

Exploring the effectiveness of eco-friendly/alternative materials in the scenic interpretation of Elaigu Ameh's *Climate of Change*

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Abstract

*The quest for ecologically conscious design has given rise to eco-scenography, a practice that foregrounds the dynamic interplay between the natural environment, material resources, and human experience in theatrical design. Despite growing global discourse around eco-theatre and eco-criticism, eco-scenography remains relatively nascent within the Nigerian theatre space, with limited scholarly and practical exploration of its effectiveness and viability. This study examines the effectiveness of eco-scenography as a framework for sustainable theatre practice through the design and interpretation of Elaigwu Ameh's *Climate of Change*, with a view to promoting environmental sustainability in Nigerian theatre. Anchored in Ecological Design Theory and the ADDIE Model, the study adopts a qualitative research design, drawing data from In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) with designers, students, and audience members. Findings reveal that eco-scenography represents a viable and transformative alternative approach to theatrical design, one that effectively communicates performance environments, enhances dramatic narratives, projects themes of climate justice, and promotes the use of renewable, locally sourced, and repurposed materials in set and stage construction. Furthermore, the study establishes that eco-scenography can positively impact the economy of theatrical productions by significantly reducing the costs associated with set construction. The study concludes that eco-scenography constitutes a transformative approach to both theatre practice and education, aligning with broader global efforts to combat environmental degradation and climate change, while offering Nigerian theatre a culturally rooted, ecologically responsible, and creatively generative design philosophy for the future.*

Keywords: *Exploration, Ecology, Scenography, Eco-scenography, Theatre, Performance, Ecological Design, Drama*

Introduction

The relevance of scenography in theatre practice cannot be overstated because it is central to theatre practice. It involves the major visual elements of theatre, such as the set/scenery, lighting, costume, make-up, and sound, amongst others. Scenography in the theatre is intended for the audience's viewing delight through audio-visual aesthetics, which comprise non-verbal communications and imageries, often in accompaniment of the actors' actions, movement and renditions on stage. As such, Enendu (1993, p. 54) noted that the practice of scenography is an integral part of every theatrical production, as it is what gives the performance form and situates the production within a culturally acceptable domain, being a "dwelling place" of the production. Scenography plays important functions in the theatre, as it aids in providing the locale for a performance, establishing the time, situating the play and housing performance(s).

However recent thinking in environmental sustainability is pushing for a re-evaluation of the practice of scenography in theatre. This results from the fact that the way scenography is practiced in Nigeria today appears to be at odds with climate sustainability as it promotes deforestation due to the predominant use of wood as the primary material for set design throughout the country. This is also apparent in many stage productions that have been going on around the country, as flats and other forms of construction made of wood are mostly patronised for performances. This claim is further supported by Agoba, who also mentioned the dominant use of wood for flats and other forms of construction in the staging of *Attahiru*, *Trials of Oba Ovonramwen* and *Death and the King's Horseman* at the National Theatre, Lagos State:

The utilisation of a sizable collection of "stone-hill" platforms holding Clevels but still made of wood The full platform units are situated halfway between the wall unit's left and right sides. The majority of the production's sets were made of wood (Agoba, 2010, p. 170,173).

Patronage of wood, which is gotten from fallen trees in the Nigerian theatre practice, is further emphasised by Molinta Enendu in an interview, as he mentioned that the Nigerian theatre designer works for theatre and theatre-related jobs, especially with wood (Iwuh, 2019, p. 162).

Consequently, the need for an ecologically conscious design has led to the development of "eco-scenography", where the interactivity between the natural

environment (materials) and man is taken into consideration, as these interactions have effects on mankind. According to Beer (2017, p. 3):

Eco-scenography is the integration of ecological principles into all stages of scenographic thinking and production. Ecological thinking acknowledges that materiality and environments are mutually dependent in making beings, things and places, it recognises humans as part of nature's system, rather than a separate entity to use nature at its disposal. As a result, the effectiveness of eco-scenographic work is determined not only by its aesthetic results but also by how it interacts with and affects social and environmental systems outside of the theatre.

Thus, eco-scenography differs from more traditional approaches to theatrical design practice, as it seeks to maximise environmental and social benefits while minimising costs. Its emphasis on 'limiting' or 'restricting' practice is not conducive to creative industries that pride themselves on artistic integrity and innovation. Being "ecological" entails paying attention to how scenographic work impacts and links to the larger environment (outside of the theatre), as well as its wider implications. To construct recyclable, biodegradable, restorative, and/or regenerative performance environments, ecological principles must be incorporated. Fundamentally, this is what the practice of eco-scenography is.

Despite their potential, the performing arts have been slow to adopt ecological practice's guiding principles. Current ideas of sustainability are viewed as rigid, constrictive, and suffocating; it is a popular belief that sustainability and theatre don't go together. While theatre performances and scholarship have promoted environmental awareness, scenographic design has received little attention in this regard. Beer and Hes (2017, p. 34) note that most sustainability efforts in theatre emphasize eco-efficiency, overlooking the creative potential of scenographers. Nigerian theatre has traditionally relied on wood and paper materials linked to deforestation for set construction and backdrops. Thus, this study seeks to reframe Nigerian scenographic practice by exploring alternative, eco-friendly materials such as natural fibers and found objects, demonstrating how design can actively contribute to environmental sustainability using the stage performance of Aliagu Ameh's *Climate of Change* as staged at the Ahmadu Bello University Studio Theatre (Drama Village). In doing so the paper will answer the question; how effectiveness is the use of eco-friendly/alternative materials in the scenic

interpretation of Elaigu Ameh's *Climate of Change*.-Conceptual Clarification: Eco-scenography and environmental sustainability

Eco-scenography is an emerging approach in performance design that responds to the urgency and increasing uncertainty of our global environmental conditions. It seeks to not only minimise waste, carbon emissions and social exclusivity, but to also create positive legacies beyond the event itself (Beer 2018, p. 82).

Beer's submission above points to the need for the practice of eco-scenography, due to the urgency in climate change that has an effect on the world at large. Introducing the practice of ecology into the theatre space, especially as it involves the design and construction of scenery, among others, for the enhancement of performances. Being that several materials are being utilised to achieve a scenographic outfit, it is important to take note of the effects of such materials on the environment, therefore taking into consideration environmental sustainability when designing for performance/films. There is a need for scenographers to consider alternative mediums to achieve scenographic outfits in a world of increasing environmental concerns. The need to find alternatives to material consideration and for the sake of environmental sustainability has led scenographers to look and explore beyond their traditional practice, which has led to transdisciplinary practices.

Hannah lays more emphasis on the interdisciplinarity of eco-scenography, as it branches into other boundaries: that of the sciences, to intersect with daily life and culture, which affects man and his activities. Beer (2021, p. xxi) noted that 'eco-scenography' is a term that is linked to early developments of environmental consciousness in the 1990s. Beer (2016a, p. 163) went further to add that it can be referred to as the integration of ecological principles into all stages of scenographic thinking and production... and as a way of designing for theatre that brings 'scenography into an increased awareness of broader ecologies and global issues' (Beer, 2016b, p. 489). To achieve a successful sustainable environment when designing for theatrical production(s), it is important to include ecological thinking and ecological creativity from the outset. This is to aid the process moving smoothly and naturally so that creativity and ecological thinking/ethics become one. Beer & Hes (2017, p. 39) further support, "Treating sustainability as part of

the ‘creative dreaming’ allows for aesthetic and environmental considerations to be simultaneously explored from the beginning.”

Though eco-scenography might initially appear complex or intimidating, it holds exciting potential for creativity and transformation. By embracing ecological thinking, theatre makers are empowered to envision concepts that extend far beyond the stage, exploring how a broader, more expansive understanding of identity through ecological awareness can impact the world at large. At its core, eco-scenography is driven by the belief that deeply engaging with the living environment in meaningful, uplifting ways is one of the most rewarding pursuits. Eco-scenography is fundamentally a co-creative process, involving designers, performers, communities, and even more-than-human elements (like natural materials and ecosystems) in the making of theatre. It invites collaboration across fields, bringing together artists, scientists, educators, and environmental advocates to shape sustainable performance design. Collaboration in eco-scenography is not just between people; it is also about engaging with nature as a creative partner, fostering empathy and awareness of our interconnectedness.

Thus, at some point, scenographers ponder on the subject of material selection. The response is often predicated on the degree of awareness and comprehension of the many design criteria involved as well as the aptitude and expertise required to select and incorporate material within a coherent design statement. These criteria can be summed up as follows: functionality, aesthetics, symbolic significance, availability, and cost. To create a successful eco-scenographic design, it is important to be ecologically conscious from the beginning of the scenographer’s approach in the design thinking. The available materials most times determine the creative process. Stevenson (2006, p. 258) states that “the evidence for the need to design more prudently with our existing physical resources has never been more compelling.” Ecological consciousness in designing for the performance space due to the increasing urgency of ecological issues of climate change is gaining ground amongst theatrical design practitioners, especially in the Western countries. Kastell & Myers (2019, p. 5) observe that “a certain natural aesthetic gradually becomes apparent to the eco-scenographer who only utilises readily available natural and reclaimed materials.

The core of eco-materialism is a framing of an unbreakable bond with the non-human world, which includes a broadening of identity – of what it means to be “human” – in a time of environmental fragility. From an eco-materialist

perspective, the human and non-human are ‘inextricably entangled’ (Pickering, 1995, p. 26) in ‘networks that are simultaneously economic, political, cultural, scientific, and substantial’ (Alaimo, 2010, p. 20). Therefore, the foundation of eco-materialism is the enlargement of identity and the blending of reductive dichotomies in the direction of ecological modes of interaction with the environment. When creating scenography for performance spaces, there are philosophies that guide their applications. Such philosophies aid in undergirding the creative process.

Theoretical Framework

In view of the above, the Ecological Design Theory is adopted as the framework for this study. Boehnert (2018, p. 86) defines ecological design theory as “a foundation for informed decision making and problem solving on environmental issues. It is a body of knowledge that proposes more functional ways of conceptualising human-nature relations as a basis for the design and development of more sustainable ways of living on this planet. It supports a transition from a dualistic, reductionist and exploitative perspective to a worldview that is participative, relational and complex.”

Ecological Design Theory provides the philosophical and analytical backbone of this research. It is not just a lens; it is the conscience of your project. The analytical role that the ecological design theory provides includes *Systems Thinking* as it encourages viewing theatrical design as part of a larger ecological system, where materials, energy, and aesthetics are interconnected. *Sustainability Metrics* helps assess the environmental impact of scenographic choices, materials used, energy consumption, waste generation and *ethical design* by promoting responsibility in design decisions, aligning with values of regeneration, minimalism, and ecological justice. Ecological Design theory supported the research interpretation of *Climate of Change* by framing the visual narrative within ecological concerns, representing the *Climate of Change* themes scenographically through narrative analysis, as it aided in decoding how visual elements communicated environmental urgency or harmony through cultural relevance, which offered tools to analyse how indigenous or local ecological knowledge is embedded in the theatrical expression.

Methodology

Methodologically, the ADDIE Model serves as a practical guide to building the eco-scenographic interpretation of Elaiwu Ameh’s *Climate of Change* at the Ahmadu Bello University Studio Theatre. While applying the ADDIE Model to the

scenography in the *analysis stage*, the *Climate of Change* play was examined for its themes, characters, and ecological motifs to identify design needs. At the *design stage*, eco-scenographic elements (sustainable design ideas) were conceptualised to reflect ecological values. At the *development stage*, sketches were created following the design stage to align with ecological principles, and materials were sourced. The *implementation stage* simulated visual interpretation, integrating the design into the performance of *Climate of Change*. The evaluation stage assessed effectiveness by investigating if the scenography evoked ecological awareness and promoted environmental sustainability in the audience. The instruments that were employed for the collection of data in this study include focus group discussion, key informant interview, in-depth interview and observation. Consequently, The ADDIE model provided structure, while Ecological Design Theory provided substance. Together, both the ADDIE model and Ecological Design Theory ensured the eco-scenography is both methodologically sound and ethically grounded. While the ADDIE model helped to execute eco-scenographic ideas, Ecological Design Theory helped to justify and critique them.

Data Presentation and Discussion

This section focuses on the presentation, analysis and interpretation of data following the research procedures explained above. As highlighted previously, eco-scenographic designs were created for the performance of Elaigwu Ameh's *Climate of Change*. The performance was staged and audiences formed the research subjects. Data collected using focus group discussion, key informant interview, in-depth interview and observation were transcribed, descriptively analysed and presented in line with the objective of the research.

Effectiveness of eco-friendly/alternative materials in the scenic interpretation of Elaigwu Ameh's *Climate of Change*

In the performance, the researcher functioned as the scenographer, who interpreted and created the designs for the performance. The scenographer explored materials such as; dried branches of "Borassus flabellifer", commonly known as doub palm, palmyra palm, tala or tal palm, toddy palm, wine palm, or ice apple; raft; palm kernel shaft; dried palm branches; reclaimed and scavenged woods; papers; cloth materials; cartons and plastics; crown cork and metals.

Fig 1: Dried Doub Palm branches



Fig 2: Stool and bed made of Dried Doub Palm branches



Fig. 3: Lion face and Tree made of paper and carton



There have been notions that eco-scenography is rigid, restrictive, not highly qualitative, and limits aesthetic outlooks of designs. Given that the most important purpose of scenography for theatre application is to enhance performances by generating meanings through images, the study sought to know whether the materials used to create props and scenery helped project the setting of the performance. As such, responses from the FGD conducted in evaluation of the performance revealed that the eco-scenographic elements deployed helped to enhance audience understanding of the messages in the performance:

Drama is make-believe, when we go to the theatre, we go to watch impersonation, so the attempt at an Eco-scenographic design will not necessarily aspire to realism, it will only be symbolic. In terms of suggesting what we want to see in a set, I think the designs as explored put us in the ambiance of what we needed to experience, so there should be some philosophy that backs up symbolic design as such where alternative materials are used to create an illusion of a tree instead of cutting down trees

and using them as trees on stage (*FGD Response, Dr. Sylvanus Dangoji, 6th of April, 2024 by 4:00pm*).

The above response contends that the primary essence of scenography is to create images that are symbolic to the performance; these symbolic objects or designs are meant to generate meaning for the audience that will aid their assimilation of the performance. This perspective aligns with the theory of semiotics, which encompasses symbols, images, codes, and icons, among others, and elucidates their role in the generation of meaning. Similarly, Kure (2024) report:

It was a deliberate attempt for the designer to work on Elaigwu Ameh's *Climate of Change* because of its fictitious nature, being that the play does not point to any set of people in Nigeria (Africa) but only symbolise Nigeria (Africa), as it pointed to the fact that the play is set in Nigeria (Africa). This helps the scenographer to create settings that are fictitious yet giving an idea of the different location of the scenes. (*In-depth Interview with Prince Nathan Kure, 8th of April 2024 by 9:00am*).

Kure's response above identifies the play's fictitious quality as the central justification for the design approach. *Climate of Change*, though set in Nigeria (and by extension, Africa), does not target or indict any specific ethnic group, community, or political faction within Nigeria. Instead, Nigeria/Africa functions as a symbolic landscape, a representative space for broader socio-political, environmental, or human concerns.



Fig. 4 eco-friendly materials in the live performance

James Ohambele agrees that the materials employed were effective in conveying the ambiance of the performance. The utilisation of raffia and other materials facilitated the projection of distinct scenes. Abah (2024) further corroborates this observation, stating that the designs were aesthetically pleasing and indicative of the designer's dedication. The designs were notably creative, featuring trees crafted from cartons and other natural materials. These elements effectively captured the local setting, enhancing the audience's comprehension of the drama performance. (FGD with Audience, Mrs. Mary Abah, 9th of April 2024). Further to this:

I would say that the purpose of the design was achieved because the design was intended to talk about ecology. It was to show that we could design with ecological consciousness and create such effective designs, effective in the sense that they were able to communicate the performance

environment, and also in the scenes, the designs enhanced the ecological justice championed by Zaza, who was sensitising the public about protecting our environment. I think the design did that because for the audience to see such designs and get to know that this is actually what it is and see how strong and beautiful it came out, in such a way that people could sit on it, lay on it and use them on stage, shows the effectiveness of eco-scenography in theatre practice” (FGD with Students, Enemuo Mirabel Chisomebi 6th of April 2024 by 9:00am).

The above clearly identifies ecology as the thematic and ideological engine driving the entire design. The phrase designed with ecological consciousness is particularly powerful, it suggests that the scenographer did not merely incorporate natural or recycled materials as aesthetic choices but approached the entire design process through an environmentally aware, ethically grounded mindset.

The observation of the researcher tallies with the response from the FGD and IDI which all agreed that the materials explored with for the performance were effective in projecting the settings of the performance. One key feature of eco-scenography as highlighted in the literature is that it promotes the use of renewable/alternative materials for theatrical design. Consequently, the performance of Elaigwu Ameh’s *Climate of Change* tried to achieve this. Aboi (2024), explains:

the fact that the plants in Zaza’s room are live is brilliant, which shows her love for nature, giving her a kind of humanity that extends towards living things; plants and animals included. It enhanced her character as someone who takes responsibility of environmental protection, which is evident as she is the only person that has the courage to stand up to the politician, calling him out for depleting the environment, as he cuts down trees and exploits them for woods and, coal business. The manifestation of the use of locally sourced materials are evidenced in stools for the sitting chiefs, wall decorations, and throne of the king in the palace, the bed in bedrooms, tables for reading and installs at the market, the use of gourds, baskets and the tree-plants fabricated to depict the forest or bush scenes demonstrate a huge use of re-used or repurposed materials, or should I say found-objects. (FGD with Audience, Mr. Dominic James Aboi, 9th of April 2024 by 10:00am).

Aboi's position constitutes a comprehensive audience validation of the eco-scenographic vision behind *Climate of Change*. From the living plants in Zaza's room, which humanise her character and embody deep ecological philosophy, to

the extensive use of locally sourced, reused, and repurposed materials across every scene and setting, the production emerges from his account as a landmark achievement in African eco-scenography. The design successfully operates across multiple registers simultaneously: aesthetic, cultural, ecological, political, dramaturgical, and economic. It demonstrates that eco-scenography is not a compromise or a limitation but a generative creative framework that can produce theatrically compelling, culturally resonant, and ideologically coherent work. Most powerfully, it shows that the stage itself can become a site of ecological advocacy, where every material choice is an argument for the value, beauty, and fragility of the natural world.

Aboi's points were supported by Mathew Babalola (2024):

I saw the attempt to really localise, by the exploration made with natural materials and found objects which promotes the practice of renewable materials, which is commendable, though I expected to see such exploration in the area of costume used in the performance, but I guess the focus of your research must be on set and props" (*FGD with Audience, Mathew Babalola, 9th of April 2024 by 10:00am*).

Mathew Babalola (2024) affirms the production's deliberate and commendable effort to localise its design language through the exploration of natural materials and found objects. His recognition of this as a practice that promotes the use of renewable materials situates the production within a wider discourse of sustainable creative practice, acknowledging that the scenographer's material choices were not merely pragmatic but philosophically aligned with ecological responsibility. However, Babalola's response is distinguished by its critical reflexivity, he does not offer uncritical praise but instead identifies what he perceived as a gap: the absence of a similarly rigorous eco-conscious exploration in the costume design of the production. This observation is particularly significant for several reasons.

First, it demonstrates that Babalola had internalised the eco-scenographic framework well enough to apply it evaluatively across different design departments, a mark of genuine audience engagement and design literacy. Second, it points to an area of productive future inquiry: if the set and props design achieved such compelling results through the use of renewable and locally sourced materials, what might a similarly committed approach to eco-costume design yield? Babalola's observation, while graciously softened by his acknowledgement that the research

focus was likely on set and props, implicitly issues a creative and scholarly challenge, to extend the principles of eco-scenography into the full spectrum of theatrical design, including costume, lighting, and sound. This critical generosity affirming what was achieved while imagining what more could be done, represents one of the most intellectually productive forms of audience feedback and reflects the potential of eco-scenography to inspire expanding circles of creative inquiry.

Desmond Dondo (2024), in an FGD with the audience, was of the opinion that “We should not be throwing away any material we see as waste around us because those materials can be useful in one way or the other. We saw in the performance how plastics, metals, cartons, papers, wood, and many other materials that are of no value in other areas were used in designing the required props on stage for the performance of *Climate of Change*” (*FGD with Audience, Desmond Dondo, 9th of April 2024 by 10:00am*).

Dondo's highlighting of the specific materials he observed, *plastics, metals, cartons, papers, wood, and many other materials*, is significant both as documentary evidence and as a statement of creative resourcefulness. Each material in this list occupies a peculiar position in the contemporary ecological imagination. Plastics are among the most environmentally damaging and pervasive forms of waste in the modern world, notorious for their resistance to biodegradation and their devastating impact on ecosystems, particularly marine environments. Their incorporation into theatrical design is therefore an act of ecological reclamation, taking one of the most symbolically loaded forms of environmental damage and transforming it into a vehicle for artistic expression and ecological advocacy. There is a powerful irony, and a powerful statement, in using plastic waste to build the props of a play about environmental protection.

Metals, similarly, represent a material that is energy-intensive to produce and frequently discarded, yet highly durable and versatile. Repurposed metal in theatrical design speaks to the possibility of extending the useful life of materials that have already incurred significant environmental costs in their production. Cartons and papers are among the most commonly discarded materials in everyday life, yet their structural and aesthetic possibilities in theatrical design are considerable. Their use in the production demonstrates that material abundance for theatrical purposes need not require financial expenditure or environmental extraction, it requires only attentiveness to the material world immediately at hand.

Wood, in the context of a play about deforestation and tree exploitation, carries particular symbolic resonance. The use of reclaimed or repurposed wood, rather than freshly harvested timber, enacts a small but meaningful refusal of the extractive logic that the play's antagonist embodies. The medium, once again, becomes the message.

Dondo's observation that these materials "are of no value in other areas" is itself a culturally revealing phrase, it reflects the prevailing social perception that such materials are worthless, a perception that the production directly and effectively challenged. Thus, showing that these supposedly valueless materials could construct a theatrically compelling, aesthetically rich, and fully functional stage environment, the design mounted a quiet but powerful argument against the throwaway culture that drives much of the contemporary ecological crisis.

Discussion and Implication

The paper examined the effectiveness of eco-friendly/alternative materials in the scenic interpretation of Elaigwu Ameh's *Climate of Change*. Responses analysed using the parameters of the ecological design theory, revealed that the designs were effective, as they were able to perform their primary purpose of creating meaning for the audience via their symbolic representation of items, props, shapes and colours that communicated the settings of the performance, enhancement of characters in the play and promotion of the overarching theme of climate justice. According to the respondents, the set portrayed normal everyday house furniture and the regular household objects. It strikes up the subject of verisimilitude in the sense that it made it believable. This was highlighted in literature by Brejzek (2018, p. 33), who noted that "In a general understanding, scenery locates the dramatic action on the stage in time and space and provides a physical and symbolic framing of events, thus operating as the driving visual force of the overall performance." This need was met according to the response of the respondents, which proved the effectiveness of eco-scenography in the Nigerian theatre space.

Audience responses revealed that eco-scenography is not restrictive; "The idea that artistic integrity cannot be compromised for a more sustainable production also reflects the opinion of many performing arts organisations who consider theatrical production to be inherently uncondusive to sustainable practice" (Morris 2007, p. 5). This has been escalated by the number of artists who have felt the need to be unencumbered by sustainability measures to have the freedom and independence

to execute their creative vision regardless of its ecological consequences (Barnard and Briscoe 2015).

One of the most fundamental responsibilities of any scenic design, eco-conscious or otherwise, is the clear and effective communication of the performance environment. The audience must be able to read the designed space, understand where they are within the world of the play, orient themselves spatially and atmospherically, and receive the environmental cues that ground the dramatic action in a specific time, place, and social context. Critics of eco-scenography frequently argue that the use of repurposed, found, and locally sourced materials compromises this fundamental communicative function, that the resulting designs may be too ambiguous, inconsistent, or aesthetically rough to effectively convey the specific environments a production requires. The evidence gathered from the respondents in this study directly and consistently contradicts this claim.

Audience members demonstrated, through their detailed and accurate descriptions of the various scenic environments, Zaza's plant-filled room, the royal palace with its throne and stools, the market with its installs, the forest scenes with their fabricated trees, that the eco-scenographic designs were fully legible and effectively communicative. They were able to identify each environment, understand its social and dramatic significance, and relate to it as a believable and appropriate setting for the action it housed. This is not a trivial achievement, it represents the successful fulfilment of scenography's most basic and essential obligation, accomplished entirely through the means of ecological design.

Beyond mere environmental communication, the respondents demonstrated a capacity to identify, relate to, and derive meaning from the specific shapes, forms, and visual imageries created through the eco-scenographic approach. This is a more demanding communicative achievement than basic environmental legibility, it requires that the designed elements not only be recognisable as objects but be resonant as images, carrying aesthetic, cultural, and thematic significance that enriches the audience's experience of the performance. The responses of audience members like Audi Faith, who catalogued specific materials and objects with evident appreciation for their aesthetic qualities, and Dominic James Aboi, who reflected at length on the cultural and dramatic significance of individual design elements, demonstrate that the eco-scenographic designs of *Climate of Change* achieved this higher level of communicative effectiveness. Audiences were not

merely tolerating the limitations of a constrained design approach, they were actively engaging with, appreciating, and deriving meaning from the specific visual language that the eco-scenographic practice had produced.

Perhaps most significantly, the respondents consistently affirmed that the eco-scenographic designs did not merely communicate environments or produce recognisable images but actively enhanced the performance, deepening the audience's engagement with the dramatic action, enriching their understanding of character and theme, and amplifying the production's central concerns about ecological justice and environmental responsibility. The live plants in Zaza's room, as observed by Aboi, did not merely decorate her space, they characterised her, communicating her values, her humanity, and her ecological commitment with an immediacy and authenticity that no manufactured prop could have achieved. The repurposed and locally sourced materials throughout the production did not merely furnish the stage, they embodied the play's argument, enacting in their very material constitution the principles of reuse, sustainability, and ecological consciousness that the narrative championed.

However, one of the most significant challenges of working with found, repurposed, and locally sourced materials is the inherent inconsistency of the material palette. Unlike manufactured theatrical materials, which are produced to uniform standards of size, colour, finish, and structural integrity, found and repurposed materials are, by their very nature, irregular, varied, and unpredictable. While this irregularity can be a creative asset, producing designs with a richness of texture and a sense of organic authenticity, it can also, if not carefully managed, result in designs that appear fragmented, incoherent, or unintentionally rough.

In *Climate of Change*, the skilled scenographer appears to have navigated this challenge successfully, audience members consistently described the designs as effective and communicative rather than confusing or aesthetically unsatisfying. Although achieving this coherence with irregular, non-uniform materials requires a level of design skill, material knowledge, and compositional discipline that should not be underestimated. Future practitioners venturing into eco-scenographic territory without adequate experience or support may find that the material irregularity of found and repurposed objects works against rather than for them, producing designs that read as accidental or unfinished rather than deliberately ecological.

A concern that emerges implicitly from the audience responses, particularly Audi Faith's note that props included mats, chairs, and tables, and Aboi's observation that "people could sit on it, lay on it and use them on stage", is the question of structural durability and performer safety. When theatrical props and set elements are constructed from repurposed and found materials, plastics, metals, cartons, reclaimed wood, their structural integrity cannot be assumed or guaranteed in the same way as commercially manufactured theatrical furniture and props. The fact that the audience specifically noted that performers could sit and lay on the eco-designed elements suggests that this was a somewhat remarkable or unexpected achievement, implying that there may have been some question or concern about whether such elements would bear the demands of live performance. While in this instance the designs clearly met the necessary structural standards, the risk of material failure during performance a collapsed chair, a unstable tree structure, a prop that disintegrates under the physical demands of the action, is a genuine and serious concern for eco-scenographic practice. Future practitioners must therefore invest significant time and resources in rigorous structural testing of all eco-designed elements before they are entrusted to the live performance environment. The ecological and creative merits of using repurposed materials cannot be allowed to override the fundamental obligation of performer safety, and practitioners must be honest with themselves about the structural limitations of certain found and repurposed materials, particularly those that will bear significant physical loads or be subjected to repeated use across multiple performances.

Conclusion

This study carried out an exploration of an eco-scenographic visual interpretation of Elaigwu Ameh's *Climate of Change* at the Ahmadu Bello University Studio Theatre, due to the gap identified in the practice of eco-scenography in Nigeria. The crises of climate issues affect the world at large; hence, the need for every profession and discipline to contribute to the mitigation of these issues. Exploring ecoscenography from the Nigerian context is very important, as it encourages alternative approaches. Different environments are presented with their unique material opportunities, though some of these materials may be similar. The evidence gathered from the respondents in the study of *Climate of Change* makes a compelling and largely persuasive case for the effectiveness, viability, and creative richness of eco-scenographic practice in Nigerian and African theatre. The designs successfully communicated performance environments, produced meaningful and culturally resonant visual imagery, enhanced the dramatic performance, and

projected the production's central themes of climate justice and ecological responsibility with power and clarity. These achievements directly and substantially contradict the claim that eco-scenography is inherently limiting.

Thus, the study concludes that aside from the need for eco-scenography to be fully adopted within Nigeria to support in mitigating ecological issues, the practice is of advantage to the Nigerian theatre and performing arts practice, especially the college theatres, as it will solve the challenge of funding when it comes to the technical aspects of the theatre practice. The integration of eco-scenography in academic theatre and performing arts practices signifies a pivotal shift towards sustainable and responsible artistic expression. This thesis has demonstrated that integrating ecological principles into the practice of scenography in theatre production not only addresses the urgent need for environmental stewardship but also enriches the creative process and educational outcomes.

Reference

- Adesina, A. (2020). An exploration of natural environment for production design in *Savage Temple* – The designer's experience. *Journal of Theatre Design and Technology*, 4, 167–179.
- Agoba, E. O. (2010). Floor plan and front elevation drawing in *Trials of Oba Ovonramwen: The set design process in the Nigerian theatre*. In T. Iorapuu (Ed.), *A designer's rendition of Ahmed Yerima's Trials of Oba Ovonramwen* (*Journal of the Society of Nigerian Theatre Artists*, 10[1], p. 171).
- Alaimo, S. (2010). *Bodily natures: Science, environment, and the material self*. Indiana University Press.
- Brejzek, T. (2018). Scenery. In A. Aronson (Ed.), *The Routledge companion to scenography* (p. 33). Routledge.
- Beer, T. (2023, June 9). Introduction to ecoscenography. *Prague Quadrennial Talks*. <https://www.youtube.com/watch?v=k-umJveG90k>
- Beer, T. (2016a). Ecomaterialism in scenography. *Theatre and Performance Design*, 2(1–2), 161–172. <https://doi.org/10.1080/23322551.2016.1179437>
- Beer, T. (2016b). Reimagining the ruins of scenography. *ASAP/Journal*, 1(3), 487–511.

- Beer, T., & Hes, D. (2017). Sustainability in production: Exploring eco-creativity within the parameters of conventional theatre. *Behind the Scenes: Journal of Theatre Production Practice*, 1(1), 33–54. https://via.library.depaul.edu/bts_journal_of_theatre_production_practice/vol1/iss1/4
- Beer, T. (2018). A case for ecoscenography: Cultivating the continuous potential of things in performance design. *Scene*, 6(1), 81–89. https://doi.org/10.1386/scene.6.1.81_7
- Beer, T. (2021). *Ecoscenography: An introduction to ecological design for performance*. Palgrave Macmillan. <https://doi.org/10.1007/978-981-16-7178-4>
- Barnard, D., & Briscoe, R. (2015, July). The one about the tree falling in the forest: A practice-based reflection on the stories we tell and who we tell them to. Paper presented at the *Performance, Ecology and Research Symposium*, University of Christchurch, Canterbury, New Zealand.
- Enendu, L. O. M. (1993). Modern technology and theatre production in Nigeria. *Theatre Studies Review*. University of Calabar.
- Iwuh, J. (2019). Technical theatre and inter-disciplinary collaboration: Engaging Molinta Enendu on experimental theatre. *Journal of Theatre Design and Technology*, 3, 150–170.
- Kastell, M., & Myers, H. (2019). Ecoscenography in action: Bridging stage design with nature connection to shape sustainable communities and wellbeing. *Scene*, 7(1–2), 29–44. https://doi.org/10.1386/scene_00004_1
- Molenda, M. (2003). In search of the elusive ADDIE model. *Performance Improvement*, 42(5), 34–37. <https://doi.org/10.1002/pfi.4930420508>
- Pickering, A. (1995). *The mangle of practice: Time, agency, and science*. University of Chicago Press.
- Popoola, S. O. (2011). *Research methodologies in library and information science*. Paper presented at the Training Workshop on Building Research Capacity for Library and Information Science Professionals, Nigerian Library Association, Ogun State Chapter, Covenant University, Ota, Nigeria, 18–22 September 2011.

Sanders, T. (2018). *An introduction to technical theatre* (2nd ed.). Pacific University Press. <https://commons.pacificu.edu/pup/2>

Stevenson, F. (2006). Natural materiality – The people’s choice. In *Eco-architecture: Harmonisation between architecture and nature*. School of Architecture, University of Dundee.

<https://www.witpress.com/Secure/elibrary/papers/ARC06/ARC06026FU1.pdf>