systems

**FR066**  

**LEED tools and LEED Rating Systems**

The Leadership in Energy and Environmental Design (LEED) is a green building rating system developed by the United States Green Building Council (USGBC). The seminars addressed LEED tools and unique aspects of the new construction rating system. The following seminars were organized by USGBC.

**WE029**  
LEED Core Concepts and Strategies.

**WE028**  
Green Building Design and Construction: The LEED Implementation Process. This seminar provided essential knowledge of the LEED rating systems and sustainable building concepts. They were purposefully organized to gain experience in applying this knowledge to real-life LEED projects (AIA 2010b, p.10).

**TH066**  
LEED Design Tips and Tricks: Demystifying Key Credits to Achieve Great Design and Great Ratings. This presentation provided information required to move smoothly through the certification process.

**EnergyPlus**

This is an energy analysis tool. The participants were subjected to practical simulation of life analyses of major environmental design projects using Google SketchUp (Plate 5).
Energy Star

The session “From Alpha to Omega with Energy Star (FA002)” demonstrated how to quantify energy use and provide easy to understand metrics that can be communicated to executives and design teams for setting design targets, as well as for tracking energy use in existing buildings.

Rating Systems for Sustainable Residential Projects


Lessons learnt

The convention provided architects with a forum where they could educate and equip themselves with the knowledge of a wide variety of rating systems and software. Nigerian architects should also find a forum where they can acquaint themselves with updates on environmental issues and particularly on environmentally responsible design while having in mind actual energy performance.
8. THE WORK OF GOLD MEDALLIST PETER BOHLIN

Peter Bohlin, renowned for his versatile, contextual use of materials, is a gold medallist of the American Institute of Architects (AIA). The award was bestowed on him in Dec 2009 while he was honoured in 2010 at the National Convention in Miami.

Throughout Bohlin’s body of work, sustainability is a consistent emphasis, though his projects are never overwhelmed by superfluous sustainable gadgetry. Alan Balfour, Dean of the Georgia Tech College of Architecture, wrote in a recommendation letter that Bohlin’s work embodies “a metaphysical relationship with nature that is an elusive, yet profound part of the cultural imagination of this nation” (Mortice, 2010). Some of his important works include the Apple Stores in New York and Sydney. See Plates 6 and 7.

Plate 6. Apple Store in New York (Fifth Avenue).
Source: Photograph by Ogunsote, 2010.
9. SUSTAINABLE DEVELOPMENT IN ARCHITECTURAL EDUCATION

Some of the presentations that promoted sustainable development in architectural education dealt with accreditation of architecture schools and mentoring and training interns for the future.

9.1. Accreditation of Architecture Schools

The conference was conducted with the participation of leaders in research, training and mentoring, among others. The one day-long interactive workshop WE021: “NAAB Team Training: Preparation for 2011 and 2012 Accreditation Visits” was designed to orient those new to the visiting accreditation team process and to prepare veteran team members for visits that will take place in 2011 and 2012. It was organized by the National Architectural Accreditation Board (NAAB). The accrediting process is intended to verify that each accredited program substantially meets those standards that, as a whole, comprise an appropriate education for an architect (National Architectural Accreditation Board, 2010).

9.2. Mentoring and Training Interns for the Future

The seminar TH047: “Interns Are Our Future...Only if they’re Present: Mentoring and Training Interns for the Future of your Firm (and our Profession)” was focused on graduates and interns. It provided academic and professional perspectives on helping graduates and interns succeed in the workplace.
10. CONCLUSION

Architecture has a major role to play in achieving environmental sustainability in Nigeria. There are numerous lessons learnt from the 2010 Convention of the American Institute of Architects as highlighted above.

The lessons on environmental sustainability are very useful in solving many problems of Nigerian architecture while she is battling with the issue of poverty and trying to provide housing for all. Enlightenment of architects is most important. Even the logistics of organizing the convention can be applied to Nigeria for example the theme for the next convention was announced with more than one year’s notice. The online asynchronous conference sessions will be available online till the next conference for registered members. Nigerian architects should be able to depend on NIA Journal, NIA official website, and ARCON official website for current information. The issue of propagating knowledge was emphasised through continuing education programmes, accreditation issues and employment of interns. The AIA 2010 Convention in Miami was so eventful that it provided the opportunity to earn all the credits for continued education programme needed for a whole year.

The event was referred to as an environmentally sustainable convention which was also cited as one of the greenest meetings. For example, by organizing paperless sessions, reducing waste and energy consumption, maximizing efficiency and by recycling at every opportunity. In response, NIA Archibuilt 2010 Workshop adopted the idea of electronic proceedings and it was also a paperless event!

Apparently, the Nigerian building industry will need to adopt its own energy rating system. Nigerian architects should not be intimidated that more than twenty sessions were dedicated by the AIA to educating architects on the use of energy rating tools and software. The professional bodies should rather examine the progress made in incorporating energy tools into the building code while the research institutes should keep informing architects about current developments in sustainability.

11. REFERENCES


