

PRODUCTION OF SCULPTURE FROM WASTE PAPER

INSPIRED BY THE KIKIGA TRADITIONAL DANCE

BY

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DECLARATION

This thesis is my original work and has never been presented for a degree in any other University.

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APPROVAL

We as University supervisors confirm the work done by the candidate under our supervision.

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(Second supervisor)

Date.....

DEDICATION

I dedicate this book to my beloved parents Mr. BYOMUGABE Ben and Mrs. BYOMUGABE Florence for the moral and financial support rendered to me in this research.

I also dedicate this book to my brother KASIIME Agape, DELANEY Parent and AYEBALE Shalom, KICONCO Shammah and friends Nkata Isaac Newton, Akello Sharon Brenda, Bwambale Jehud for the support and encouragement rendered during this course.

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LIST OF ABBREVIATIONS/ ACRONYMS

SDGs : Sustainable Development Goals.

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ABSTRACT

The study explored the different possibilities of using waste paper to produce sculpture inspired by the KiKiga traditional dance. The study was conducted under three objectives that sought to: (1) Establish how waste paper has been used to the produce sculpture. (2) Find out why different waste paper techniques have really been explored for production of sculpture. (3) Produce sculptures from waste paper inspired by KiKiga Traditional Dance. The study employed the descriptive movements and paper technique designs to investigate the potential of waste paper in development of sculptures using different paper techniques inspired by the KiKiga dance movements. To fulfill objective (1) and (2), the researcher used interview, direct observation, Library and archival search methods. (3). Studio experimentation. The information from different practicing artists, lecturers at the Art and Design Department, sculpture students guided the researcher during studio experimentation. The study observed that a few visual that artists have experimented with waste paper as material to produce sculptures. Waste papers are available, and minimally used for the production of sculpture because artists don't realize the paper bulkiness, richness in colour, and its flexibility and availability of paper thrown away. This can be used to register designs and the accessories after making the armatures using wires, wire mesh, in some cases paper can be casted using clay. The study findings are presented in both text and photographic formats which were interpreted in consideration of techniques, material and content attribution. They affirm that waste paper is commendable material for production of sculpture in different paper techniques inspired by KiKiga tradition dance. The research study was limited to use waste paper with a few other selected materials working as armatures. This study recommends further research on other materials like polyethene bags, plastic and other waste materials which are outside the scope of the study.

CHAPTER ONE: INTRODUCTION

1.0 Overview

This chapter consists of the background of the study, problem statement, purpose of the study, study objectives, research questions, scope of the study, and significance of the study.

1.1 Background of the Study

Sculpture is the branch of the visual art that operates in three dimension. Durable sculptural process originally used carving and modeling in stone, metal, ceramics, wood and other materials but, since modernism, there has been an almost complete freedom of materials and process. A wide variety of materials may be worked by removal such as carving, assembled by welding or modeling, or molded or casted. (Appaswami, 2014). Paper sculpture can be defined as an artwork that is created by combining or shaping different types of paper.

This research focused on the production of sculptures from waste paper inspired by the KiKiga traditional dance, at the Centre of Kampala city. This is because Nasser Road is located in Kampala, which is easy for the researcher to easily excess from Makerere Zone 6A to Nasser road and collect the waste paper materials. There are many stationery shops of companies and individuals that discard waste paper in big bulks.

The researcher embarked on producing sculptures out of waste paper because there is a lot of waste paper in schools, institutions, construction buildings, Universities. Few artists have not yet picked interest in using waste paper to produce sculpture in different paper techniques like paper beads, paper ash, which can be used in execution of sculpture as major material. The

need to explore, experiment to inspire art students, artists can find cheap, reliable materials that are environmental friendly.

Waste paper is paper thrown away as useless. The researcher used waste paper because it act as a material for sculpture which was cheap, accessible, and light when used to produce sculptures out it. The recycling of paper is the process by which waste paper is turned into new paper products. It has a number of important benefits besides saving vegetation from depletion. It is less energy and water intensive than paper from occupying landfill and producing methane as it breaks down. Around two thirds of all paper products in the United States are now recovered and recycled, although it does not all become new paper. (Accuracy, 2013).

Paper works range from miniature to gigantic, from abstract of ultra-realistic. work is a style he terms "impressionistic sculptured paper", associating it with painting style of that name because it is only loosely representative, and concerned with capturing emotive responses, not realism. (Besserdi, 2019). Paper as a soft for sculpture requires special approach, and it needs allot of patience and great precision and many artists combine paper with stronger substantial, such as metal, wood or ceramics. For example, Pablo Picasso created several sculptures with materials that include paper as well. But, paper was just a decoration or an additional element of sculpture. (Lorenzo, 2016). Much as artists are doing their best to utilize waste paper for their art work despite such visual art productivity however, few sculptors have endeavored to explore innovative techniques of utilizing paper waste for artworks.

Maud Vantour, graduated from the Parisian school of art Duperre, lives and works in Paris. Color, material, and patterns have an important place in her work. Like paper, which became her favorite material, she sculpts it in three dimension layer, by superimposing paper and colors to create inspired patterns in volume. Her design creations are original graphics of multicolored and dreamlike landscapes. (Vantour, 2017).

Another artist AmsaYaro grew up from Northern part of Nigeria, uses paper using and different types of materials to represent personal ideas or style. In using mixed media, she creates works that stem from the inspiration gathered from the culture of her home country Nigeria, Television and the environment. Her choice of paper came from Paper as a medium observing the versatility of paper and how it can be used in different forms such as clay but manipulated as fabric. Some of her works like Strong shoulders, heavy heads, soft heart, among others takes two to three days to make a big sculpture. (Yaro, 2017).

Qureish is a paper -quilling artist, based in Nairobi and exhibits in East African Art Biennale. Quilling also called paper filigree, and is a technique where strips of paper are rolled, looped, twisted, curled, manipulated and glued together to create coils and scrolls that are then used to make ornamental designs. Accordingly, strips of paper trimmed from scrolls or book were preserved rather than discarded, because during this period, paper was both scarce and a highly prized commodity. Then creativity set in, where paper found use for the strips. (Kahongeth, 2017)

In Uganda today, Contemporary artists like Odwori Gerald recycle papers to produce sculptures out of cement paper bags and he specialised in attractive miniature sculptures. Odwori considers paper as affordable raw materials and easier to transport. (Mubanda, 2019).

The mixed media artist, Sanaa Gateja known as "The Bead King" related a technique where his making beads out of recycled paper and the process begins with intensive bead-rolling. The beads are treated with organic glue, varnish and then weaved together into strips. It is a small sculpture usually made of old school books or material from thrift shops. (Komukama, 2018)

Sculpture made of waste paper have been produced worldwide in order to tackle this component of the SDGs a gender, despite this effort. Artists in Uganda are doing their best to utilize waste paper for their artwork despite such visual art productivity, few sculptors have endeavored to explore innovate techniques of utilizing paper waste for sculptures.

However, each of these artists have something in common, over and above their obvious artistic talent, they all use recycled paper as a statement to show the importance of sustainability and re-using of the materials. The art is not only beautiful, interesting but inspirational too.

1.2 Statement of the problem

The Agenda of 17 of the Sustainable Development Goals (SDGs) talks about tackling the climate change and the preservation of the environment of waste such as waste pollution. Sculptures made of waste paper have been produced worldwide in order to tackle this component

of the SDGs agenda. However despite such visual art productivity, few sculptors have endeavored to explore innovative techniques for utilizing waste paper for sculptures Uganda. In the five sampled galleries such as Nomo Gallery, Asante Art gallery, Umoja, Afriart, 32 Degrees, in Kampala, the curators confirmed that artists rarely exhibit sculptures done in papier mache and especially using innovation styles such as the beaded technique. Therefore, if this problem is left unattended, there would be a lot of waste paper in and harnessing of the material from the environment through innovative technique of sculpture.

1.3 Purpose of the Study

The purpose of this study was to use various techniques to produce sculptures from waste paper inspired by the KiKiga traditional dance.

1.4 Specific Objectives of the Study

The study objectives were to;

1. Establish how waste paper was being used to produce sculptures.
2. Find out why different waste paper techniques have rarely been explored for production of sculptures by artists in Uganda.
3. To produce sculptures from waste paper in various techniques inspired by the KiKiga traditional dance.

1.5 Research Questions

The study was guided by the following research questions;

- 1 In what ways was waste paper being used in the production of sculptures?
- 2 Give reasons why different waste paper techniques have been explored for the production of sculptures in Uganda?
- 3 How can an artist produce sculptures from waste paper inspired by KiKiga traditional dance?

1.6 Scope of the Study

The scope of the study explains the extent to which the research will be explored in the work and specifies that parameters within the study were to be operating. (Editage, 2019). This is the depth of the study which included the time scope, geographical scope and content scope. It is further explained in detail as shown below;

1.6.1 Geographical scope of the study

This study was based at Kyambogo University Department of Art and Industrial Design which is approx. 4 miles from Kampala City Centre. Why this location was chosen is because it had an easy access to the city centre where Nasser Road, a hub for waste paper do exist and itself situates immediately to the West after the Uganda Railways collection. There are many stationery shops of companies that discard waste paper in big bulks. This place was identified as a resourceful site for paper collection because the researcher realized there was a lot of waste paper littering. It was also in proximity of the researcher from his studio location at Kyambogo University to interact with the workers and artists. Further, the University location provided the researcher avenue for consultation with the supervisors and interaction with fellow students offering the same discipline.

1.6.2 Content Scope of the Study

The content of the study was based on three specific objectives; Objective 1 included the establishment on how waste paper is being used to produce sculpture; in Uganda artists and art students in both schools, institutions and universities have used paper as material for sculpture mostly for papier mache. Objective two; finding out why different waste paper techniques have rarely been explored for production of sculpture by artists in Uganda. This is based on the response got from the size of five galleries and 10 practicing artists and five lecturers, 10 sculpture students, on the techniques used out of wastepaper to produce sculptures and also reasons that limit artists from productions sculptures out of waste paper. The third objective was to produce sculptures from waste paper inspired by the KiKiga traditional dance. This objective enabled the production of sculpture from different waste paper techniques. The waste paper materials were collected from Nasser road, and because there are many stationery shops of companies that discard waste paper in big bulks and it was cost friendly to access.

1.6.3 Time Scope

The time scope was analysed into two perspectives; in first when the study was carried and in second, the literature and related material to be reviewed during the study. The period of data collection was for ten years that was from 2009 to 2019. That included field trips, data collection, production of studio art works and writing the final report which could be easy to produce sculptures out of waste paper.

1.7 Significance of the Study

It's hoped that the finding of this study will;

- Be a valuable asset for teaching art students of all ages, practicing artists in especially those in poor communities who cannot access expensive materials. because waste paper is available and in bulk in our societies.
- Be a valuable education reform tool and the creative execution of waste paper in different techniques in producing sculptures which could be the key to motivating students.
- Create awareness among artists, community and the public of the possibility of recycling waste paper to produce works of art.
- Serve as, positive reference to sculptors especially those using waste paper to produce sculptures.
- Transform waste paper and bringing then into a new light and then presenting those in another context rather than being rejected for what they had become will question the new culture, thus conserving the environment.
- The transformation of waste paper will greatly benefit the different institutions, universities, of learning as ideas that will be acquired on how to use waste paper to produce sculptures in different techniques.
- This will improve their ability to work with waste paper as a material hence producing a sense of creativity in their works of art.

1.8 Limitation of the study

- While working with the materials, some of them could easily get torn. This was because they are weak and have thin layers and more especially when wet.
- The available waste paper came in a variety of many colours leaving the researcher loss of choice on where to apply which.
- There was a problem of change of weather, during rainy season, it became hard for the artworks to dry and mostly those soaked and worked on with cassava porridge, and when water fell on the paper, it easily got spoilt. The researcher found using paper time consuming.
- Cutting paper in small shapes, rolling and twisting the pieces of paper into ropes take a lot of time. The researcher found a challenge of making paper beads of different sizes which could take a lot of time and hectic in terms of physical labour.

1.9 Definition of terms

Sculpture: Is a three dimensional art work made out of paper.

Paper: Is a material used in making sculpture.

Origami: Is the art of making objects for decoration by folding sheets of paper into shapes.

From *ori* meaning folding, and which often associated with Japanese culture.

Casting: Is using an internal frame work to build et paper onto it using glue.

KiKiga dance: Is called *ekizino orekisoomo* (okusooma) accompanied by

okutongyerera/okweshongora (rhythmic call-and-response singing) *okuteeraomungaro*

(hand clapping) and or *enanga* (zither or harp music) the dancers jump up and down

energetically with arms stretched in front, and mesmerizing foot work that reveal

practiced agility. Other instruments, such as *omukuri* (flute) and *endingiri* (Violin)

may also be played as accompaniment to

Ekizino following their movements.

Material: Is a substance of which a thing is made or composed like paper.

Technique: Is a skill or procedure of rendering papers to form or create sculptures.

CHARTER TWO: LITERATURE REVIEW

2.0. Overview

The purpose of the study establishes the production of sculptures from waste paper inspired by Kikiga Traditional Dance. Theoretical perspectives related to this topic were reviewed and presented in this chapter. The review was organized and critiqued according to the texture and visual study objectives below;

2.1 How Waste material has been used in the production of sculpture

According to Appaswami (2014);

Sculpture is the branch of the visual arts that operates in three dimensions. It is one of the plastic arts. Durable sculptural processes originally used carving (the removal of material) and modeling (the addition of material, as clay), in stone, metal, ceramics, wood and other materials but, since Modernism, there has been an almost complete freedom of material process.

The researcher realised that there many art waste materials that can be recycled to produce sculptures like paper, plastic, and polythene bags and there artists like Bruno Ruganzu, a lecturer at Kyambogo University who works with

recycling waste materials such as plastic and polythene bags to make sculptural art works. Mujjuzi Henry Kipemba also a lecturer at Kyambogo University who uses banana fibers, *kikolokomba* which eco-friendly to produce sculptures out of them.

Ruganzu (2011) says that;

I really found that this trash and rubbish could actually become a really positive way of communicating to people. Using waste (garbage) such as plastics and tyres which are harmful to nature and do not decompose; he is able to use them as materials to transform them into play grounds for children who live in slums and cannot otherwise access play. Following the techniques like assembling and weaving, Ruganzu

*uses while developing his recycled sculpture art works
out of plastic it enables me as a researcher to create
paper weaving techniques using waste paper.*

Conversely, traditions of sculpture in wood may have vanished almost entirely. However, most ancient sculpture was brightly painted, and this has been lost. Sculpture has been central in religious devotion in many cultures, and until recent centuries large sculptures, too expensive for private individuals to create, were usually an expression of religion or politics. Those cultures whose sculptures have survived in quantities include the cultures of the ancient Mediterranean, India and China, as well as many in Central and South America and Africa. (Anand, 2012)

Pat Steir, (1992) observes that;

*Artists cut away materials capable cared
(glyptic materials), such as stone, wood, cement,
plaster, clay and some plastics. They may use chisels,
hammers, torches, saws, grinders, and polishers to
reduce their materials and it has often been said that
when carvers take away material, they 'free' the image
frozen in the material, and a sculpture emerges. The
freeing of form by the subtracting method, although
not simple, produces unique qualities characteristics.*

The researcher uses waste paper as a material to produce different techniques to form sculptures other than the traditional materials like stone, wood, cement and the tools he used are cutter, wood glue, cassava flour, wire mesh, binding wires, pair of scissors, glue sticks which are cost friendly to buy. Binding wires and wires mesh were used to are make armatures for the sculpture, then paper was dressed onto it with different waste paper techniques formed. Cassava flour, glue sticks were used to attach the paper on to the sculpture and the cutter and pair of scissors could help in cutting process of the paper.

Ocvirk, (1992) says that;

Methods of addition may involve greater technology and, in terms of (nonfunctional) sculpture; have brought about the most recent innovations. When using additive methods, artists add materials that may be pliable and fluid, such as plaster or cement for example Man with Mandolin by Jacques Lipchitz, 1917.limestone 75.6cm. They assemble materials like metal, wood, and plastic with tools and fasteners. Using additional method.

The researcher was able to use the additional method while applying paper to each other creating think layers of paper and in such a method, he was using cassava flour to apply on the pieces of papers and then later placed the waste paper art work outside to dry so that it can be strong and hard which could take few minutes to dry. Using the addition method the researcher used wood glue to attach the pieces of paper together and paper Ash as a material onto the armature to form a sculpture.

According to Orville, (2010);

Casting is a manufacturing process by which a liquid material is (usually) poured into a mould, which contains a hollow cavity of the desired shape, and then allowed to solidify. The solid casting is then ejected or broken out to complete the process. Casting may be used to form hot liquid metals or various materials that cold set after mixing of components (such as epoxies, concrete, plaster and clay. Casting is most often used for making complex shape that would be otherwise difficult or uneconomical to make by other methods. Casting is a 6,000-year-old process. The oldest surviving casting is a copper frog from 3200 BC.

The researcher to cast waste paper using outdoor cast method using fuel as a separate on a clay as a base material and paper as a final material. Paper as a material is a waste product that is available and cheap, and flexible to use. Paper is accessible medium for experiencing ideas in three dimensional forms. It complements work in clay and is an additional way of exploring form, particularly use on a large scale. The researcher was able to use waste paper as a material to produce the sculpture works.

Bronze is the most popular metal for cast metal sculptures; a cast bronze sculpture is often called simply a "bronze". Common bronze alloys have the unusual and desirable property of expanding slightly just before they set, thus filling the finest details of a mold. Their strength and lack of brittleness (ductility) is an advantage when figures in action are to be created, especially when compared to various ceramic or stone materials. (Dalmia & Yashodhara, 2001).

The 2030 Agenda for Sustainable Development adopted by all United Nations Member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At the heart are the 17 Sustainable Goals (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership. They recognize that tackling climate change and working to preserve our oceans and forests among other goals is priority. The researcher figured out that it is important to use recycled paper to bridge this gap and address a global issue that fits the United Nations cause.

The sculpture works found in the Vigeland park in Norway which truly eye catch the foreigners and offer walkers, and those art works were made by Norwegian sculptor Gustav Vigeland and certain no less than 212 in bronze and granite. However, few Ugandan artists can afford to use bronze in casting because of how expensive it is.

Widely known as modelling, manipulation relates to the way materials are handled. Clay, wax and plaster are common media used using manipulation, which is a direct method for creating form. Artists can use their hands to model a material like clay into a form that, when completed, will be a finished product. For additional control, special tools such as wedging boards, wires, pounding blocks, spatulas, and modelling tools. In this example of the manipulation technique, clay is removed with a loop tool and clay may be applied to the surface with fingers, hands, or other tools. Waste paper as a material one of the tools that artist use to make creatures out of it, are the hands to either cut or twist and roll.

Paper is one of the common materials that is wasted after use by many people in our societies like in schools, Universities and construction sites. Artists have tried to use waste paper as a material for sculpture, multimedia through recycling it using different techniques.



*Figure 1: Artist: **Chie Hitotsuyama**
Technique: twisted newspaper
Source: <https://my modernmet.com>*



*Figure 2: Artist: **Chie Hitotsuyama**
Technique: twisted newspaper
Source: <https://my modernmet.com>*

In figure 1 and 2. According to Richman (2016), Chie Hitotsuyama, is a realistic, exquisitely detailed sculptures of the animal kingdom to create each creative, Hitotsuyama skillfully binds rolled and twisted pieces of wet newspaper to each other. By varying the thickness and contours of the paper, she is able to precisely produce any figure she desires from an animated little monkey to a resting rhinoceros. She even utilizes the coloured print on newspapers to create impressive gradation. The process is completed entirely by hand, and requires a tremendous amount of paper prowess she told Kokusai Pulp and paper "Animals that live in nature are equal to us in the sense that we live together on this planet.

The research was able to appreciate the colours of the rolled newspaper, and how they were well placed on the art works. The newspaper has a variety of colors which enables the artwork to have its color and the paper ropes on the monkeys have a different texture from the area they are resting, the monkeys texture is hair, and the paper ropes are placed freely on the

body of the monkey which creates a different paper texture. The rhino in figure one, the artist was able to roll the paper ropes in only a contour arrangement and in a smooth texture.



*Figure 3: Artist: **Gonzalo Garcia Calvo**
Technique: Expressive original animals by folding single sheets
Source: <https://my modernmet.com>*



*Figure 4: Artist: **Gonzalo Garcia Calvo**
Technique: Expressive original animals by folding single sheets
Source: <https://my modernmet.com>*

In figure 3 and 4. According to Calvo, (2016), he meticulously crafts expensive and imaginative paper creatures using only his hands and a single, square sheet of colourful paper the Madrid-based artist brings the animal kingdom to life through intricate folds.

From the cute and cuddly- like his slinky cat and energetic dogs- to more exotic wild life- including a tiny tree frog and an elegant giraffe- the creatures that comprise his exquisite unicorn and fierce dragon, are even mythical whether real or imaginary, however, all of his creations demonstrate Calvo's indisputable talent and unwavering patience while my modern origami artists use multiple sheets of paper, adhesive and scissors to sculpt their creations.

Calvo's method remains true to the ancient craft's rudimentary roots; he uses just one square of paper per piece and only his fingers to bring his fantastic designs to life, he does however, enjoy experimenting with different patterns, textures and types of papers including one that features fur, making his woolly mammoth actually woolly and through his stunning sculptures, Gonzalo Garcia, Calvo successfully communicates the "feeling of fragility and delicacy" intrinsic to the origami art form. The researcher was able to learn how to create folds, using colourful and single sheet of papers to make an art work.



*Figure 5: Artist: **Estudio Guardabosques**
Technique: Low- Poly
Source: <https://my modernnet.com>*



*Figure 6: Artist: **Estudio Guardabosques**
Technique: Low-Poly
Source: <https://my modernnet.com>*

In figure 5 and 6, According to Sarn Barnes (2015), Estudio Guardabosques create fantastic mammals using only paper. Their ongoing series imagines a fox, raccoon, tiger and more as 3D, angular forms. Guardabosques' low poly technique means a simplification of details.

Whiskers, or subtle variations in fur. But it's incredible that with just simple folds in paper, they are captured the essence of each animal.

While this type of sculpture doesn't need a lot of tools, it doesn't require careful engineering. Guardabosques folded the paper at just the right angles to convincingly express form. Sometimes, this means that an intricate snout or arched back features several small, complex shapes. Coupled with larger, broad folds this balance makes for an easily recognisable creature.

The researcher was able to learn how to create simplified plane shapes using paper and how three dimensional forms are created and he observed that some details on the artworks are not well detailed, no rough textures created. They are free standing animals with flat colors. Which the researcher thinks it would be more good incase more details are observed.



*Figure 7: Artist: Mlle Hipolyte
Technique: Paper animal bust
Source: <https://my.modernmet.com>*



*Figure 8: Artist: **Mlle Hipolyte**
Technique: Paper animal bust
Source: <https://my.modernmet.com>*

In figure 7 and 8, according to Crifis, (2015); Mlle Hipolyte's colourful paper masks feature intricate, origami- like designs to form whimsical animal faces that people can really wear. Feather paper triangles stacked in layers create a rich texture that resembles fur. The artist skillfully chooses and arranges slips of complementary shades of paper to create a sense of depth. The mask includes some of the most adorable and beloved creatures in the animal kingdom, such as raccoons, foxes and tigers.

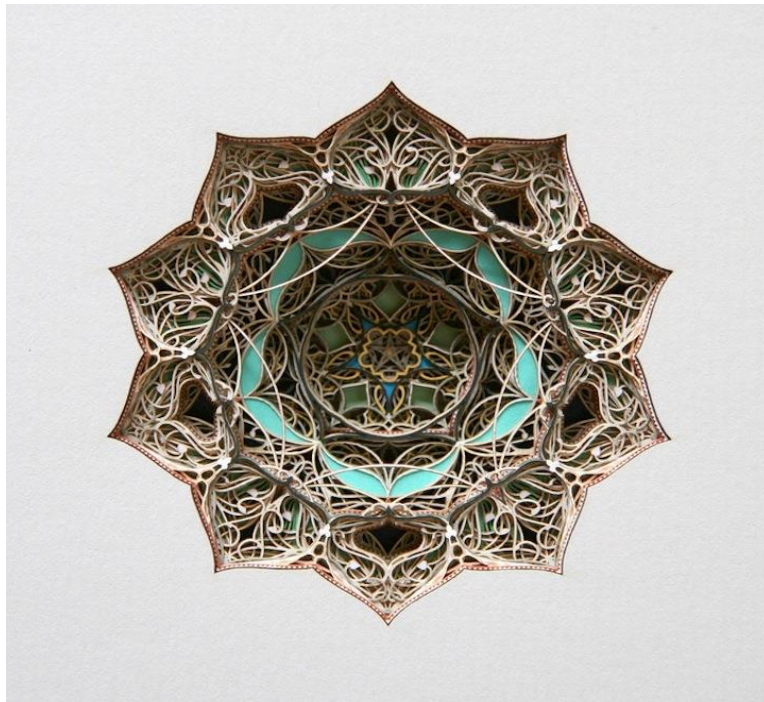
They can offer an imaginative outlet for a child's play time, and they are good for the grown-ups too. Imagine the possibilities for costume parties and whimsical home decorations. Although primarily an illustrator, Hipolyte branches out into three- dimensional art through his paper creations. He's also known for adorable paper animal wall hangings and magnificent free standing animal sculptures made entirely out of paper.

The researcher was able to learn how to create different textures, colourful paper application while creating distance in the sculpture. Though it requires different colourful papers

and a lot of time, and the paper leaf shape in the figure 8 needed some more observation of the details than making them flat.



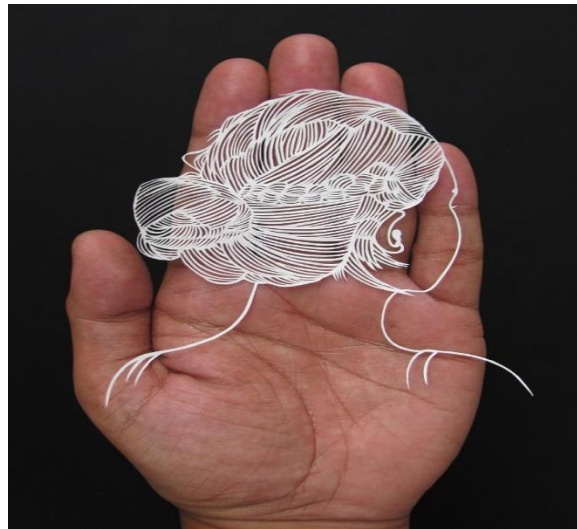
*Figure 9 Artist: **Eric Standley**
Technique: Intricate paper cut-outs resembling stained glass window
Source: <https://my modernmet.com>*



*Figure 10: Artist: **Eric Standley**
Technique: Intricate paper cut-outs resembling stained glass window*

Source: <https://my modernmet.com>

In figure 9 and 10, Pinar (2013), Eric Standley meticulously cuts and layers thin sheets of paper to construct sculptural creations that look like stained glass windows. Every square inch of his multilayered creations are carefully carved to perfection, resulting in unbelievably intricate designs. The final product is awe-inspiring, three-dimensional frenzy of colours and patterns standley's laser-cut works are heavily populated with geometric shape and varying patterns inspired by Gothic, Islam's and Greek art motifs, which caused his sculptures to appear symmetrical form various angles. It is symmetry of lines, cures, and shapes that draws ad mesmerizes the viewer's gaze. There is alot to look on in amazement and contemplate the amount of detail and precision that goes into it, not to mention Standley's patience and diligence. The researcher was able to learn how paper is cut in different shapes and how to arrange thin layers on each other, though such an art work consumes a lot of time and patience. It needs shape cutting tools to enable the artist to cut the papers very well and observed.



*Figure 11: Artist: **Parth Kothekar**
Technique: Delicate paper cut outs from a single sheet of paper
Source: <https://my modernmet.com>*



*Figure 12: Artist: **Parth Kothekar**
Technique: Delicate paper cut outs from a single sheet of paper
Source: <https://my modernmet.com>*

In figure 11 and 12 and according to Kristim, (2016); Parth Kothekar produces paper master pieces with nothing more than a knife and a pair of steady hands. Sketching out his designs on single sheets of paper, with a simple paper - cutting knife in hand, he transforms his fragile medium of choice into intricate, incredibly delicate pieces of art. Every piece is painstakingly carved out by hand yet the resulting whimsical work belie the labour involved in the process. Each playful pieces looks like a floating doodle from an artist's personal sketchbook, skillfully hiding the intensive process behind its creation.

The researcher was able to learn how to cut single sheet of paper, creating plane shape and which requires a sharp tool like cutters to help in cutting the details clearly, in such an artwork, many voids are created in the artwork which requires a lot of attention on the sketch work before the artist cut the image.



*Figure 13: Artist: **Tifanie Turner**
Technique: Larger-than-life paper flower*

Source: <https://my modernmet.com>



*Figure 14: Artist: **Tifanie Turner**
Technique: Larger-than-life paper flower*

Source: <https://my modernmet.com>

In figure 13 and 14 and according to Mitchell, (2016); Tifanie Turner is a San Francisco-based artist who combines a lifelong passion for all things floral with a background in architectural construction to produce these startlingly realistic paper flowers. Each one can take up to 200 hours to complete, as Turner painstakingly pieces together thousands of paper segments to craft these picture-perfect petals.

This artist arranged the petals, varying on different sizes which creates contrast in the artwork. The petals are of different sizes, shapes and they are arranged from small to big petal which creates a contrast.



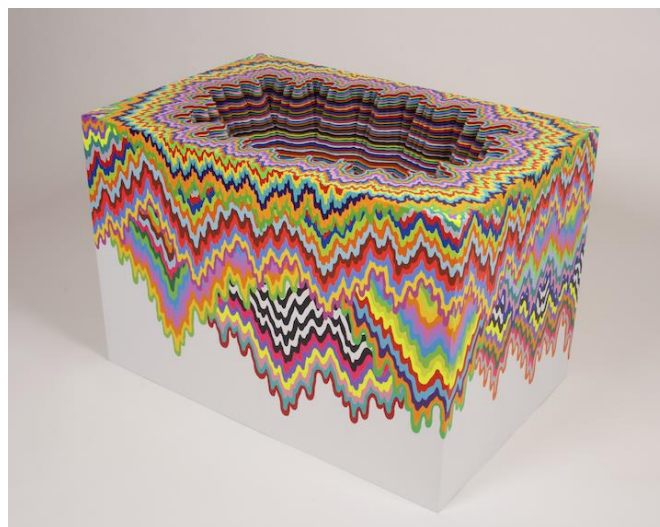
*Figure 15: Artist: **Rogan Brown**
Technique: delicate paper Microorganisms
Source: <https://my.modernmet.com>*

In figure 15, Kristine, (2015); magic circle is Rogan Brown's latest collection of intricately detailed paper microorganisms. The Anglo-Irish artist uses a combination of hand and laser cuts to create vividly textured paper sculptures reflecting patterns that naturally occur all around us in coral, bacteria, and microbes. Each piece is completely unique and fictional, as Brown chooses to explore the interplay between imagination and the "real" world to create these

hypnotic, all-white sculptures. His series featuring paper constructions tucked underneath coats of wall paper are mad to resemble computer generated sound waves. The researcher was able to learn how to cut different shapes and sizes of paper to create different variation of paper.



*Figure 16: Artist: **Jen Stark**
Technique: Psychedelic paper culture
Source: <https://my modernmet.com>*



*Figure 17: Artist: **Jen Stark**
Technique: Psychedelic paper sculpture
Source: <https://my modernmet.com>*

In the figure 16 and 17, Jen Stark in 2007 made a vibrant splash in the art world with her fantastically psychedelic sculptures crafted from colourful layers of paper. Exploring ideas of replication and infinity, Stark's mandala-like work mimics the intricate patterns and vivid hues found in nature, spiraling endlessly inward to a perfect point of meditation.

The researcher was able to learn how to make colourful layers of paper out of waste paper. The colour application of paper helped in creating depth in his work and also be able to create different patterns.



*Figure 18: Artist: **Charles Clary**
Technique: Intricate paper cut-outs peek behind wallpaper
Source: <https://my modernmet.com>*



*Figure 19: Artist: **Charles Clary**
Technique: Intricate paper cut-outs peek behind wallpaper
Source: <https://my modernmet.com>*

In figure 18 and 19 According to Kristine Mitchell (2016), Charles Clary provided a unique perspective of the world, using layers and layers of precisely carved paper to communicate his vision. His unsettling microcosms call to mind words such as ooze, growth, and spread. These associations are deliberate as it draws inspiration for his pieces from concepts such as sound waves, fungus cultures, and microbial diseases. Garish colours invite interactions between his work and audience, where one may intrinsically withdraw for fear of infection. The researcher was able to learn how to cut paper and place it behind a flat plane which takes a lot of time to produce and selecting different pieces of paper.



*Figure 20: Artist: **Sara Barnes**
Technique: 3D illustration carved into discarded books
Source: <https://my modernmet.com>*



*Figure 21: Artist: Sara Barnes
Technique: 3D illustration carved into discarded books
Source: <https://my modernmet.com>*

In figure 20 and 21, According to Sara Barnes 2015 using a lot of glue stick, an X-Acto knife, water colour paints and a whole a lot of love, illustrator Isobelle Ouzman gives discarded books a new life. From the outside they might look like your average texts. Just past the hardcover, however, is an incredible mix of drawing, painting, and paper sculpting. She finds these books in places like recycling bins and thrift stores and alters them with her beautiful three dimensional drawings. Ouzman cuts part of the books pages away to create depth in her compositions. Often, this leads us into a tunnel or down a path rammed by her detailed renderings of tall grasses, winding tree branches and blooming flowers. Their original stories are now totally transformed into a fantastical works of art that celebrates the beauty of nature. The researcher was able to learn how to create perspective using paper, such art works take a lot of time to cut those pieces of paper.

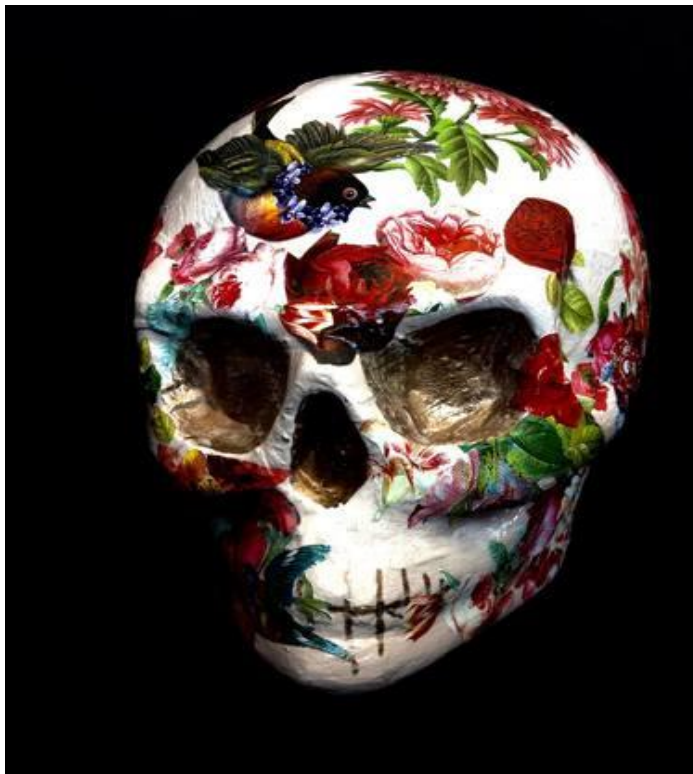


*Figure 22: Artist: **Li Hongbo**
Technique: Shape shifting paper sculpture resembling stone
Source: <https://my.modernmet.com>*



*Figure 23: Artist: **Li Hongbo**
Technique: Shape shifting paper sculpture resembling stone
Source: <https://my.modernmet.com>*

In figure 22 and 23, Chin (2014) says that; the sculptures constructed by artist Li Hongbo appear to be chiseled out of stone, but once manipulated and pulled, they reveal the use of a different medium. Once the viewer uncovers that the sculpture can not only move, but stretch, spread, twist, bend, and contract the pieces exhibit a much greater impact. He adapted a layering process, which takes months to complete, and carefully considers the depth, width, mass and center of each piece to ensure a balanced construction. Cutting, chiseling and sanding each piece as if it were made of stone. The researcher was able to learn how to cut and consider depth, width and mass while producing the paper waste sculpture.



*Figure 24: Artist: **Jasimin Lee Trupper**
Tittle: *Beauty in the after.*
Techniques: *Paper Mache.*
Size: *6.7Wx7.9Hx7.1*
Source: <https://my modernmet.com>*

In figure above, Jasmin Lee Tupper (2019) South African artist is a part autodidact graphic designer, interior designer, lighting designer, her art is a lot loud, bright emotions with a touch of nature loving. The researcher was able to learn on how to create bright emotions with a touch of nature in his sculpture. Using pepier mashe, it's one of the most used techniques and it takes long to dry compared to other like paper rope, punching, paper ash.



*Figure 25: Artist: **Sanaa Gateja**
Techniques: Paper bead.
Source: www.sanaa-gateja.com.*



*Figure 26: Artist: **Sanaa Gateja**
Every bead has a lot of character and is usually made of old books.
Source: www.sanaa-gateja.com*

In figures 25 and 26 above, The interview with Sanaa Gateja (2018), the mixed media artist Sanaa Gateja from Uganda created a technique where he is making beads out of recycled paper, he is known as "the bead king" and helps villages in his home country and other African countries to gain additional income off the craft and his practices fall in line with the global consciousness to preserve the environment. The researcher was able to learn how to assemble different paper beads of different shapes and in their colours on a sculpture art work.

Students at Kyambogo University Department of Art and Industrial Design like Murwana Sam, Odwori Billy, Arintwe Nicholas tried to use paper as material for sculpture and they were not able to explore different techniques of paper like paper bead, rope, paper ash, and punching techniques. Most paper sculptures are mostly done in small sizes, as a researcher in this study, he is able to form sculptures of bigger sizes out of waste paper.

2.1.1 Rare exploration of different paper techniques in the production of sculpture

According to Eliasson, (2016);

one of the greatest challenge is that he often felt untouched by the problems of others and by global issues like climate changes, even when could easily do something to help. We do not feel strongly enough that we are part of a global community, part of a larger we. Giving access to data most often leaves them feeling overwhelmed and disconnected, not empowered and poised for action. This is where art can make a difference. Art does not show people what to do, yet engaging with a good work of art can connect you to your sense, body, and mind. It can make the world felt. And this felt feeling may spur thinking,

engagement, and even action. The following were reasons why artists rarely explored different waste paper techniques for production of sculptures.

- **Change in weather and climate conditions;**

According to Oluwasegunm, (2016);

Weather as the state of atmosphere on a particular Space and time as regards various climatic variables such as rainfall, temperature and humidity etc as they affect outdoor sculptures depending on the type of material used for their execution. The effect of weather on these sculptures communicates community values, highly awareness, question assumptions and transform a landscape.

Paper as a material can easily be affected by weather and which makes few artists to use paper especially for outdoor. When water falls on paper it softens easily and tire which become hard to expose it to wet condition. It requires covering paper with other materials like car vanise, resin to protect it from such weather condition

- **Time;**

Waste paper a material that can be made out of paper beads and it takes a lot of time to prepare and make them because the beads can be produces in different sizes and shapes which creates allot of time, which makes the artist not to use it more especially when it comes to making different techniques in paper as material. Kojima, (2013) states that paper cuts is a form of paper cutting, this is a contemporary development of traditional art form. Instead of flat, two dimensional pieces, the art is given a three - dimension form which cost a lot of time. The researcher identified that artist are not inspired by waste materials and beautiful endowments of the paper because they are so much exposed to the traditional materials like cement, wood, stone etc.

The researcher realized through an interview, that most artists especially in Uganda, sometimes need a lot of waste paper to produce a sculpture art work and because paper as a material is thin and to make a sculpture, he or she will need a lot of paper to make strong layers of paper, which might be hard to get to much paper to use.

- **A lot of labour required;**

The research realized through an interview, that most paper sculptors need a lot of preparations on the material like sorting out different paper and it needed a lot of labour to prepare the material for example like making paper rope technique, bead techniques etc, which costs a lot of labour to prepare the martial and then execute it into a sculpture. The researcher realization of long period of time required to execute a sculpture using paper is backed up by Qureush, (2009); who observes that the challenging part using a quilling paper technique, is the aligning and arranging of the paper coils to create a decorative configuration which also takes time.

2.2 Exploration of different waste paper techniques for sculpture

Waste paper as a material can be used in different techniques; many modern sculptures are created through assembling, an additive sculpting technique that brings materials together to form an art piece.



Figure 27 Artist: Sanaa Gateja

Source: www.sanaa-gateja.com.

According to figure 27, Sanaa Gateja in 2018, used paper bead technique, as mixed media artist and widely known of his signature incorporation of recycled waste materials in his practice, particularly his pioneering fashioning of beads from discarded paper, which earned him the nickname 'The Bead King' in Uganda, and also works with backcloth, paper, raffia, wood and banana fiber, using his materials to construct large experimental abstract pieces of social and environmental commentary that straddle installation, tapestry and sculpture and strike a balance between aesthetic and conceptual value. The researcher is able to learn how he applies paper beads of different shapes on the surface varying different colours which take a lot of time

to apply the beads on the artwork. In some works the researcher randomly applies them on the sculpture following different shapes and colours of the paper beads.



*Figure 28 Artist: Chie Hitotsuyama
Technique: twisted newspaper
Source: <https://my modernmet.com>*

In relation to the art work of Chie Hitotsuyama, using paper rope techniques deftly creates textured sculptures of animals using textured rolling strips of wet newspaper. The compact application of each newspaper segment proves to be an elegant method of forming the wild fur of snow monkeys. These details are critical as she seeks to create the most life like sculpture possible. The researcher is able to use other types of papers like cement paper bags apart from the newspapers and using cassava porridge as glue to attach on the sculpture which creates different texture and colour of the sculpture.

Chie Hitotsuyama's rolling of paper ropes are usually single twist of rolling, but as a researcher was able to experiment with a rolling of a two rope twist. He realised it creates more textures compared to a single role. He fast cut the two piece of paper using a cutter then later had

to wet the cut waste paper pieces, then twisted them together, one piece of waste paper twisted clockwise and the other piece anticlockwise to form a rope which creates a different rope pattern.

According to Mitchell (2013) uses a hand and laser cuts to create vividly textured paper sculptures reflecting the naturally occur all around us in bacteria and microbes. I realize that his art pieces usually take a lot of time and patience.

The subtraction technique Li Hongbo in 2014 adapted layering process, which takes months to complete, and carefully considers the depth, width, mass and center of each piece to ensure balanced construction which considers cutting, chiseling and sanding each piece which requires a lot of time and labour.

2.3 Production of sculptures from waste paper



Figure: 24 One of a kind Decorative paper
Artist: Daniel AduPreez
Techniques: Paper Mache.
Size: 3.9Wx6.7Hx3.9
Source: www.artnet.com

In figure 29 above, AduPreez (bn. 1973) is a southern African paper artist. He gets his inspirations from life, love, nature, politics, news and everything that surround him in life. His work expresses, things that are very obvious and recognizable to everyone but with a twist. The photographs in some of his works may not be pretty or even correct but the point of his work is to get a message across that is strong and undeniable some times. The researcher was able to learn how to associate with the source of inspiration to make paper out of it, which has improved my creativity. Papier mache needs to gather a lot of pieces of paper to be able to soak in water.



*Figure 30: Quilling technique
Artist: Fatema Qureish
Source: <http://mobile.nation.co.ke>*

In the figure 30, Qureish (bn. 2009) was using a quilling technique, also called paper filigree, and is a technique where strips of paper are rolled, twisted, curled, manipulated and glued together to create coils and scrolls that are then used to make ornamental designs.

The researcher was able to learn how to roll and twist the paper to create designs and realised one can also roll tall paper sizes and not only small paper pieces, which needs more time to roll the papers and also considering the size of the rolled paper. Considering the rolled paper arrangement on both the cup and the paper holder, they both have different arrangement format, which enables the work to have different paper contrasts.



*Figure 31: Artist: **Wangechi Mutu**
Technique: paper pulp, soil, wood glue and mirrors
Size: 20.75x15x9 inches 52.7x38.1x22.9 cm
Source: www.artnet.com*



*Figure 32: Artist: **Wangechi Mutu**
Technique: paper pulp, soil, wood glue
Size: 21.25x21x25x 21.25 inches 54 x 54 cm
Source: www.artnet.com*

In figure 31 and 32, Mutu (bn. 1972) is well known for her multimedia collage and for representation of black female bodies standing as hybrid and fantastic creatures.

The researcher likes the application of the material that made sculpture work, to become light which enables the round sculpture to balance on the stand. This enabled the sculpture to remain in its natural color which is dark browns and the fact that soil is in such a color.

CHAPTER THREE: METHODOLOGY

3.0 Overview

In this section, the study provided methods which were used in the study of studio experimentation on the potential of paper as a material for producing sculpture and that was used to collect data from the respondents in order to address the research problem.

3.1 Research Design

The researcher carried out the study using case study research design. This was an approach to research under qualitative method that focuses on gaining an in depth understanding of a particular entity or event at a specific time. Case studies provided data that was usually gathered through a variety of means including but not limited to interviews, document collection. Case study design used by the researcher because; it is a good source of ideas about behavior, provides an opportunity for innovation, good method to study rare phenomena and it is also a good alternative or complement to the group focus of psychology. Action research involves learning in and through action and reflection and is conducted in a variety of contexts. Today, you can do action research in social and caring sciences, in education, nursing and health care, in artistic and creative practices and in virtually any other discipline or area. (McNiff, 2013, p. 24). The researcher used Qualitative method because it provides more information about

what other people have been doing in relation to your research and opportunity for innovation.

3.1.1 Sampling Technique

The researcher used the purposive and convenience sampling techniques. The researcher selects units that are convenient, close at hand and easy to reach. (Amin, 2005).

Bryman, (2008) states that; “Purposive sampling is a method that entails selecting respondent in a strategic way, so that those sampled are relevant to the research questions being posed. This definition is supported by Patton (1990) who affirms that “the logic and power of purposive sampling lies in selecting information rich cases for study in depth” The purposive sampling technique was applied basing on the lectures, sculpture students and practicing artists who have knowledge about the different paper techniques used by artists. The researcher also selected works of different skills because of their strength and areas of specialisations. This was because the respondents who could give responses were relevant to the research questions.

3.2 Study area

This study was based at Kyambogo University Department of Art and Industrial Design, which

provided space for studio research and avenue for consultation with the supervisors and interaction with fellow students offering the same discipline.

3.3 Population of the Study

Amin, (2005) defines population as the complete collection of the entire element that are of interest in a particular investigation. According to the above definition, the researcher was particularly interested in the lecturers, sculpture students and practicing artists in the art field. This was because they have more knowledge and information on using different techniques in other areas of art like textile, printing, multimedia.

3.4 Sample size

A sample size of respondents is selected from lecturers, sculpture students and practicing artists for the study. This was being determined using Krejcie and Morgan table as given by Amin, (2005). The researcher selected the 5 lecturers, 10 sculpture students, 10 practicing artists because they were available and had more information about using different techniques in sculpture and other related areas of study.

3.5 Instruments of Data Collection

According to Mbokane (2001), Data is information obtained during the course of the study. The researcher used the methods of interviewing, direct observation, Library and Archival search and studio experimentation. This was because the researcher was able to get more information and knowledge easily about the research by interviewing lecturers, art student especially sculptors and practicing artists for consultation and interaction so that to get more information. The researcher based on the response got from the size of five galleries because that is where practicing artists exhibit their artworks of different techniques, 10 practicing artists so that he could get more information on how they create different techniques and five lectures to guide him on different techniques used in other areas of study like multimedia, ceramics, textile, 10 sculpture students to enable the researcher know the challenging they face in terms of materials and other techniques they use in developing sculpture. The following procedure was followed;

- Collecting and selecting different types of waste paper.
- Collecting and identification of tools, materials and techniques used for experimenting with paper for production of sculpture art works. The tools and materials used like, scissors, binding wires, cutters, rulers, wood glue, glue sticks and waste paper.
- Examining and selecting inspirational objects and experimenting with waste paper using selected materials, tools and techniques to produce waste paper sculptures inspired by Kikiga traditional Dance. The art works of other artists that tried to explore with paper, showing different techniques such as paper bead, rolling, quilling, weaving and punching were observed.
- Studio design process, using waste paper to develop sculpture inspired by Kikiga traditional dance movements. The researcher during the studio process he was

able to explore different paper techniques like weaving, paper bead, paper rope, paper ash.

3.5.1 Direct visual observation

The researcher used direct visual observation through visiting art galleries, Art studios, public spaces like hotels, malls, tertiary institutions, seasonal exhibitions, churches where art is displayed. The researcher studied artworks that are done by different artists both in Uganda and outside Uganda, in order to appreciate their techniques, materials and inspiring messages being portrayed in their artworks.

This was done in order to get interpretations and understanding of various attributes from the selected art works more especially on the techniques used in making paper sculptures.

The researcher visited a number of paper bead makers in Acholi quarters village in Banda with an aim of getting more idea on different sizes, colours, and shapes of paper beads which enables the artist to work with the people in community and share ideas on the type of beads that can be used in the production of the sculpture.

The researcher visited artists at Nasser shops found around Nasser road in Kampala aiming at collecting variety of different types of papers like soft and hard paper, and they are usually disposed which gives the him a chance to collect them.

In this process, the researcher was able to record notes in a book and capture photographs of different paper basing on texture, colour, softness and hardness and thickness. This data was

collected under direct observation and was later used for reference purpose during studio experimentation.

This was because to enabled the researcher to get critical evidence about the situation analyses and also be able to interact and get more information about waste paper through different art students, practicing artists, workers at companies that discard waste paper in big bulk.

3.5.2 Interviews.

This study focused on the qualitative interview while carrying out qualitative method to collect its data. According to (Kvale and Flick,2007), Qualitative Research interview can be defined as an attempt to understand the world from a subject's view to unfold the meaning of people's experience to uncover their live world prior to scientific explanation.

He adds that qualitative research interview seeks to describe the meaning of central themes in the world of subjects, thus the meaning task of interviewing is to understand the meaning of the interviewees say, (S. Kvale, 1996). Data was collected during the interview with the participants of the study using this knowledge by the researcher.

This method, the researcher was able to collect first-hand information as the interviews were on one on one discussion with the respondent. The researcher designed interview guide questions were utilized for the study. He made appointments with various people to be

interviewed such as lecturers, who are specialised in various areas of art like painting, sculpture, multimedia, graphics. He was able to interview the practicing artists in order to collect information about different techniques of using paper as a material for sculpture used by various artists. The data from respondents was recorded and utilised during studio practice. This was to give you more information that the respondent would have left out without answering them on the questioner.

3.5.3 Library and Archival search

Library and archival search, it made it possible to access relevant data collected from internet, text, books and journals etc in order to satisfy the objectives of the study.

Through this method the researcher consulted published and unpublished sources which included books, internet sites, reports from various artists so that to get more information about materials, processes used in the execution, their limitations and usage of paper as a material in the production of sculptures. The researcher was able to use this method simply because there a lot of information in order to satisfy objective one and two of the study, such as artists who have used different paper techniques like Chie Hitotsuyama, Wangechi.

This method was able to help the researcher to compare the information he had got through library, archival with the questionnaires both in terms of visual and text and learning how other artists have tried to produce sculptures out of waste paper which enabled him to develop different paper techniques like the paper bead, paper ash, paper rope.

3.5.4 Questionnaire

The questionnaire was used to find answers to questions like other materials used in the production of sculpture, what were the different uses of waste paper and what different techniques used in the production of art works.

This helped in data collection that was used in finding location of materials to use in bulk and techniques used in the studio production of the final works. This was to make the respondent to become free, and not to answer the questions under pressure.

The researcher was able to use this method because it enabled him to understand different waste paper techniques, other artists have been used in executing of artworks and even in other areas of art besides sculpture.

3.6 Studio Technology.

The researcher picked waste paper around universities, institution, schools, markets in Kampala and shops at Nasser roads where they work with paper materials. These came in a number of waste paper materials in different size, shapes, colours and textures. Then later stored in different ways because some could easily get torn and also get dust and could be affected by weather than others until time of usage.

3.6.1 Collection and identification of tools and materials

The tools collected were; wood glue, cassava flour, glue sticks, glue gun, scissors, binding wires, clay, wire mesh, pliers, paint, rulers, cutters, digital cameras which were used to collect photographic data during and after studio processes, computer, this equipment was used

in text and photographic data. The pencils are to help the researcher to draw developments leading towards execution.



Figure 25: Wood glue

Source: Photograph taken by researcher



Figure 26: Scissor

Source: Photograph taken by researcher



Figure 27: Pliers

Source: Photograph taken by researcher



Figure 28: Wire mesh

Source: Photograph taken by researcher



Figure 29: Glue gun

Source: Photograph taken by researcher



Figure 30: Binding Wire
Source: Photograph taken by researcher

3.6.2 Sources of inspiration

The study is inspired by the Kikiga traditional dance called the *Ekizino* which is a royal dance since Kigezi is a hilly region which therefore, this vigorous dance represent their jumping, stamping and is meant to demonstrate stamina and strength and with a more elegant display of their arms which together creates movement in the sculpture art work which is one of the principles of art.

The researcher was also inspired by their dress code, music instruments they use while playing like flute (*omukuli*), fiddle (*endingidi*) and their movements while dancing

Inspirations.



Figure 31: Kikiga dance
Source: Photograph from the internet



Figure 32: Sketch drawings
Source: Photograph
Taken by the researcher



Figure 33: Kikiga group dance
Source: Photograph from the internet



Figure 34: Kikiga women dance
Source: Photograph from the internet

3.6.3 Studio design process of producing sculpture using waste paper inspired by Kikiga

Traditional dance.

Making paper beads, the researcher was able to get different hard papers of different colours for example leftover magazines, scrap books, junk mail, wall paper, washi paper, copy paper, hard coloured paper etc. with a smooth texture. And was able to cut them in different shapes, varying the size and shape of papertriangles that he cut out

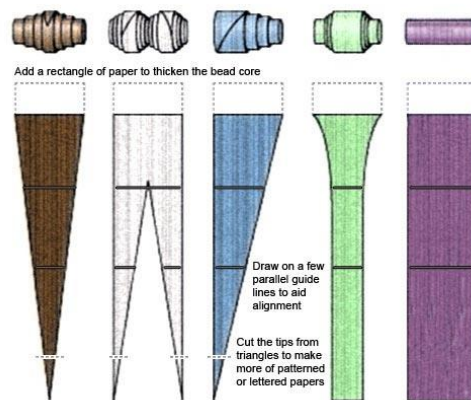


Figure 35: Rolled paper bead forms

Material: Magazine paper

Source: Photograph taken by researcher

To provide a neater finish to the beads and to show more of the paper pattern, simply cut the tip from the triangle as indicated in the above diagram and which gives a broader end to the last part of the roll. This is particularly effective if one is using paper with text.

To provide a stronger, neater, flatter core to the finished paper bead add a rectangular are of paper to the long base of the triangle as shown in the diagram above. This doesn't need to be more than 1.5 cm long and should simply allow for a few turns of the paper around the skewer or dowel which also makes initial alignment of the paper easier.

Then after a carefully cut out the triangles using scissors or a craft knife or rotary cutter, then he took a skewer or dowel and started at the wide end of the paper sample roll, then rolled the paper around the skewer slightly so that it starts to form a cylinder, and after the alignment roll this back and with a brush he applied a little glue across with width of the paper immediately below the line of the skewer.

He now carefully rolled the paper passed the glue and continued onwards ensuring that each spiral at the end of the bead is symmetrical as it forms and in case he could run out of alignment, he could simply unroll the paper back as far as the last application of glue to create the alignment.

When he remained with about 3cm, he covered the remainder with a thin coat of glue leaving a border around the edges. When rolling the glue was forced over this border without squeezing out over the sides of the beads

When the paper was completely rolled making sure the end is securely stuck down before rolling the bead through his figures with a light pressure to ensure that was a cylindrical and secure. If there was any glue residue at this quick gentle, wipe with a damp cloth. Then slide the hand rolled paper bead from the skewer or dowel and transfer it to a cocktail stick and set to one side in the florists block or polystyrene block to dry.

Then after having a good number of beads, he selected some to be brushed each bead with a few coat of varnish to make them water resistant. In the figure below the armature was fast made out of wires both binding wires and wire mesh, using a pair of pliers and scissors following the sketch of KiKiga dancing.

3.6.4 Studio practice and findings

1st Phase

Studio experimentation involves production of art works using specified materials, tools and techniques. This method made it possible to appropriately execute the production of sculptures inspired by Kikiga traditional dance movements from waste paper using.



Figure 36: Paper cutting process

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher



Figure 37: Rolled paper beads

Material: Soft paper

Technique: Rolling

Source: Photograph taken by the researcher



Figure 38: Glue application on the paper beads

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher



Figure 47: Rolled paper beads

Material: Soft paper

Technique: Rolling

Source: Photograph taken by the researcher

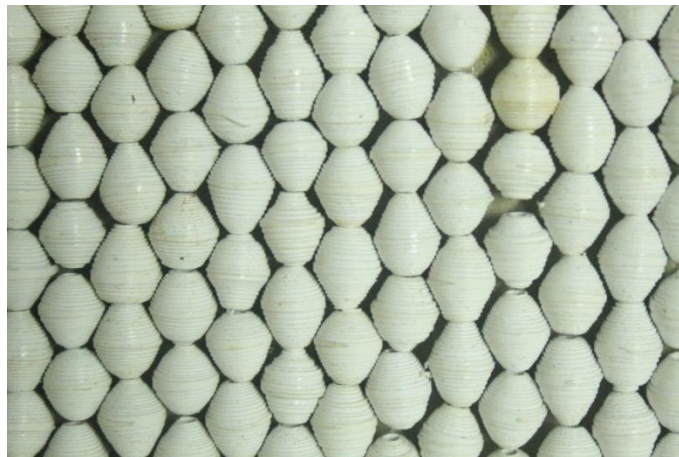


Figure 48: Back lying format of paper beads

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher

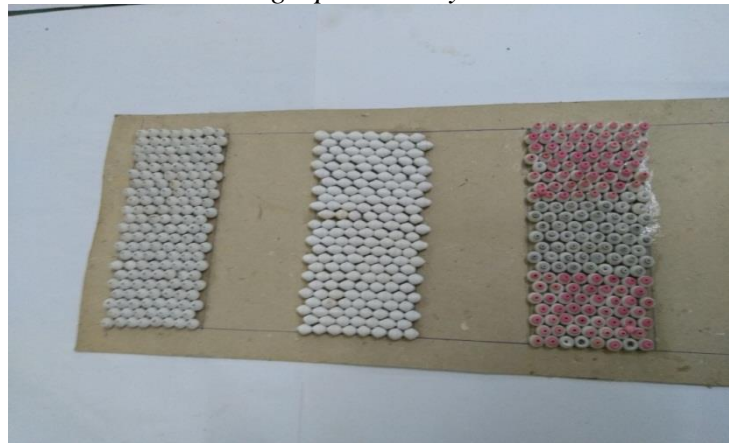


*Figure 49: **Bottom/ top standing lying format of paper beads***

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher



*Figure 50: **Rolled paper beads***

Material: Soft paper

Technique: Rolled paper beads

In figure 50, the papers beads are arranged in different formations using glue sticks, where by some beads are arranged in a horizontal format and others in a vertical format.



Figure 51: Back lying format of coloured paper beads

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher

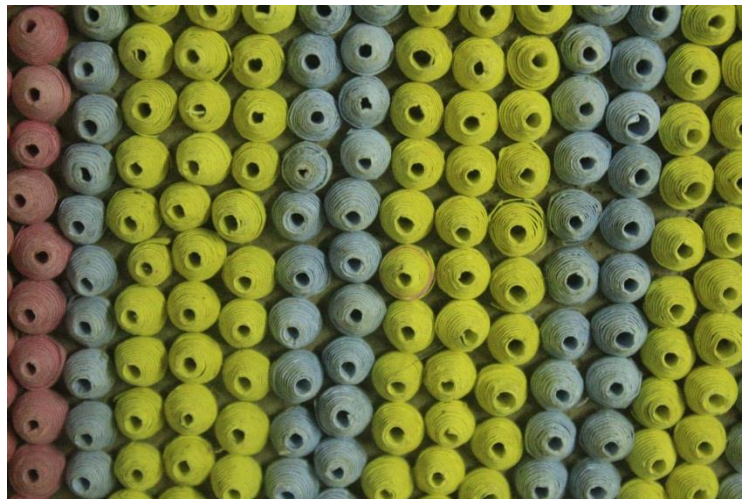


Figure 52: Bottom standing lying format linear of coloured paper beads

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher



Figure 53: Back lying random format of coloured paper beads

Material: Soft paper

Technique: Rolled paper beads

Source: Photograph taken by the researcher

In figure the researcher is able to arrange the paper beads in different colours and different formats of arrangements using glue sticks to attach them on the surface.

Making paper ash as a material, the researcher followed the following steps.

The researcher got all the kind of different waste paper such as newspaper, wall paper, colored art paper and magazine papers and he was able to gather them together and burnt them and was able to get ash.

According to Watt, (2011) notes that; When paper is burned oxygen from the air combines with carbon and hydrogen in the paper turning some of it into carbon dioxide and water vapour, which waft away with carbon particulates in the smoke. This not surprisingly, leaves the solid ash left over are lighter than the original paper.



Figure 54: Paper Ash mixed with cassava porridge

Material: Burnt waste paper

Technique: paper Ash

Source: Photograph by the researcher

The artist used the following materials;

- Match box- for creating fire after using the match sticks on scratching it on then match box and the match sticks are able to produce fire due friction.
- Dish or bucket- for collecting the burnt paper ash and be well stored.
- Burnt paper ash creates a colour of its own which is black.

Making paper technique, the researcher was able to follow the following steps;

The researcher got paper as a material to use to create ropes out of them and he was able to cut them in small length and thickness and then tied the pieces of paper together so they are lined up and tied a knot at one end to keep them secured together, then divided the bunch into two even sections to form a v-shape that is attached at the knot. Then twitted two sections,

grabbing one section in each hand and begin tightly and evenly twisting all the paper in the same direction and I didn't matter if he could go clockwise or counter-clockwise, as long as it's always the same direction. As he could continue twisting, the two paper pieces could begin to wrap around one another, forming a rope.

To make an additional paper to make a long rope, he could nearly the end of the first rope; he could grab two more sections of paper that are the same thickness as the original.

Then overlap the trails of the original paper sections with the heads of the new sections, making sure the top of the heads actually extended beyond the trails, so that the new paper are anchored into place, then he continued twisting. Eventually, the twisting could wrap the new and old sections together, giving you an additional length of paper rope. Then knotted the end together, alternating between the two sections all the way at the end of the paper pieces, twisting away from himself and then crossing the section, securing the cord in place with his non-dominant hand as he could go. When he could reach the end, he could knot the ends to secure the paper rope together. In order to make a nit paper rope, he could use soft light paper which could be easy to twist like newspaper and in case your to use hard paper like cement paper, magazine paper, he could wet the paper before using it and it will have soften and easy to twist and role to make a rope out of it. The bigger the size of the paper you cut, the thicker the rope you're able to make.



*Figure 55: The processes of cutting newspaper out of small pieces using a cutter and a ruler.
Source: Photograph by the researcher*



*Figure 56: The process of twisting paper using both hands in order to form a rope.
Source: Photograph by the researcher*



Figure 57: The process of twisting and rolling two rolled paper to form a paper rope.

Source: Photograph by the researcher

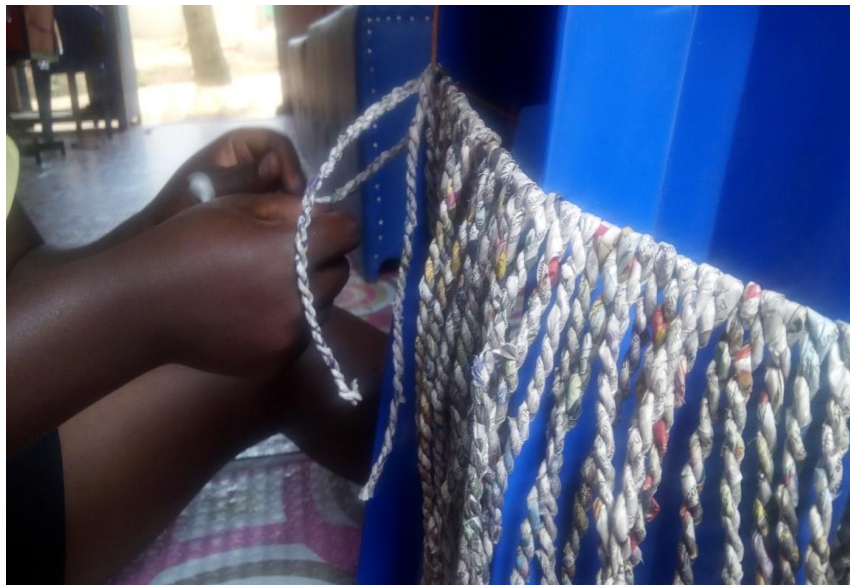


Figure 58: Rolled paper rope

Material: news paper

Technique: Rolled paper rope

Source: Photograph by the researcher



*Figure 59: **Rolled paper rope**
Material: Brown paper
Technique: Rolled paper rope
Source: Photograph by the researcher*

In figure 58 and 59 , the researcher was able to cut papers into small pieces and the placed them in water so that to they can be wet and easy to twist, then placed them on a fishing line or thread, then twisted and rolled the paper to make the ropes out of them.

The researcher created different paper textures with a crumpled folded effect as he followed the following steps. He could get waste paper, sock it in water to enable the paper to become soft and then later folds the paper and then lets it out from the water and puts it in sun to dry and it creates folds after drying. For some paper, he could sock the paper in the water then later prepare porridge out of cassava flour then smiles the porridge on the wet paper and then creates folds on the paper by pulling different parts of the paper, then displays the folded paper in the sun to dry.



Figure 60: Socked paper
Material: cement paper
Technique: gathering
Source: Photograph by the researcher



Figure 61: Rough texture
Material: cement paper
Technique: Gathering
Source: Photograph by the researcher

In Figure 60 and 61, the researcher was able to wet the paper and folded it, then applied cassava porridge on the wet paper, placed it out to dry, then later placed those folded pieces of

paper to a sculpture art work. The researcher was able to create paper weaving patterns with a one-up-and-one-down sequence. Adding colour to spice up the look, he could cut pieces of paper in small length and thickness and was able to introduce different variations. Instead of one-up-and one-down, change to two-up-and-two-down.



*Figure 62: Paper weaving
Material: Magazine paper
Technique: Paper weaving
Source: Photograph by the researcher*



*Figure 63: The paper that is gathered and ready to be used for sculpture
Source: Photograph taken by the researcher*



Figure 64: The process of pressing cut paper pieces into a wire mesh and then weaved through the wire.

Source: Photograph taken by the researcher



Figure 65: Weaved pieces of paper in to the wire mesh and then trimmed using pair of scissors.

Source: Photograph taken by the researcher



Figure 66: Twisted brown paper

Technique: Weaved paper ropes

Material: Brown paper

Source: Photograph taken by the researcher



Figure 67: Weaved paper ropes

Material: Brown paper

Source: Photograph taken by the researcher

In figure 66 and 67, the researcher was able to cut paper in pieces, then weaved it in patterns with a one-up-and-one-down sequence. Then later applied glue and cassava porridge to weave paper and attached to the sculpture art work.

2nd Phase - Sculpture production



Figure 68: Cassava flour

Source: Photograph taken by the researcher

In figure 68. The researcher was able to first boil hot water before mixing the it cassava flour, and then mix cassava flour with cold water before mixing it in the hot water, then after he mixed it in hot water as he stirs it, and was able to get cassava porridge and before using it as glue, he fast had to leave it get cold to be able to use it.



Figure 69: Paper bead application
Material: Magazine paper
Technique: paper bead
Source: Photograph by the researcher

In the figure 68 and 69, the researcher was in the process of applying paper beads on the paper sculpture varying different shapes and sizes of the beads using wood glue to attach the beads to the sculpture. He could fast apply wood glue fast to the sculpture then later place the paper beads.

The artist used the following materials;

- Paper- magazine pages, wrapping paper, wall paper and coloured art paper.
- Pencil-for marking up the paper.
- Ruler- for measuring up.
- Craft knife, rotary cutter or scissors- for cutting out, if you are using scissors you should us the longest pair available so as to reduce the number of cuts required along each length.

- Straight edge- for cutting against.
- Self-healing cutter mat- for cutting on.
- Soft paint brush- for applying glue to the paper.
- Glue- for securing your rolled bead.
- Soft paint brush – for applying varnish.
- A quality brush is preferable at this point as it is less likely to leave bristles on the surface of the beads.
- Varnish- for water proofing the rolled beads.
- Polystyrene block- for securing the beads while varnishing and drying.



*Figure 70: Applying cassava porridge on a woven paper
Material: Magazine paper and porridge glue
Source: Photograph taken by the researcher*

In figure 70, the researcher was applying cassava porridge on the woven paper, and was able to attach it on the sculpture, then left to dry.



Figure 71: The Researcher was rolling the paper with both his fingers

Source: Photograph by the researcher

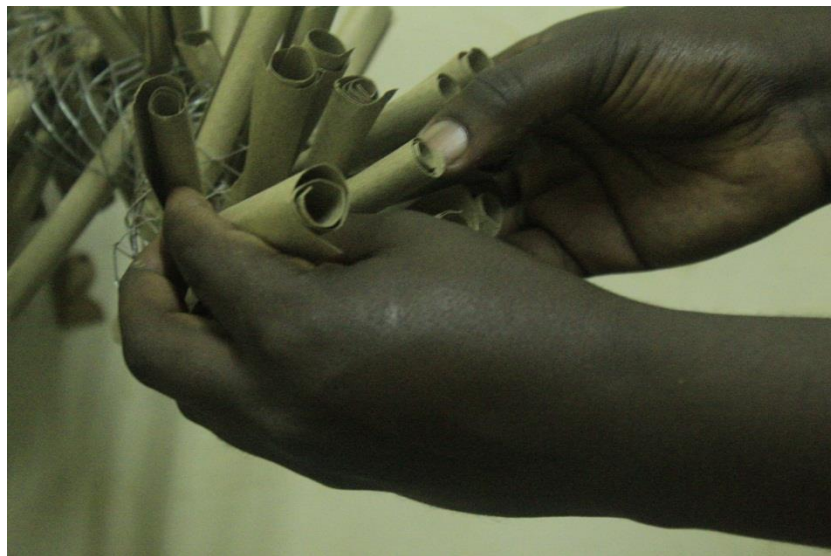


Figure 72: The researcher was fixing the rolled paper into a wire mesh whole

Source: Photograph by the researcher



Figure 73: Wire armature

Material: Binding wires, wire mesh

Source: Produced by the researcher



Figure 74: Paper application

Material: Binding wires, wire mesh

Source: Produced by the researcher

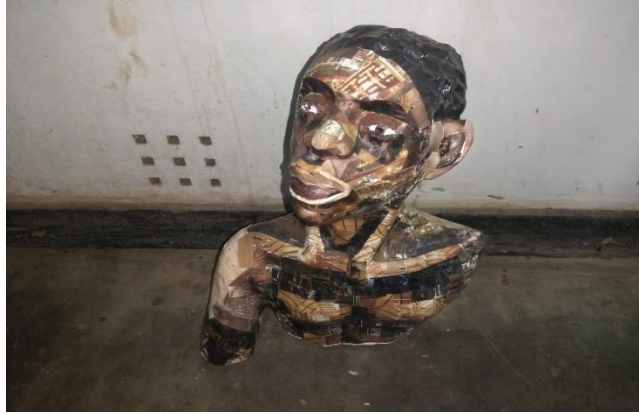


Figure 75: Punching
Material: small cut out pieces of papers like magazine papers
Technique: Punching
Source: Photograph taken by the researcher

In figure 75, the researcher was able to get waste papers of different colours from magazines and was able to cut out different pages following different colours range scheme from light to dark colours and was able to punch them on the artwork following the light ranges to dark.

3.7 Studio practice

The researcher was able to produce different paper techniques from waste paper such as paper bead, paper ash, paper weaving, paper rolling, punching, paper rope, folding. In the fast phase, the researcher was able to make different techniques as below;

Paper bead technique, the researcher was able cut pieces of paper into small sizes, and was able to roll magazine cut papers around the skewer or dowel. Different sizes of beads in different colours where rolled.

Paper ash technique, Paper ash was produced by burning waste paper using a matchbox to produce fire, and then the residue was left to cool for some time. Paper weaving was created

by cutting small pieces of paper in the same sizes using a cutter, then later the paper was weaved in patterns with a one-up-and-one-down sequence. Paper rope technique, the paper was cut into small pieces of paper, wet. Then twisted, rolled into ropes, then later two twisted pieces of paper were rolled together to form a rope. In paper punching technique, the paper was cut in different sizes using a pair of scissor, or a cutter and a ruler.

Folding technique, the researcher was able to wet waste paper, and then later prepared cassava porridge using a mixture of hot water and cassava flour. Then applied the porridge with the wet paper and folded the paper using both fingers to create folds and different textures. In the second phase, the researcher as was able to form uses the paper techniques onto the armature.

The armatures were made out of binding wires and wire mesh and also outdoor casting method was used. The techniques were placed on to the armature as below; Using paper bead technique, wire armature was covered with paper using cassava porridge, after drying paper bead were placed on the paper body by gluing each bead on to the paper body using glue sticks and wood glue. Hence varying different paper beads and their format of arrangement placed on to the body. Placing the bead to lie down or raised up.

Paper ash techniques, Paper is placed in the mixed in cassava porridge, and then applied on to the paper body layer of the sculpture by adding or constructing on to the paper body and then later its placed out to dry. Paper rope techniques, the researcher was able to attach the rolled paper ropes onto the paper body using cassava porridge as glue onto the paper body sculpture.

Folding techniques, the researcher was able to apply the folded paper on to the paper body sculpture. Using cassava glue and then leave it out to dry. Paper punching techniques, the

researcher was able to attach cut pieces of paper on to the paper body sculpture varying different colour tones of paper using wood glue.

3.8 Validity and reliability

In order to ascertain the validity and reliability of data collection the researcher conducted a figure study and pretesting of all methods of data collection used. This enabled the researcher to identify and eliminate weakness in the instrument of data collection before the final exercise of data collection. From the figures conducted the researcher learnt that collecting data through library and archival survey required having clear topic of research. To get good results from studio experiment the researcher had to sample different technique, this was time consuming. This was done to be able to use the techniques that best represent the research intent.

3.9 Ethical consideration

All the participants were interviewed by the researcher in person and their views ethical respected in this research project, the participants concerns were considered, their responses were ethically without alteration. The researcher avoided asking irrelevant question, the identity of the respondents in this study were concealed and their opinions respected and sources of data have been acknowledged.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF STUDIO FINDINGS

4.0 Overview

Based on objective three, to produce sculptures from waste inspired by the KiKiga traditional dance.

4.1 Studio findings

In this chapter, the researcher presents and interprets the studio findings in addressing the three objective of the study. These findings reveal a study of different paper material manipulation and application of paper material on sculpture armature.

4.1.1 Application of waste paper material on sculpture armature:

The following are the steps the researcher was able to follow while applying paper on the armature;



Figure 75: The Stamping Mukiga woman

Technique: Paper bead

Material: Binding wires, wire mesh, paper cement, paper beads

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The materials used were magazine paper, it is a soft material that is easy to cut using a cutter and roll. The magazine papers had a variety of colours which could be easily make the artwork brilliant.

- **Technique**

The paper bead technique was used by rolling magazine paper to make beads. Different sizes of beads were formed by rolling the paper and paper ropes were applied on the sculpture by twisting the magazine papers.

- **Method**

In figure 75, an armature was created using binding wires and later dressed with a wire mesh to form the roundness of the armature, then later was dressed with cement papers after being soaked in water, then dressed the paper using cassava porridge as glue to attach the paper on the armature. Then later, it was put outside in sun to dry. After drying processes, different sizes of paper beads were attached on the form using wood glue and glue sticks to attach the paper beads to the sculpture form and different sizes of beads were attached according to different parts of the sculpture form.

- **Message of the dance**

The Stamping Mukiga woman, was showing the movements of the kikiga dance which creates rhythm in the sculpture using

paper, which is light. The armature is placed with rolled paper bead technique that shows strength and enough used while dancing, deferent sizes of beads are applied from small, medium and big beads and the clothe are applied using a rope technique which creates unity while dancing.



Figure 76: The elegant arms display
Technique: Paper rope
Material: Binding wires, wire mesh, paper cement
Source: Produced by the researcher

- **Finding on source of material/ inspiration**

Cement paper is a soft paper when wet it can remain in its colour after drying.it can easy twist while making the paper ropes. It takes less time to dry.

- **Technique**

The paper rope technique is formed by twisting two wet cut piece of paper to form a rope.

- **Method**

In figure 76, an armature was created using binding wires and later dressed with a wire mesh to form the roundness of the armature, then later it was dressed with paper cement, using cassava porridge as glue to attach the paper on the wire armature. Then cut different pieces of cement paper and rolled and twisted them into ropes and was able to attach them on the sculpture form using cassava porridge following the movements of different human body parts so that to bring out the body parts like nose, eyes, mouth and hands.

- **Message of the dance**

The elegant arms of the Kikiga dance, displaying the movements of how the hands are free while dancing using a paper rope. Paper as a material is light and which implies the freedom of dancing.



*Figure 77: Paper Rope combined with weaving
Title: **The kikiga jump**
Material: Paper (Magazines, cement papers, newspaper)
Source: Produced by the researcher*

- **Finding on source of material/ inspiration**

Magazine paper is soft and has a lot of variety of colours, which enables the artwork to become bright. It is easy to cut into small pieces but when wet it can easily tear out. Using newspaper, they can easily tear out when wet, the researcher couldn't wet the paper. The brown cement paper is flexible when wet and doesn't easily tear out and can easily form a rope which doesn't take a lot of time to execute.

- **Technique**

The paper rope and weaving technique are arranged together to form different patterns on the art work. The brown paper was twisted and rolled into paper ropes using a double twist to form a paper rope. Single roll rope was twisted and cut pieces of magazine papers were weaved.

- **Method**

In figure 77, the researcher created the sculpture using casting paper on a clay mould and using oil as a separator of paper from the clay model and then after he was able to make paper ropes and placed them on the casted paper using cassava porridge and glue sticks as glue to attack the paper together and made the paper cloth by weaving the paper together to form patterns.

- **Message of the dance**

The mukiga dancing showing all the dancing movements of jumping having different techniques of paper both the rope and paper weaving. The weaved papers, form the dress of the mukiga woman and the single twist newspaper ropes show the drapery of the cloth on the paper sculpture.



Figure 78: The dance strength of a Mukiga
Techniques: Paper rolling
Material: Binding wires, wire mesh and paper

Source: Produced by the researcher.

- **Finding on source of material/ inspiration**

The researcher had to fast develop a wire armature, then dressed the wire armature with a wire mesh, then cut brown paper into small pieces, rolled then attached wood glue on to the cut pieces of paper then placed the rolled pieces of paper through a wire mesh spaces which was able to create different textures.

- **Technique**

The paper rolling technique was created by cutting small pieces of

paper, then rolled them in a clockwise direction to form a circular form and attached by the glue stick at the end of the role.

- **Method**

Using a paper rolling technique, the researcher was able to cut small pieces of paper and roll them then later placed them in an armature through the wire mesh spaces, and later was able to trim them to be able to bring out the human shape details.

- **Message of the dance**

The dance strength of a mukiga. The paper texture created, could show how free and energetic creating movement while dancing. The rolled paper shows how dance freely comes out of the kikiga dance when fixed into the wire mesh space.



Figure 79: Kakitali movement

Technique: Painted weaving

Material: Binding wires, wire mesh and paper, metallic colours

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The armature was developed using binding wires, and wire mesh and cement papers were dressed on to the wire amarture. Then magazine papers were weaved to create a different texture, and then dressed onto the armature, during the process the researcher realized the papers are soft and easy to cut using a cutter which also could take time to weave the papers.

- **Technique**

Painted weaving was the type of technique, whereby the research had to weave the papers and later painted the weaved papers to create different line effects.

- **Method**

In figure 79 was created making an armature using wires and wire mesh then placed paper on the armature using cassava porridge as glue then weaved paper, and attached it on the art work and then painted it with metallic colours.

- **Message of the dance**

Kakitali dance, was the dance that required jumping and showing the movements of the body, where the hands are freely raised.



Figure 80: Kakitali steps

Material: Binding wires, wire mesh and paper, metallic colours

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The armature was formed using binding wires and dressed with cement papers, then different magazine papers are cut, which required to be placed in a clean place, so that they don't easily get dirty, the researcher realized that paper magazine is soft and flexible while applied wood glue on it, and can easily be touched on to the sculpture armature, and cannot easily be removed.

- **Technique**

The punching technique was produced, through cutting pieces of paper into small sizes, using a cutter and a ruler, and attaches the small cut pieces. Using wood glue to enables the cut small pieces to be attached onto the sculpture.

- **Method**

In figure 80 following the steps of the Kikiga dance, was created making an armature in wires and then dressed the armature with wet papers using cassava porridge as glue and had to wait until it could dry and then latter cut different papers in small pieces and then attached then on the art piece using wood glue and the cloth was cut from the coloured papers like magazines.

- **Message of the dance**

Kakitali steps, focuses on the movements of the legs when dancing, using different paper colors like magazines, and how the legs stump from the ground creating movement.



*Figure 81: **Kakitali dance**
Technique: Painted paper and punching
Material: Binding wires, wire mesh and paper, metallic colours
Source: Produced by the researcher*

- **Finding on source of material/ inspiration**

Magazine pieces of paper are being cut into small pieces of paper and attached with wood glue on to the sculpture following different color tone of paper.

- **Technique**

The punching technique, the research attached cut pieces of paper and was able to attach them on the sculpture using wood glue. Then some areas were painted like the hands and the face attached with the cut pieces of paper using wood glue.

- **Method**

In figure 81, the *kakitali* dance movement of the KiKiga, it was created using wires and wire mesh to form the armature of the sculpture and then was able to wet the papers and attached them on the armature using cassava porridge and then soaked paper to make papier mashie and mixed it with cassava porridge, and used it to create different body parts like nose, eyes, mouth, eyes using cassava porridge then used paper to create smooth texture of the body ,the painted the papers using metallic colour and on the face, he cut small pieces of magazine pages and attached them using wood glue following different tones, and then dressed the body with brown cement paper to form the cloth.

- **Message of the dance**

Kakitali dance, is the type of dance where the hands are freely raised up and down during the process of dancing. The researcher focused on portraying that freedom and more movements are portrayed in the kikiga dance.



Figure 82: The freedom.

Technique: Punching

Material: Binding wires, wire mesh and paper, metallic colours.

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

Magazine pieces of paper are being cut into small pieces of paper and attached with wood glue on to the sculpture following different color tons of paper.

- **Technique**

The punching technique, the research attached cut pieces of paper and was able to attach them on the sculpture using wood glue.

- **Method**

In 82, the researcher was able to show the freedom whole dancing, using wires and wire mesh to form the armature then dressed the armature with paper, then attached paper mashe on the body form then covered then cut pieces of paper to form the body. Then dressed the artwork with brown paper as clothes then painted them with metallic colour.

- **Message of the dance**

The freedom. Was made out of different colours which portrays different freedom in the kikiga dance.



Figure 83: The dance feelings

Technique: Textures

Material: Binding wires, wire mesh, paper, metallic colours

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The armature was first developed using binding wire and then dressed with papers which required the dressed papers to fast dry because it was mixed with cassava flour to enable it attach onto the wire armature and then latter applied the other layers of papers gathered together to create a rough texture, and on the body the researcher created a smooth texture on the cloth. Cement paper is soft and easy to gather which creates different texture when applied glue.

- **Technique**

Texture technique is used by gathering the wet pieces of paper to create different types of textures like rough, smooth and after creating paper textures, they are painted using a dark prime colour and then highlighted with metallic colours like cooper.

- **Method**

In figure 83, using wires as armature then used brown paper to form the round body and then formed different textures from paper cement by softening them with water then water put cassava porridge, folded the papers and then put them in the sun to dry, after that process then attached them on the sculpture and created a rough texture and the cloth was covered with paper creating a relatively rough texture.

- **Message of the dance**

The dance feelings, where the hand is raised and shows movement while dancing. Where the body expresses a lot of energy used and expressed in a rough texture.



Figure 84: The raising dance movement

Technique: Punching

Material: Binding wires, wire mesh and coloured paper

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

Magazine pieces of paper are being cut into small pieces of paper and attached with wood glue on to the sculpture following different colour tones of paper.

- **Technique**

The punching technique, the research attached cut pieces of paper and was able to attach them on the sculpture using wood glue.

- **Method**

In figure 84, used wires and wire mesh to create the armature form, covered it with paper using cassava porridge and let it dry and then cut different size of coloured papers from magazines and

attach them on paper sculpture using wood glue, creating different tons of paper on the art work and the art work is assembled to form a composition.

- **Message of the dance**

The raising dance movement was produced in different parts showing how paper can move from one level to another through coming out from the ground.



Figure 85: Ekizino dance
Technique: Paper ash
Material: Binding wires, wire mesh and paper ash
Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The researcher created an armature, and later dressed it with wire mesh, then applied burnt paper ash through mixing it with cassava flour. Paper was burnt using fire and the paper ash residue was produced after the burning process which required the researcher to get a safe open place for burning the papers because fire could easily burn any thing around the environment.

- **Technique**

Paper ash was a technique, the researcher used to apply on the sculpture. It was light and when mixed with glue it retains its black colour.

- **Method**

In figure 85, used wires to make an armature and covered the wires with paper using cassava porridge as glue to attach the paper on the armature, which forms a round body, then prepared paper ash by burning waste paper up to ashes, then mixed the paper ash with cassava porridge and started building the paper ash on the paper sculpture forming the body parts. Thus the standing figure was held up by the armature framework.

- **Message of the dance**

Ekizino dance, is where the movement of the hands are in the same position, and showing on leg raised creating movement in the dancing.



*Figure 86: **The happiness feeling**
Technique: combining Paper styles
Material: Binding wires, wire mesh and paper
Source: Produced by the researcher*

- **Finding on source of material/ inspiration**

The materials used were magazine paper, it is a soft material that is easy to cut. The magazine papers had a variety of colours which could be easy make the artwork brilliant.

- **Technique**

The paper bead technique was used by rolling magazine paper to make beads. Different sizes of beads where formed by rolling the paper and paper ropes were applied on the sculpture by twisting the magazine papers.

- **Method**

In figure 86, was created by making an armature using wires and wire mesh, then placed on paper layers using cassava porridge as glue after drying process, he started arranging and placing the beads of different sizes, shapes and colours on the sculpture, then rolled different papers in a rope formant by twisting the papers, which acted as the cloth and attached them using glue stick. He rolled hard coloured papers and cut them in small pieces and started placed them on the down part which act as the dress on the sculpture.

- **Message of the dance**

The happiness feeling, was to portrays using different combined techniques of waste paper like paper rope, paper beads which shows the movement of different paper techniques.



Figure 87: Hand movement dance

Technique: Paper bead

Material: Binding wires, wire mesh and paper

Source: Produced by the researcher

- **Finding on source of material/ inspiration**

The materials used were magazine paper, it was a soft material that is easy to cut. The magazine papers had a variety of colours which could be easy make different sizes of brilliant paper beads, and they were placed on the armature by using a glue sticks and wood glue to attach themselves. Different sizes of beads are were arranged in different formats, some beads were placed in a bottom standing lying linear format while as the others paper beads were arranged in a back lying format to create to create the hair on the armature to create different textures.

- **Technique**

The paper bead technique was used by rolling magazine paper to make beads. Different sizes of beads where formed by rolling and paper ropes were applied on the sculpture by twisting the magazine papers.

- **Method**

In figure 87, was created by making an armature using wires and wire mesh, then placed on paper layers using cassava porridge as glue, after drying he started placing on paper beads of different sizes and shapes using glue sticks and wood glue.

- **Message of the dance**

Hand movement dance, shows how the hands moves during the kikiga dance and applying paper beads of different sizes.



Figure 88: KiKiga dance movement
Technique: Paper rolling
Material: Binding wires, wire mesh and magazine paper
Source: Produced by the researcher

- **Finding on source of material/ inspiration**

Hard paper is cut into small pieces of paper, then rolled together to attached on each other by rolling the paper. It doesn't easily attach its self by using wood glue because it can take quite a longer time, the researcher was able to use glue sticks becomes they easily attack the papers together easily and doesn't take time. Different paper designs and colored are selected and rolled onto the armature to create are difference between the body and the cloth applied onto the armature.

- **Technique**

The researcher was using a rolling which requires rolling against each other as he was rolling. Applying glue on each roll of paper.

- **Method**

In the figure 88, above the researcher was able to make an armature fast using wires, then later he had to apply paper on the wire armature, then later he had to cut small pieces of paper and then folded them to enable them to have a thick layer, then using a rolling technique to attach the paper to each other using glue sticks.

- **Message of the dance**

The KiKiga dance movement, shows the dancers jump up and down energetically with arms stretched in front, with one leg raised. The paper was applied on the sculpture artwork through rolling the paper.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0. Overview

The main purpose of the study was to produce sculptures out of waste paper inspired by KiKiga traditional dance.

The study was guided by the following objectives:

To establish how paper has been used to produce sculptures.

To find out why different waste paper techniques have really been explored for production of sculpture by artists.

To produce sculptures from waste paper inspired by KiKiga traditional dance.

In this chapter, the researcher therefore presents the discussions, conclusions and recommendations of the study in line with the above mentioned objectives.

5.1 DISCUSSION

The study is sought to produce sculpture out of waste paper inspired by KiKiga traditional dance. The researcher demonstrated results attained from studio exploration with waste paper. Drawing inspirations from KiKiga traditional dance movements. The researcher produced sculptures out of waste paper. The sculptures produced convey different techniques for example paper bead, paper ash, paper rope, punching.

The researcher was able to examine the usage of waste paper for the production of sculpture. Under this, the researcher looked at the variety of sculptures produced using waste paper in different techniques. The researcher identified that the artists usually use conventional

materials like cement, wood, clay, metal, plastic, materials to produce sculptures and they less use waste products like paper.

There was various waste paper techniques used in the production of sculpture among these were paper beads, paper ropes, paper ash ,paper punching, paper weaving technique bout of different waste paper like magazines paper, newspaper, wrapping paper. The artist identified minimal use of waste paper is used using different techniques such as rope, paper beads, paper ash, and high relief sculptures paper sculpture. There were artists like LiHongbo, Rogan Brown, Pter Callesen, Jen Stark, Hamra Abbas, Gabby O’connor, Sher Christopher, Gilbert and George, Calvin Nicholls who produced sculptures using paper. There were hardly any African artists mentioned to be using paper as a material for sculpture.

Much as paper materials have been used in schools, universities, institutions, most artists make their paper sculptures in small sizes. The researcher was able to make big paper sculptures that can enable artists to realise that paper can be easily executed in different sizes. Some paper sculptures where executed using casting methods, by fast making a clay mold and later was able to cast on it using oil as a separator. Much as textures can be created in different ways, Mlle Hipolyte was able to create feather paper triangles, stacked in layers creating a rich texture that resembles fur, skilfully choosing and arranging slips of paper creating a sense of depth.



*Figure 89: Artist: Mlle Hipolyt
Technique: Paper animal bust*

Source: <https://my modernmet.com>



*Figure 90: The raising dance movement
Technique: Punching*

Source: Produced by the researcher

The researcher was able to realise that it consumes a lot of time to produce such a sculpture. In figure 89, Mlle was able to use variety of different colours and combined both smooth and rough texture while as in figure 90, the researcher was able to create different variety of colour and used only a smooth technique using a punching technique.



*Figure 91: Artist: Chie Hitotsuyama
Technique: twisted new paper
Source: <https://modernmet.com>*



*Figure 92: The kikiga jump
Material: Paper (Magazine, newspaper)
Source: Produced by the researcher*

In figure 91, the artist was able to only use a paper rope technique showing us different textures, the monkeys have a hairy, rough texture compared to the base they are resting on, while as on the image 92, the researcher used a paper rope method having different sizes. colours and different sizes of rolling the paper rope.



*Figure 93: Artist: **Chie Hitotsuyama**
Technique: twisted newspaper*

Source: <https://my modernmet.com>



*Figure 94: **The elegant arms display**
Technique: paper rope*

Source: Produced by the researcher

In figure 93, the artist was able to use a single paper rope, to role on a sculpture work, while as on figure 94 the research was able to use make a two rolled rope and then later attached it to a three dimensional sculpture. The artist also was able to use newspaper as a material while as the researcher used a brown cement paper.



Figure 95: Artist: **Gonzalo Garcia**

Source: <https://my.modernmet.com>



Figure 96: **The dance feeling**

Technique: *paper rolling*

In figure 95, the artist did not vary different paper textures while as the researcher in figure 96, he was able to show different textures from through to smooth texture.



Figure 97: **Quilling**

Artist: *Fatema Qureish*

Source: <http://mobile.nation.co.ke>



Figure 98: **The stamping Mukiga woman**

Technique: *Paper bead*

Source: *Produced by the researcher*

According to figure 97 the beads are in a single color and beads are of the same sizes while the researcher's sculpture in figure 98, he was able to arrange the beads on the paper sculpture using different paper sizes and color, which could create different contrasts on the sculpture.



*Figure 99: Artist: **Wangechi Mutu***

Size: 20.75x15x9 inches 52.7x38.1x22.9 cm

Source: www.artnet.com



*Figure 100: **Ekizino dance***

Technique: paper ash

Source: Produced by the researcher

According to the Artist Wangechi Mutu, in figure 99, the artist used the additional method whereby she had to build paper pulp mixed with soil and mirrors to get a brown color but in figure 100, the researcher used only paper ash and cassava porridge to be able to get a black colour. They all used an additional or building technique in sculpture.



*Figure 101: Artist: **Sanaa Gateja**
Techniques: Paper bead.
Source: www.saana-gateja.com*



*Figure 102: **The happiness feeling**
Technique: Combining Paper styles
Source: Produced by the researcher*

In figure 101, Sanaa Gateja was able to concentrate on different variations of color using the paper beads and he also placed the paper beads on a back lying format, while as the researcher in figure 102 was able to arrange the beads in both back lying and bottom or top standing format and also different paper techniques are applied like rope, and rolling. Sanaa Gateja produced a two dimensional art work while as the researcher was able to produce are three dimensional art work.

In figure 107, the artist was able to achieve perspective using paper cuts by arranging the, on each other in different colors, While as in figure 77, the researcher was able to produce a three dimensional sculpture using paper by rolling it on each other using different colors of papers.

5.2 CONCLUSION

The study sought to carry out a studio exploration into the possibilities using waste paper to produce sculpture inspired by the KiKiga traditional dance. It reflects use of waste paper to produce sculptures inspired by KiKiga traditional dance and supported by the researcher's findings. A number of sculptures were produced in different techniques using waste paper as a material.

5.3 Recommendations

Based on the objectives, the researcher made the following recommendations;
It is recommended that institutions, schools, artists facing lack of materials in the production of sculpture should improvise with waste paper. This turn provides a resourceful material that is easy to get and cheap thus making sculpture more accessible by the public.

Further exploration in the use of waste paper for art production can be undertaken in other areas of art like multimedia crafts.

The researcher recommends artists to use more paper to, and develop more different paper techniques than paper pulp.

The research recommends that there is a need for more research in the use of waste paper other than other sculptural materials like wood, cement in the production of sculpture.

Materials that are ecofriendly should be adopted by both art students and professionals undertaking sculpture for the betterment of the environment.

The researcher recommends other artists to come in and explore relief art using this same technique of paper folding to achieve sculptures.

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APPENDIX A

INTERVIEW QUESTIONS

(Re: introduction of Mr. BYOMUGABE Mark, Registration Number: 16/U/13531/GMID/PE)

1. What do you understand by the term waste paper?
2. Name any other materials used in the production of sculpture?
3. What are the different uses of waste paper?
4. What are the different techniques employed in the production of various products using waste paper?
5. What are the different techniques used in the production of art works?
6. Is the paper as a material applied during execution of art works in other areas of art besides sculpture art works?

APPENDIX B

INTERVIEW SUBJECTS

Lectures who teach Sculpture, Painting, Graphics, Multimedia crafts, fabric decoration in the Department of Art and industrial Design Kyambogo University.

Kajimu Robert, Assistant Dean of Michelangelo college of Creative Art- Kisubi.

Martilda , Registrar of Michelangelo College of Creative Art- Kisubi.

APPENDIX C

Map of Uganda showing the research site – Kampala.

Map 1: Map of Uganda



Source: Google maps retrieved on 28th August, 2019

KEY: Red spot highlights Kampala city where the research was carried out.

APPENDIX D

Waste paper collection at Nasser road



Source: Photograph taken by the researcher.