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Innovative Reuse of Waste Materials in Contemporary Nigerian Art: Examining Techniques, Styles, and Compositional Contents in the Upcycled Artworks of Balogun, Popoola, Adenle, and Tejuoso

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Abstract

This paper explores the innovative reuse of waste materials in contemporary Nigerian art, focusing on the upcycled artworks of Adeola Balogun, Dotun Popoola, John Adenle, and Lanrewaju Tejuoso. Upcycling, a creative process that transforms discarded materials into valuable art pieces, is a powerful commentary on consumerism, waste, and environmental sustainability. The selected Nigerian artists employ unique techniques and styles, infusing their cultural heritage into their works while addressing critical environmental issues. This

paper comprehensively analyses their artistic practices, examining their upcycled artworks' techniques, styles, and compositional contents. Through a qualitative analysis, the study highlights how these artists repurpose everyday waste into visually compelling and meaningful art, contributing to the broader discourse on sustainability and environmental awareness. By comparing and contrasting their approaches, the study also uncovers their work's cultural and societal impacts, demonstrating how upcycled art in Nigeria reflects contemporary artistic trends and promotes ecological consciousness and sustainable practices. This paper aims to shed light on the significant role of upcycled art in the Nigerian art scene and its potential to inspire social and environmental change.

Key words: ***Upcycled art, reuse, environmental awareness.***

Introduction

Upcycling has garnered considerable attention in recent years within the global art community. By enhancing the value and utility of the initial materials, this practice contrasts traditional recycling methods by creatively repurposing waste materials to create new and valuable items. Upcycling within the realm of art converts ordinary waste into captivating visual declarations, injecting mundane objects with renewed vitality and significance. This practice challenges established perceptions of art and materiality and is a powerful critique of consumerism and waste (Olga, 2023).

With its dynamic and diverse cultural milieu, Nigeria has witnessed a burgeoning enthusiasm for upcycled art. Both contemporary environmental concerns and long-standing African traditions of resourcefulness fuel this enthusiasm. Historically, African art has

consistently integrated elements of reutilization, utilising accessible materials to craft practical and emblematic artefacts (Plate 1). According to Livinus et al., (2020) present-day Nigeria sees artists carrying on this legacy by embracing upcycling to tackle urgent environmental issues while concurrently articulating their cultural narratives (Plate 2). (Livinus et al., 2020).

Plate 1: Kongo Power Figure (Nkisi N'Kondi: Mangaaka), Source: https://commons.wikimedia.org/wiki/File:WLA_metm

Plate 2: Bottled Life, 2008 by BRIGHT UGOCHUKWU EKE Source: https://axis.gallery/artists/bright-ugochukwu-eke/

The importance of sustainability and environmental awareness in contemporary art cannot be overstated (Halaçeli & Şanli, 2023). As the global community grapples with the adverse effects of climate change and environmental deterioration, artists have assumed the role of environmental advocates, leveraging their creations to uncover and address these critical issues. Art has perpetually embodied human ingenuity, sentiments, and cultural diversity.

Throughout history, artists have employed diverse techniques, genres, and compositional elements to convey messages and captivate audiences (Oloidi, 2011). Art has traditionally functioned as a mirror reflecting the multifaceted aspects of human expression,

transcending eras, societies, and fashions. Within this realm of creation, the fusion of technique, style, compositional substance, and categorisation gives rise to narratives that engage, provoke, and inspire. They use upcycled art to prompt audiences to reevaluate their connection with the environment while simultaneously reducing waste and advocating for upcycling. This dual focus on art and activism positions upcycled art as an efficacious instrument for social transformation, amalgamating aesthetic ingenuity with ecological consideration (Halaçeli, & Şanli, 2023).

Artists like Adeola Balogun, Dotun Popoola, John Adenle, and Lanrewaju Tejuoso propel this movement in Nigeria. Their works epitomise the inventive repurposing of abandoned materials, melding historical practices with contemporary tendencies to produce visually striking and thought-provoking pieces. This research seeks to illuminate the broader cultural and environmental import of upcycled art in Nigeria by scrutinising its techniques, styles, and compositional elements. It showcases how these artists metamorphose refuse into artistic gems that provoke and inspire.

This paper navigates readers through a captivating exploration of the essence of creative production, elucidating the intricacy of form and content from the standpoint of selected artists whose creations pertain to environmental sustainability. The symbiotic relationship between creativity and environmental awareness has engendered a distinctive study area where artists repurpose waste materials to craft aesthetically pleasing goods with renewed worth. This paper delves further into this subject, examining artists' techniques, styles, and compositional motifs. The paper therefore gives new life to waste materials, all while appealing to audiences looking for a fundamental link between art and the environment.

Historical Context of Upcycling in the Global Art Scene

'Upcycling' involves transforming waste materials or unwanted products into items of higher quality or value. Unlike traditional recycling, which often degrades materials for reuse, upcycling retains the original form, enhancing it creatively. This process not only extends the lifecycle of materials but also infuses them with new aesthetic and functional qualities, contributing to sustainability (Olga (2023). Werner (2023) writes that the historical roots of upcycling in art can be traced to early 20th-century movements such as Dadaism, where artists like Marcel Duchamp used found objects to challenge traditional art concepts. Duchamp's "readymades" redefined art by presenting everyday objects in new contexts, thus questioning the nature and value of art (Oligbinde et al., 2022).

The 1960s and 1970s saw developments in Environmental Art when artists like Robert Rauschenberg and Joseph Beuys used discarded materials to comment on consumerism and environmental degradation. These pioneers laid the foundation for contemporary upcycling practices in art, emphasising ecological and societal issues (Eric 2021). Today, there is increased environmental awareness that has made upcycling gain renewed interest in the global art scene. Contemporary artists now employ upcycling as a creative technique and a form of environmental advocacy, transforming waste into meaningful artistic expressions that challenge viewers to reconsider their consumption habits and environmental impact (Ericsson, 2018

Literature Review

Literature on upcycled art was reviewed. It was noted that several studies had explored the multifaceted nature of upcycled art, by

examining its aesthetic, cultural, and environmental dimensions. Barragão, (2022) for example, highlights how upcycled art can be a sustainable medium, promoting environmental awareness through creative reuse. Thorpe (2020) on the other hand, argues that upcycled art provides a tangible way to address waste issues, transforming discarded materials into valuable cultural artefacts.

Sung, Cooper, and Kettley (2014) discuss the broader implications of upcycling in the creative industries, noting how it fosters innovation and sustainability. They emphasize that upcycling challenges traditional perceptions of waste, encouraging a shift towards more sustainable production and consumption patterns.

Critics of upcycled art often point to its potential limitations. Some argue that the emphasis on material origins can overshadow artistic value, leading audiences to focus more on the novelty of the materials rather than the artwork itself (Sung, 2017). While initially perceived as a transient trend, upcycled art is proving to be a substantial art movement with significant environmental and creative implications.

Other studies highlight different aspects of upcycling; Hanna, (2022) writes about the importance of upcycling in creating designer items from scrapped vehicle parts while Hanieh, (2023) identifies factors that influence upcycled food consumption choices. Centaury, (2020) on his part emphasizes the value of upcycling in climate change artwork to reduce carbon emissions and promote environmentally friendly practices. Despite these critiques, proponents argue that upcycled art is significant because it merges aesthetic and ecological considerations. By using waste materials, artists create works that captivate visually and engage viewers in critical discussions about sustainability and environmental responsibility (Hayley, 2019).

Despite its rising prominence, the scholarly exploration of upcycled art is limited in Nigeria. Nigerian artists like Adeola Balogun, Dotun Popoola, John Adenle, and Lanrewaju Tejuoso are at the forefront of using discarded materials creatively, blending traditional techniques with contemporary styles. Their works highlight the cultural and environmental relevance of upcycling in the Nigerian context, emphasising the need for more focused academic research.

Adeola Balogun's sculptures, for example, reimagine industrial waste into dynamic forms that reflect urbanisation and environmental degradation. Dotun Popoola combines metal scraps with traditional sculpting techniques, creating pieces that narrate stories of resilience and innovation. John Adenle and Lanrewaju Tejuoso similarly use waste materials to explore themes of identity, culture, and sustainability, each bringing unique perspectives and techniques to upcycling.

This literature review sets the stage for an in-depth examination of these Nigerian artists' techniques and styles of upcycled artworks. This paper reports a study that aimed to highlight their unique contributions and the cultural and environmental significance of their artistic practices by situating their work within the broader context of global upcycled art.

Results

The following are results of variables tested when determining the Innovative Reuse of Waste Materials in Contemporary Nigerian Art. These include biographies of the four selected artists and the Classification of Techniques and Style of Upcycled Art utilized by the selected Artists

The Biographies of the four selected artists

1. Adeola Balogun

Adeola Balogun was born in 1966 in Abeokuta, Nigeria. He is a well-known sculptor who imaginatively uses abandoned materials. His artistic career is distinguished by a broad and solid educational foundation and professional expertise spanning three decades. His early school years began in 1978 at St. James Primary School in Ota, where he developed an interest in artistic pursuits. This early stage was critical in developing his appreciation for art and its transforming potential. He continued schooling at Yaba College of Technology in Lagos in 1993/1994, where he obtained specialised sculpting instruction, cementing his enthusiasm and skill set for working with various materials and techniques. He eventually became a lecturer at the college.

Balogun continued his studies at the University of Benin, earning a Master of Arts (M.A.) from 2001 to 2004. This phase honed his creative vision and broadened his technical knowledge. His pursuit of knowledge and quality resulted in a Doctor of Philosophy (Ph.D.) from Delta State University in 2020, demonstrating his dedication to academic and professional advancement in the arts. Adeola Balogun has been actively involved in art since 1993, focusing on using metal, e-waste, animal skin, fabric, and wood. His sculptures are renowned for their meticulous craftsmanship and imaginative use of discarded materials to create intriguing artworks (ScAN 2021). Balogun's art frequently examines issues of urbanisation, consumerism, and environmental degradation, providing profound insights into modern society's connection with the environment.

Balogun has made significant contributions to the world of upcycled art. His impressive ability to transform unwanted materials into visually stunning and thought-provoking artworks challenges traditional notions of value and aesthetics. Using recycled materials, Balogun creates appealing art pieces while raising awareness about the importance of sustainability and environmental responsibility. His work showcases the beauty and utility of materials often overlooked and discarded. In addition to his creative endeavours, Balogun has made significant contributions to academia. As an experienced instructor, he has impacted a new generation of artists by sharing his vast expertise and enthusiasm for upcycled art. His work as an educator complements his creative activities by promoting a better knowledge of the environmental and cultural relevance of using waste materials in art.

Balogun's artwork has been exhibited in numerous local and worldwide showcases, earning him attention and praise from art critics and enthusiasts. These events allow Balogun to engage with a broader audience while increasing awareness about the significance of sustainability in modern art. Balogun has participated in several prominent exhibitions and public commissions, such as the creation of the Michael Ibru statue in 2017, the late Ayangburen of Ikorodu statue in 2015, and the construction of the welded metal sculpture "Towards Achieving Distinction" (measuring 25ft), among others. These artworks have received substantial acclaim, demonstrating his exceptional skill and inventive approach to sculpture. Besides his artistic endeavours, Balogun has been honoured with other esteemed accolades. The accolades received by the individual include the "Award of Recognition" in 2018 from the Institute of African Studies, University of Ibadan, the designation of "Fellow" in 2018 from the

Society of Nigerian Artists (SNA), and the "Distinguished Master Artist" award in 2015. These prizes demonstrate his exceptional sculpting achievements and impact on contemporary Nigerian art.

His innovative methodology and dedication to environmental responsibility have been acknowledged in diverse academic and artistic domains. Adebayo (2015) states Balogun's art amalgamates traditional African aesthetics with contemporary environmental awareness. Okeke (2017) highlights Balogun's ability to convert wasted materials into artwork, encouraging viewers to reconsider their perceptions of waste and value. From his early schooling to his current position as a recognised sculptor and instructor, Adeola Balogun's artistic path demonstrates his passion, skill, and unique approach. His work contributes to the cultural landscape and is an encouraging example of how art can solve pressing environmental challenges. This research examines his techniques, styles, and compositional contents to emphasize upcycled art's more significant cultural and ecological implications in contemporary Nigerian art.

2. Dotun Popoola

Dotun Popoola, born in 1981 in Ondo State, Nigeria, hails from Ogun State. He is well-known for his exceptional ability to turn waste metal into attractive sculptures. His strong academic foundation and extensive artistic training firmly founded his creative journey. Popoola's schooling at Zion Africa Church School, which lasted from 1986 to 1992, instilled a deep appreciation for creativity and discipline. During his time at Auchi Polytechnic from 2001 to 2004, he honed his talents and gained a strong interest in sculpture. As a result, he began to experiment with other materials and techniques in his painting.

Popoola attended Obafemi Awolowo University, earning a Bachelor's degree from 2005 to 2008 and a Master's from 2009 to 2014. Attending this prominent university affected his creative vision and technical skills, giving him a thorough grasp of conventional and modern sculpting processes. Dotun Popoola has been pursuing his artistic practice since 2012, particularly emphasising the innovative use of waste metal. His work is characterised by his meticulous skill and ability to transform waste metal into vibrant and energetic sculptures. Popoola's painting and sculpting skills allow him to produce complicated artworks that blend vibrant colours and expressive forms, emphasising themes of rebellion and metamorphosis. Popoola's sculptures frequently depict animals and human characters, demonstrating a distinct combination of realism and abstraction.

The artist's work is well-known for its exact craftsmanship and vivid look, demonstrating his expertise in manipulating metal to portray compelling stories. Popoola's work investigates the ideas of resilience, transformation, and the possibility of regeneration in abandoned materials. Popoola contributed significantly to the world of upcycled art. He tackles environmental concerns and demonstrates the possibility of aesthetic and practical value in everyday garbage (Oligbinde, Adesanya, & Oyeniyi, 2022). The sculptures demonstrate the creative potential of upcycling while questioning conventional perceptions of value and beauty. Popoola's ability to repurpose abandoned metal artefacts underlines the need for sustainability in modern art, establishing him as a key player in Nigeria's art scene.

In addition to his artistic pursuits, Popoola has participated in several local and international exhibits and art festivals. Notable exhibitions include the West African Art Fair 2018, the Maiden Zcrap Art

Exhibition in Qatar in 2019, and the Global Art Festival in Gujarat, India, in 2020. He has held more than six solo exhibitions, participated in over 14 joint exhibitions, and featured in more than 30 group exhibitions. His work has gained international recognition and has been featured in over 100 publications such as the New York Times, Washington Times, BBC, CNN Africa, BBC Pidgin, Reuters, Al Jazeera, and Channels Television (ScAN 2021).

Popoola has also received numerous local and international awards, including the Director General's Award for Best Artist of the Year in the maiden NYSC arts competition in 2009. His accolades reflect his outstanding contributions to the field of sculpture and his influence on contemporary art. In addition to his artistic practice, Popoola has worked as a curator II with the National Gallery of Arts, Oshogbo outstation, Osun State, Nigeria, from 2012 to 2018. In this role, he curated various exhibitions and promoted Nigerian art and artists. Currently, Dotun Popoola works as a full-time studio experimentalist, continuing to explore and innovate within the realm of upcycled art.

Popoola's journey from early schooling to his current standing as a renowned sculptor displays his devotion, creativity, and creative thinking. His work improves the cultural environment and is an encouraging example of how art can contribute to more extensive ecological and socioeconomic discussions. This research looks at the methods, techniques, and thematic themes used by the artist to emphasise the more significant cultural and environmental value of upcycled art in contemporary Nigerian art.

3. John Adenle

John Adenle, a renowned sculptor and art educator, was born in Ogun State, Nigeria, in 1962. He is not just known for his innovative use of plastic waste materials, but also for his unwavering passion for art education and sustainability. His academic and professional background is a testament to his dedication, making him a pivotal figure in modern Nigerian art. Adenle began his teaching career in 1986 as an elementary school teacher, which provided the groundwork for his lifelong commitment to education. He continued his studies at Obafemi Awolowo University, receiving a Bachelor of Arts in Study (B.A. Ed.) from the Adeyemi College of Education in Ondo.

John Adenle's pursuit of additional studies led him to the University of Nigeria in Nsukka, where he earned his Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.) degrees. These qualifications were critical to his professional development, giving him a solid foundation for his intellectual and creative pursuits.

Adenle's teaching career spans over two decades and includes a significant tenure at the Federal College of Education, Osiele, Abeokuta. From 1996 to 2016, he lectured in the Department of Fine and Applied Arts, impacting the institution's creative and educational landscape. He is a lecturer in the Department of Creative Arts at the University of Lagos' Akoka campus, where he continues to inspire and shape the next generation of artists.

The inventive utilization of plastic waste materials distinguishes Adenle's creative style. His sculptures are acclaimed for their elaborate patterns and conceptual depth, which address

environmental sustainability and consumerism. Adenle's transformation of plastic garbage into art challenges conventional conceptions of materiality and value, supporting an ecologically conscientious approach to art-making.

Adenle's art has been showcased in various exhibits, both locally and internationally, including the notable exhibitions' Age of Change' (2012) and 'Orisun Touring' (2012) in Abeokuta, and 'Adaptation' (2011) at Yaba College of Technology in Lagos. These shows demonstrate his active involvement in the art world and his dedication to using his work to address contemporary social and environmental issues. Adenle's collaboration with groups like the Sickle Cell Activism and Management Initiative (SAMI) further exemplifies his commitment to utilizing art for social change and activism.

Throughout his career, Adenle has garnered various awards for his services to art and education. His unique use of plastic in sculpture enhances the Nigerian art scene and provides a critical comment on the environmental consequences of plastic waste. By combining discarded materials into his work, Adenle highlights the possibilities for creativity and beauty in reusing trash, supporting a more sustainable approach to art and everyday life.

John Adenle's academic excellence, creative use of materials, and dedication to sustainability have all distinguished his career as a sculptor and art instructor. His work is a powerful testament to art's transformative capacity to address environmental and societal challenges, solidifying his position as a key figure in modern Nigerian art. His efforts continue to inspire and challenge artists and audiences to reconsider the role of waste materials in creative activities.

4. Lanrewaju Tejuoso

Lanrewaju Tejuoso was born in 1974 in Ogun State, Nigeria. He is a highly esteemed painter and installation artist. His passion for art was ignited in his early years, a spark that has since fueled his academic and career trajectory. His artworks, intellectually stimulating and addressing crucial global concerns, are a testament to his early artistic influences. Tejuoso completed his elementary education at Bode-Ijaye Primary School in Ijaye, Abeokuta, Ogun State, between 1981 and 1987. Subsequently, he enrolled in Ebenezer Grammar School in Iberekodo, Abeokuta, Ogun State, where he completed his secondary school between 1988 and 1995. After completing secondary education, Tejuoso pursued higher study at the College of Education Osiele Abeokuta from 1997 to 2000.

Tejuoso pursued a Bachelor of Arts in Art Education at the University of Nigeria, Nsukka, from 2002 to 2006, motivated by his artistic ambitions. His educational path equipped him with a strong basis in art theory, history, and practical practices, improving his creative abilities.

Tejuoso's extensive background as an environmental artist demonstrates his commitment to tackling crucial world problems through art. Since 2006, he has produced artwork that promotes awareness of climate change, drought, desertification, species extinctions, carbon emissions, and other urgent environmental issues. The artist's creations function as a means to educate and motivate a constructive transformation.

Tejuoso's artistic aptitude and unwavering commitment have garnered him acclaim at both the local and international levels. He has

taken part in various collaborative and individual shows, presenting his artwork to a wide range of viewers. Some notable exhibitions include "Waste to Life," an ongoing project on environmental arts at the Aroko Green Museum in Enugu in 2014, "Art 21" at the National Arts Competition in Nsukka in 2013, "Timeless Treasures" at the Silverbird Gallery in Abuja in 2012, "Orisun" with Wole Soyinka in Abeokuta in 2012, "Horizon of Hope" at the Life in My City Art Festival in Nike Lake, Enugu in 2011, and the 3rd National Visual Arts Competition in Abuja in 2010. Tejuoso's artworks have been exhibited in several museums, art galleries, and biennials throughout the globe.

Tejuoso's innovative use of waste materials, particularly plastic, in his creations defines his distinctive artistic style. By repurposing discarded materials, he not only produces visually striking sculptures but also underscores the importance of recycling and ecological practices. This unique approach sets him apart in the art world. Tejuoso's artistic talents have been acknowledged and commemorated in the art world. The artworks he created are part of the permanent collections of the Museum of Black Civilizations in Senegal and the Yemisi Shyllon Museum at Pan-Atlantic University in Nigeria. Tejuoso's standing as a famous artist was further solidified in 2018 when he earned top awards at the 13th Dak'Art Biennale, marking a significant achievement.

Lanrewaju Tejuoso is well regarded in the art community due to his exceptional talent, commitment to tackling significant global concerns via his artwork, and inventive utilization of discarded materials. His artworks stimulate and incite significant dialogues concerning our environment and the imperative for sustainable practices.

Classification of Techniques used by the Selected Artist

The study first aimed at determining the techniques used by Balogun, Popoola, Adenle, and Tejuoso in the creation of their upcycled artworks. By comprehending the techniques used by the selected artist, one can develop a deeper appreciation for its beauty and significance right from the collection process.

According to Mears (2018), environmental artists often begin to create art by collecting discarded materials such as plastic bottles, old newspapers, or scrap metal. The selection of materials is influenced by factors such as availability, environmental impact, and aesthetic qualities (Mears, 2018). The subsequent stage of the creative process involves the conversion of gathered materials into new forms. This process may entail various techniques, including cutting, shaping, painting, or integrating different components to produce a unified artwork (Botella et al., 2013).

Fürst et al. (2012) also observe that artists employ various techniques such as symbolism, metaphor, and visual storytelling to communicate their concepts. Additionally, environmental artists often collaborate with communities, organisations, or fellow artists to create expansive installations or public artworks. This collaborative approach facilitates awareness-raising and audience engagement in the creative process, as observed by Poole (2020). For the purpose of this study, there was a need to classify the techniques used by the selected artist for clarification.

Adeola Balogun, Dotun Popoola, John Adenle, and Lanrewaju Tejuoso's upcycled artworks use a range of inventive ways to express

their individual approaches to sustainability and environmental consciousness. These are tabulated in Table 1 below.

Table 1: Classification of Techniques of the Selected Artist's Works

s/n	Techniques	Responses							
		Adeola Balogun		Dotun Popoola		John Adenle		Olanrewaju Tejuoso	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Welding/Tying	3	20.00	0	0.00	0	0.00	0	0.00
2	Welding/Tying/ Casting	1	6.67	0	0.00	0	0.00	0	0.00
3	Welding/ Painting	1	6.67	0	0.00	0	0.00	0	0.00
4	Welding	8	53.33	15	39.47	0	0.00	0	0.00
5	Melting/ Screwing	2	13.33	0	0.00	0	0.00	0	0.00
6	Casting	0	0.00	7	18.42	1	7.14	0	0.00
7	Casting/ Melting	0	0.00	0	0.00	1	7.14	0	0.00
8	Gumming	0	0.00	0	0.00	2	14.29	0	0.00
9	Gumming/ Screwing	0	0.00	0	0.00	1	7.14	0	0.00
10	Assemblage	0	0.00	0	0.00	1	7.14	0	0.00
11	Melting	0	0.00	0	0.00	8	57.14	0	0.00
12	Folding/Tying	0	0.00	0	0.00	0	0.00	15	51.72
13	Stapling	0	0.00	0	0.00	0	0.00	14	48.28
14	Sticking	0	0.00	1	2.63	0	0.00	0	0.00
15	Spraying	0	0.00	15	39.47	0	0.00	0	0.00
	Total	15	100.00	38	100.00	14	100.00	29	100.00

Source: Study Data 2022

The above Table shows that Balogun usually uses welding in his recycled artworks, accounting for 53.33% of his methods (8 out of 15 occurrences). This approach involves the fusing of metal components, which results in artworks that highlight the latent potential of waste metal resources. Balogun's major technology is welding, which is supported by other techniques such as welding/tying (20%), welding/tying/casting (6.67%), welding/painting (6.67%), and melting/screwing (13.33%).

Popoola, on the other hand, commonly employs welding in his work, with 39.47% of his methods including this technique (15). Popoola uses a variety of processes in his work, including welding (18.42%), casting (39.47%), spraying (2.63%), and sticking. John Adenle's

recycled artworks mostly use the melting process, accounting for 57.14% of his artistic approaches (8 out of 14 occurrences). This technique involves heating plastic rubbish, which makes it malleable and allows Adenle to mold it into innovative forms. Adenle also uses casting (7.14%), gumming (14.29%), gumming/screwing (7.14%), and assembling (7.14%), whereas Lanrewaju Tejuoso uses a variety of techniques in his recycled artworks, including folding/tying (51.72%) and stapling (48.28%).

Style of Upcycled Art made by the selected Artists

After evaluating the techniques employed in four artists' artworks created from materials that were reused, the research sought to determine the styles utilized by the chosen artists -Adeola Balogun, Dotun Popoola, John Adenle, and Lanrewaju Tejuoso in their artistic works. Table 2 shows the styles employed by each artist.

Table 2: Classification of Style of the Selected Artist's Works

s/n	Style	Responses							
		Adeola Balogun		Dotun Popoola		John Adenle		Olanrewaju Tejuoso	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Abstract	2	6.67	5	29.41	12	80.00	15	50.00
2	Conceptual	0	0.00	0	0.00	1	6.67	15	50.00
3	Assemblage	0	0.00	3	17.65	2	13.33	0	0.00
4	Naturalism	14	46.67	1	5.88	0	0.00	0	0.00
5	Stylization	14	46.67	6	35.29	0	0.00	0	0.00
6	Idealism	0	0.00	1	5.88	0	0.00	0	0.00
7	Realism	0	0.00	1	5.88	0	0.00	0	0.00
	Total	30	100	17	100	15	100.00	30	100

Source: Study Data 2022

Table 2 indicates that the Balogun mostly employed realism and stylization techniques (46.67%) while making their upcycled artworks. However, a small percentage (6.67%) of the artworks were

produced in an abstracted form. Moreover, Popoola predominantly employs abstraction (29.41%), assemblage (17.65%), and stylization (35.29%) in the majority of their artworks, while just a few artworks are created utilizing idealism, realism, and naturalism.

Furthermore, the survey indicated that Adenle mostly utilized abstract techniques, with 80% of his artworks falling into this category. Adenle and Tejuoso both employ conceptual approaches, with Adenle minimally utilizing it to a 6.67% extent and Tejuoso to a significant 50%. Adenle's artworks were created using a combination of assemblage (13.33%) and conceptualization (6.67%) techniques. In contrast, Tejuoso equally employed abstraction (50%) and conceptualization (50%) as his artistic methods.

Discussion of findings on technique of upcycled Artworks

The data in Table 1 offers insights into the techniques that play a crucial role in the artistic process and contribute to the overall aesthetic and conceptual qualities of the upcycled artworks of Adeola Balogun, Dotun Popoola, John Adenle, and Olanrewaju Tejuoso. Welding is the most frequently used technique among the artists, with Balogun using it in 20% of his artworks and Popoola using it in 39.47% of his artworks.

Welding involves joining metal pieces together, and its use suggests a focus on manipulating and transforming industrial materials into artistic creations. This technique allows the artists to explore themes related to industry, craftsmanship, and the transformation of ordinary objects into extraordinary artworks. The use of welding may also symbolize strength, durability, and resilience in the artworks. According to Balogun,

"My artwork explored the profound impact of welding as a catalyst for transformation." I create artworks that push industrial materials by manipulating and fusing metal components. Welding lets me recycle and turn ordinary things into art. Welding is strong, durable, and can create new things from old. I use welding to express my deep love for superb creativity, inventiveness, and the aesthetic appeal of the unexpected."

Balogun putting finishing touches to one of the upcycled artwork. Photograph by Balogun

Popoola Welding Lion in his studio. Photograph by Poppoola

Tejuoso folding and tying soft plastic in his studio in Abeokuta

Adenle's melted installation plastic

Plate 3: Showing the sellected artists working with different Techniques

Casting is another technique employed by the artists, with Popoola using it in 18.42% of his artworks and Adenle using it in 7.14% of his artworks. Casting involves creating sculptures by pouring liquid

material into a mold and allowing it to harden. This technique enables the artists to create intricate and detailed forms, capturing the essence of their artistic vision. The use of casting indicates a meticulous approach to the art-making process and a commitment to craftsmanship and precision. It also allows for the creation of multiple copies of the same artwork, expanding its reach and accessibility. According to Popoola, (2022),

> ***"In my artistic process, I combine the meticulousness of welding with the fluidity of casting to produce artworks that exemplify a harmonious equilibrium between rigidity and fluidity." Welding helps me to create complex structures, while casting lets me to include natural textures and shapes. Through the integration of these methodologies, I want to elicit a feeling of balance and juxtaposition in my artistic investigations.***

Peacock by Balogun showing the use of paints on welded metal

Who Killed Me by Adenle showing casted torso with melted plastics and paint.

Songo By Popoola show casted face of the worrior and the use of paint on the artwork

Plate 4: Showing Casted, Melted and use of paint on the upcycled artworks

Spraying is a technique used by Popoola in 39.47% of his artworks. Spraying involves applying paint or other materials through a

spraying device, resulting in a textured and atmospheric effect. The use of spraying adds dynamism, movement, and a sense of spontaneity to the artworks. It allows Popoola to experiment with different techniques and explore the interplay between control and spontaneity in the artistic process.

Melting is another technique used by Adenle in 13.33% of his artworks (See Plate 4). Melting involves transforming materials through heat, while screwing involves using screws as a means of attachment. These techniques highlight Balogun's experimentation with different processes and materials, resulting in unique and innovative artworks. The use of melting and screwing may also symbolize the concept of transformation and repurposing, as ordinary objects are melted and reassembled to create something new and unexpected.

Gumming is used by Adenle in 14.29% of his artworks (See Plate 3). Gumming involves the use of adhesive materials to attach different components together. This technique allows Adenle to create collages or assemblages of various objects, resulting in visually dynamic and layered artworks. The use of gumming may also symbolize the idea of bringing together disparate elements to create a cohesive whole, reflecting themes of unity, diversity, and interconnectedness. Adenle (2022) state that,

> ***"Gumming and Melting is at the core of my artistic expression, symbolizing the process of transformation and fluidity in my works. By harnessing the malleability of materials through melting, I strive to capture fleeting moments of transition and metamorphosis. The organic forms that emerge from this process embody a sense of impermanence and evolution,***

> ***inviting viewers to contemplate the transient nature of existence."***

Folding and tying are exclusively used by Tejuoso in 51.72% and 48.28% of his artworks (Plate 5), respectively. These techniques involve manipulating and reshaping materials through folding and tying, resulting in sculptural forms and intricate patterns. The use of folding and tying demonstrates Tejuoso's attention to detail, precision, and craftsmanship. It also suggests a focus on the transformation of materials and the exploration of spatial relationships. These techniques may symbolize themes of flexibility, adaptability, and the interconnectedness of different elements in the artworks.

Stapling is exclusively used by Tejuoso in 48.28% of his artworks (Plate 5 below). Stapling involves using staples as a means of attachment and can create visually striking and textured surfaces. The use of stapling adds a sense of structure and stability to the artworks, while also introducing an element of surprise and unconventional material usage. It may also symbolize themes of connectivity, permanence, and the power of small actions in the artistic process. According to Tejuoso (2022),

> ***"My art is defined by folding tying and stapling. I make sculptural shapes and complicated patterns by folding and tying soft plastic, paper or fabrics. I use these methods to investigate space, form, and texture in my installations. Folding and tying represent flexibility, adaptation, and connectivity. I employ these approaches to produce artworks that convey movement, metamorphosis, and spatial connections. Folding and tying***

requires accuracy and discipline, yet it allows me to realize my creative vision."

Sticking is used by Popoola in 2.63% of his artworks (Plate 5). Sticking involves attaching objects together using adhesives such as glue. (Plate 5). This technique allows Popoola to create collages or assemblages of various materials, resulting in visually complex and layered compositions. The use of sticking emphasizes the juxtaposition of different elements and materials, highlighting themes of contrast, harmony, and the integration of disparate elements into a cohesive whole.

Osuka by Tejuoso showing folded Fabrics. Photograph by Tejuoso

Oniko by Tejuoso showing Sticking technique. Photograh by Tejuoso

Plate 5: showing Folding and tying, Stapling, and Sticking Techniques

These hypothetical artist statements reflect the unique artistic approaches and techniques employed by each artist to corroborate the data in Table 1. The findings offer insights into the conceptualization of intrinsic, social and economic intention that informed the artists' creative practices.

The study findings are consistent with the findings of Mears, (2018) who discovered that environmental artists frequently employ assemblage methods into their recycled artworks. This approach is merging different products or materials to form unified creations that

encourage viewers to evaluate their connection with garbage. In another study, Johnson et al. (2020) investigated how environmental artists employ stapling to produce recycled works. The sort of waste materials utilized for upcycling influences the techniques used by artists.

The Kruskal-Wallis test is a statistical test that compares the average rankings of a ranked variable across numerous groups. In this study, the Kruskal-Wallis test was used to compare the approaches used by artists to upcycle environmental garbage into attractive products (Sung, 2017, Sung, Cooper, Kettley, 2015). The test findings revealed no significant differences among the four artists tested (H = 1.0109, P = 0.79861, df = 3, N=60), demonstrating that the artists use a variety of strategies to create their artworks, with no positive associations.

The absence of substantial distinctions in the techniques utilized by the artists may be ascribed to a variety of reasons, including the decision on what type of artwork to create, the type of waste materials, and the intended volume of composition (Sung, 2017). It is however important to note that an artist's technique selection may have a considerable impact on their artistic style and the visual impact of their work. Welding and casting, for example, are commonly connected with the creation of three-dimensional sculptures, but melting procedures can result in fluid and organic shapes. Understanding each artist's approaches provides insights into the intrinsic, social, and economic problems that define their artworks.

Discussion of findings on the Style of upcycled Artworks

Table 2 (Page 62) demonstrated a range of artistic styles among the chosen artists, which displays their unique tastes and creative methodologies. The analysis of the data provided insight into the distinct artistic identities and thematic themes that influence the artist's creations.

Balogun and Popoola's ability to convert waste materials into visually captivating and artistically meaningful artworks has contributed to the widespread recognition of realism and stylization in their work. Naturalism grants artists the ability to portray many aspects of the natural world, such as animals and humans. Stylization also empowers them to incorporate inventive and innovative components into their recycled artworks (see to Plate 6).

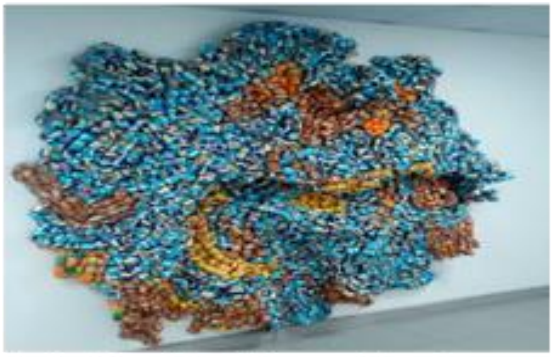
Phenomenal Factor 1 by Balogun showing a stylized bull with metals and e-waste

Ode Aperin by Popoolashowing animals and humans that is both stylized and naturalistic

Plate 6: showing Stylised, Realistic and Naturalism Styles

Additionally, Adenle and Tejuoso's works also involve conceptual art, which focuses on ideas and philosophical notions (Plate 7).

Ori Yeye Ni Mogun by Adenle showing the conceptual style photograph by Adenle



Daily Bread by Tejuoso showing conceptual art Photograph by Tejuoso

Plate 7: Showing conceptual art style

Balogun and Popoola demonstrate a preference for visual aesthetics and the tangible qualities of materials, but Adenle and Tejuoso place greater emphasis on intellectual themes in their upcycled work. Furthermore, the utilization of abstract aesthetics in the artistic creations of Adenle and Tejuoso serves the purpose of actively captivating the spectators' imagination and promoting contemplation on environmental and personal concerns. Adenle and Tejuoso's utilization of these approaches demonstrates a dedication to stimulating contemplation and discussion.

The study also demonstrated that the four Artists' styles exhibit variances that are heavily influenced by the specific location in which the artwork is made, as well as the materials utilized in its creation. The dynamic usage of style is influenced by several factors, including the time and location of its development. The choice of style is however not random, as it is determined by the artworks intended function and the available medium and technology.

The results are consistent with other research that emphasizes the widespread appeal of realism and stylization in upcycled artworks. A

research done by Glenn, and Allen (2022) revealed that environmental painters frequently integrate natural aspects into their artwork, employing naturalism as a stylistic approach to convey their environmental concerns.

In addition, Hayley J. (2019) undertook a thorough examination of recycled artworks from around the world and noted a notable prevalence of stylized and abstract shapes. The capacity of stylization to convert commonplace items into visually compelling masterpieces was particularly underlined. Comprehending these stylistic preferences may provide direction for both aspiring and veteran environmental artists in their creative pursuits, so fostering the development of the upcycled art domain.

The results of this study demonstrate the diverse range of artistic forms in upcycled art and their possible impacts on environmental art as a whole. By integrating many artistic techniques, artists may effectively captivate a wide variety of audiences, stimulate significant conversations, and inspire proactive measures in the field of sustainability. This variety of artistic styles is consistent with the wider discussion on environmental art, in which the selection of a particular style is acknowledged as a potent means of communicating messages about the environment and fostering awareness of ecological issues (Kaplan, 2021).

A one-way ANOVA was performed to compare the styles used among the four Artists on the artworks. The results are as follows.

Table 3: One-way ANOVA Results

s/n	Source	SS	df	MS	F-ratio	P-value	Sig.
1	Between Group	28.2857	3	9.4286	0.3067	0.8201	0.05
2	Within Group	737.4286	24	30.7262			
	Total	765.7143	27				

Source: Study Data 2022

The one-way ANOVA was used to assess the presence of statistically significant variations in artistic styles across the four artists. The F-ratio is a statistical measure used to compare the variability among different artists' styles with the variability within each artist's own body of work. A large F-ratio and a p-value below the significance level (alpha) would indicate significant stylistic differences among the artists.

The study results indicate that the F-ratio is 0.3067, indicating a relatively small value. The p-value of 0.8201 exceeds the predetermined significance level of 0.05. The study does not provide sufficient evidence to reject the null hypothesis due to the p-value (0.8201) being greater than the significance level (0.05). The null hypothesis posits that there are no statistically significant variations in artistic styles among the four artists.

The one-way ANOVA results in Table 3 therefore suggest that there is no statistically significant variation in artistic styles among the four artists. The study reveals that an F-ratio value of 0.3067 indicates a relatively small effect size. In the context of ANOVA, a higher F-ratio indicates more substantial evidence of group differences, whereas a lower F-ratio indicates weaker evidence. The significance level, often

set at 0.05, is a predetermined threshold used to determine statistical significance. A p-value less than alpha suggests the statistical significance of the observed differences. The p-value of the analysis is 0.8201, which exceeds the significance level of 0.05. A high p-value indicates insufficient evidence to reject the null hypothesis.

Based on the aforementioned observations and statistical principles, the study affirmed since the p-value (0.8201) exceeds the significance level (0.05), there is failure to reject the null hypothesis. Failing to reject the null hypothesis indicates that the study lacks statistical evidence to support the claim of significant differences in artistic styles among the four artists. The observed variations in the data can be attributed to random fluctuations rather than significant differences in artistic styles. This finding supports the hypothesis that the artist's style has minimal influence on the artwork's style (Ichikawa, Jonathan and Matthias, 2018).

It is important to acknowledge that the ANOVA test has specific assumptions that must be satisfied, including normality and homogeneity of variance (Deeks et al., 2019). Hence, it was imperative to verify these assumptions subsequent to interpreting the ANOVA outcomes. If the assumptions are not satisfied, it may be necessary to use alternative tests or transform the data in order to obtain valid results (Ngulube, 2013). The study therefore performed the Tukey's Honestly Significant Difference (HSD) test for multiple comparisons after obtaining a significant result from the one-way ANOVA. This test was used to identify significant differences in artistic styles among specific pairs of groups (artists). The result is presented as follows:

Table 4: Pairwise Multiple Comparisons

Pairwise Multiple Comparisons			$Q_{.05}$ = 3.9013 $Q_{.01}$ = 4.9068
		$HSD_{.05}$ = 8.1736	
		$HSD_{.01}$ = 10.2803	
T_1:T_2	M_1 = 4.29	1.86	Q = 0.89 (*p* = .92244)
	M_2 = 2.43		
T_1:T_3	M_1 = 4.29		Q = 1.02 (*p* = .88686)
	M_3 = 2.14	2.14	
T_1:T_4	M_1 = 4.29	0.00	Q = 0.00 (*p* = .00000)
	M_4 = 4.29		
T_2:T_3	M_2 = 2.43	0.29	Q = 0.14 (*p* = .99967)
	M_3 = 2.14		
T_2:T_4	M_2 = 2.43		Q = 0.89 (*p* = .92244)
	M_4 = 4.29	1.86	
T_3:T_4	M_3 = 2.14		Q = 1.02 (*p* = .88686)
	M_4 = 4.29	2.14	

Source: Study Data 2022

Key: T1 **Balogun T2 Popoola T3 Adenle T4 Tejuoso.**

The multiple comparisons results in Table 4 indicate a mean difference of 2.43 between Balogun and Popoola. The q-value for this discrepancy is 0.89, however the p-value is 0.92244. Based on the fact that the p-value is greater than the specified significance threshold of 0.05, it may be inferred that there is no statistically significant difference between Balogun and Popoola. The difference between Balogun and Adenle is 2.14, as evidenced by the estimated q-value of 1.02 and a corresponding p-value of 0.88686. Furthermore, it can be demonstrated that the p-value surpasses the pre-established significance level, thus indicating the lack of a statistically significant difference between Balogun and Adenle.

The data demonstrates a substantial disparity of 4.29 between Balogun and Tejuoso. In addition, the q-value has been calculated to

be 0.00, which indicates a statistically significant outcome. This is further corroborated by a p-value of 0.00000. The calculated p-value is less than the preset significance level, indicating a statistically significant difference between the two artists. The analysis reveals a mean difference of 0.29 between Popoola and Adenle. In addition, the q-value is calculated to be 0.14, along with a p-value of 0.99967. The calculated p-value surpasses the preset significance level, indicating that there is no statistically significant difference between Popoola and Adenle.

Additionally, a statistically significant disparity was noted between Popoola and Tejuoso, with a magnitude of 1.86. The q-value for this discrepancy is 0.89, while the associated p-value is 0.92244. Furthermore, it is evident that the p-value exceeds the predefined significance level, indicating the lack of a statistically significant difference between Popoola and Tejuoso. In addition, the mean difference between Adenle and Tejuoso is 2.14 units, and the q-value is 1.02, along with a p-value of 0.88686. The calculated p-value is greater than the specified significance threshold, indicating that there is no statistically significant difference between Adenle and Tejuoso.

Arising from the results of the Tukey's HSD test, it was noted that the only significant difference exists between Balogun and Tejuoso. However, no substantial disparities were seen in the other pairwise comparisons. This finding reinforces the idea that there is no significant difference in the creative styles used by the four artists in their productions. The results indicate that the artistic style of the artist does not have a major impact on the style of the artwork, and there is no noticeable variation among the styles of the four artists. However, there was a noticeable difference between Balogun and

Tejuoso, which might be attributed to elements such as the topic, materials, or cultural influences.

Conclusion

In conclusion, the selected artists use a wide variety of techniques in their upcycled artworks, such as welding, casting, painting, melting, screwing, gumming, assembling, folding, tying, stapling, adhering, and spraying. These approaches let artists express themselves creatively by transforming everyday items into exceptional art pieces. The techniques represent artists' unique visions, themes, and intellectual frameworks. Using these approaches, the artists push limits and question traditions.

Adeola Balogun and Dotun Popoola's skills are essential to their creative processes and highlight the issues of sustainability and environmental consciousness in their work. They challenge spectators' notions of value and waste by repurposing discarded materials into art. Their use of welding, casting, and other techniques highlights how discarded items may be reused into beautiful and meaningful products, which aligns with more significant initiatives to encourage environmental conservation and resourcefulness.

The approaches used by John Adenle and Lanrewaju Tejuoso are crucial to their artistic practices, with each contributing distinctively to their research of upcycled artwork. These artists use melting, gumming, folding, and stapling techniques to turn discarded materials into meaningful artworks. Their tactics not only demonstrate their ingenuity, but they also serve as effective instruments for raising sustainability and environmental consciousness. Adenle & Tejuoso's work encourages viewers to evaluate the possibilities of discarded

materials and promotes a more sustainable approach to consumption and trash management.

The various styles used by Balogun, Popoola, Adenle, and Tejuoso in their recycled artworks represent their individual artistic views and contributions to the environmental art movement. Balogun's emphasis on realism and stylization, Popoola's blend of stylization, abstract, and assemblage, and Adenle and Tejuoso's balance of abstract and conceptual approaches all highlight the diverse character of upcycled art.

All the artists' works demonstrate the command that upcycled art has in raising awareness about environmental concerns and encourage sustainability. By converting abandoned waste materials into attractive artwork, they urge audiences to rethink the value of abandoned waste materials and the consequences of human consumption. The artists' innovative techniques not only enhance the art world but also add to the larger discourse about sustainability and environmental responsibility.

Further investigation and exploration of individual artists' recycled artworks might reveal more about their artistic journeys and the growth of their styles through time. Such research will therefore assist better understand and appreciate modern art and its vast variety of forms.

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