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Evaluating Aesthetics Value of Institutional Buildings through Elements of Design

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Abstract

Aesthetic index deal with product appearance and color that conform to design principles and elements which can enhance the feeling of our minds and spirits at same time and these indexes can accurately measure the beauty relatively combining the beauty and attraction. A building can be functional but not beautiful, the feeling of pleasantness and willingness for the full usage of the building will be lacking. For a building to be attracted and sustained, the designed elements are connected with aesthetics. Therefore, aesthetics can be measured by designed elements and the best aesthetic level of designed elements. This study aim to assess the rate of building's appealing as well as beauty of the architectural design of institutional buildings. The researcher designed an Aesthetic index check list for case study of four institutional buildings. The finding of the study includes among others, that case1and case2 have good knowledge of application of design elements and principles that are available in the aesthetic index but rarely applying it while case3 and 4 considered and applied all the designed elements. There is no balance in application rate of design elements and principles. Finally, it is recommended among others, that: there is need for design industry (architecture) to strengthen their effort in enlighten on design elements and principles.

Keywords: Aesthetic index, Aesthetic values, Element of design, Principle of design and Building

1.0 INTRODUCTION

1.1 Background to the Study

Teaching, training, storytelling, conversation, and targeted study are all examples of educational practices. Although, most education is conducted under the supervision of educators, students can also educate themselves to encounter knowledge that has a formative effect on the way one thinks, feels, or behaves.

The philosophical study of beauty and taste is aesthetics, also spelled esthetics. It is closely related to art philosophy, which is concerned with the essence of art and the concepts used to understand and assess individual works of art (Britannica 2021). Aesthetics is a discipline which focuses on the study of beauty and attributes of an object based on human perception. (Nia & Atun 2015)

Aesthetics is a branch of philosophy that deals with nature of beauty and taste, as well as the philosophy of art (Jacobs, 1992). Aesthetics covers both natural and artificial sources of beauty, experience and judgment. It considers what happens in our minds when we engage with aesthetic objects or environment such as spatial art, exploring nature specifically studies of how designers/Architects imagine, create, and perform the works of design, as well as how people use, enjoy and criticize art (de Botton, 2008). Aesthetics consider why people like some works of art and others as well as how art can affect moods. Aesthetics is also concerned with bringing art into the daily lives of people (Steffy, 2014). Like people need colourful designer clothes to wear and taste and presentation of food. Likewise, people like to live and work in places that are beautifully designed and aesthetically pleasing to all the sense of feeling of a man.

One of the most important parts of architecture is the aesthetics of a structure. The combined effects of a building's shape, scale, texture, colour, balance, unity, movement, emphasis, contrast, symmetry, proportion, space, alignment, pattern, decoration, culture, and context are referred to as the building's appeal (Chevreul, 2011). Wood and other bio-based materials are wanted for a variety of uses, including building, facades, and interior design, due to their unique qualities and natural beauty (Ching, 2014).

The key principles of aesthetics to be studied and integrated in the designing of an institutional building are; Mass and space, Proportion (Vitruvius, 2009), Symmetry, Contrast, Patterns, Decoration, Massing which are subdivided into categories like Harmony, Emphasis, Scale, Alignment, Unity, Texture, Rhythm while the component are: line, form, shape, volume and colour (Lyons, 2014). Though, a structure is practical, it will not have the desired impact if it lacks aesthetics. A good application of aesthetics to designs will bring out a pleasing result.

A building can be functional but not beautiful, the feeling of pleasantness and willingness

for the full usage of the building will be lacking. This research assess ways of providing a better and effective means of integrating aesthetics components to building especially institutional buildings following the principles and element of aesthetics. This is with a view of avoiding the irregular use of some components in building construction and apply the right feature fitting according to the purpose of construction which will help to control cost implication in construction.

1.2 Literature Review

Visual Perception and Psychological Response of architectural elements are central to aesthetic evaluation. Studies by Nasar (2018) and Heerwagen (2019) highlight the significance of visual perception and psychological response in assessing aesthetic value. These studies employ qualitative and quantitative methods, including surveys, interviews, and visual preference experiments, to understand how individuals perceive and respond to architectural design elements such as form, proportion, symmetry, and complexity.

Research by Eco (2016) and Chandler (2017) explores the semiotic interpretation of design elements in architectural aesthetics. By analyzing the symbolic meanings and cultural associations of architectural forms, materials, colors, and textures, these studies elucidate how design communicates aesthetic values and societal ideals.

The spatial composition and harmony of architectural elements are central to aesthetic evaluation. Works by Alexander (1979) and Gehl (2018) emphasize the importance of scale, rhythm, balance, hierarchy, and coherence in creating visually pleasing built environments. These studies employ geometric and mathematical principles to assess the formal qualities and spatial relationships of buildings.

Assessing the aesthetic value of buildings also involves considering their contextual integration and cultural identity. Research by Rapoport (1990) and Madanipour (2019) examines how architectural design responds to local contexts, historical traditions, and social values. By evaluating factors such as site sensitivity, vernacular architecture, and place-making strategies, these studies assess the cultural significance and authenticity of built environments.

The evaluation of aesthetic value increasingly incorporates considerations of sustainability and ethical design practices. Works by Pallasmaa (2005) and Orr (2017) advocate for a holistic approach to aesthetics that prioritizes environmental responsibility, social equity, and human well-being. These studies propose criteria such as material honesty, ecological sensitivity, and human-centered design to assess the aesthetic merit of sustainable buildings.

The relationship between form and function is a fundamental principle in architectural aesthetics. Scholars such as Vitruvius, Le Corbusier, and Louis Sullivan have emphasized the importance of form following function, suggesting that the aesthetic quality of a building is intrinsically linked to its utilitarian purpose. This perspective underscores the significance of design coherence and practicality in aesthetic evaluation (Le Corbusier 1986) (Sullivan, Louis 1896) and (Vitruvius 2009).

The concept of the Golden Ratio, derived from mathematical principles, has long been associated with aesthetic harmony and balance in architecture. The works of Pythagoras, Euclid, and Vitruvius explore the mathematical proportions that underpin architectural beauty, suggesting that buildings designed according to these principles evoke a sense of visual satisfaction and proportionality (Vitruvius 2009).

Semiotics, the study of signs and symbols, offers insights into the symbolic meanings embedded in architectural design elements. Scholars such as Roland Barthes and Charles Jencks have explored how architectural forms, materials, and ornamentation communicate cultural, social, and ideological messages, influencing the aesthetic interpretation of buildings within their contexts (Barthes, Roland 2012).

The psychological response to architectural environments is another crucial aspect of aesthetic evaluation. Phenomenological philosophers such as Martin Heidegger and Maurice Merleau-Ponty emphasize the embodied experience of architecture, suggesting that the aesthetic quality of a building is shaped by the perceptual interactions between occupants and their spatial surroundings (Heidegger, Martin 1971).

The contextual integration of architectural design within its cultural and environmental context is essential for assessing aesthetic value. Architectural theorists like Kevin Lynch and Christopher Alexander advocate for a contextualist approach to design, emphasizing the importance of site-specificity, vernacular traditions, and cultural heritage in shaping the aesthetic character of buildings (Lynch, Kevin 1960) (Alexander, Christopher 1979) and (Merleau-Ponty 2012).

Empirical research employing visual preference studies has provided insights into the aesthetic preferences of individuals regarding architectural design elements. Studies by Kaplan and Kaplan (1989) and Herzog and Gale (1996) have used survey methods to assess participants' preferences for architectural forms, materials, colors, and textures, revealing patterns of aesthetic appreciation and divergence among different demographic groups.

Eye-tracking technology has enabled researchers to investigate the visual attention patterns of individuals when viewing architectural stimuli. Studies by Nasar et al. (2017) and Thorpe et al. (2019) have employed eye-tracking techniques to analyze participants'

gaze behavior and fixation durations on specific design elements, shedding light on the salience and perceptual significance of architectural features in aesthetic evaluation.

Psychophysiological measures, such as electrodermal activity (EDA) and heart rate variability (HRV), have been utilized to assess the physiological responses of individuals to architectural environments. Research by Küller et al. (2006) and Johansson et al. (2011) has demonstrated correlations between physiological arousal levels and perceived aesthetic quality, suggesting that certain design elements elicit stronger emotional and physiological reactions than others.

Neuroimaging techniques, including functional magnetic resonance imaging (fMRI) and electroencephalography (EEG), have provided insights into the neural mechanisms underlying aesthetic perception in architecture. Studies by Vartanian et al. (2013) and Choo et al. (2019) have identified brain regions associated with aesthetic processing and preference formation, revealing neural correlates of architectural beauty and visual pleasure.

Surveys conducted within the framework of environmental psychology have explored the psychological dimensions of architectural aesthetics. Research by Gifford (2007) and Joye (2007) has investigated the psychological factors influencing aesthetic preferences, such as perceived coherence, complexity, mystery, and legibility, providing a deeper understanding of the subjective aspects of aesthetic evaluation.

The aesthetic assessment of buildings in Nigeria provides valuable insights into how design elements contribute to the perceived beauty and cultural significance of architectural environments. Studies by Ajayi et al. (2018) and Ogunleye et al. (2020) have employed visual preference surveys to assess public perceptions of architectural design elements in Nigerian buildings. These studies reveal preferences for specific architectural styles, materials, colors, and ornamentation among different demographic groups, shedding light on cultural preferences and aesthetic sensibilities in Nigerian architecture.

Empirical research by Adeyemi et al. (2019) and Olaleye et al. (2021) has investigated the contextual integration of architectural design within Nigerian landscapes and urban contexts. Through site-specific analysis and environmental psychology surveys, these studies explore how architectural forms, materials, and spatial configurations interact with local climates, cultures, and social dynamics, influencing aesthetic perceptions and user experiences.

Studies by Ogundiran (2017) and Onibokun (2020) have examined the historical and cultural significance of architectural heritage in Nigeria. Through archival research, field surveys, and stakeholder interviews, these studies document and evaluate the aesthetic

value of historic buildings, traditional settlements, and indigenous building techniques, highlighting the importance of preserving Nigeria's architectural heritage amidst rapid urbanization and modernization.

Research by Salau et al. (2018) and Akinpelu et al. (2021) explores the intersection of aesthetic values and sustainable design principles in Nigerian architecture. By analyzing vernacular building techniques, passive design strategies, and locally sourced materials, these studies demonstrate how traditional knowledge and eco-friendly practices contribute to the aesthetic appeal and environmental resilience of Nigerian buildings.

Empirical investigations by Fagbenle et al. (2016) and Olugbenga et al. (2019) focus on user perceptions and satisfaction with architectural aesthetics in Nigerian buildings. Through post-occupancy evaluations, interviews, and satisfaction surveys, these studies assess the impact of design elements on occupants' well-being, comfort, and satisfaction, providing valuable feedback for architects, planners, and policymakers.

The assessment of aesthetic value in architecture through the elements of design is informed by a rich tapestry of theoretical frameworks, ranging from formalist principles to cultural contextualism. By synthesizing concepts from form-function relationships, mathematical proportions, semiotic symbolism, phenomenological experience, and contextual identity, scholars and practitioners can develop nuanced methodologies for evaluating architectural aesthetics. But, a notable gap in the literature is the lack of comprehensive studies that evaluating aesthetics value of buildings through the elements of its design. Thus, this study tends to investigate how aesthetics can be measured by its designed elements.

2.0 MATERIALS AND METHODS

2.1 METHOD OF DATA COLLECTION

The study adopted case study approach. A case study is an appropriate research design which can be used to gain concrete, contextual and in-depth knowledge about a specific real-world subject. It allows exploring key characteristics, meanings, and implications of the case. Case studies are often good choice in a thesis dissertation. They keep the project focused and manageable when there is no luxury to do large-scale research. It is a detailed study of a specific subject, such as a person, group, place, event, organization, or phenomenon. It involves qualitative, but quantitative methods are sometimes also used. Case studies are good for describing, comparing, evaluating and understanding different aspects of a research problem (Shona M,C 2019).

Case study is the research method that is adopted in this research whereby some building structure in line with this design proposal and research topic are considered and were all analyzed. The case study carried out are to serve as existing examples and also as a guide towards achieving a realistic design and also to learn through their analysis, the merits and demerits of their design so that the proposed design might inculcate some of these merits and improve the demerits especially in achieving a functional and aesthetical design

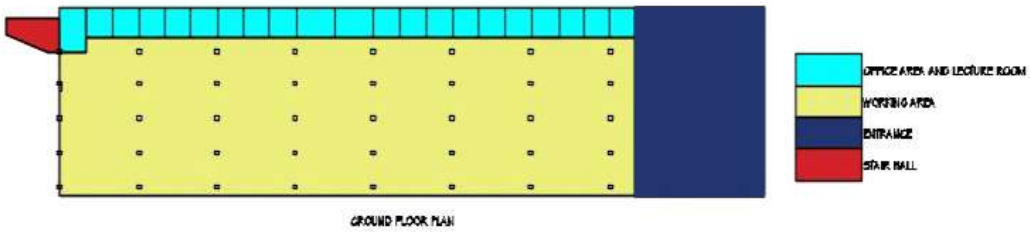
The case studies carried out are:

i Özyeğin University Faculty of Architecture and Design, Turkey.
ii Faculty of Architecture and Urbanism, University of São Paulo (FAU-USP) / João Vilanova Artigas and Carlos Cascaldi
iii Department of Architecture, Obafemi Awolowo University, Nigeria.
iv Department of Architecture, Ladoke Akintola University of Technology, Nigeria.

2.2 Case Study One: Ozyegin University Faculty of Architecture and Design

The Faculty of Architecture and Design Building at Ozyegin University is the culmination of a decade of work by ARK master planning and designing buildings for this young Turkish private university. ARK is an emerging design studio founded by architect Roger L Klein, AIA who led the design for the building in collaboration with local BG Architects. Designing a building for the study of architecture and design is perhaps a once in a lifetime opportunity for an architect. This initial spatial gesture of the site plan defined the geometry and informed every complimentary part of the composition including mitigating the low angle sun on the western facade with the unique and iconic triangular weathered steel facade panels. This triangular panel system also allows the long building facade to elegantly transition down the sloped site. The lofty studio interior is informed by the rigor of the triangular geometry in spatial flow and details. Most importantly, this geometry informs the unique section at the center of the building where the large plates split by 3m in height to create a vibrant social and critique space for all the studios.

Figure 1: Floor Plan of Ozyegin University Faculty of Architecture and Design



Source: www.archidaily.com

Figure 2 : The Exterior View of Ozyegin University Faculty of Architecture and Design

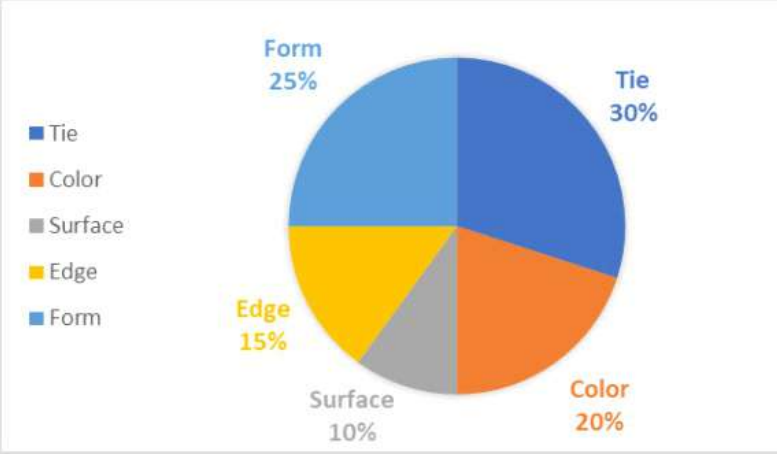
Source: www.archidaily.com

Table 1: Checklist assessing the case study in accordance for the integrate of Elements of design to achieve aesthetics

Parameters	Remark	Assessment
Tie	The tie used is around 30%	There is more of ties used to achieve aesthetics from the elevation pictures above.
Color	the color is about 20%.	The color used is not much, just a single particular color, other color is from the materials used and its quite attractive
Surface	Surface is about 10% because it appears mostly in the furnitures.	Presence in the design through the furniture in the interior picture
Edge	The percentage at which it is used is 15%	Presence of edges on some of the furniture in the interior also on the triangular designs
Form	The rate at which form is use to achieve aesthetics is 25%	There are a good number of 3-dimensional figures such as the triangular design.

Source: Authors Field Work

Figure 3:Showing the Percentage of Element of Design



Source: Authors Field Work

Table 2: Checklist Grading The usage of Principles of Design in This Case Study to Achieve Aesthetics

Parameters	Remark	Assessment
Pattern	The rate at which this principle is used due to its dominance is at 16%	The elements used to achieve a pattern in the design is the repetition of a triangular design give an excitement design
Rhythm	The rate at which this principle is used due to its dominance is at 9%	less of rhythm is created by the use of element of design. Plate 3.2 shows a little rhythm.
Movement	The rate at which this principle is used due to its dominance is at 11%	There is a bit of movement in the design as a result of the rhythm achieved, the eye tends to move in the direction seem to be on the same level
Emphasis	The rate at which this principle is used due to its dominance is at 8%	Less of emphasis is given to any design element, catching the
Contrast	The rate at which this principle is used due to its dominance is at 17%	A very good contrast is achieved through the use color mostly, plate 3.2 shows a contrast between to elements such as the windows and the shades.
Unity	The rate at which this principle is used due to its	unity is achieved in the design, whereby
	dominance is at 22%	all the elements work together, the synergized as one
Balance	The rate at which this principle is used due to its dominance is at 18%	There is equal distribution of weights and design on the sides of the structure.

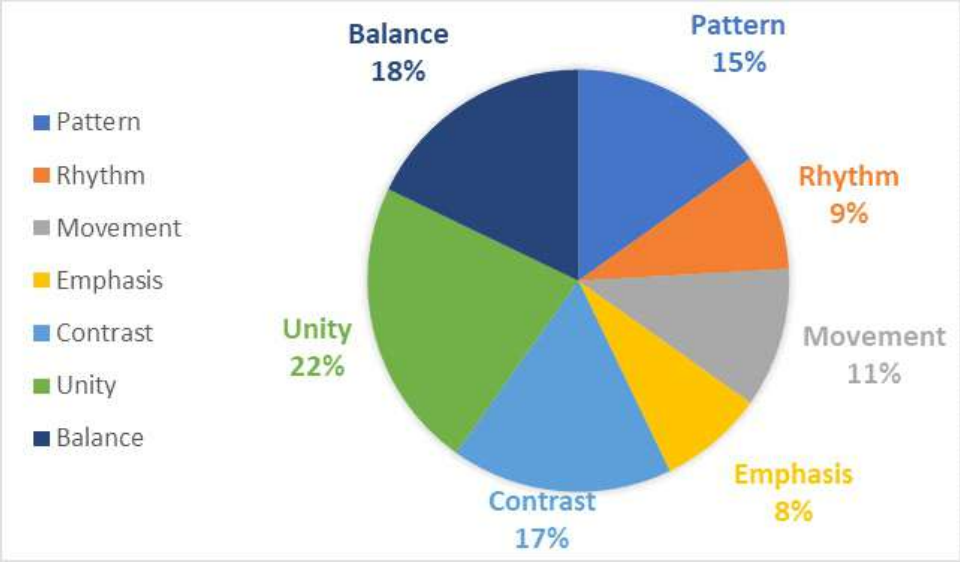


Figure 4:: Showing the Percentage of the Principles of Design

Discussion and Conclusion

The table for the element of design shows that in this case study, Tie has the most percentage of usage which is 30%, followed by form (25%), color (20%), Edge (15%), Surface (10%). For the principles of design used to achieve the aesthetics in the building of study, the most used principle is Unity (22%) which allows all the element in the design to work well together, then Balance (18%), Contrast (17%), Pattern (15%), Movement (11%), Rhythm (9%), then the last one which is Emphasis (8%) reason because the theory of emphasis states that *stress one area in a work of art to attract the viewer's attention. It is the focal point in works of art and where the eye is initially drawn. By putting emphasis on something, you make it "pop." Griffin Hartleip.* and much emphasis is lacking in the building in the case study.

2.3 Case Study Two: Faculty of Architecture and Urbanism, University of São Paulo (FAU-USP) / João Vilanova Artigas and Carlos Cascaldi

This piece of Brazilian architecture was conceived in 1961 by São Paulo architects João Batista Vilanova Artigas and Carlos Cascaldi. Together with the architectural movement of the Paulista School, they form part of the most important history of São Paulo, because of the large amount of works they constructed there and the recognition of many of them at an international level. The project is based on the idea of generating spatial continuity. Therefore, its six levels are linked by a system of ramps in an attempt to give the feeling of a single plane and favour continuous routes, increasing the degree of coexistence and interaction among those who use it. The structure needed to express the grace with which

the materials give shape to the building, in addition to allowing ample lights and simple shapes to highlight the image of the building's lightness, despite the weight and the force that it exerts on its environment, which makes it resemble Brutalism architecture.

Figure 5: Showing The Exterior of Faculty of Architecture and Urbanism, University of São Paulo

Source: archidaily.com

Figure 6: Showing The Interior View of Faculty of Architecture and Urbanism, University of São Paulo

Source: archidaily.com

Figure 7:Showing The Exterior View of Faculty of Architecture and Urbanism, University of São Paulo

Source: archidaily.com

Table 3: The ChecklistGradingthe Elementof Design Used in This Case Study

Parameters	Remark	Assessment
Tie	The tie used is around 20%	There is more of ties used to achieve aesthetics from the elevation pictures above.
Color	The color is about 15%.	The color used is not much, just a single particular color, other color is from the materials used and its quite attractive
Surface	Surface is about 20% because it appears mostly in the furniture's.	Presence in the design through the furniture in the interior picture
Edge	The percentage at which it is used is 15%	Presence of edges on some of the furniture in the interior also on the triangular designs
Form	The rate at which form is use to achieve aesthetics is 30%	There are a good number of 3-dimensional figures such as the triangular design.

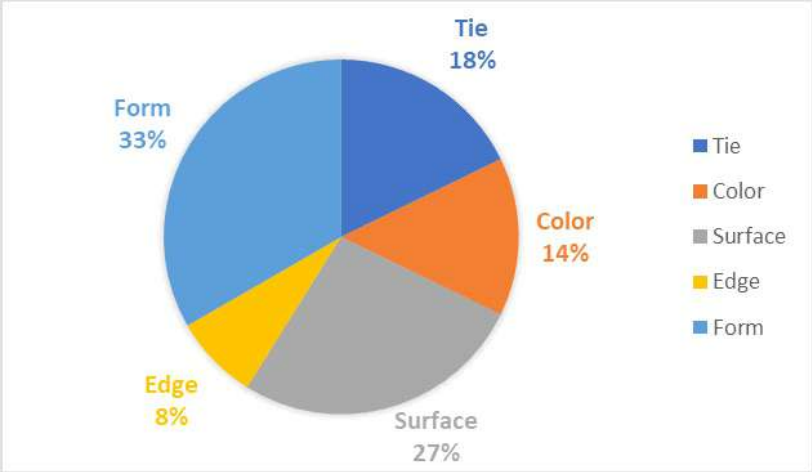


Figure 8:Showing The Percentage Of The Element of Design Used

Table 4: Checklist GradingThe Use of Principles of Design

Parameters	Remark	Assessment
Pattern	The rate at which this principle is used due to its dominance is at 9%	The elements used to achieve a pattern in the design is the repetition of a triangular design give an excitement design
Rhythm	The rate at which this principle is used due to its dominance is at 15%	Less of rhythm is created by the use of element of design. Plate 3.2 shows a little rhythm.
Movement	The rate at which this principle is used due to its dominance is at 8%	There is a bit of movement in the design as a result of the rhythm achieved, the eye tends to move in the direction
Emphasis	The rate at which this principle is used due to its dominance is at 11%	Less of emphasis is given to any design element, according to Griffin Hartleip there is no focal point catching the attention of the viewer, all elements seem to be on the same level
Contrast	The rate at which this principle is used due to its dominance is at 22%	A very good contrast is achieved according to Hannah Kelli through the use color mostly, plate 3.2 shows a contrast between to elements such as the windows and the shades.

Unity	The rate at which this principle is used due to its dominance is at 17%	unity is achieved in the design, whereby all the elements work together, the synergized as one
Balance	The rate at which this principle is used due to its dominance is at 18%	There is equal distribution of weights and design on the sides of the structure.

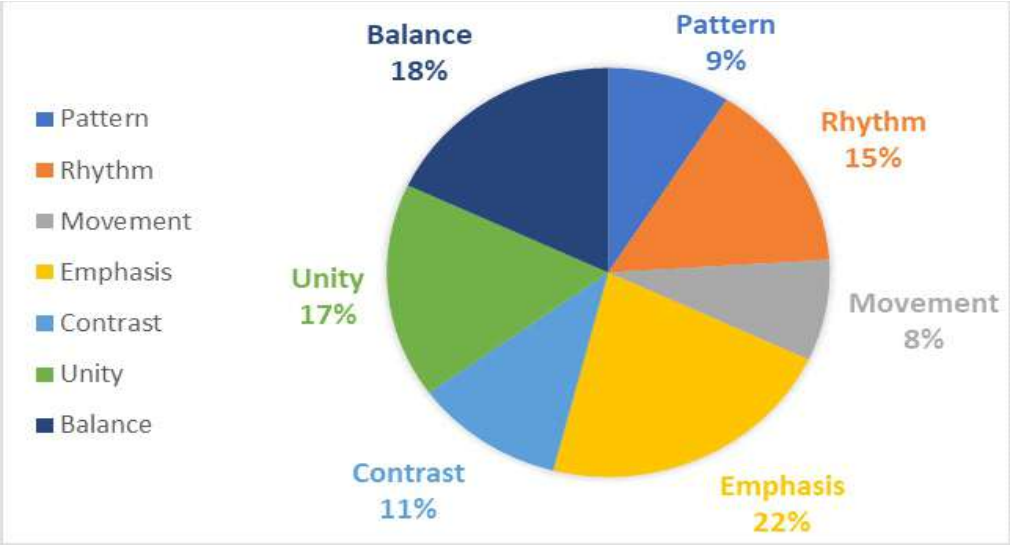


Figure 9: Showing The Percentage of The Principles of Design

Discussion

In this research the result of the analysis shows that Emphasis at the most percentage of 22% usage as a principle of design is used to achieve aesthetics then Balance (18%), Unity (17%), Rhythm (15%), Contrast (11%), Pattern (9%), and Movement (8%), while in the element of design Form has the most percentage which is (33%), then tie (18%), surface (27%), Edge (8%), and color is (14%).

2.4: Case Study Three: Department of Architecture, Obafemi Awolowo University, Ife Nigeria

The University took possession of an estimated 13,000 acres of land north of the city center on Ibadan Road, although less than half of the land is in active use. Arieh Sharon (1900-1984), a well-known Israeli architect, designed the university in 1961 and Patrick Ehinmowo and his firm Platform Concept Ltd. A number of African institutions looked to Israel in the early years of independence, partially because it had rapidly created a

progressive nation with original cultural attributes, and partially because its climate was closer to that of Africa than many European countries. landscaping keeps it from being a series of concrete islands. The buildings are integrated with the surrounding palm trees via numerous green spaces that surround the main structures. Concrete expanses are even broken up by small framed triangles of grass. The department of Architecture at Obafemi Awolowo has some considerable amount of spaces such as; offices, convenience, studios, resource room, Archi-mart, kiosk, walk ways, display area, locker room, lecture room, audio visual room, workshop area.

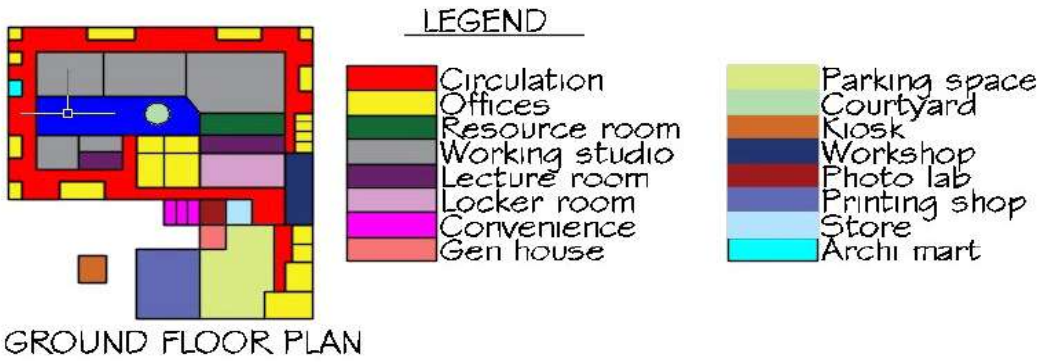
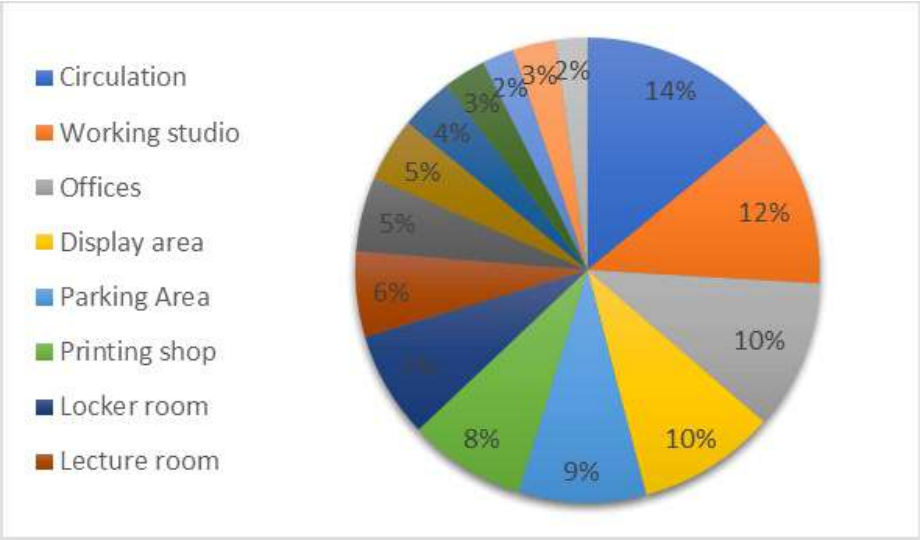


Figure 10: Floor Plan of Department of Architecture, Obafemi Awolowo University, Ife Nigeria

Figure 11: Showing The Percentage of The Each Unit



Source: Authors field work 2021

***Figure 12: The Exterior View of* Department of Architecture, Obafemi Awolowo University, Ife Nigeria**

Source: authors field work

Figure 13: Showing The Exterior View

Source: authors field work

Table 5: Checklist GradingThe Elementof Design In This Case Study

Parameters	Remark	Assessment
Tie	The tie used is around 30%	There is more of ties used to achieve aesthetics from the elevation pictures above.
Color	Che color is about 20%.	The color used is not much, just a single particular color, other color is from the materials used and its quite attractive
Surface	Surface is about 10% because it appears mostly in the furniture's.	Presence in the design through the furniture in the interior picture
Edge	The percentage at which it is used is 15%	Presence of edges on some of the furniture in the interior also on the triangular designs
Form	The rate at which form is use to achieve aesthetics is 25%	There are a good number of 3-dimensional figures such as the triangular design.

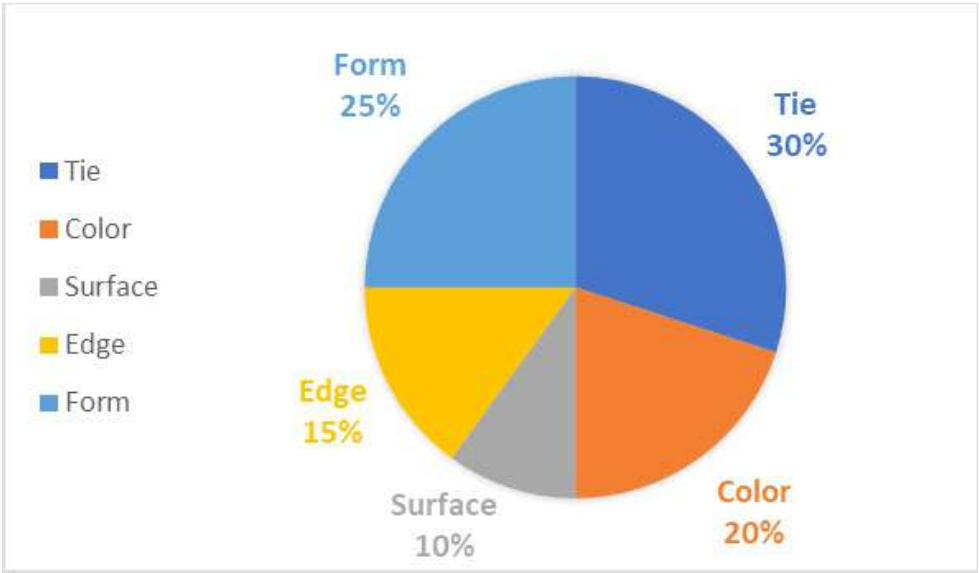


Figure 13: Showing The Percentage of The Element of Design

Table 6: The Checklist Grading The Principleof Design In this Case Study

Parameters	Remark	Assessment
Pattern	The rate at which this principle is used due to its dominance is at 9%	The elements used to achieve a pattern in the design is the repetition of a triangular design give an excitement design according to Lagosh Jessica
Rhythm	The rate at which this principle is used due to its dominance is at 11%	According to Dokey Dunatchik less of rhythm is created by the use of element of design. Plate 3.2 shows a little rhythm.
Movement	The rate at which this principle is used due to its dominance is at 8%	There is a bit of movement in the design as a result of the rhythm achieved, the eye tends to move in the direction
Emphasis	The rate at which this principle is used due to its dominance is at 16%	Less of emphasis is given to any design element, according to Griffin Hartleip there is no focal point catching the attention of the viewer, all elements seem to be on the same level
Contrast	The rate at which this principle is use	A very good contrast is achieved according to Hannah Kelli

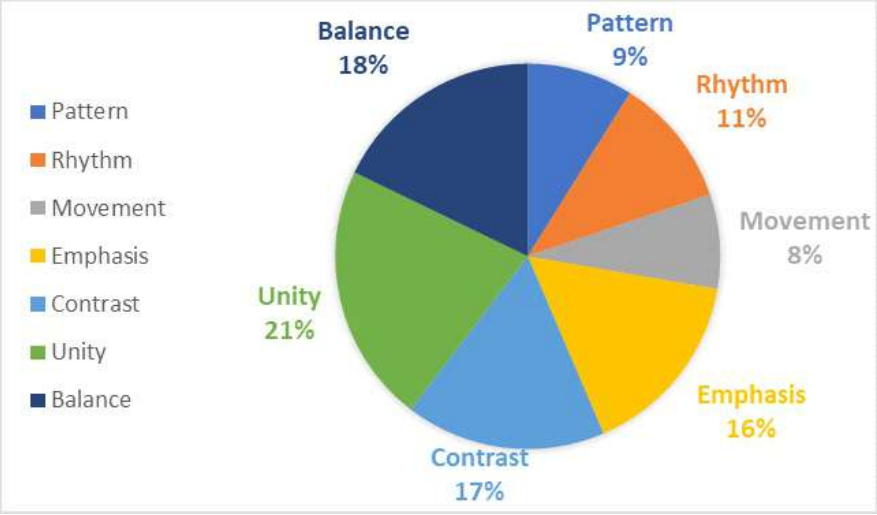


Figure 14:Showing The Percentage of The Principles Of Design used

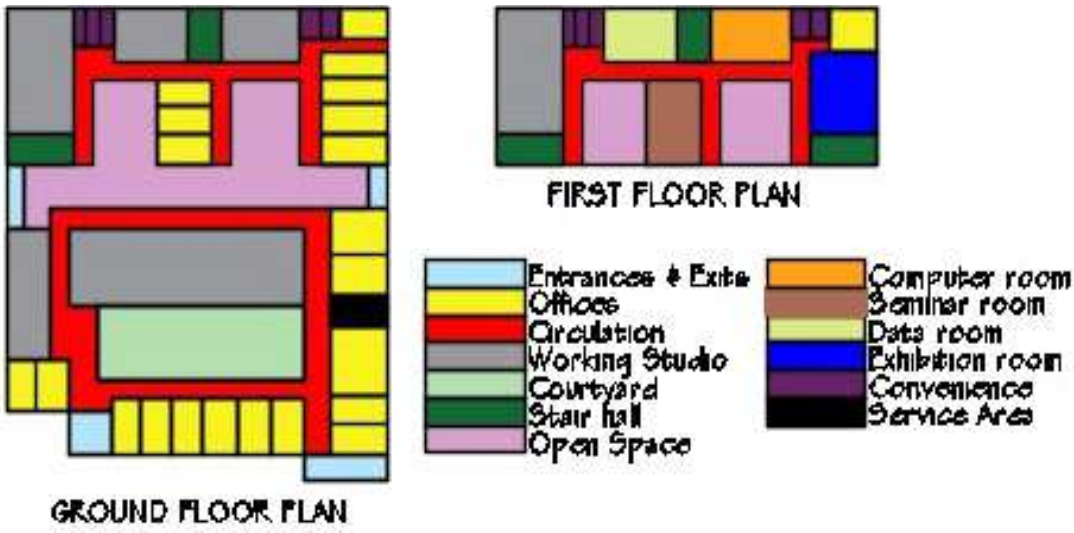
Discussion

The table for the element of design shows that in this case study, Tie has the most percentage of usage which is (30%), followed by form (25%), color (20%), Edge (15%), Surface (10%). For the principles of design used to achieve the aesthetics in the building of study, the most used principle is Unity (22%) which allows all the element in the design to work well together, then Balance (18%), Contrast (17%), Pattern (15%), Movement (11%), Rhythm (9%), then the last one which is Emphasis (8%).

2.5: Case Study Four: Department of Architecture, Ladoke Akintola Technology University, Ogbomosho, Nigeria

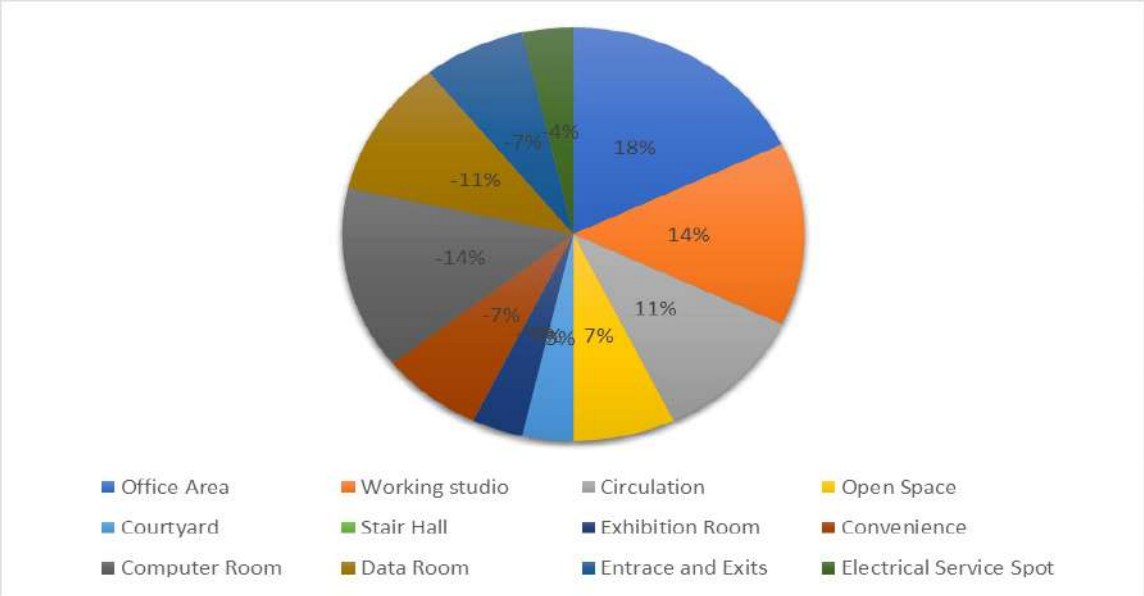
Ladoke Akintola University of Technology (LAUTECH) is a tertiary institution located in Ogbomosho, Nigeria. The university enrols 30,000 students and employs more than 3,000 workers including contract staff. The Department of Architecture in Lautech as two arms, the administrative which is use by the officials and lecturers and the academic arm for academic activities. There is a good number of available spaces but there are still some spaces that area lacking, there is a good circulation and flow between each space. The aesthetics of the building is not pleasing.

Figure 15: Floor Plan of Department of Architecture, Ladoke Akintola Technology University, Ogbomosho, Nigeria



Source: Authors field work 2021

Figure 16: :Showing The Percentage of Each units



Source: Authors field work 2021

Figure 17: The Exterior view; Approach view of the department of Architecture Lautech

Source: Authors field work

Figure 18 The Exterior view; Another Entrance to the department of Architecture Lautech

Source: Authors field work

Figure 19: The Interior view; The administrative block & Courtyard

Source: Authors field work

Table 7: Checklist grading the case study in accordance for the usage of Elements of design to achieve aesthetics

Parameters	Remark	Assessment
Tie	The tie used is around 30%	There is more of ties used to achieve aesthetics from the elevation pictures above.
Color	The color is about 10%.	The color used is not much, just a single particular color, other color is from the materials used and its quite attractive
Surface	Surface is about 20% because it appears mostly in the furniture's.	Presence in the design through the furniture in the interior picture
Edge	The percentage at which it is used is 15%	Presence of edges on some of the furniture in the interior also on the triangular designs
Form	The rate at which form is use to achieve aesthetics is 25%	There are a good number of 3-dimensional figures such as the triangular design.

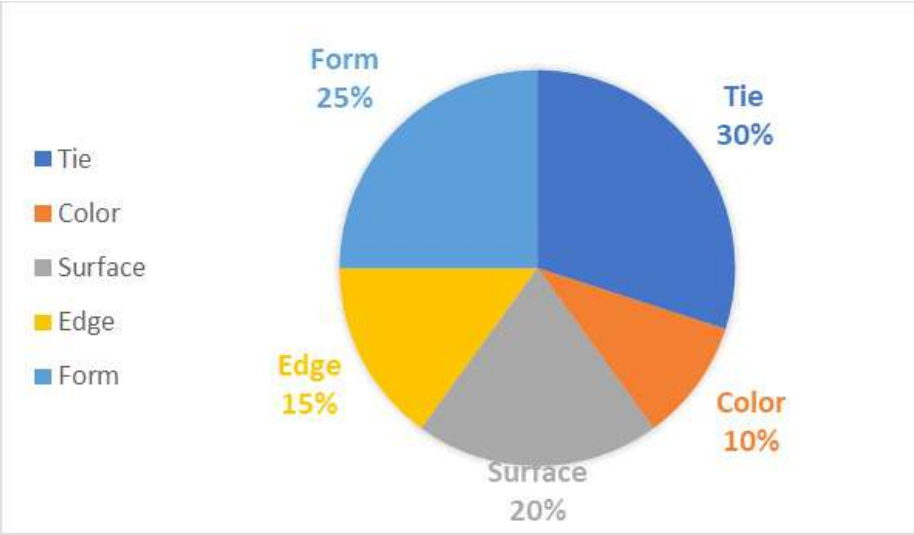


Figure 20: :Showing The Percentage of the Element of Design

Table 8: Checklist gradingthe case study in accordancefor the usage of Principlesof design to achieve aesthetics

Parameters	Remark	Assessment
Pattern	The rate at which this principle is used due to its dominance is at 16%	The elements used to achieve a pattern in the design is the repetition of a triangular design give an excitement design according to Lagosh Jessica
Rhythm	The rate at which this principle is used due to its dominance is at 9%	According to Dokey Dunatchik less of rhythm is created by the use of element of design. Plate 3.2 shows a little rhythm.
Movement	The rate at which this principle is used due to its dominance is at 11%	There is a bit of movement in the design as a result of the rhythm achieved, the eye tends to move in the direction
Emphasis	The rate at which this principle is used due to its dominance is at 8%	Less of emphasis is given to any design element, according to Griffin Hartleip there is no focal point catching the attention of the viewer, all elements seem to be on the same level

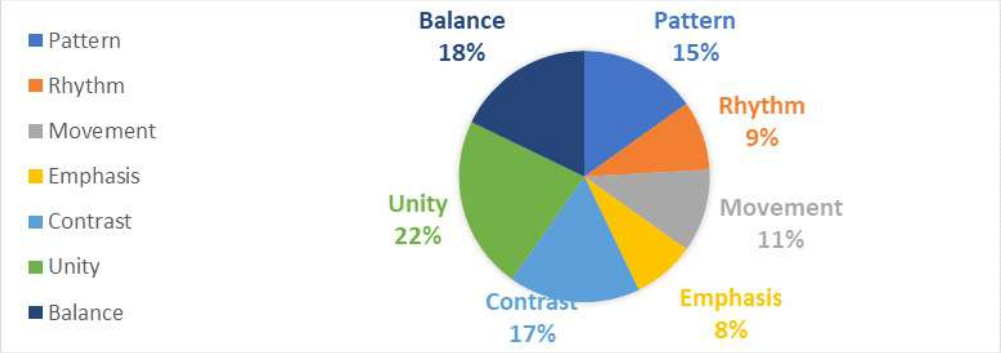


Figure 21: Showing The Percentage of The Principles of Design

3.0: Discussion

The table for the element of design shows that in this case study, Tie has the most percentage of usage which is 30%, followed by form (25%), color (10%), Edge (15%), Surface (20%). For the principles of design used to achieve the aesthetics in the building of study, the most used principle is Unity (22%) which allows all the element in the design to work well together, then Balance (18%), Contrast (17%0, Pattern (15%), Movement (11%), Rhythm (9%), then the last one which is Emphasis (8%).

4.0 CONCLUSION

Aesthetics of the existing buildings discussed above are not proportional to the purpose of the buildings which calls for more attention to be focused on in the application of aesthetics to buildings. The Element and Principles of design is also a necessity to be considered in applying aesthetics to building design because they serve as building blocks for a good application of aesthetics to buildings and also taking time to study the theories of professionals or experts in handling each element and principles of design so as to achieve a good aesthetics in buildings using elements of its principles of design.

The Elements of design and the principles of its application, the guidelines, the theories by professionals to take note of, and the results of design elements have been discussed above just to achieve a good aesthetically pleasing institutional design Faculty of Architecture, in University of Ilorin. A building in which Architecture is being thought should stand out exceptionally amidst all other surrounding buildings, because aesthetics is not just about what the eyes sees and what the mind processes, it's also about the feeling gotten at the sight of any building that will attract the gaze of any individual. Aesthetics should be well considered in building designs.

5.0 RECOMMENDATIONS

Architectural buildings should be designed that it depicts the hand work of a creative architect. The aesthetics features of a place where architecture is been studied should be outstanding in all other surrounding buildings. The Elements of design is the major scope of applying aesthetics in building, whereby each one of them is well studied and the ones to be applied in all is well highlighted, also in applying the element of design to achieve aesthetics, its principles should not be disregarded, because it's the most efficient and the best way of using the elements of design to its whole extents and full expression also a professional approach. Finally, the theories of professionals in this field should be well studied as a guide to achieve a correct and a beautiful result.

6.0 REFERENCES

Abby Mellick Lopes (2015) Aesthetics, Aesthetic Theories, 010 Publishers Rotterdam 2015

Adeyemi, A.O., et al. (2019). "Contextual Integration of Architectural Design in Nigeria: A Case Study of Ibadan Metropolis." Journal of Environmental Design and Management.

Ajayi, O.O., et al. (2018). "Public Perception of Architectural Aesthetics: A Case Study of Residential Buildings in Lagos, Nigeria." Journal of Building Performance.

Akinpelu, M.A., et al. (2021). "Towards Sustainable Architectural Design: A Review of Vernacular Practices in Nigeria." International Journal of Sustainable Built Environment.

Alexander, C. (1979). "The Timeless Way of Building." Oxford University Press.

Alexander, Christopher (1979). "The Timeless Way of Building." Oxford University Press, 1979.

Barthes, Roland (2012). "Mythologies." Hill and Wang, 2012.

Bergman, D. (2010). Sustainable Design: A Critical Guide. Routledge.

Bio-digital aesthetics as value system of post-Anthropocene architecture, DOI: 10.1177/1478077120922941journals.sagepub.com/home/jac

Chandler, D. (2017). "Semiotics: The Basics." Routledge.

Chevreul, M. E. (2011). The Principles of Harmony and Contrast of Colors. Forgotten Books.

Ching, F. D. K. (2014). Form, Space, and Order. John Wiley & Sons.

Choo, H., et al. (2019). "Neural Basis of Preference for Human Faces and Buildings." Biological Psychology.

de Botton, A. (2008). The Architecture of Happiness. Vintage.

Eco, U. (2016). "The Aesthetics of Chaosmos: The Middle Ages of James Joyce." Harvard University Press.

Edward Winters (2007). Aesthetics and Architecture. London: Continuum, 2007, 179 pp. ISBN 0826486320

Fagbenle, O.I., et al. (2016). "Post-Occupancy Evaluation of Architectural Aesthetics in Public Buildings: A Case Study of Selected Government Offices in Ogun State, Nigeria." Journal of Engineering, Project, and Production Management.

Fashuyi Olugbenga (2021) Quest on the Role of Aesthetics in Enhancing Functionality of Urban Planning Hourakhsh Ahmad Nia 1* ,

Femi Emmanuel Arenibafo (2017). The Transformation of Aesthetics in Architecture from Traditional to Modern Architecture: A case study of the Yoruba (southwestern) region of Nigeria MA. Architectural technology department, school of Environmental studies, Yaba college of Technology, Yaba, Lagos, Nigeria. Journal of Contemporary urban affairs,

Gehl, J. (2018). "Cities for People." Island Press.
Gifford, R. (2007). "Environmental Psychology: Principles and Practice." Optimal Books.
Heerwagen, J. (2019). "Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life." Wiley.
Heidegger, Martin (1971). "Building Dwelling Thinking." Harper & Row, 1971.
Herzog, T.R., & Gale, T. (1996). "Preference for Urban Spaces in High and Low Densities: A Comparative Study of Hong Kong and Chicago." Journal of Environmental Psychology.
Hourakhsh Ahmad Nia (2011) Aesthetics of Modern Architecture: A Semiological Modern Architecture: Aesthetics of Sustainable Architecture,010 Publishers Rotterdam 2011
International Journal of Engineering Research and Technology. ISSN 0974-3154 Volume 10, Number 1 (2017)
Jacobs, J. (1992). The Death and Life of Great American Cities. Vintage.
Johansson, M., et al. (2011). "Physiological Responses to Aesthetic Stimuli." Psychology of Aesthetics, Creativity, and the Arts.
Joye, Y. (2007). "Architectural Lessons from Environmental Psychology: The Case of Biophilic Architecture." Review of General Psychology.
Kaplan, R., & Kaplan, S. (1989). "The Experience of Nature: A Psychological Perspective." Cambridge University Press.
Küller, R., et al. (2006). "Emotional and Behavioral Effects of High and Low Ceiling Height Rooms." Journal of Environmental Psychology.
Le Corbusier (1986). "Towards a New Architecture." Dover Publications, 1986.
Lisa Berglund & Siobhan Gregory (2019): Introduction: the aesthetics of neighborhood change, Journal of Cultural Geography, DOI: 10.1080/08873631.2019.1595915
Lynch, Kevin(1960). "The Image of the City." MIT Press, 1960.
Lyons, A. (2014). Materials for Architects and Builders. Routledge.
Madanipour, A. (2019). "Public and Private Spaces of the City." Routledge.
Merleau-Ponty, Maurice (2012). "Phenomenology of Perception." Routledge, 2012.
Nasar, J.L. (2018). "The Evaluative Image of the City." Journal of Urban Design.
Nasar, J.L., et al. (2017). "Eye Movement Measures of the Influence of Physical Disorder on Visual Preferences." Journal of Environmental Psychology.
Obaleye O. J,. et al. (2020). Shapes And Aesthetic Perception: A Case Study Of University Of Lagos Senate Building Façade INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH VOLUME 9, ISSUE 03, MARCH 2020.
Ogundiran, O.O. (2017). "Historical and Cultural Significance of Traditional Yoruba Architecture in Nigeria." International Journal of Architectural Heritage.
Ogunleye, O.A., et al. (2020). "Aesthetic Preference for Architectural Styles in Nigerian

Urban Settings: A Case Study of Abeokuta Metropolis." Architectural Science Review.

Olaleye, O.A., et al. (2021). "Cultural Significance and Aesthetic Values of Vernacular Architecture in Southwest Nigeria." Journal of Cultural Heritage Management and Sustainable Development.

Olugbenga, O.A., et al. (2019). "User Satisfaction with Architectural Aesthetics in Residential Buildings: A Case Study of Akure, Nigeria." Journal of Environmental Planning and Management.

Onibokun, P. (2020). "Preservation of Vernacular Architecture in Nigeria: Challenges and Opportunities." Journal of Cultural Heritage Management and Sustainable Development.

Orr, D.W. (2017). "The Nature of Design: Ecology, Culture, and Human Intention." Oxford University Press.

Pallasmaa, J. (2005). "The Eyes of the Skin: Architecture and the Senses." John Wiley & Sons.

Rapoport, A. (1990). "The Meaning of the Built Environment: A Nonverbal Communication Approach." University of Arizona Press.

Rokhsaneh Rahbarianyazd (2020). Department of Architecture, Faculty of Architecture, Alanya Hamd Emin Paşa University, Turkey Received November 21, 2019; Revised January 21, 2020; Accepted February 18, 2020

Salau, T.A., et al. (2018). "Assessment of Aesthetic and Sustainable Features of Vernacular Architecture in Southwest Nigeria." Journal of Sustainable Development in Africa.

Semra Sema Uzuno (2012) ARTSEDU 2012Aesthetics and Architectural Education lu a *a Near East University,Faculty of Architecture,Nicosia,North Cyprus

Steffy, G. (2014). Architectural Lighting Design. John Wiley & Sons.

Sullivan, Louis (1996). "The Tall Office Building Artistically Considered." Lippincott's Magazine, 1996.

Thorpe, J.A., et al. (2019). "Visual Complexity and Its Influence on the Perceived Aesthetic Appeal of Architectural Facades: An Eye-Tracking Investigation." Frontiers in Psychology.

Vartanian, O., et al. (2013). "The Neuroscience of Aesthetic Experience." Annals of the New York Academy of Sciences.

Vitruvius. (2009). The Ten Books on Architecture. Cambridge University Press.