

Tradition, Change and Continuity in the Lighting Technology of African Performance

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DOI: <https://doi.org/10.5281/zenodo.7947720>

Published Date: 18-May-2023

Abstract: Theatrical lighting is essential in the preparation, articulation and expression of the mythos of African performances. It is a core performance element that livens, embellishes, reveals and frames both the content and context of African performances. However, the continuum of theatre and human society has made such creative dexterity less sacrosanct as it continues to adapt to emergent ideas and innovations. Continuing change in human thinking and innovations, coupled with audience needs and or pressures for new aestheticism have consistently percolated the lighting creative space, thus making it more dynamic. On this premise, this paper examines the tradition, change and continuity in the lighting technology of African performances. Finding reveals that this technical element has experienced three levels of transition, namely; ‘simplistic’ technology in the form of sun, moon, and lightening to a more ‘complexified’ technology in the form of flame fire in its variegated formations as meet performance forms and or typologies. This stage also witnessed the combination of bonfire, sun, moon and lightening. Finally, a hybridization of African and modern lighting technology. The paper concludes that the knowledge of African performance lighting craftsmanship is essential for future generation of its bearers as it will guide in the creative process. The paper encourages more research in this area for purposes of documentation and transmission of these creative ideas.

Keywords: Lighting Technologies, Traditional Performance, Transition.

1. INTRODUCTION

Lighting technology of African performances is in a constant state of evolution. It evolves with society and appeals to the changing philosophies and ideologies of their bearers, therefore. While lighting may interlace due to cultural contact; this may also lead to the obliteration, revision or improvement thereof, of some conceived technological precepts. Regardless, many African societies strive to sustain their authenticities in the wake of glo-calisation. This is because, they are embodiments and mechanisms for expressing, articulating and communicating their daily ideations and methods of coping with social problematics. Evidently, every phase of human experience and or evolution impacts community performance traditions in many ramifications. New pattern of thinking, challenges and influences from other cultures may inform the injection of new songs, movement patterns, and technologies in many performance traditions. Parvis Patrick maintains that “...each historical movement, and each dramaturgical and stage practice corresponding with that movement, possesses its own criteria of dramaticity (way of setting up a conflict) and of theatricality (manner of using the stage)” [2006; 208]. This also, explains the intricate nature of theatre to live up to its expectation as the mirror and or chronicler of the society. In this sense, some cultural performances find themselves adapting to current realities by evolving new ways of communicating these realities to community audience, while others maintain their status quo.

Performance traditions across the globe exhibit peculiarities in design and technological innovations. Cultural variations, patterns of thinking, conceived ideologies and philosophies, general cosmo-spatial realities and social contentions are basic to the formation and or origination of performances. Molinta Enendu in Enendu affirms that “the influence of technology is obvious and manifested in all times, in all cultures and in all traditions; influencing them, creating, shaping, ordering and facilitating them; bringing smooth functioning, efficiency, predictability and most times safety into theatre practice” [2019; 2]. Beyond the quadruple elements of the performer, space, performance and audience required for performativity to be said to have occurred, every performance rely on some level of technical and or technological innovation, be they ‘simplistic’, ‘complexified’ or ‘sophisticated’ to articulate, propel or tell the tale. Adjudging technological innovations in traditional performances in terms of their ‘simplicity’, ‘complexity’ or ‘sophistication’ is subjective. Such assessment must be carried out bearing in mind the nature of performance, period of conception, available techne, and their roles. This will vary from performance to performance and from culture to culture. This paper attempts to trace the tread of transition in the lighting technology of Africa performance. The paper also points readers to the dearth of literature covering this bit on lighting. Odeh Idah puts this problematic in perspective as he writes that:

Most researches favour the cultural signification of traditional performances like usability, aesthetics, ergonomics and functionality while old and new forms and innovations in lighting and craft technologies of traditional performances are ignored. This problematic is affirmed by Duro Oni’s periodization of the evolution of lighting technology in Nigeria beginning from 1880 to modern times, a period that witnessed the fusion of foreign and local performance materials in Nigeria. The implication is that, there is no recorded or documented evidence of lighting design of traditional performances in Nigeria. [2021; 297-307]

As a theatre tradition which is created and stored in the memory of bearers, African performances do not have documentation of its lighting design and technology. There is no documented evidence on the specific periods or times when these lighting designs and technologies were deployed. To put more succinctly, the oral nature of documentation made is impossible to give a vivid and accurate time when these sources came into use and the order or sequence in which they were created and used. Also, related to this challenge is the differences in culture and performance which may determine the innovation in lighting design and technology, and the sequences in which they evolved and deployed. Arising from these problematics, this paper takes a general look at the evolution of lighting design and technology in African performances. This research is therefore, significant because it caters for the dearth of literature on the evolution of lighting technologies in African performances. It draws random examples of African performances to illustrate and corroborate each stage of the evolution of the lighting formation. It makes use of computer Aided Designs (CAD) to provide pictorial representation of the use of lights in the arena stage. The essence is to direct the reader’s attention to the placement and focus of such lighting sources. This will give them a graphical understanding of the discussion.

2. CONCEPTUAL GROUNDING

The mention of African performance connotes three performance typologies and or traditions; traditional and or indigenous performances, popular theatre and the literary tradition. This classification prevents any form of indistinctness and the phrase from being engulfed in a conceptual minefield. This paper is premised on the indigenous performance tradition. Performance ideation, content and context in Africa is disembodied, it defies singular authorship, recognises collectivity and commonality of authorship and utility. Different societal contentions breed different performance styles which are broadly bifurcated into ritual and social performances. Africans rely on memory for the documentation and transfer of its performances from one generation to the other. African performances are created to serve the diversity of its socio-political, economic, religious and cultural narratives and experiences. They exist in form of dances, songs, chants, incantations, lullabies, wrestling, snake charming, etc. African performances are less dialogical, highly participatory and always activating a proactive audience in any performance instance.

The design component of African performances is basically formalistic in style. The formalistic structure of African design formation is informed by its found space. This is advantageous because it prevents the danger and or challenge of orienting scene design to a particular section of an audience who seats round the performance space. This limits its design technologies to sound, light and costume/make-up. It is however, speculative or rather inappropriate to conclude that this design orientation is a form of escapism from the challenge mooted above. Rather, it is rational to think of this orientation as one also informed and or pre-ordained by the content and context of African performances. Dance, music, wrestling, chants and incantations among others are

key African performances, hence it necessarily differs the construction of sets and or commodification of the arena space. However, its performance space can be inundated with light without reaching the point of saturation. With regards to the role of light in the formation of performance style, Karen Brewster and Melissa Shafer

Stage lighting is elemental in establishing the style of the production. The aesthetic look of the lighting, coupled with the mode in which lights shift from one look to another, sets up certain conventions for the production. The look of the stage lighting can be realistic, and the shifts between light cues can be subtle, with imperceptible changes that seem to happen organically with the action of the play; alternatively, stage lighting can be presentational, with strong nonrealistic looks and bold changes in the cues that are obvious and purposeful. In stage lighting, these two variations in style are classified as motivated or nonmotivated designs. As a formalistic theatre tradition, the presentational and or nonmotivated lighting approach best describes its lighting style. Karen and Melissa further explain that “with non-motivated lighting, the primary interest is creating and establishing a mood and supporting the theme of the play. Nonmotivated lighting is typical of highly stylized productions like dance and music concerts, where the mood of the piece is primary. Experimental or avant-garde theater pieces may also employ non-motivated lighting” [2011; 188-9]. Therefore, the deployment of natural lighting like sun, moon and lightning coupled with the nature of space as well as the nature of performances fundamentally determined the style and or approach to performing in Africa. To this end, the interest in lighting in African performance is nurtured by two premises; (i) its peculiar function as meet the demands of specific performances and periods, and (ii) its none-hypostatic and or evolving nature. Jason Livingstone posits that: “...light is a component of artistic expression or a tool used to achieve that expression. It can be used to direct attention and emphasize elements of a composition, reveal three-dimensional form and texture, set a mood, create an ambience, support an activity, define the boundaries of a space, and so much more” [2014; 41]. To extrapolate, light in which ever form and performance tradition serves the visual and aesthetic needs of the bearers in the same manner it does to the performers that need it to express, reveal and shape the mood of the audience. Jason infers that “the goal of every design is to create, in collaboration with the rest of the design team, an environment that is appropriate to the use and the users, and that meets the owners’ requirements of cost, project timeline, efficiency, etc.” [2014; 7]. This presupposes that light in African performance serves different intentions as mooted and necessitated by different cultures and periods. Though, it is difficult to point exactly to the year and or years in which these changes may occur. However, for the purpose of this paper, the three eras namely, pre-colonial, colonial and post-colonial eras is used.

3. TRADITION, CHANGE AND CONTINUITY IN THE LIGHTING TECHNOLOGY OF AFRICAN PERFORMANCE

The evolution of lighting design and technology in African performances may have begun with the use of natural lighting technology. These lighting sources include moon light, sun light and lightning. Since African traditional performance space is open-air, performances are naturally illuminated by these natural light sources. However, the use of artificial lighting sources, particularly bonfire may have been integrated in this performance tradition at a later date. This innovation, perhaps, may have been motivated by the need to create performances that require new lighting sources or to create variations and aesthetics in productions. In this instance, a heap of fire may be lit and players made to perform round it. In other performance instances, some sort of kinetic lighting is created with a performer who doubles as the lighting man moving around the stage with a burning flame. Gradually, the contact between Africa and the west led to the use of other artificial lighting sources like kerosene lamp, incandescent bulb and flood light. These lighting sources created general illumination for the stage and venue of performance. As time went on, the expansion in knowledge and creativity gave birth to more profound lighting systems with the capability of creating special effects, atmospheres and moods in performance contexts. Bellman Willard writes that “from 1898 to the present time, there has been a constant development in the art of stage lighting, which appears to be moving in the direction of the fulfilment of Appia’s broad aesthetic dicta” [1977; 296]. Lavender Andy agrees that “creative practitioners are caught up in the march of culture. They produce altered dramaturgies that chime with the ‘techne’ of the moment, which itself is always evolving” [2023; 4]. This implies that, modern theatre designers have so far leveraged these innovations by harnessing them with traditional forms of lighting systems to create new expressions and deepen meanings of performances. The figure below explicates the different forms of light utilised in African traditional performances from traditional society to modern times.

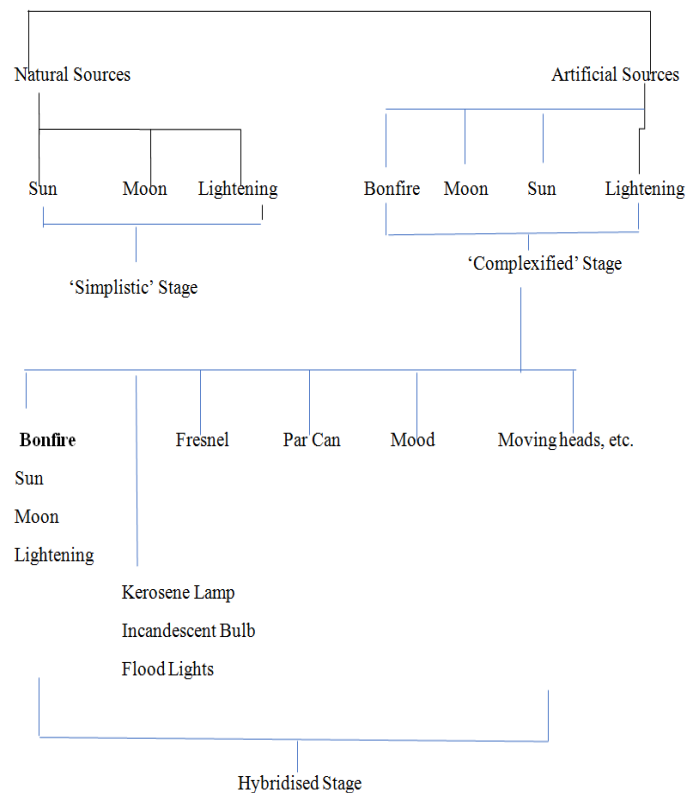
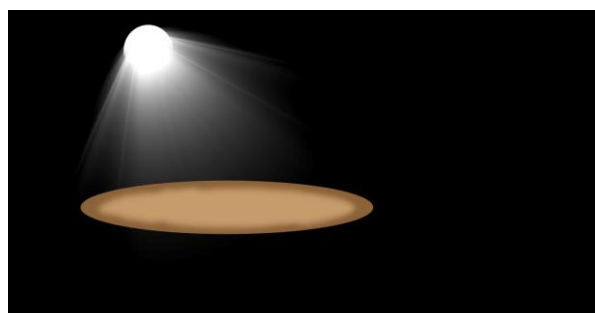


Figure 1. Evolution of light in African performance.

These phases in the evolution of lighting technology and deployment in African performance is period specific and applies conveniently to the socio-temporal and cosmo-spatial aesthetics of the time. Each phase explains the use of available technology, skills and artistry of the time in transmitting cultural messages to the audience. These phases of transition are further explained with diagrammatic and pictorial illustrations below.

3.1. The ‘Simplistic’ Stage

This stage in the evolution of lighting in African performance embodies three natural sources of illuminating performances namely; sun, moon and lightening. The use of sun light as illuminating force in African performance culture is ancient. It is by far one of the oldest sources of lighting in African performance culture. African theatre is well known for carrying out various social and sacred performances in the day time with such performances inextricably relying on the natural sun light for illumination and performance visibility. Performances such as *Argungu* fishing festival, *Akatanka*, *Aita*, *Ikiahoho* among others are examples of traditional performances that rely on sunlight for illumination. This form of lighting is described by Chuck Gloman and Rob Napoli as “the biggest and brightest key light...”. A form of “one-point lighting” [2007; 323]. It is a form of lighting that creates moving shadows since the beams emanates from only one direction. Below is a diagrammatic rendering of sun light in production context.



Source: Self-designed

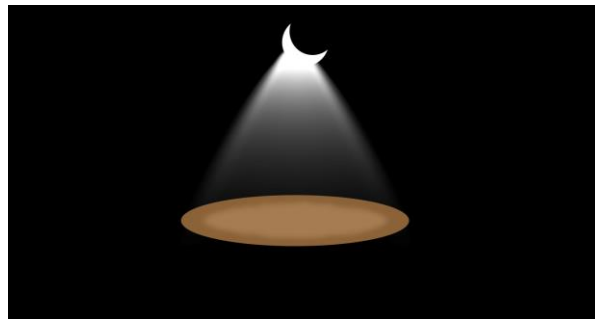
Figure 2. Illustrates how sun light illuminates the arena stage.

Brian Fitt and Joe Thornley give a broader perspective on sun light thus:

Light in its most basic form, daylight, consist of a mixture of sunlight and skylight. These can be analysed as the sun which provides extremely hard light that gives well defined shadows and a sense of depth; and the sky which gives very soft diffused lighting without any obvious shadows. The reason that the light behaves in different ways is that the sun is a very small source in comparison to the subjects it illuminates, hence it produces the hard shadows, whereas the sky is an extremely large source in area and thus produces almost shadowless lighting. [2002; 3]

While visual clarity in terms of proper exposure of subjects and objects on stage is achieved with this lighting formation, control of light intensity and aesthetics creation and simulation remain problematic. Other problematics associated with the deployment of sun light in African performances is the probable hazard accruable during performance. Hotness of the performance space and uncontrolled heat experienced by both performers and audience is caused by direct sunshine on the performance space.

Another source of light used in this stage is the moon light. Moon light as a source of lighting in African performance is also one of the oldest sources of lighting. It is of immense significance in African performance culture. Moon light performances abound in African society. Beyond folk tales, rituals and other forms of social performances also enjoy the enduring beam of the moon light. Some performance began from moonlight stories embellished with actionable narrativity. An example of such is the Tiv *Kwagh-hir*. The major challenge associated with this light source is the inability to manipulate, control intensity and create aesthetic opulence. Below is a diagram of moon light as deployed in production context.



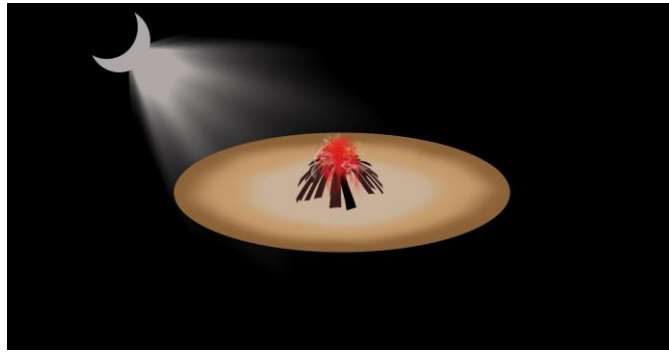
Source: Self-designed

Figure 3. Illustrates how moon light illuminates the arena stage.

Lightening is the last form of light deployed in this stage of the evolution of lighting in African performance. Lightening is a rare lighting source to the extent that it can only be deployed and or used when there is rain that produces thunder and lighting. Like the sun and moon, lightening is functional when any performance is carried out in the rain. Sun, moon lights and lightening have remained unchangeable, static and sacrosanct in their deployment in African performance culture. It follows that, once a performance is done in the day time, it must depend on sun light; if it is done at night or in the rain, it cannot avoid the beam of the moon and lightening. This explains why they are the oldest forms of lighting systems in African performances.

3.2. The 'Complexified' Stage

This stage witnessed the creative syncretisation of natural and artificial lighting technologies. However, before the intermixture is the invention of a new source called bonfire. Bonfire or flame-based lighting source finds relevance and application in day and night performances in Africa. The material used in actualising this light source depends on the culture and the creative dexterity of the designer. In some cultural performances, a heap of wood is placed at the core arena and then set ablaze to in harmony with the sun or moon lights create the needed visibility for performances. while in other performance traditions, the source may be kinetic or placed in order strategic areas of the performance space. Examples of performances that make use of bonfire as source of illumination include *Ogrinye* and *Kwagh-hir*. Research has shown that most performances that makes use of bonfire blur time. To put more succinctly, whether such performances are carried out in the day or night times, they make use of the bonfire. Light within the context of production begun to be suggestive, a pointer, a representation of ideas of some sort. It became more meaningful, more indexical of something in the cultural life of the people. This lighting source is exemplified in the diagram below.



Source: Self-designed

Figure 4. Illustrates how bonfire light illuminates the arena stage.

This also presupposes that the lighting source performs functions beyond illumination. Instances can be drawn from the Igede *Ogrinye* where the bonfire is used for roasting yams, lighting cigarette and warming the body of both performers and audiences. And the *Kwagh-hir* where light is functional in directing and or leading the performers while also revealing the performers for audience viewership.

3.3. The Hybridised Stage

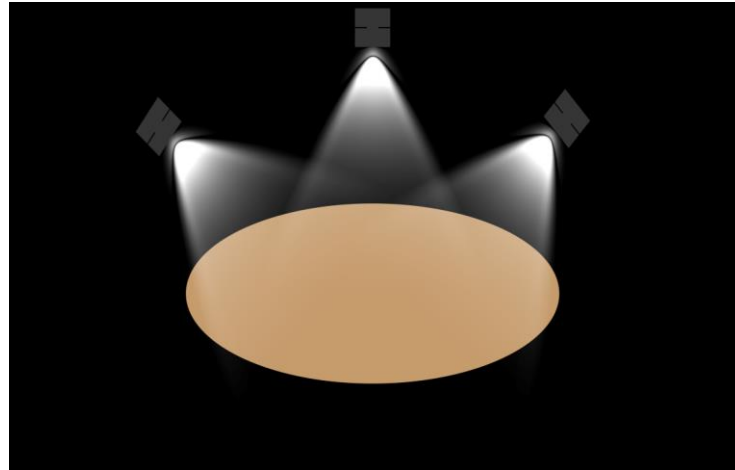
The hybridised stage is a classic example of the marriage between traditionalism and modernism. The introduction of western theatre coupled with the development of skills set in the use and maintenance of more advanced lighting systems informed the integration of modern lights into African performance. Jones Robert may be referring to this when he writes that: “in our time, the theatre is mixed, confused and hybrid” [1941; 122]. With hybridization, the performance space has transformed thus making the stage environment completely new. To lit these new spaces requires the designer’s understanding of both the physical and nonphysical environment that houses performances. Steven Shelley explains this thus: “The physical components of a lighting design must work in tandem with the other various elements of the physical and non-physical environment, including the theatrical space, the scenic components, various personnel, and the schedule”. Steven further writes that “While the aesthetics of the design are the primary concern, the lighting designer must also possess a practical knowledge of the physical and conceptual framework of the theatrical lighting environment, in order to effectively communicate, coordinate, and execute those aesthetics” [2009; 1]. It is not enough to have plethora of advanced lighting equipment and facilities. This is because they cannot operate themselves. Sequel to this, there is every need for lighting designers to have the necessary skills to put them in to functional use. A major feature of modern lighting is its automation and impeccable aesthetic stimulation. Richard Cadena corroborates that:

Today’s automated lighting systems are technological marvels with incredibly sophisticated engineering, a rich feature set, a high level of reliability, and increasing efficiency. They’re still getting smaller, lighter, and brighter (relative to power consumption), and the optics are still getting better and more efficient. Lamp manufacturers are doing their part by developing a wider range of lamps with better efficiency, longer life, and better quality of light. For those of us who use automated lighting, life is good. [2010; 4]

Ogrinye and *Kwagh-hir* are performances that have experienced the use of modern lighting. The integration of modern light began as an unconscious and or deliberate act. As indigenous performances began to enjoy patronage beyond boundaries and or other contexts, many occasion organisers would light the venue of the occasions and such lighting would spill into the performance area. This synergy perhaps, began with the experiment with gas lamps, and kerosene lamps. Although these lights may enhance more visibility of performance carried out at night, they possess some challenges as those of sun, moon, lightning and bonfire. They are basically used in creating general visibility of the performance venue and participant alike. The beam emitting from these light sources cannot be controlled and it cannot be manipulated to create special effects. However, with the invention of electricity and its application in the theatre, a diametrical shift the theatre lighting occurred. Richard Pilbrow captures this succulently thus:

Stage lighting is a remarkable part of modern theatre. Remarkable because, although theatrical productions have been presented for many thousands of years; the new ability to accurately and sensitively control light has led to stage lighting’s emergence as an ever more significant element in the creation of theatre. [1997; xxv]

As lighting technology improves and designers able to purchase them, the integration of more sophisticated lighting like the Fresnel, Mood, Par Can, Moving heads, Profile spot lights, etc. became possible. In this instance, the integration of modern lighting is no longer accidental but a deliberate and creative drive to enhance the aesthetics of African performances. Below is a diagram of the deployment of flood lights in production.



Source: Self-designed

Figure 5. Illustrates how flood lights illuminate the arena stage.

Lighting become more functional and deliberate in design and application. It became possible to create special effects, moods and general performance atmosphere using different shades of colours and instruments for productions. Odeh Idah (*Lighting Design in Ogrinye and Kwagh-hir...*) affirms that “innovations in theatre technology, particularly in the area of lighting has shaped theatre practice and added more aesthetic value to theatrical productions in contemporary times” [2022; 1]. Below is the intermixture of traditional and modern lighting in the performance of the Igede *Ogrinye*.



Source: Jerry Idah Odeh. PhD Lighting Experiment

Figure 6. Showing the intermixture of bonfire and modern lights.

With the hybridisation of both lighting sources, aesthetic became more profound. Variation of the visual text was achieved through the use of different colours. Stanton and Banham posit that “stage lighting in the 100 years since the first use of electricity in the theatre, has had a profound effect upon staging, scenery, styles of production and acting, and even upon the shape of the theatre building itself” [1996]. Therefore, the marriage led to the inclusion of other elements in the theatre space. This include poles and cables which the modern lights were mounted on and connected with. From a bare sandy performance space to the erection of poles and connection of cables-the space itself is already evolving. This therefore, corroborates Stanton and Banham’s position that modern light affects the nature and or shape of the theatre. Below is another lighting intermixture with the *Kwagh-hir*.



Source: Jerry Idah Odeh. PhD Lighting Experiment

Figure 7. Showing the intermixture of bonfire and modern lights.

This lighting interaction exhibits similar aesthetic characteristics with that of *Ogrinye*. Visibility is high, beauty is heightened, meaning deepened and audience perplexed by the marvel of the creative synergy. Writing on the functionality of modern lighting Duro Oni maintains that: “The new lighting ... has the ability to situate the action of the play in time and in space and also provide information on the place (locality) of the play, that will serve as the alternative environment of the new future drama. This new function of stage lighting was the exclusive preserve of scenery” [2006; 78]. New perception of these forms in the context of a hybridised lighting approach became palpable. Local lighting designers and performers are forced to see and understand their performances in new light and approach. It is the exquisite outcome of the lighting continuum, exhibition of enthusiasm and interest in the new performance context that marks the beginning of the bearers and modern designers move for continuity and or sustenance. This move is also heralded by the need for local lighting designer to up their skills and understanding of lighting. This is because as John Jackman informs:

The real key to fine lighting is not only to simulate reality, but to communicate the proper mood and feeling to the viewer. You need to know more than just basic techniques or tricks; it's best to have an understanding of how certain looks will communicate to your viewers. You need to develop an artist's eye for light and shadow and color, and the techniques for reproducing them. [2010; 1]

With such understanding and skill set, local lighting designers will be able to creatively synergise both lighting systems and perhaps, pass this creativity to the next generation.

4. CONCLUSION AND RECOMMENDATIONS

This paper examines the evolution of lighting in African performance. The paper is pre-set to unravel the tradition, change and continuity in the type, application and function of lighting within the context of performance. In concomitance, three traditions of transition were uncovered; ‘simplistic’, ‘complexified’ and hybridised stages. In each of these stages, light performed different functions, first, as meet the specifications of diverse performances, and as demanded by the available lighting technology and the will to experiment with them in order to create new aestheticism and appreciation of these indigenous forms. one factor that runs through out these phases is the maintenance of the original and or traditional lighting forms in every performance instance. Therefore, contrary to speculations that the integration of modern lighting will amount to total mutation of the content and context of African performance, the consistency in the use of the original lighting forms in every phase of evolution points to the bearer's acknowledgement of the value and the maintenance of the cultural aesthetics even in the face of hybridization.

It is on the above premise that performance bearers and modern lighting designers are encouraged to work together to ensure continuity in the design formation and application of indigenous lighting in African performance. This is important because these lighting in African performance is indexical; if substituted, could mutate the intention. Also, the continuous application of emerging lighting technology in African performance will contribute in keeping them alive. This is because they can be performed outside the boundaries of their birth place and on different forms of performance spaces.

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