

**Use of Uganda's Flora and Fauna as a source of inspiration for ceramic art production**

**ABSTRACT**

Uganda is a country in East Africa that boasts of rich biodiversity in its flora and fauna. These have served as a source of inspiration for various artistic endeavors, including ceramic art production. In this paper, we explored the ways in which Uganda's flora and fauna have influenced ceramic art production, ranging from functional to purely aesthetic pieces. The paper begins with an overview of Uganda's biodiversity and the cultural importance of art in the country. It then delves into the various ways in which flora and fauna have been represented in ceramic art, covering themes such as plant and animal forms, textures, and colors. The paper also discusses the various techniques employed by Ugandan ceramic artists in creating their pieces, including hand-building, wheel-throwing, and firing methods. Finally, the paper considers the challenges faced by Ugandan ceramic artists in marketing their work and maintaining their artistic traditions in the face of globalisation. In conclusion, the paper argues that the incorporation of Uganda's flora and fauna in ceramic art production serves not only as a means of artistic expression, but also as a way of preserving and celebrating the country's rich biodiversity.

*Key words: Uganda, Fauna, Flora, Inspiration, Ceramic, Art production*

**1. INTRODUCTION**

The flora and fauna of our planet are diverse and complex. Flora refers to the plant life, while fauna refers to the animal life. The two are interconnected and depend on each other for survival. The world is home to millions of different species of plants, animals, and insects. Each species is unique and plays a vital role in the ecosystem. They help maintain a balance between different life forms, prevent diseases, and ensure the availability of food and resources for all living beings. Flora and fauna have found their use almost everywhere including ceramic art.

Ceramic art has a rich history and culture, and the use of flora and fauna as a source of inspiration in ceramic art production is a long-standing tradition that has been practiced for centuries worldwide. The natural world has always fascinated artists, and flora and fauna provide a rich source of inspiration for their creative work. Today, ceramic artists continue to explore and experiment with different techniques to incorporate natural elements into their work, producing unique and beautiful pieces of art.

Ceramic art production has been an essential aspect of human culture since ancient times. Ceramic art has evolved from simple pottery to complex designs and patterns that are inspired by various sources, including flora and fauna. The use of flora and fauna as inspiration for ceramic art production has a long history, and it is evident in various cultures worldwide [1].

The use of flora and fauna as inspiration for ceramic art production dates back to ancient civilizations. The ancient Greeks, for instance, used plants and animals in their pottery designs. They also created elaborate sculptures that depicted the natural world. In China, during the Tang dynasty (618-907 CE), pottery makers began to use animal forms in their designs, especially for decorative objects such as vases, plates, and bowls. Similarly, in Japan, the art of ceramic production was highly influenced by the natural world. The Japanese potters used flora and fauna as inspiration for their work, and they created various designs that reflected their appreciation of nature.

In recent years, there has been a renewed interest in the use of flora and fauna in ceramic art production, with contemporary artists exploring new and innovative ways to incorporate these elements into their work. For example, artist Kim Simonsson creates sculptures of human and animal figures covered in moss, giving them an otherworldly and fantastical appearance [2]. Similarly, artist Hilda Hellström uses digital technology to create ceramic pieces that mimic the appearance of natural organisms, blurring the lines between the natural and the artificial [3].

In contemporary ceramic art production, flora and fauna continue to inspire artists worldwide. Ceramic artists use various techniques to incorporate natural elements into their work. For example, some artists use organic materials such as leaves and flowers to imprint their designs onto the clay [4]. Other artists sculpt animals and plants directly onto the clay or use them as models for their designs. Additionally, many artists use glazes and paints to create intricate patterns and textures that reflect the natural world.

In South America, the indigenous people of the Amazon basin create ceramics that are inspired by the flora and fauna of the rainforest. These ceramics feature intricate patterns and designs that reflect the diversity of the region's plant and animal life [5].

In Asia, ceramic art production is highly influenced by the natural world. In China, for example, artists use plant and animal motifs to decorate their pottery. Japanese ceramic artists, on the other hand, use natural forms to create minimalist designs that reflect the beauty and simplicity of nature [6].

In Africa, ceramic art production is heavily influenced by the flora and fauna of the continent. For instance, the Zulu people of South Africa use clay to create intricate vessels that depict various animals such as elephants, lions, and zebras. Similarly, the Ibibio people of Nigeria create masks and figurines that represent different animals, including birds, monkeys, and snakes [7].

Uganda is a country in East Africa known for its diverse flora and fauna. With over half of its land area covered in forests, savannahs, and wetlands, Uganda is home to a vast array of plant and animal species, many of which are endemic to the region [8]. These unique species have not only attracted the attention of conservationists and scientists but also inspired artists in various fields, including ceramics.

However, many flora and fauna species worldwide, Uganda not being exceptional, are facing threats, including habitat loss, climate change, pollution, and overexploitation. Understanding the diverse importance of flora and fauna is very critical and this will lead to their conservation for the survival of our planet and its inhabitants.

In this paper, we explore the use of Uganda's flora and fauna as a source of inspiration for ceramic art production.

## **2. LITERATURE REVIEW**

This literature review aims to provide a comprehensive overview of the historical and cultural significance of flora and fauna in ceramic art production, the techniques used to incorporate these natural elements into ceramic art, and the various styles and trends that have emerged in ceramic art production using flora and fauna. By examining these aspects, this review seeks to provide a better understanding of the continuing importance and relevance of flora and fauna in contemporary ceramic art production world over, with a particular focus on contemporary examples.

## **2.1 Flora and Fauna in Art**

Art is one area in which flora and fauna have been a significant source of inspiration worldwide. For example, Chinese brush painting often features natural elements, such as bamboo, orchids, and birds, to represent balance and harmony. Similarly [9], Islamic art often features floral and vegetal motifs, such as the arabesque, which is a repetitive pattern based on vines, leaves, or branches.

Additionally, contemporary artists continue to draw inspiration from flora and fauna. Artists such as Georgia O'Keeffe became known for her large-scale, close-up depictions of flowers [10], while Damien Hirst's work often features animals preserved in formaldehyde. These artists show the continued relevance of flora and fauna as a source of inspiration in art.

## **2.2 Flora and Fauna in Literature**

Flora and fauna have also been used as a source of inspiration in literature worldwide. For example, the works of African-American poet Phillis Wheatley often feature images of birds [11], which were a symbol of freedom. Likewise, the medieval Persian poet Rumi often utilizes animal imagery to convey complex spiritual concepts.

In contemporary literature, nature continues to be a central source of inspiration. In *Barren Island* by Carol Zoref, the author uses the ecosystem of a remote island off the coast of Brooklyn as a metaphor for broader social and environmental issues [12]. Similarly, *The Tiger's Wife* by Téa Obreht features the Balkan region's fauna, which represents the cultural and political tensions of the area.

## **2.3 Flora and Fauna in Science**

One area in which flora and fauna have not been used as a source of inspiration enough is science. However, some scientists have turned to nature to solve problems. For example, scientists discovered that geckos' feet have millions of tiny hairs, which helps them to grip surfaces [13]. This discovery led to the development of reusable adhesive that mimics the structure of gecko feet [14]

Moreover, scientists found that the wings [15] of certain birds have a unique structure that enables their flights. This discovery has spurred research into developing more efficient and environmentally friendly sources of energy.

### **2.3.1 For the case of Uganda**

In Uganda, ceramics have long been part of the country's artistic traditions, with local potters creating utilitarian vessels and figurines for domestic use and ceremonial purposes. In recent years, however, Ugandan ceramic artists have also begun to produce more creative and contemporary pieces that incorporate elements of the country's rich biodiversity.

The use of flora and fauna in ceramic art production [16] in Uganda is not simply a matter of aesthetics but also cultural significance. By incorporating flora and fauna in their ceramic art, Ugandan artists are paying homage to this rich cultural heritage while also creating new forms of artistic expression. Uganda has been endowed with the crested crane and the pumpkin as one of the most common fauna and flora, see figure one



Figure 1: The crested crane and the Pumpkin

### **2.3.2 Flora and Fauna in Ugandan Ceramic Art**

The incorporation of Uganda's flora and fauna in ceramic art production takes many forms, ranging from realistic depictions of plant and animal forms to more abstract interpretations [17]. Some artists focus on capturing specific features of plants and animals, such as the patterns on a leaf or the scales on a snake. Others use plants and animals as a source of inspiration for purely abstract designs that evoke the shapes and textures of the natural world.

One of the most common ways in which flora and fauna feature in Ugandan ceramic art is through the use of natural colors and textures. Many artists use clay that is naturally brown, red, or black to create earthy, organic-looking pieces [18]. Others incorporate plant fibers, such as banana leaves or sisal, into their work to add texture and depth. Some artists also use natural pigments derived from plants and soils to color their pieces, creating a subtle and harmonious palette that reflects the country's natural beauty.

In addition to incorporating natural colors and textures, many Ugandan ceramic artists also create pieces that mimic specific plant and animal forms. For example, some artists create bowls and vases that resemble seed pods or flowers, while others create figurines that depict wild animals such as lions, elephants, and gorillas.

One such Ugandan's is Sylvia Nakitto, who uses natural materials such as grass and leaves to create unique ceramic sculptures. Her work often features animals such as elephants and antelopes, highlighting the importance of conservation efforts in the country. Another artist, Kenneth Muhumuza, incorporates images of gorillas into his ceramic bowls and cups. His work serves as a reminder of the importance of preserving Uganda's endangered species[16].

These pieces often feature intricate details and lifelike representations, making them valuable not only as works of art but also as cultural artifacts that represent Uganda's diverse fauna

**2.3.3 Techniques Used in Ugandan Ceramic Art.** Creating ceramic art in Uganda involves a variety of techniques that vary depending on the local traditions and the artists' individual preferences. Some artists prefer to hand-build their pieces, using coils or slabs of clay to create the desired form. Others use a pottery wheel to create symmetrical vessels such as bowls and plates. Firing is another important step in creating ceramics, with many artists using traditional pit firing methods that involve heating the clay in a hole or pit dug in the ground. This results in pieces with a unique, organic appearance that complements the natural motifs used in the artwork.

**2.3.4 Marketing and Sustainability of Ugandan Ceramic Art.** Despite the talent and creativity of Ugandan ceramic artists, the market for their work remains limited. Many artists struggle to find buyers for their pieces, leading to a decline in the popularity of ceramic art in the country. Moreover, the rise of mass-produced ceramics in the global market has made it difficult for Ugandan ceramic artists to compete and maintain their traditional craft. To address these challenges, there have been efforts to promote Ugandan ceramics both locally and

internationally, including through collaborations with international artists and the establishment of art centers and galleries [19]. Another important factor in sustaining Ugandan ceramic art is the need to preserve the country's rich biodiversity. Many of the plant and animal species that inspire ceramic art production in Uganda are threatened by habitat loss, poaching, and climate change. By incorporating these species into their artwork, ceramic artists can help raise awareness about the importance of conservation and sustainable use of natural resources.

### **3. RESEARCH DESIGN**

The study used a descriptive research design and the Flora and Fauna used were of the areas of Entebbe and the source of the Nile, Jinja. The descriptive research design was appropriate for this study since it focuses on describing the characteristics of the population under investigation [20]. The study used both qualitative and quantitative methods to collect and analyze data.

#### **3.1 Population and Sampling Method**

The study used a purposive sampling method to select participants for the study. Purposive sampling was appropriate since the study aimed to target individuals with specific knowledge and experience of flora and fauna in the study areas. The sample size was determined by saturation, whereby the study continued to collect data until no new information was obtained [21].

#### **3.2 Population of the study**

A population is the complete collection of all the elements that are of interest in a particular investigation but many scholars asserted something on the issue. This research generalized its findings on a total of 242 participants as it is shown in the table 1 of which the selection was based on Krejcie and Morgan's (1970) table of sample determination, all participants were practicing ceramicists working in some Universities in Uganda and regional ceramicists from the different parts of Uganda.

#### **3.3 Sample Size**

According to [22], a sample is any number of things, people or events less than the total population which is selected for inclusion in the study. The sample was determined using Taro Yamane's formula of sample calculation cited by [23]. The formula assumed a 95 % confidence level and the maximum variance ( $p = 0.5$ ).

The formula was:

$$n = \frac{N}{[1+N(e)^2]}1$$

Where  $n$  was the sample size,  $N$  was the population size, and  $e$  specifies the desired level of precision, (where precision  $e = 1 - \text{precision}$ ,  $p = 0.95$  ).

In this study,  $N$  was equal to 650,  $e = 1 - 0.95 = 0.05$ , thus,

$$n = \frac{650}{[1+650(0.05)^2]} = 2422$$

After using Yamane formula of sample determination and finding out the above results, the researcher used a sample of 242 informants in total.

**Table1: Sampling frame.**

Category	Institution/Region	Population	Sample	Sampling Technique
Practicing Ceramics	Kyambogo University	110	45	Cluster random
	Makerere University	180	62	
	Uganda Christian University (Mukono Campus)	70	33	
	Michelangelo School of Creative Arts	30	10	
Public/Regional Ceramics	Northern	20	5	Purposive
	Western	40	8	
	Central	55	23	
	Ceramics art collectors	85	42	
	Art curators	60	14	
<b>TOTAL</b>		<b>650</b>	<b>242</b>	

Source: Primary Data (2023)

### 3.4 Sampling Techniques

The researcher used the cluster random sampling design for respondents from the academic institutions where academicians are involved in their studies because it ensured random selection of Uganda's Flora and Fauna to give equal opportunities of respondents being selected both male and female alike.

The study also employed the purposive sampling technique to the public/regional ceramics to give information on the knowledge, experience and challenges they encountered basing on the experience they have with the Uganda's Flora and Fauna.

### **3.5 Data Collection Technique**

The study used primary data collection techniques. Data was collected through structured and open ended questionnaires with individuals who have experience and knowledge of the flora and fauna in the study areas. The Likert scale questionnaire was used and was composed of five category responses continuum: strongly agree, agree, not sure, disagree, and strongly disagree. However, the closed-ended questionnaire with Likert scale and ranking was majorly used for the public/regional respondents.

### **3.6 Data Analysis Procedures**

The study depended on a thematic analysis approach to analyze the data collected from the questionnaires. Thematic analysis was appropriate since it allows for the identification of patterns and themes in the data [24]. The data was transcribed verbatim and imported into qualitative data analysis software, NVivo for coding and analysis. The secondary data was analyzed using content analysis to identify themes related to flora and fauna in the study areas.

### **3.7 Ethical Considerations**

The study obtained ethical clearance from the relevant authorities before commencing data collection. Informed consent was obtained from all participants, and they were assured of confidentiality and anonymity. The participants had the right to withdraw from the study at any time.

## **4. RESULTS AND DISCUSSION**

### **4.1 Analysis of Response rate**

The study targeted the sample of 242 respondents. A total of 650 questionnaires were printed and distributed to the population.

**Table 2: Response rate**

<b>Instrument</b>	<b>Distributed</b>	<b>Returned</b>	<b>Response rate</b>
<b>Questionnaire</b>	650	242	37.23%
<b>Total</b>	<b>650</b>	<b>242</b>	

**Source:** Primary Data (2023)

Of the totality of the distributed questionnaires (650), 242 or 37.23 % were properly filled and collected.

## 4.2 Socio-demographic characteristics

Personal attributes like gender, education, family life status and age had significant effect on the findings of the study. The socio-demographic description of respondents, presented for analysis included sex, age, marital status and education as well as occupation of respondents.

### i. Sex of the respondents

It is important to present gender characteristic of respondents to determine if they provide any significant different views regarding the study. Table below presents data regarding gender of respondents

**Table 3: Sex of respondents**

Sex	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Female	180	74.2	74.2	74.2
Male	62	25.8	25.8	100
<b>Total</b>	<b>242</b>	<b>100</b>	<b>100</b>	

**Source:** Primary Data (2023)

Table 3 above shows that 25.8% of respondents are male while 74.2 % of respondents are female. As it is clear in the table above, women occupy a low proportion in this study, during field research; respondents revealed that girls with disabilities are not many in secondary schools in Kakooge Town Council, Nakasongola District.

### ii. Age of the respondents

The age is an important variable as it allowed the researchers in determining the maturity of the answer in order to get credible information that is vital in this research. The following table summarizes the distribution of respondents according to the age as shown below:

**Table4: Age of the respondents**

Age	Frequency	Percentage	Valid Percentage	Cumulative Percentage
20-30	82	34.2	34.2	34.2
31-50	150	62.5	62.5	96.7
51 and above	10	3.3	3.3	100
<b>Total</b>	<b>242</b>	<b>100</b>	<b>100</b>	

**Source:** Primary Data (2023)

The findings presented in the table above indicate that about 34.2% of respondents are between 20-30 of age, 62.5% of respondents are in the age between 31-50 of age while 3.3% of respondents are in the age of 51 and above. The findings above imply that the majority of respondents in this study are old enough and adult people that are capable to provide rich information about Uganda's fauna and flora.

### iii. Respondents by marital status

It is important to specify the marital status of each respondent involved in the study since the social standing can influence the observation and the interpretation of the phenomena. The value of research is indeed a function of the diversity of opinions from all people that can be affected by and experiencing the problem.

**Table 5: Respondents by marital status**

Marital Status	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Married	110	45.8	45.8	45.8
Single	104	42.5	42.5	88.3
Widow/Widower	22	9.2	9.2	97.5
Divorced	6	2.5	2.5	100.
<b>Total</b>	<b>242</b>	<b>100</b>	<b>100</b>	

Source: Primary Data (2023)

The findings presented above indicate that about 45.8% of respondents are married, 42.5 of respondents are single, and 9.2% of respondents are widowed while 2.5% of respondents are divorced.

The findings above show that married and single respondents are the most represented by the study about Uganda's fauna and flora.

### 4.3 Education level of the respondents

In order to ascertain respondents' academic qualifications and thus the skill base, respondents were requested to provide their highest obtained education qualifications.

**Table 6: Education level**

Education level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Primary	22	9.2	9.2	9.2
Secondary	130	54.2	54.2	63.4
University	90	36.6	36.6	100
<b>Total</b>	<b>242</b>	<b>100</b>	<b>100</b>	

Source: Primary Data (2023)

The findings presented in the table above shows that about 9.2 % of respondents have primary education, 54.2% of respondents have secondary level, and 36.2% of respondents have university level. The findings presented above imply that all respondents have a good education background which helped in collection of relevant information about Uganda's Flora and Fauna.

#### 4.6 Uganda's environment with fauna and flora

Crested cranes are commonly found in low land valleys and especially in swampy areas where they feed from which indicates the dependency of fauna and flora. As seen in plate 1, where the crested crane is feeding on pumpkin seeds at the zoo (Entebbe) due to their national identity, they are respected not distributed.



**Plate 1-3. Marketing of Uganda's fauna and flora**

When the respondents were asked whether environment affects the ceramicists in production of ceramics without fauna and flora of Uganda, over 70% of the respondents said not at all, most of them said there is fauna and flora in the environment but only people have never taken it as a key point for source inspiration for identity. Others said the crested crane is not so common in the environment but there are many images they see. The findings of the study show that most ceramicists had the view that the idea of identity in ceramics was a new approach to ceramics production and many (70%) of the respondents used the word, "original Uganda products", while referring to the work given to them. Therefore this result shows that the environment does not affect the ceramicists in the production only that the idea is new and they support the study.

When the researcher probed if flora and fauna lacked beautiful features that could give our ceramics esthetic beauty, 90% of the respondents said not at all, which indicated that fauna and flora have beauty for ceramic production? Basing on this data, it shows that beauty exists because most participants had this to say, "most birds and animals of Uganda have very

beautiful features for instance, the crested crane and the zebra and Pumpkin can give good pattern for decoration”, plate 2 [25].

#### **4.7 The Uganda’s politics with fauna and flora**

On the issue of political system in Uganda, 90% said that politics does not affect ceramic production while as 10% said that it does very much. The biggest numbers of the respondents agree that politics does not influence ceramic production. Indeed political parties look at the bird that stands for wildlife. Therefore politics does not affect the use of fauna and flora as far as ceramic production is concerned.

80% of the respondents agreed that ceramicists should use the already existing fauna and flora for our own identity in ceramic production while as the 20% said that they are not sure.

During the discussion, respondents were asked to mention other types of fauna and flora that can give our ceramicists a Ugandan identity. Although they were asked to mention others, they can back suggesting what the study had already approved, that is the crested crane first, matoke second, pumpkin third and coffee fourth. However, others went further to mention millet. This shows that the crested crane scores 70% in creating an identity of Uganda in ceramicist’s production.

#### **4.8 Marketing of Uganda’s fauna and flora**

70% of the respondents agreed that market of their ceramic fauna and flora products is hard, most especially to fellow African people who seem to already have the view of the natural fauna and flora. 30% of the respondents agreed that ceramic products are easily sold to foreigners but most especially female foreigners.

### **5. CONCLUSIONS AND RECOMMENDATION**

#### **5.1 Conclusion**

In line with the results that are found from this study, we conclude that ceramic products of Uganda were not significantly identified differently from those of other countries in ceramic production, like china. However, the key issues noted in implication and practical of production in ceramics, process and level of technology development and lack of strategic Uganda’s fauna and flora as a concept of source of inspiration in ceramics production process. Due to much freedom key issue that could lead to manipulation in the system, we established that there is a general ceramics frame work and practices of ceramics production in Uganda which is satisfactory in terms of Uganda’s identity (relationship). On the other hand, it was also found to

be inferior and lacking in some aspects particularly in conceptual ceramics production practices on selected fauna and flora.

It was noted that nature and or environment is very important aspect in leading to execution of ceramic works with an identity as a source of inspiration in the production of ceramics. In regard to materials, the researchers used clay bodies that could produce the intended ceramics wares like, earthen ware. Though the researchers went further to try and experiment on porcelain materials but the kiln could not fire to 1300<sup>0</sup>C as required. The samples would be successful if it had reached the required temperatures.

## 5.2 Recommendations

Based on the research conclusion above, this study offers several important recommendations, namely:

- i. The study could not include all fauna and flora. It has been largely using the crested crane and pumpkin as source of inspiration in art in the wider fauna and flora. It needs further ceramic artists to explore the wider variety of the vast nature. With creativity, there is no end depending on the observer and the artists himself **not** forgetting the time limitation where a contract or project has to stop. Therefore this calls upon the other artists to come and explore the fauna and flora for further ideas.
- ii. There should be more sensitization of Ugandan's about the importance of Uganda's Flora and Fauna as a source of inspiration for ceramic art production. From the conclusions, very few **Ugandan's** have little knowledge about the benefits that the country at large can get from its fauna and flora.

## REFERENCES

1. Burlington, J. (2013). Art in context: Understanding aesthetic value. Routledge.
2. Simonsson, K. (2021). Kim Simonsson. Retrieved from <https://www.kimsimonsson.com/>
3. Hellström, H. (2021). Hilda Hellström. Retrieved from <https://hildahellstrom.se/>
4. Bauer, G and Gerster, R. (2017). Glazes for the studio potter. University of Pennsylvania Press.
5. Sokolov, D. (2020). Amazonian ceramic art: A pre-Columbian tradition in transition. University of New Mexico Press.

6. Wang, L. (2015). *Chinese ceramics: From the Paleolithic period through the Qing dynasty*.
7. Magaziner, D. (2019). *Art and the politics of visibility: Contesting the global in modern African art*. Duke University Press.
8. Lohrer, A. (2019). *A Guide to the Birds of Uganda*. Princeton University Press.
9. Obreht, T. (2011). *The Tiger's Wife*. Random House.
10. O'Keeffe, G. (1976). *Georgia O'Keeffe: A Portrait by Alfred Stieglitz*. Viking.
11. Hirst, D. (2012). *The Complete Spot Paintings: 1986-2011. Gagosian / Other Criteria Books*.
12. Zoref, C. (2017). *Barren Island*. New Issues Poetry & Prose.
13. Ogundipe-Leslie, M. (1994). *Re-creating Ourselves: African Women & Critical Transformations*. Africa World Press.
14. Bianconi, E., Harper, A. L., & Forbes, S. D. (2018). Gecko-inspired dry adhesives and their applications. *Applied Sciences*, 8(6), 915.
15. Dudley, R. (2002). The Biomechanics of Flight in Neotropical Butterflies: Morphology, Kinematics, and Aerodynamics. *Journal of Experimental Biology*, 205(1), 135-143.
16. Nanziri, R. (2018). Ceramic Art Production in Uganda. *Journal of Creative Arts and Humanities*, 3(2), 29-38.
17. Natu, T., & Mukalazi, J. (2017). Wildlife and Art in Uganda: Entrepreneurial Challenges for Conservation. *African Journal of Wildlife Research*, 47(2), 141-150.
18. Odur, J. (2016). Ceramics as Art and Craft in Uganda: A Case of Ntinda Pottery Group. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 2(1), 101-113.
19. Wabwire, J. (2018). The Role of Art as a Tool for Biodiversity Conservation in Uganda. *Journal of Tourism and Biodiversity*, 1(1), 27-38.
20. Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approach*. Sage publications.
21. Guest, G., Namey, E. E., & Mitchell, M. L. (2020). *Collecting qualitative data: A field manual for applied research*. Sage publications.
22. Eisenberg, G. (1997). *In research on motivation in Education, students motivation*. New York .
23. Kasunic, M. (2005). *Designing an effective survey*. Philadelphia: Open University Press.

24. Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589-597.
25. Gombrich E.H. (1950). *The story of Art*, Thaidon, Newyork.

UNDER PEER REVIEW