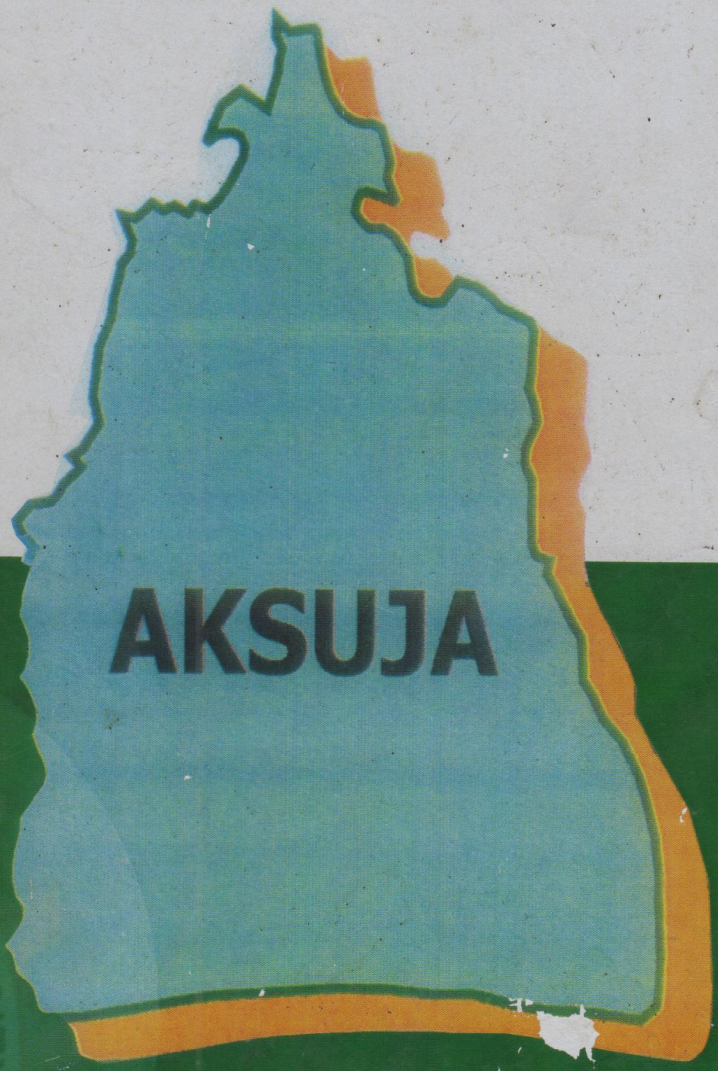
ISSN:2695-2378

AKSUJA

AKWA IBOM STATE UNIVERSITY JOURNAL OF ARTS

January - December, 2020



Volume 2, Number 1

A Publication of the Faculty of Arts, Akwa Ibom State University
Obio Akpa Campus, Nigeria

STAGE SCENERY AND LIGHTING: A STUDY OF MOLINTA ENENDU'S PRODUCTION OF *THE RAFT*

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Abstract

The theatre, like every human endeavour, is in a constant state of flux. It is in this regard that Technical Theatre, which encompasses lighting, scenic design, costume, make-up, properties, sound and sound effects, is constantly evolving as theatre practitioners carry out experiments on innovative ways of communicating more effectively with the audience. Unfortunately, the efforts of many of such theatre practitioners receive scant scholarly attention. It is against this backdrop that this scholarly work, which adopts the qualitative research methodology, is an examination on the aesthetics of stage scenery and lighting of Molinta Enendu in the production of *The Raft*. The study adopts Edward Gordon Craig's and Adolphe Appia's "Plasticity Theory" (PL) and Adolphe Appia's "Exploration of Aesthetic Scenery in Performances Theory". The work reveals that Enendu is the advocate of "Kinetic Scenery Technique". This theory involves the mechanical introduction or removal of scenery in the course of a play without the support of such visible human assistants as stage hands but relying on the "Super Fly Man" who manipulates the machines. This study observes that Enendu consciously uses lights to intensify the illusion of reality and to create a world of fantasy and therefore recommends that theatre practitioners should adopt the techniques of Molinta Enendu in lighting and scenic design in order to achieve more effective ways of communicating with the audience.

Introduction

Theatre is considered to be the most distinctive among all other forms of arts. It is a dynamic form of Performing Art that focuses on the human experience and a unique form of art that breathes live and experience live. Theatre is particularly a collaborative form of art that requires more than one type of art and artist to produce. This is when various people are doing a variety of things that all contribute to the performance success. This group of artists collaborates to conceive and construct a performance that endeavours to entertain, educate and inform its

audiences. They create primarily to express themselves, to communicate and to entertain through the arts. From William Downs, Lou Wright and Eric Ramsey "the artists create primarily to express themselves, making no compromise to appeal the public taste. The art allows us to expand our experience, intensify our perceptions, challenge conventional wisdom and introduce another frame of reference" (7). These theatre artistes include the playwrights, the directors, actors, designers and the managers. According to Oscar Brockett and Robert Ball, "the theatre designer defines and characterizes the space, arranges it to facilitate the movement of the actors, and uses it to reinforce the production concept" (361). Downs, Wright and Eric, confirms that "designers in the theatre communicate the production concept, and the central metaphor of the play through lights, sound, sets and costumes. They make a plays idea more clear and complete than they would be in real life" (201). Wolf,R and Block Dick observes that the creation of an environment in which the action of the play happens is very exciting. By responding to the text, the designers and the director provide a physical, visual, and aural world for the play and the written words of the playwright are therefore, transformed for the audience through the collaboration of these many minds. Each of the artists involved in this process contributes uniquely to the final product. Some of these contributions are obvious, some are more hidden but no less important to the creative whole (203).

Designers and technical crews create the appropriate environment for theatrical performances, which may involve weeks of preparation to design and produce. As a member of the design team, the designer should have broad knowledge and design ingenuity of all the Technical Theatre areas. Since the Technical Theatre area is an area in theatre studies that is constantly evolving with materials, tools and techniques, making possible designs that would have been impossible or impracticable half a century ago. However, there are many inadequacies that still hinder the creative ingenuity of a theatre designer in Nigeria. These include funding, poor technical facilities like space, flying system/ stage mechanisms, lighting equipment, scenic tools and even the provision of new technology, which can affect the realisation of a good performance by the designer.

The cost of a designer working with some new technology has limited the designer's creative prowess, especially theatres with less facility. These technological burdens on our theatre spaces have made it difficult to engage in the design of elaborate scenic mechanisms required for the production of a play like J.P. Clark's *The Raft.* On this note, there is need to study Molinta Enendu's production and performance success as a long standing theatrical designer in Nigeria and also to learn from his experiences.

The study therefore examines the aesthetics of Stage Scenery and Lighting by studying Molinta Enendu's performance of The Raft at the University of Calabar Arts Theatre, as performed in 1988. It assesses the techniques as applied by Molinta Enendu in the performance of *The Raft,* analyses the performance and the performance space on study and also identify the scenic and lighting equipment used in the realisation of these techniques. This creates an avenue for more production documentation in terms of Technical Theatre studies in Nigeria. The study as well gives vivid details on other technical designers within the country.

Furthermore, this research work informs upcoming designers on the need to use their creative skill to design productions even with the challenges of equipment, inadequate facilities, architectural deficiencies and finances. It presents the unity of the theatre architecture, theatre facilities, the actor's space, and the designer's concept, allowing performance to transcend their practical realities and attain the level of arts. This work investigates to what extent the theatre space and the available facilities are able to enhance and aid technical staging and the design concept of a technical designer.

Educational Theatre in Nigeria

From the existence of the educational theatre playhouses, there had been some sort of European influence on the development of the theatre playhouses. To Sunday Ododo, "before the independence in 1960, European theatre culture had gained enormous ground in the country. This manifested through recreational activities and our educational system. It was this European theatre culture that became the guiding standard through which the merging Nigerian Literary

Theatre found its bearing" (78). Even after independence, most of the theatre playhouses in the country were also constructed to model the Proscenium Theatre Stage that was in vogue in Europe as at that time, and even the newly constructed ones at present followed same. At the time of this research, there are over forty (40) Federal, State and Private Universities in the country offering either Theatre and Media Arts, Performing Arts and Culture, Film Arts, Theatre and Film Studies, Theatre and Performing Arts, Theatre Arts, Performing Arts or Dramatic/Performing Arts. There are also several Polytechnics and Colleges of Education, offering Theatre Studies across the 36 States of the country and the FCT and almost all with well-constructed and designed theatre playhouse for their studies.

Universities have been the live wires of theatre practice in Nigeria either from the point of providing skilled work force. Between 1970 and 1990, more University Theatres and Playhouses were being built with the opening of more Academic Departments of Theatre Arts in Nigeria. A period that witnessed the development of the academic curricular of several Nigerian Universities to include Theatre Arts, Performing Arts or Drama and English Departments. From Kenneth E. (2013, p. 160), "by 1985 there were 23 universities of which eight offered graduate training in theatre and performance. Several of these also supported theatre companies, many of which travelled with productions". College and University Theatres for many Nigerians are the only live theatres available, especially in smaller communities. They stage many productions of which some

institutions consider primarily as their educational mission. They also focus their efforts on classroom training, while the commercial theatre groups concentrate on performances. Archer, and Hood (2003, p. 58) asserts that; "most (Colleges and Universities) combine the two, melting the unlimited and theoretical classroom style of theatre with public performance". Like. The Obafemi Awolowo University, Ile-Ife whose motto is to the promotion of culture and learning,

acquired a Centre in the city of Ife where she interacts with the people culturally.

The birth of the Educational Theatre in Nigeria was pioneered by the University College, Ibadan in the Department of English under Professor Molly Mahood, Geoffrey Axworthy and Martin Banham. In recognition of this move by Geoffrey Axworthy, the University gave approval for the development of the Arts Theatre as a centre for the promotion of cultural and academic interests. From Adelugba and Obafemi (2004, p. 151), "The School of Drama itself was founded in 1962 under the direction of Geoffrey Axworthy, assisted by Martin Banham, but already, as part of the English Department". The University of Ibadan Arts Theatre, notably the first of such modern theatre buildings of her time was opened in 1955 and became the centre and hub for producing the first and the second generations of technical theatre personnel in Nigeria.

According to Enendu, "the history of the development of Nigerian theatre cannot be complete without recognizing the effort of Dexter Lyndersay. He was a product of Yale, and a founding father of Nigerian theatre design and technology. He helped with technical installations in the areas of scenery, lighting and other theatre equipment" (110). Dexter Lyndersay, a citizen of Trinidad and Tobago, was born on April 15, 1932 in Wood Brook, Port of Spain. He began his life in Trinidad and died on December 18, 2006, at the ripe age of seventy-four. Dexter Lyndersay, was a teacher at the University of Ibadan who became the first technical director of the Ibadan school of Drama where he served from 1966 to 1967. From Duro Oni, an expert in technical theatre and also his student, "Lyndersay provided stage lighting, stage set and technical direction at the University of Ibadan (1966-72), Ahmadu Bello University (1972-74),University of Calabar (1976-83) and the Cross River State University in Uyo (1983-1985)" (105). Lyndersay is said to have studied under the supervision of Stanley McCandless and he in turn trained the first generation of technical theatre students at the University of Ibadan, Nigeria to include:

SunboMarinho - University of Ibadan
Duro Oni - University of Lagos
TaiwoAdeyemi - Obafemi AwolowoUniversity, Ile-Ife
DombaAsomba - University of Nigeria, Nsukka
Sunny Ododo - University of Maiduguri
Waceeteju Kareem - CEO of Mirage, Nigeria
MolintaEnendu - University of Calabar
Agbo Folarin - Obafemi Awolowo Uni., Ile-Ife (Fondly called a Master of Sculptor) among others

The first generation technical theatre students at the University of Ibadan, Nigeria also trained many other leading and practicing technical theatre designers today to include:

Charles Nwadigwe - Nnamdi Azikiwe University, Awka
John Iwu - Redeemers University, Osun State
Ede, Alani Nasiru - University of Port Harcourt
Gbilekaa Saint - University of Abuja
Chidieke Ekweariri - Alvan Ikoku Fed. College of Education. Owerri
Uzoma Nwanagba - Delta State University, Abraka
Tugbukorowei Martins- Delta State University, Abraka
Jacob, OkonUdofot - Akwa Ibom State University
Boyle Adikiba - University of Port Harcourt
Samuel Okonkwo - Nnamdi Azikiwe Univesity, Awka
Njokwu, Ken - University of Port Harcourt
Ofora - University of Ibadan
Micheal Okoro - ETFEO Ltd. Abuja
Orisaremi S. Alphonsus- University of Ibadan
Agha Patrick - University of Port Harcourt
Kenneth Njoku - University of Port Harcourt

And many others like; Obuks - Edinya E., Chiedozie Okoro, Nwakonor G. A., Nwachukw M. A., Segun Akiobola, Dapo Adelugba, Demas Nwoko, Esohe Omoregie Suinner, Agbo Folarin, Nwagbo Nnenyelike, Adegbite A, Adeyem S.,

Enna D. M., Fosudo Sola, Oghenemudiaga Praise Akpughe, Chijioke Ynakson Iyamah and Ekaette Brian Edem.

The Concept of Set/ Scenic Designer

According to Taylor and Strickland;

> Modern theatrical design originated in two movements of the late 1800s. The first aimed at realism in stage sets and props, such as those of producers Andre Antoine and David Belasco. The second was a reaction against realism led by designers Adolphe Appia and Gordon Craig who believed that a play's environment should convey a dramatic feeling, not merely present historically or geographically accurate setting (302).

The fact that scenic art is a career has two profound implications: one is that a person can make a very good living at it, and the other is that it is a business as well as an art form. Brocket and Ball assert that "the scene designer is concerned with the organization and appearance of the performance space. The designer defines and characterizes the space, arranges it to facilitate the movement of the actors and uses it to reinforce the production concept" (361). Scene design defines the performance space, establishes the distinctions between onstage and offstage areas, and makes use of flats, drapes, CYC, platforms, furniture, step units, and several other units in designing the performance space. It creates mood, and the performance atmosphere. From Taylor and Strickland;

> The set design is the hub around which all other aspects of the production design evolve. As a set designer, your work will be integrated with the other technical designers. Together you may brainstorm creative possibilities and tackle problems, but for them as well as for

you, the production design must be grounded in the play (206).

According to Brocket and Ball "like architects, scene designer conceive and build structures for human beings to use. Although scene designer do not design entire buildings, as architects do, they sculpt space and like architects, must be concerns with its function, size, organization, construction and visual appearance" (263). Scenic artistes/designers must possess knowledge in areas of scenic/scene design, drafting, sketching, calligraphy, model making, construction drawings and sign painting. They must be good painters since some aspects of their work require skills in painting. In this profession, where visual images are reproduced on a large scale, such expertise is the foundational skill set. Scenic designers must also acquire a wide base of knowledge in fine arts to support their creativity. The scenic designer works with the director and other designers to establish an overall visual concept of a production and also design the environment. A keen sense of observation will assist and strengthen the designer to put this acquired knowledge to work.

Drawing and drafting are the basic techniques used by scenic artistes when beginning a scenic image. The scenic artist prepares the basic ground plan, showing all the stationary elements and composite ground plan showing all moving elements, indicating their onstage positions. The drawing of architecture relies on the rules of geometry and perspective to guide it. But, beyond drawing, even the simplest wet blend of one colour to another must have correct proportion to look balanced. More specialised forms of drawing include calligraphy, lettering, and sign painting, which shape letters and words, perhaps the most precise set of graphic images in the world. Drawing elements can be easily created from 3-D CAD Model of the set design. Scenic artistes should thus have a working knowledge of the construction of common lettering as well as an understanding of calligraphy and sign painting. Calligraphy and sign painting rely on brush techniques as well as the form of the letters themselves and are specialised skills that scenic artistes must at least comprehend. In the process of planning, scenic designers need to analyse the script, make several thumbnail sketches, rough

drawings, creating colour renderings if required, prepare a ground plan and the elevated set design and often make three dimensional models of the sets they design.

Sound understanding of colour is critical for scenic artists, as they will mix paint colours based on their understanding of how they interact to achieve their target colour. Scenic artists also must be well versed in how painting techniques have evolved. They must know their tools, paint and brushes as well as the surfaces they are called on to paint and the hundreds of products used in painting, staining, dying, sealing, texturing, thinning, extending, or chemically drying paint. This is a profession in which artistes might be called on to recapture the soul and substance of art from all eras in history. Furthermore, they must be able to recreate images very quickly. Knowledge and understanding of the histories of art, architecture, and theatre also are essential to understanding what scenic artists are called on to paint.

Therefore, scenery is one of the most dominant of the visual elements of production as organized by the designers on stage, using their intelligence, experience and emotions. The objective of scenery is to provide an environment for the action, entrances and exits of actors and units. It also creates mood for the play with the use of colours, establish the period of the play, philosophy, culture, visual and aesthetic impacts. Ultimately, scenic artistry is basically a visual art. Besides the vast array of technical and organisational skills they must possess, scenic artistes must be able to see and interpret the world.

Scenic Mechanisms

Above the stage, commonly found is a fly system or theatrical rigging. According to Wolf and Block, "rigging is defined as the use of rope, chains, pulleys, or other equipment to support scenic pieces. This can include anything from something as simple as connecting a drop to a batten, to flying an actor with sophisticated machinery" (151). From Taylor and Strickland, "rigging is the way in which mobile scenery and lights are mounted and controlled. Scenery can be rigged to fly, or be raised or lowered on lines in the fly space" (335). In a proscenium theatre, the space above the stage is blocked from the audience's view

by the top of the proscenium arch. Fly systems are designed to balance a heavy load hung from a batten so a single individual can move it without great effort (Sanders 27). Depending on how high the ceiling is over the stage, you may be able to fly in rigged scenery to transform the stage setting. The area above the stage is referred to as the fly loft.

At the top of the fly loft is a series of support structures known as the grid. From this grid structure, a series of cables, pulleys, and ropes to support and move the hanging elements. If the fly loft is twice as tall as the proscenium, then elements sized to fill the stage can be hidden above for later use. The draperies, scenery, lighting, and other production resources are rigged from this structure via ropes and cables. Modern theatres may be equipped with a counterweight system allowing for easier operation and movement of heavy rigged elements. When this is the case, a fly crew can move multiple drops or flying elements via locking control lines running along one wall of the stage house. This allows for large scenic transformations with minimal effort. Older theatres may be equipped with rope-set rigging where sandbags and tie-off cleats or a pin rail keep the flying elements under control. Most of these theatres place the pin rail about a story above the stage along one wall. This system allows for the flying of production elements as does the counterweight rigging system, although ropes must be carefully tied by hand rather than simply locked in place.

Several pulleys can be housed in a single block to accommodate multiple lift lines. The pulley blocks directly above the short, mid, and long lines are referred to as loft blocks and are supported by the grid. In a rope-set system, these lift lines run across the fly loft, through the head block, and down to the pin rail where they can be controlled. Heavy objects are balanced for lifting through the attachment of sandbags. In a counterweight system, the lift lines are routed through the head block and then attached to a counterweight arbor, which is tracked to run vertically up and down the off-stage wall. This arbor is then loaded with weights using a loading bridge above the stage to counter the load rigged onto a batten, which is the horizontal pipe that the lift lines support, and to which scenery, lights, or drapery are rigged. The vertical travel of the arbor is then

controlled by the fly crew through the use of a hand-line, which can be locked at any height via the rope lock. The hand-line (or purchase line) is attached to the arbor at the top and bottom. This line runs through the head block at the grid and under the tension block at the stage level. Some battens are capable of supporting the extra weight loads of lighting equipment. These are designated as electrics and may also be equipped with permanent electrical circuits for lighting control. According to Wolf and Block;

> Any fabric can serve as a stage drapery. Determining which kind will work best depends on the budget, how the drapes will be used, and the effect that is needed. Are the draperies to be opaque, translucent, or transparent? Are they to be pictorial, decorative, or simple masking? Are they to be stock draperies or used for a one-time special effect? (155)

While stage scenery is designed to provide a representation or illusion of the desired location(s) for the play, it is often as important to hide what you do not want the audience to see as it is to represent what you do want them to take in visually. Rigged from the fly system, theatre draperies create a void that surrounds the performance area. Drapes help designers to mask what they do not want seen. There are specific names for each piece of theatrical drape. The main drape or grand drape is often richly coloured and sits just behind the proscenium arch. This drape traditionally is opened to reveal the set at the top of a show. It is now common for the set to be exposed when the audience enters the theatre, and so you may only occasionally see this drape closed, but even when open, it is often visible at the edges of the proscenium.

Above the main drape is usually a grand valence or grand teaser. This drape is also richly coloured to match the main drape and helps to block the audience's view of the lights and other equipment hanging above in the fly loft. A series of tall but narrow black draperies mask the view into the wing space along

provide large-scale backgrounds. The drops can be rigged to fly in and out if the theatre is well equipped. Usually, they are constructed with ties at the top seam so they can be easily attached to battens. The bottom hem may be equipped with a pocket for a pipe or chain that provides weight to help the drop hang flat and stay in place. Musical theatre tends to rely on a series of painted canvas drops to quickly move the story from one location to another.

Wolf and Block further say that "the drop is typically made with horizontal face-to-face seams. The weight of a pipe in a pipe pocket at the bottom provides enough tension to pull the horizontal seams taut, stretching the drop into a smooth surface. To assure this smooth surface, a drop should also be stretched horizontally" (156).The sky drop, which is mounted upstage of the playing area to serve as background, is another common drop. Though very rare, a cyclorama may be used upstage in place of a sky drop with its extreme ends curving toward the apron to partially surround the playing space. From Wolf R. and Block Dick, "the largest single piece of scenery in the theatre is typically the cyclorama or "Cyc." The cyclorama's most familiar use is as a sky or void, backing a setting or elements of scenery placed in the foreground" (157). The cyclorama is hung on a flat plan across the back of the setting and on the rigging system, although it can also extend downstage in a gentle arc on either one or both sides of the set. They are primarily used as a part of the scenic scheme to screen off the backstage area and supply the ultimate background for stage action as well. From Harold Burris-Meyer and Edward Cole, "the Cyclorama must perform its functions and at the same time not interfere with the normal operation of other equipment" (250). Wolf and Block further mentioned that the "terms drop and cyc are often used interchangeably, although technically a drop is painted. A bought cyc is often dyed but can be a solid colour and unadorned. This allows for the best lighting surface" (156). The cyclorama in most theatre could fly to a height which enables it to disappear up in the loft, allowing for a good movement of tall sceneries underneath it. It supports the projection of light effects, images and also enhances the simulation of sky representation.

Lighting Designer

The lighting designer creates moods through the manipulation of colour and intensity of lights, illuminating from a variety of angles and directions. The way a designer models the light on the performers and scenic environments with these various light sources is akin to painting the stage with light. Lighting is an art that requires a great deal of calculation and equipment management to get a plot in the air and the artful manipulation of these elements to create the visuals the audience experiences. Lights potential as a design element is recognised well beyond the theatre. The stage lighting designer is traditionally responsible for the design and supervision of all aspects of lighting for a typical stage production. In the mid 1900's, lighting designers in Britain and America developed and refined the methods of modern lighting design for theatre, dance, and opera. It was only after the development of the electric filament lamp that these early pioneers were able to establish new foundations and standards in design. Whether working in a small community theatre or in a large opera hall, the lighting designer is an important and respected member in any theatre. This designer collaborates with the director and with other designers to ensure that the production is properly and suitably illuminated in all respects, from inception to completion.

According to Brockett and Ball;

> Lighting designers need a variety of skills, many of them pertinent to other professions, such as electrical of optical engineer, computer programmer, display designer, visual artiste, electrician, social and cultural historian, and stage director..., they need to understand physics and electronics..., know the physical principles involved in each equipment...,and understand the principles of optics and light (209).

The lighting designer is often the last designer into the theatre, and everyone fully expects him to show his creative prowess by making the sets, costumes and actors...'look fabulous'. Lighting designers today often tend to

specialise in specific types of entertainment productions, each requiring slightly different working methods and techniques. Specialisation may include lighting for; theatre, dance, opera, television, theme parks, ice shows, outdoor pageants, trade shows and industrial or corporate productions. Regardless of the lighting discipline, all lighting designers must have a full understanding of their tools and both the physical and psychological aspects of light. The basic principles of light, vision and design, apply regardless of the lighting design discipline.

Common Lighting Directions and Angles

According to Wolf and Block:

> The visibility of an object greatly depends on the direction of the light striking it. Light can strike an object from behind or from the front, or from one side or the other. In addition, it can come from a variety of heights. To clearly define the direction of a light source, one should specify direction (front, side, back) and height (in degrees)... Direction of light can also be measured in degrees but is most often referred to as front-, side-, or back-lighting. (313, 329).

The essence of focusing lights in the theatre is to illuminate actors and are most times measured in degrees. It involves decisions concerning where to position the lighting equipment. Angles of light striking the performer can vary from below the horizon (as in footlights) to straight overhead. Most natural angles of light imitate nature and for good visibility, their sources are located roughly 45 degrees above the horizon, somewhere in front of the actor. Direction of light is equally variable from front- to side- to back-light. To actualise the aesthetics of stage lighting in any theatrical performance, the following lighting directions and angles among others must be understood and applied. They include;

1. **Front light:** Directional light coming directly towards the actors' front as they face the audience. It is specifically in the rig to provide visibility for the actors. This light is of primary importance as it allows the audience to read the actors expressions. They are hung in the front of house positions over the heads of the audience and pointed at the stage so that actors can be clearly visible. With a two front light with its beam shining from 45° each above to the right and left of the actor, will give a total of 90° beam shine on the actor. The purpose of using two front-lights at various angles to each other, rather than a single unit straight away is to add dimension to the actor's body and face. The front light is mostly used as the key light, which is the major source of light.
2. **Top Light:** Lights here are hung above and or behind the actors on the stage to create the environment around the actor and also a good way to shape the actors and give them depth. It is most times used as a wash light to colour the stage, minimises the shadows and also reduce the spill of light from the light source and is measured at 90°.
3. **Backlight/Rim Light:** Directional light from behind an actor that creates a rim of light allowing them to be visually separated from backgrounds and giving them dimensionality. The function of the back light is to create depth on stage. It also helps to create a halo effect around the actor. They are primarily used to create three-dimensionality; back-light offers the additional benefit of separating the actor from the background. Coloured light from the back is extremely useful in toning the stage floor, and the choice of colours can be more aggressive than in other kinds of lighting.
4. **Sidelight/Diagonal Back Light:** Directional light hitting an actor from the side. This angle provides definition of shape and a sharp outline. It can be used to enhance theatricality. It gives some depth to the actor and as well creates a striking environment/directional effect. Side light hung on overhead battens is called "High Sides" while those hung on booms are called "Low Sides" or "Dance Sides". The high side lights is at about 30° angles while the shallower angled high side light is most at times angled from 45° to 60° used for dramatic performance whereas the low side light is angled from 0° to 30° mostly used

for dance performance. This is often the approximate angle from a pipe end to the centre area. Side-light provides both variety and revelation of form. Low-angled side-light is slightly higher angled side-light from 30° to 60° is often used for theatrical productions to avoid spill on the scenery. The designer can begin to use richer and more expressive colors in side-light to establish a motivational source or simply to set the mood of a scene. Exciting distribution variety can be achieved using a single front-light in combination with a side-light source. Side-lights are fill lights.

5. **Foot Light:** This is used to provide illumination for indoor performances. They cast huge shadows on whatever is behind the actors.
6. **Head/Shoulder Light:** A sidelight at approximately 5-6 feet high.
7. **Mid/Waist Light:** A sidelight at approximately 3-4 feet high.
8. **Shin Light:** A sidelight at approximately 1-2 feet high.

Wolf and Block at test that "a well-designed theatre offers numerous possibilities for varying the angle and direction of light sources. However, each theatre form has unique lighting requirements that are in part dictated by audience viewing angle" (326).

Lighting Instruments

The most Common Fixtures or Luminaires, in use today include the following among others;

1. Floods Light
2. Fresnel Spotlight
3. Profile Spotlight
4. Ellipsoidal Reflector Spotlight
5. Ellipsoidal Reflector Floodlight
6. Follow Spotlight
7. Bifocal Spotlight
8. Profile Spotlight
9. Strip Lights or Border Lights
10. Parcans

Lighting Accessories

1. Gels or Gelatins: (colour filters) for casting coloured light from a spotlight.
2. Gel Frames – for holding gels
3. Gobos or cookies (metallic disks with cut patterns) for casting light patterns from a spotlight
4. Top Hats – for narrowing the beam of a spotlight
5. Barn Doors (folding flaps on a metal frame) for shaping the beam of a light
6. Plano-Convex, Step and Fresnel lenses for spotlights

Synopsis of J. P. Clark's *The Raft*

The play,*The Raft* is a one act play about four lumbermen adrift on a raft in the Niger River. The play is a tragedy that revealed the nightmare on the creek of the Niger River where Kengide, Ibobo and Olotu are frustrated because Ogro is making too much noise for them to sleep. Lumbermen are on the raft, at night when they had lost three out of seven men that journeyed with them on the raft. The purpose of their journey was to take logs to a rich trader resident in Warri, who will pay them some money for their services. The journey is a deliberate effort by the four men to make a livelihood as identified in the lines of Kengide early in the play. *The Raft* is a depiction on the personality of four lumbermen, Kengide, Ogro, Ibobo and Olotu who pass through creeks of the Niger Delta to trade in Warri and are caught miraculously adrift while they hope on natural course of the wind to take them through to a town where they will enquire how to convey the logs to the rich trader in Warri. It is an expectation that takes days in the raft. As hopes are failing, tragedy strikes and the storm is catastrophic which causes the lumbermen to reduce in number.

Scenic and Lighting Analysis of the production: *The Raft* by J. P. Clark as presented at the University of Calabar Theatre by Molinta Enendu

From an interview with the designer, Molinta Enendu, the play, *The Raft* which was purely experimental and academic work imposes the greatest challenge to scenography today with much bearing on kinetic scenery, which

calls for continuous scenery changes and motion of atmosphere and the environment throughout the duration of the play. From Molinta Enendu, the scenic planning and construction of the raft was done ahead of time. The play, *The Raft* as situated on a floated raft on water, the designer made use of the "optical projection to achieve the flowing water (on stage) supported by the sound of running water recorded on a tape-loop and played back on a reel-to-reel player" (95). He said that from the moment an audience member bought a ticket and walked into the University of Calabar Arts theatre, the sound of the rumbling water was played, making the audience members feel as though they were by the sea-side. The auditorium was cozy and shaded in sky blue gels. There was also filtering sound of recurring echoes of different kinds of night birds; crickets and ants. This portrayed the desolate atmosphere, of vast emptiness within the ambience of seashore as set by the designer. According to John Iwu;

> With lights at the onset, the designer was able to paint the ambience which he sculpted around the raft; blue sky in motion, complemented the bastard medium amber rays of the setting sun to set the tone of the vast and desolate ocean, amidst the cantankerous personalities of the lumbermen. He carefully selected the right tints and shades to undulate with the tonal beats of the rough and sometimes somber atmosphere (140).

The scenic designer also specially framed and covered a painted set up in black fabric, designed to suggest sea-wave that covered the entire stage surface, on the boarders and legs and another dropping over the cyclorama. According to Molinta Enendu,

> It was organised to rise from the stage level towards the raft to a height of four feet, representing the body of water. It's edge around the audience side of the raft was tied to

> a very tense nylon snap-line which ran across the whole breadth of the proscenium stage. On gentle tug along the line, and around the centre -line.Steady vibrations that stimulate the rise and fall of the moving water was generated. The tugging however varied to suit the state of the optical projection of the running water and sea waves from three Patt 252 projector lanterns and the effects from the water ripple to crates a plausible river Osikoboro on which the lumber men lived and later perished (96).

The raft as designed by Molinta Enendu had units of rigid platforms, joined firmly together and measuring about 12 feet wide by 24 feet long, and 7 feet high. It had external view of 4 neatly sawn lumbers each measuring about 3 feet in diameter. It was mounted on 16 heavy duties, rubber-clad, multi-dimensional casters. Its centre, mounted on superior suspension, on 4 inch diameter steel pipe and a tip jack on each end of the raft. From the designer, the casters with the steel pipe, chalked on both sides, simply rotated on its circumstances to facilitate the gliding movement of the raft. It also worked with the tip-jacks to give the raft rocking and disturbed movements when desired. A section of the raft was fabricated to be detachable by loosening four iron clamps and a zig-zag lash made of sisal-rope. This made the piece of the raft on which Olotu was flown to danger.

At the point of danger, a loud crack was head, and a sudden cracking sound came again a second time, while the raft brook into two, making some potions with the billowing sail pull, furiously away. At this point, the designer had made the cyclorama to be covered with storm-cloud from a projection, combined with dapple-gobo projection slightly out-of-focus to further reinforce the stormy atmosphere. The strong wind sound was recorded and played back. The effect on the stage was achieved with the use of a giant electric-powered, eight-blade, heavy-duty industrial fan, which was located by the stage wing. While the thunder sound was produced through the sound projection booth, the

lightening effect was achieved, using Patt 828 lantern. At this point, the effect created by the designer made the atmosphere and the sea environment more turbulence, causing the raft to split into two pieces.

The raft was kept in motion all through the entire production on stage, showing the effect of the flowing water, the rocking raft on the sea, the blowing wind, which later gave rise to the thunder storm and the sudden raft splits, having one piece with the sail heads for disaster and having the character Olotu helplessly on it. From John Iwu, a student of the Department then who had witnessed the performance of the Raft in 1988 in his work, said that "the raft as designed was given a pentagonal internal structure made from a crate of internally crafted network of neat panes of one inch by two inch width woods, which were joined with three inch by four inch woods as main structural members as the surrounding upright frame (121).

The ark was sprayed with dirty green colour with dingy brown to replicate the effect of sea weeds and fungi growth and the oldness of the raft that sails day after day at the murky sea shores of the Niger Delta. This showed an evident of what is available within the region as mostly used by fishermen. In the raft were some upright poles to hang fishing nets. Below the sail line of the raft, a gliding waterline of the ocean and the ridges of sandy shore, created from an opaque fabric (calico). The creative aesthetic of the raft was shown with the use of under stage light during the performance.

According to the designer, Molinta Enendu, the planning was done well ahead of time. Moreover, the design of all technical aspects was concluded before rehearsal commenced; particularly, in the areas of set and light as these were the dimensions that would create new experience for anyone who has read the play, and fantasy and wonder for anyone making contact with the play for the first time. To achieve this plan, Enendu embarked on a three day architectural construction of the raft. A number of techniques were employed to enable the raft visually obey the principle of flotation because there was the need for the raft to rock convincingly in any direction to the view of the audience in any direction which the actors desired (John Iwu, 131).

To achieve the desired design concept, the designer had ingenuously washed the whole stage in black fabric; on the boarders and legs with another dropping over the cyclorama, he splashed each with squashed wet tissue papers to stick and adhere onto the fabrics. To have a twinkling over the night sky, he washed the atmosphere in black light (ultra violet beams of light). This does not come in lanterns but in fluorescents strategically positioned to achieve an even spread to have a radiating spackles. They were hung on separate bars, and could be flown up and down as desired. The performance also made do with some domestic kerosene lantern, welded with a torchlight lamp (bulb) onto the position of the wick, and inserted in it two UM-3 batteries. This way the intensity of the lantern can be increased and decreased as if on a dimmer. According to Iwu, "the raft is sailing in a dark grey night, denied of stars but for the generous twinkling of sea tides. Unfortunately their twinkles do not offer the lumbermen any direction..., and then the lamp beams up for effect, just to satisfy the actors' dialogue because the stage light supports it at low intensity" (133). Iwu further says that:

> The designer tried to capture every minute detail with the designer's ability. For instance, we noticed the pieces of rages and shirts hanging on the poles and top of the cabin, either fly violently or pulsate to the pressure of the sweeping wind. This was sustained for a few minutes. The idea is a simple one; the rags and shirts were sewn to a transparent thread, and anchored to the grid of one of the numerous poles overhead in the fly loft. One stagehand was assigned to hang the rope at the right moment. The action was supported by the sound of whistling wind which was an effort at maintaining the natural dual action of sight and sound, an attempt to give effect to nature. Expectedly, the effect was magical; Olotu was quick to

> celebrate. This is the first of the three climaxes of *The Raft;* and each is highly dependent on sound and light. But of the three, the disintegration of the raft is the highest; for this reason, the designer took absolute care to aim for maximum impact of the spectacle to detail. It was important to sustain the momentum of the process of such brief but sharp occurrence (133).

According to Evan Shimizu et al (2019: 3), "in theatrical lighting, designs must be physically realisable on a stage while designers need to establish creative illumination environments and theatrical lighting evokes a sense of place and mood with exaggerated colours and varied lighting angles". Creative illumination provides cues about time of day, environment and mood of the play. From Molinta Enendu (2019), over twelve special light projections were made to create the various atmospheric and climatic conditions, which was a spectacle to behold. Most of which were registered on the cyclorama and on the stage floor. The designer used the AMC (Advanced Manual Control) operation system to achieve the desired lighting effect. He further mentioned that the creation and the realization of the atmospheric and climatic conditions on stage were the major challenges of the production. Although, they were meaningfully created using the lighting system, the flying system and the sound system as provided within the architectural dispositions of the arts theatre. Lighting execution was alleviated by adequate hanging positions in the lighting bridges, the catwalk and the cat-ladder which served as hangers for all the floor projections in the performance.

In the performance, the designer used 'front light', 'top light', 'side light' and'back light. At the moment of the raft's disintegration, Iwu asserts that the cue had set aflame beams from the pairs of a dozen baby spot (pattern 23) lanterns; all punching down to envelop and dig up the raft as if by a miraculous force. Using four pieces of pattern 743 positioned down and carefully hidden along the raft line which created the illusion of a sea shore, each gelled in sparkling cyan were enough to create the splitting act. The beam of light erupted, two springing from

alternate direction, thus splitting the raft into two as if by a volcanic larva. The multiple actions were complemented with sound which shook the house to its roof through the megawatt speakers of the house for that single purpose. The whole process took one minute of tense and explosive and breathtaking action, which took a while to appreciate that the occurrence was not an accident. The action was carefully timed to achieve unity.

First, the pattern 23s were released at the same time to punch down as if to exhume the raft, it was accompanied by the rumbling thunderous sound (creak), then the cracking sound was played back, then the pattern 743s in less than twenty seconds and then an added shattering thunder. Numerous light from different directions came together to create spattering effect on the existing sea wave. The whole action was time at about 60 seconds for maximum impact. Enendu's marvelous effort without doubt, captured the raft's splitting as impressively as Clark would wish it. The destructive impact was like the Titanic but for the circumstance; while the raft was hit by the tumbling current occasioned by a raging storm, the titanic was stirred to doom by an overconfident captain to hit a stationary rock. At the disintegration of each part, the designer created two extra heavy duty casters as back up, but its takeover was not automatic; time was given for the audience to feel the tension as the raft swerved and swayed diagonally upward as if about to capsize when the lumbermen using their poles and paddles shot out the backup casters for stability while the other half was "flown to oblivion". This was for the safety of the actors; even though Olotu is "adrift and lost". For the sixty seconds duration, the tragic tempo was sustained through sound because all this while, Olotu never stopped screaming; the sound effect gave the impression of a battle with sharks or crocodiles. The light remained a deep dark blue, dimmed with a muffled twinkle which faded into magenta for the end of act two (John Iwu, 134).

As the raft approaches Burutu port, the designer used some blinking lights flashes as if through the trees. He also made a couple of low wattage lamps powered by 12 volt truck battery. The twinkling lights came through a near translucent linen fabric which became transparent under light. It was screened

with a laced cotton drop flown from the fly gallery. Enendu at the end of the performance shone the moon on the cyclorama, using pattern 818 lantern; one of the most powerful and effective follow spots ever manufactured by Rank Strand at the time. The designer realised that by trimming the iris to a rim of 6 inch radius of a full moon lit in dark amber, and tilted between 15° and 30° of left and right sightlines of the auditorium. In time, black light returned as fog and overtook the regular view of the scenery. A beam of light flashed at alternate angle like that of a sweeping helicopter on air raid as the raft finally heads for doom.

Conclusion

Kinetic art is an art form from any medium which contains movement perceivable by the viewer or depends on motion for its effect. Enendu, in his explanation in 2019 said that "Kinetic Scenery comprises scenic units that appear and disappear, visually complementing the flow of the drama. It is a practical means of moving or developing scenery as the play develops and progresses without any visible human assistance". He further said that Kinetic Scenery carries 'inbuilt force, 'inbuilt momentum' and 'inbuilt mechanical drive'. It allows to move, change form or shape in the view of the audience not under the shadow of darkness with greatest motivation of scenery. *The Raft* was experimental production of Kinetic Scenery Technique by Molinta Enendu. And the performance was designed as a project play and primarily mounted to experiment and explore the Kinetic Scenery Techniques. The play *The Raft,* to the designer imposes the greatest challenge to scenography today with much bearing on Kinetic Scenery technique, which calls for continuous scenery changes and motion of atmosphere and the environment throughout the duration of the play.

The technical concept of Kinetic Scenery was achieved by a collaborative relationship of the master designer and other designers in developing unified, functional and traditionally dynamic scenic elements, which the architectural characteristics of the theatre, its machines and scenic mechanisms were indispensable requirements and necessities to the realization of this theatrical spectacle. The floating of the ark and the destruction of the raft was made visible and live to the audience. This was seen as the climax of the play production and

was achieved with the use of scenic mechanisms, light and sound. The natural phenomena of the flood, water waves, running water and the wind, were theatrically achieved in precise logical order, graphic progression and in phenomenal intensity by the designer in the performance.

Projections and the special effect light, with the use of the stage machines, made the desired design to be achieved on stage, making raft to sail, float and split convincingly. This showed the high level of creativity of the designer. The University of Calabar Arts Theatre has a wide and specious, large fore-stage, which enhance the achievement and the success of the production. Enendu asserts that "the work of a stage designer is influenced by many factors, but the basic essentials lie to an extent on how the elements of the scene agree with and are practicable in any given dramatic situation" (261). The performance and design goal was achieved with the magnificent characteristics of a proscenium style of the arts theatre, and with the relevant facility and space in particular. From the designer, the production was made possible due to the large proscenium, with broad wings and expansive fly loft of the University of Calabar Arts Theatre, that accommodated the theatrical illusion. The large wings, the loft and the stage tower played significant part in the successful performance of The Raft at the University of Calabar Theatre.

John Iwu in his observation asserts that "it is pertinent to note that the facilities available in the theatre were major considerations in the performance of the play, and indeed most of such plays which Enendu regards as "experimental" in his academic and professional career" (142).The performance of *The Raft* was made possible by the installed flying devices for the movement and shifting of scenery in a fast, precise, accurate and most effective manner; often ensuring economy of time and manpower. The designer also revealed without doubt that the machineries installed in the theatre aided the mystery behind the movement of the raft and the floating of the split piece of the raft with speed to oblivion.

From an interview with Molinta Enendu, he revealed that his technique in lighting is to 'Intensify the Illusion of Reality' and 'Create the World of Fantasy' (2019). He believes so much in the use of special lighting effect to achieve this since

African plays go beyond the realistic world into the fantasy world like the place of the ghost, where the witches are meeting, the land of the gods, the spirit of the land, the father of the place of the ancestors, which cannot be achieved with the use of ordinary lighting. The success of a good production is most at times dependent on the creative ingenuity of a designer and the technique and style used to achieve its design concept. Specifically, this study has shown the technique and style of Molinta Enendu, which can be adapted by other theatre designers in the Nigerian Theatre.

Recommendations

Having presented the kinetic scenery technique as a practical means of moving or developing scenery as used by Molinta Enendu to attend theatrical design success in a performance as designed by him, it is therefore recommended that this technique should be introduced into theatre curriculum and studies. Molinta Enendu said and I quote "experiments in the area of Kinetic Scenery are productive and rewarding in contemporary scenography. In fact, no designer can afford to ignore the place of Kinetic Scenery in solving Knotty scenographic problems. Some designers might see its approach and application as tedious, challenging and expensive. But it calls for talent and creativity craft and technique to the development of theatre practice in Nigeria" (2019).

Furthermore, Photographs of productions and production programmes are quite important for theatre performances. The producers, Universities and other theatre owned firms should therefore take advantage of the computer revolution to digitalise vital productions for future researches. It is worthy to note that in the course of carrying out this study, it was discovered that there are very few or limited works on theatre designers in Nigeria, their techniques and styles of performance presentation. Therefore, conscious efforts should be made by designers and theatre scholars to document on the scenic design and stage lighting, the techniques and styles as applied in stage performances.

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