POTENTIAL USE OF PANICUM MAXIMUM IN PRODUCING FASHION ACCESSORIES

By

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(B.Ed. Art)

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MASTER OF PHILOSOPHY IN INTEGRATED ART

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Faculty of Art,

College of Art and Built Environment

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DECLARATION

I hereby declare that this submission is my own work toward the M Phil (Integrated Art) and that, to the best of my knowledge, it contains no material previously published by another person, nor, material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The project sought to introduce Panicum maximum into the field of fashion. Most of the materials used in fashion for the production of accessories included fabric, yarns and cords, metals, wood and plastic. These materials on the local market are basically used for fashion accessories. Although traditional fashion designers have of late developed accessories to complement traditional wear, very little had been said or done with Panicum maximum. From the studies made, Panicum maximum could be a suitable material for the production of fashion accessories. The project studied forms and functions of selected fashion accessories, to design the fashion accessories for production in Panicum maximum and translated the design into fashion accessories. The qualitative method of research was employed in the study under which the experimental and descriptive research approaches were used. The study made use of artisans from Adum in Kumasi Metropolis. It was also found that, Panicum maximum can be manipulated using weaving, twist and ply, sewing as well as gluing technique to produce bags, shoes, hat and hair pin. It can also be integrated with other materials for quality and aesthetic finish. Mimi exhibition was held in the view of the general public. It was recommended that, the traditional designers include Panicum maximum as one of the complementary material for the manufacturing of fashion accessories. The users of Panicum maximum in Ghana should establish plantations in the country where Panicum maximum, can be sourced for the production of artefacts for local use as well as for export.

ACKNOWLEDGEMENT

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Finally, I acknowledge my greatest indebtedness to the Almighty God, whose overshadowing peace and protection created the congenial atmosphere for me to do this project.

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LIST OF ABBREVIATIONS

IRAI	Integrated Rural Art and Industry
K. N. U. S. T	Kwame Nkrumah University of Science and Technology
PM	Panicum maximum.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter is about the basic framework of the study. It consisted of the background to the study, a statement of the problem, purpose of the study, objectives of the study, research questions, and importance of the study, delimitation, limitation and definition of terms.

1.1 Background of the study

Fashion accessories are objects used as add ups, in a secondary way, to a wearer's outfit. The term was coined and adopted among the terms in fashion in the 19th century. Fashions accessories are most of the times used to make whole an outfit and are selected to exclusively complement the wearer's look. Fashion accessories are of two types, carried accessories and the worn accessories. Carried accessories include umbrellas, hand fans, and handbags. Accessories that are worn include jackets, shoes, hats, belts, detachable accessories like pins of different kinds and jewellery.

Preferred fashionable clothes and accessories are easy for people to observe at a glance. Incidental items, particularly branded specific handbags, footwear, jewellery, act also as important status symbols. Accessories such as hats, are particularly important, because they send signals that give information on the wearers.

1.2 Statement of the problem

Most of the materials used in fashion are used for the production of accessories. These included fabric, yarns and cords, metals, wood and plastic. These materials are abundant on our local market and were basically used for fashion accessories. Although traditional

fashion designers have of late, developed accessories to complement traditional wares, yet very little had been said of Panicum maximum which from studies made, could be a suitable material for the production of fashion accessories.

1.3 Purpose of the study

The purpose of this study is to process and fabricate Panicum maximum (guinea grass) into selected fashion accessories.

1.4 Objectives of the study

1. To study forms and functions of selected fashion accessories.
2. To design, fashion accessories to be produced in Panicum maximum.
3. To translate Panicum maximum into fashion accessories.
4. To access the durability of the fashion accessories produced in Panicum maximum

1.5 Research questions

1. What are the forms and functions of selected fashion accessories
2. How can fashion accessories be designed for production with Panicum maximum?
3. To what extent can Panicum maximum (guinea grass) be fabricated into fashion accessories?
4. How would fashion accessories produced with Panicum maximum be accessed for their durability?

1.6 Importance of the study

1. This study has introduced a new material as an integral part of fashion accessories.
2. It has created a contemporary use for Panicum maximum.
3. The results of the study will aid in creating jobs for the youth.

4. This will call for the cultivation of Panicum maximum as an environmentally friendly activity

1.7 Delimitations

This study was limited to the use of Panicum maximum for the production of selected fashion accessories.

1.8 Limitations

Due to the surface of the woven structure, the product sometimes scratches on the body which cause for proper reinforcement to support the mat from beneath the woven structure.

1.9 Definition of terms

To aid in the understanding of the project report, technical terms used in the study are explained below,

1. **Accessories:** Is a decorative piece that is useful or attractive to complete an outfit.
2. **Belt:** is a long (narrow) piece of leather, cloth and so *on* worn round the waist.
3. **Container**: An enclosed object for the carriage of other objects. They help to transport items from one place to another.
4. **Fashion:** is a term commonly used to describe a style of the item worn by an individual or a group of people.

5. **Fashion accessories:** it is an ornament or things which are used to supplement clothes, such as jewellery, handbags, hats, bow ties, footwear etc.

6. **Footwear:** is an item of clothing made by humans that covers and protects the foot, including the soles of the feet.

7. **Grass:** A very common plant with thin leaves that covers the ground in the fields and gardens and is often eaten by animals like sheep, goat etc.

8. **Jewellery:** is small decorative items worn for personal adornment, such as brooches, rings, necklaces, earrings and bracelets.

9. **Last:** Is the process of fixing a wooden or plastic foot-like model into a shoe to take its shape.

10. **Panicum maximum:** Is a large genus of about 450 species of grasses native throughout the tropical regions of the world, with a few species extending into the northern temperate zone. They are often large, annual or perennial grasses, growing to 1–3 m tall.

11. **Quarter:** The rear and sides of the upper that covers the heel that are behind the vamp.

12. **Heel cap:** is a part of a shoe which covers the heel back of the it.

13. **Skiving:** is the removal of the surface of a leather or the edge of leather or to reduce the thickness of leather on its surface or at the edge.

14. Scoring: is the process of smoothing or filing of the surface of leather.

15. Scrapping: is the peeling off the pith inside a grass to make it flat for weaving.

16. Split: is the division made in the mid section of a grass to get two halves.

17. Stitch: is the repeating unit formed by a thread on a material or leatherette.

1.10 Organization of the study

The chapter one of this study covered the introduction, background to the study, a statement of the problem, purpose of the study, research questions, significance of the study, delimitation, limitation, definitions of terms and organization of the study. Chapter two is concerned with the related literature for the study. Chapter three focuses on the research methodology. It identifies and describes the research procedure and technique involved in the study. Chapter four outlines and discusses the research designs and the results of the study. Chapter five provides the summary, conclusion, recommendations to the study and the references.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Overview

This chapter is a review of information relevant to the study. The information was taken from books, journals, and the internet. Topics that were reviewed include fashion, fashion accessories, materials for fashion accessories and Panicum maximum.

2.1 Definitions of fashion

Fashion according to Encarta dictionary 2009 is the business of styles. This generally comprises of creating, promoting, or studying the latest styles in clothing, hair and personal appearance. Fashion is not static, it is dynamic and it moves with the time and seasons. It is the creativity that adopts art product designed for the adornment of the body, in combination with other products for adornment to improve the look. It is basically decoration of the body to enhance appearance Fashion is a term commonly used to describe a style of clothing worn by most people.

2.2 Fashion accessories

Fashion accessories are ornaments or things which are used to supplement clothes, such as jewellery, handbags, hats, bow ties, footwear etc. They are complementary models used to complete dressing to enhance the looks. An accessory is an additional object, equipment’s, decorations that make something useful or attractive. Accessories are often used to complete an outfit and are chosen to specifically complement the wearer's look.

Valerie Cumming et al 2012 said a fashion accessory is an item which is used to contribute, in a secondary manner, to the wearer's outfit. The term came into use in the 19th century. Fashion accessories can be loosely categorized into two general areas: those

that are carried and those that are worn. Traditionally carried accessories include handbags, hand fans, parasols and umbrellas, canes, and ceremonial swords. Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, belts, gloves, muffs, jewellery, watches, sashes, shawls, scarves, socks, and stockings. In the plate 2.1, 2.2, 2.3 and 2.7b below shows samples of worn accessories. The plate 2.4, 2.5 and 2.7a displays indigenous accessories that are carried and plate 2.6 is an example of contemporary accessories which is carried.

Some accessories that are worn

Plate 2.1: A set of bangles *(https/www.google.com.gh)*

Plate 2.2: A leather belt *(Source. https/www.google.com.gh)*

Plate 2.3: A brooch *(Source: https/www.google.com.gh)*

Some foreign and indigenous accessories that are carried

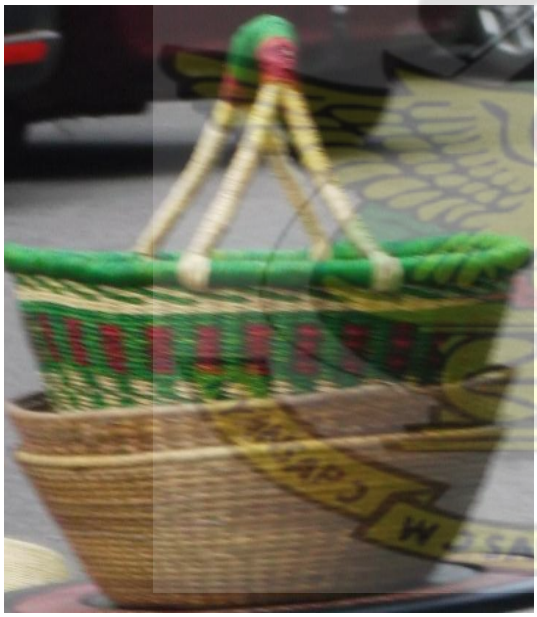


Plate 2.4: Indigenous shopping bag
(Source: researcher's fieldwork)

Plate 2.5: Indigenous hand bag
(Source: researcher's fieldwork)

Plate 2.6: Foreign hand bag (*Source: https/www.google.com.gh)*

Plate 2.7a A Sample of contemporary worn accessories

(Source: https/www.google.com.gh)

Plate 2.7b A Sample of indigenous worn accessories

(Source : researcher's field work)

2.3 Materials for fashion accessories

Several materials are used in the manufacture of fashion accessories. These are from the range of natural, synthetic and regenerated materials. Some of these natural materials include bamboo, wood, fabric, leather and metal; the synthetics include plastic, leatherette and nylon and the regenerated, recycled plastics, recycled glass and material like alloyed metals, fabrications from parts of broken down parts of machines and equipment.

2.4 Panicum maximum

Panicum maximum (Guinea grass) is an outstanding plant substance for countless applications spanning from handicrafts to products from industry. By way of such extensive applicability, it offers excellent income potential for communities where this guinea grass is bountifully cultivated and big business openings for industry. The use of this plant has been influenced by differences in cultural background and the necessities of the social order where this material grows bountifully. The advantages of Guinea grass

are well known to the cultures where its wider utilization is directed towards addressing the need of the society.

Panicum maximum is harvested, dried and processed for use in most rural industries which in most cases meet domestic needs. In most cultures, processing is by appropriate technology, which has been developed over several years of encounter with the material. Although such practices have been in use for some time, related information on the various procedures is not sufficiently widely available.

Studies have been made by some researchers on guinea grass and their views and methods have been reviewed in this chapter. With reference to the Compiled notes on complementary material for bamboo and rattan, Baah (2004) alleged that Guinea grass grows wild in all regions of Ghana. He described it as a tall recurrent grass that grows up to about 2 meters high. Steiner (2014) in a personal communication supposed that guinea grass is mostly located around ponds and in the Northern part of Ghana. According to him, from ancient times, guinea grass has been associated with people as a source of income, fulfilling several needs, like containers for storing grains, and feed for cattle. Gibbs Russell et al (1991) opined that guinea grass (Panicum maximum) is a perennial tufted grass with a short, creeping rhizome. They said that the stems of the grass are full-bodied and can reach a height of up to metres. As the stems bend and nodes touch the ground, roots and new plants are formed because of its seeds.

Panicum maximum is a scientific name of a perennial grass of the family of Poaceae species of Panicum. The specie, Panicum maximum, is popularly known as Guinea grass. Panicum is derived from a Latin name for millet, which is used in bread-making; maximum may refer to the great height that this plant attains (Ferreira, 2005).

Ferreira (2005) reiterates that Panicum maximum is from the family Poaceae, tufted grass with a short creeping rhizome. The stems of this robust grass can reach a height of up to 2 metres. The leaf sheaths are found at the bases of the stems and are covered in fine hairs. It remains green until late winter. The leaf blades are up to 35 mm wide and taper to a long fine point. The inflorescence is a large multi-branched, open panicle with loose, flexuous branches.

Baah (2014) and Steiner (2014), in an interview agreed that the size of the material relies on soil richer and climatic circumstances under which the plant grows. Russell et al (1991) opined that Guinea grass prefers fertile soil and is well adapted to a wide variety of conditions. Guinea grass grows especially well in shaded, damp areas under trees and shrubs and is often seen along rivers. Baah (2004) stated that another plant that bears close likeness to guinea grass is a universal technically recognized as *PhragmitesKarka*, and this is preferred for its comparatively tougher quality. Steiner (2014) again said in preparing the grass, bleaching is done to improve material colour quality and dyeing with suede dye to add colour, these affect the strength of the material.

2.5 Worldwide species of Panicum maximum

More than a few species of guinea grass have been acknowledged and named Guinea grass. Panicum maximum is a large genus of about 600 species of grasses inhabitant throughout the tropical regions of the world, with a few varieties extending into the northern temperate zone. They are often large, yearly or recurrent grasses, rising to 1–2 metres tall. However the natural history and civilization have created differences in the use of the materials. Products made out of the material are intensely influenced by weather conditions. Steiner (2014), affirms that, different technologies have been developed by the people in different locations of the globe to meet the need for

processing and fabrication. According to Daasaah K. C. (2009) there are about 600 species of Panicum maximum worldwide. It is widely distributed in South Africa, except for the greater part of the Western Cape. It is believed to originate from Africa, but is presently found and cultivated in almost all tropical parts of the world. Lazarides, (1980), affirm that guinea grass

(Panicum maximum) has economic importance as a major forage grass, which is cultivated and grown throughout the tropics. It is a resilient, dynamic plant producing high yields of nutritious food, which is suitable for grazing or cut as green feed. Lazarides, (1980) additionally explained and agreed with Alderson et al, (1993) in saying that the nutritive value of Panicum maximum declines, so rapidly with age and over time dies if continually grazed over close to the ground.

2.6 Panicum maximum in Ghana and its uses

Daasaah (2009) says that Panicum maximum is known in Ghana as Guinea Grass (straw) and can be found in all regions in the country. She explained that it grows along roadsides, forest, farms and any open field. In Northern, Upper East and Upper West Regions with the dry climate, it grows along ponds and the banks of streams and rivers. It is a raw material known in the country, for producing straw hats, "Bolga" bags, hats, fans, hay for feeding cattle. Steiner (2014) opined that Guinea grass is very flexible and can be manipulated into useful products such as window blinds, sleeping mat, bags, and Ceiling panel among others. Steiner explained that when Guinea grass comes into contact with water, it gains more strength to support twisting, improves durability and it is non-toxic and environmentally friendly. Baah (2014) explained further that straw or guinea grass has outstanding properties which allow it to be used for the production of several items for the home. The plate 2.8 below is the cultivation of Panicum maximum whiles the

plate 2.9 is the drying of the Panicum maximum.

Plate 2.8: Panicum maximum *(Source: https/www.google.com.gh)*

Plate 2.9: Harvested and dried Panicum maximum (Guinea Grass)

2.7 Fabrication with Panicum maximum (Guinea grass)

Panicum maximum as conventionally known, processed and fabricated into the basket in the Northern regions of Ghana. It is a non-traditional export product in Ghana that brings foreign exchange to the country. Products made from guinea grass include sun hats, fruit baskets, shopping bag, ladies' hand bag, baby rattles and hand fan. Baah (2004).

Steiner (2014) in a personal communication said almost the products cited by Baah are made from twisted straw and therefore have very high tensile strength. Steiner (2014) in another communication concluded that, conventionally most of the local craftsmen working with Guinea grass, practice off loom weaving, this he additionally explain as an interlacing technique used by the local craftsmen for fabrication of straw bags. He said on loom as term connotes is a process done on the weaving loom and requires the laying of warp yarns. This process and technique employ the Guinea grass as weft in weaving on the loom.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Overview

This chapter is the methodology of the study. It explains the research design, experiments conducted, descriptions of processes followed and the use of Panicum maximum (guinea grass) as a suitable material for the production of fashion accessories.

3.1 Research design

The Qualitative research answer questions about the complex nature of phenomena often with a purpose of describing and understanding the phenomena from the observer point of view Malterud, (2001) add that qualitative research methods involve the systematic collection, organisation, and interpretation of textual material derived from a talk or observation. It is used in the exploration of meanings of social phenomena. (Leedy & Ormond 2005). Shank (2005), also defines qualitative research as 'a form of systematic empirical inquiry into meaning. Hancock (1998), explains that qualitative research is concerned with developing explanations of social phenomena. That is to say, it aims to help one to know the world he lives and how things are in their environment

This study employed the descriptive and experimental methods of research. The descriptive method was used to describe the processes in the study and the experimental method, for the designing, processing and fabrication of fashion accessories in Panicum maximum. The study used observation and unstructured interviews to solicit data.

3.2 Library research

Documented literature was gathered from the following libraries:

- ✓ KNUST Main, Library
- ✓ Faculty of Art Library KNUST
- ✓ Department of General Art Studies Library KNUST
- ✓ Institute of Renewable Natural Resources and the Faculty of Science Library,

3.3 Population of the study

According to Fraenkel and Wallen (1996), a population is the group of interest to the researcher, the group to whom the researcher would like to generalize the results of the study. Leedy & Ormrod (2005), also state that qualitative researchers drew their data from many sources - not only from a variety of people, but perhaps also from objects, textual materials, audiovisual and electronic records.

The population for the study is heterogeneous and it was made up of lecturers and teacher of Rattan and Bamboo, final students of IRAI who offers Rattan and Bamboo, artisans in the Kumasi Central market and in Adum Township, Harvesters and Sellers of Panicum maximum. The population had different characteristics and dealing with them required different approaches to collect data for the study.

3.4 Accessible population

The accessible population included lecturers and teachers of Rattan and Bamboo, Panicum maximum producers and weavers, Harvesters and sellers of Panicum maximum. Bolga Tanga in the northern region and Kumasi Central Market

3.5 Sampling technique

Taylor-Powell (1998) also claims that a sample is a portion or a subgroup of a larger group called a population. Yount (2006) affirms that sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected. Leedy and Ormrod (2005) have the view that, the particular entities a researcher selects is what is termed the sample, whereas the process of the selection is the sampling. Ross (2002), continue to explain that, purposive sampling involves selecting members from a population to comprise a sample because they possess specific attributes of interest that address the purpose of a particular research problem under investigation.

Marshall (1996) includes that convenience sampling involves the selection of the most accessible subjects. The convenience approach was used in selecting the Population for the study. In addition, random sampling was employed to select harvesters of Panicum maximum at Ayigya in Kumasi, guinea grass sellers from both Kumasi Ayigya and Central Markets. On the other hand, convenience approach was again, employed to select lecturers at the KNUST Faculty of Art and artisans in the Kumasi Central Market as part of the sample for the study because of the proximity to the place where the researcher is based.

3.6 Target population

- Lecturers of rattan and bamboo (IRAI)
- Final year students of rattan and bamboo class (IRAI)
- Harvesters, Sellers and artisans of Ayigya and Kumasi central market

3.7 Sample size

The sample size includes 13 guinea grass harvesters, 6 guinea grass sellers, 14 lecturers of Rattan and Bamboo 7, Panicum maximum producers 15, Panicum maximum weavers 16.

Table 1. The composition of sample size

POPULATION	PLACES	SAMPLE SIZE	PERCENTAGE
Guinea grass harvesters	Ayigya – Kumasi	1 3	22 %
Guinea grass sellers	Ayigya and Central Market Kumasi	1 4	23%
Lecturers of Rattan Bamboo (IRAI)	KNUST	7	12 %
Panicum maximum producers	Bolga in the Northern Region	15	25%
Panicum maximum weavers	Bolga in the Northern Region	16	27%
Total		60	100%

3.8 Data collection instruments

The main data collection instruments for the study were observation and interview. The use of observation helped the researcher to have first hand information on the use of several materials in the production of fashion accessory. This helped the researcher to design and produce the fashion accessories in guinea grass and determined the suitability and applicability of guinea grass for the purpose. The researcher also conducted face-to-face interviews with the stakeholders under the study. These interviews were unstructured and generally open-ended and were intended to elicit views and opinions from teachers and lecturers of fashion and basketry. These lecturers had between 6 and 10 years of teaching experience in tertiary institutions and their ages ranged from 40 to 55 years. Some of the producers and weavers of Bolga Tanga were interviewed regarding

the possibility of using guinea grass as a material for the production of fashion accessories.

3.9 Types of data

Two types of data were used in this study. These are primary data and secondary data.

3.9.1 Primary data

Primary data were obtained from lecturers of rattan and bamboo, in the department of integrated rural art and industry, the harvester of the guinea grass at Ayigya-Kumasi and the guinea grass sellers.

3.9.2 Secondary data

In gathering the secondary data, the researcher consulted books, journals, the Internet, published and unpublished thesis, and other documents that dealt directly with topics related to fashion, guinea grass and its applicability and durability for producing fashion accessories.

3.10 Overall procedures for the execution of the project

3.10.1 To study forms and functions of selected fashion accessories. (Objective 1)

The project started with the study of forms and functions of selected fashion accessories. In this, the researcher visited shops and production centres of fashion accessories to make a first-hand observation of forms of selected accessories. This visit afforded the researcher the opportunity to interview producers of these accessories on the functions of the accessories they produce and sell. It also gave the researcher the chance to see the production of fashion accessories from the beginning to the end. Through questioning, the researcher got insight into factors to consider when designing and producing fashion accessories. Technicians and workers in institutions were interviewed on some of the

accessories they produce. Teachers in institutions of higher learning, teaching related courses was also consulted for technical knowledge of the forming techniques for the production of the fashion accessories and their view on the possible approaches to execute the project. A visit was made to off loom straw weaving centres to see how Panicum maximum is processed for the art industry. Information for fabrication with Panicum maximum was taken for the successful execution of the project. This was done to satisfy objective 1 of the study.

3.10.2 To design fashion accessories to be produced in Panicum maximum (Objective 2)

Preliminary sketches were developed into operational or working drawings with details of shapes, sizes, colours and dimensions. With knowledge obtained from industry and interviews, the researcher developed ideas and concept ideas based on the activities that went on during the observations and interviewing. The information obtained, guided the researcher to design and produce a selected number of accessories. The behaviour, interest and age of the users were taken into consideration at this stage. Some of the accessories designed to include shoes, bags, broach, belt and hat. This was done to satisfy objective 2 of the study.

3.10.3 To translate Panicum maximum into fashion accessories. (Objective 3)

Activity 2: Selection and preparation of materials for the bag

Based on the designs made, Panicum maximum was processed and prepared for production. The following outlines how the material was prepared for the execution of the project:

Harvesting and drying:

Panicum maximum was harvested with the hand and were spread on the floor in the sun to dry as shown in plate 3.1a &1b.

Plate 3.1a: Harvesting the Panicum grass. *(Source: researcher's fieldwork)*

Plate 3.1b: Drying of the Panicum maximum *(Source: researcher's fieldwork)*

The drying was done to drive out the moisture in the material. This supports the material to be durable and to prevent pest attack.

Splitting of the dried grass:

With the grass held in the left hand, with the pin or pointed knife in the other hand, the material is pierced in the midsection and pull to the end as shown in plate 3.2

Plate 3.2: Straw splitting process *(Source: researcher's field work)*

Scrapping:

This was done by running the scrapper (knife) over to remove the pith of the material as shown in plate 3.3 below:

Plate 3.3: Scrapping *(Source: researcher's field work)*

Dyeing of the Panicum maximum:

The researcher filled a bowl with water of a required quantity, suede dye of a desired colour in a small container was added, and common salt was added to help fix the dye properly. The material was boiled in the dye solution until the right shade was attained. The material was removed and dried in the sun and it was ready for use.

Plate 3.4: Dyed Panicum maximum (Source: researcher's field work)

Mount the prepared Panicum maximum on a manila card:

The dyed materials were selected and mounted on a strip of manila with polyvinyl acetate (white glue) to form the warp laid for interlacing. See the plate 3.5 below.

Plate 3.5: Mounting of the Panicum maximum *(Source: researcher's field work)*

Weaving:

Weaving is the interlacing of the weft and warp ends. This was done by using the mounted grass as the warp and interlace with another grass as the weft. The weave was done in both twill and plain. Both plain and twill weaves approaches were used to produce mats which served as the processed and fabricated material for the production of the selected accessories.

Plate 3.6a. A pictorial sample of twill weave. Plate 3.6b. A pictorial sample of twill weave

Plate 3.6c. A pictorial sample of twill weave. Plate 3.6d. A pictorial sample of twill weave

Plate 3.6a, b, c & d *(Source: researcher's field work)*

Plate 3.7a. Sample of plain weave. Plate 3.7b. Sample of plain weave

Plate 3.7a & b: *(Source: researcher's field work)*

Fixing the Vilene (Stiffening material):

To reinforce the woven material, Vilene was fixed at the wrong side of the woven material with polyvinyl acetate to give its backing, strength and thickness for fabrication into accessories.

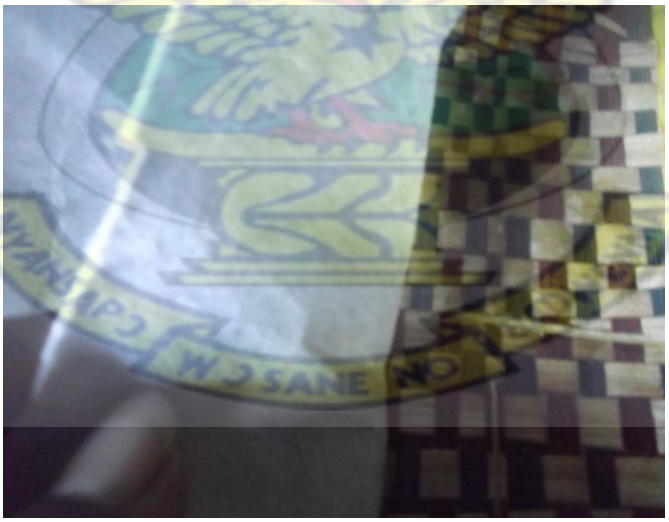


Plate 3.8: Placing Vilene at the back of the woven Panicum maximum

(Source: researcher's fieldwork)

The shopping bag:

In the production of the shopping bag, sketches were made from which the researcher selected one from figure 3.1a, b & c

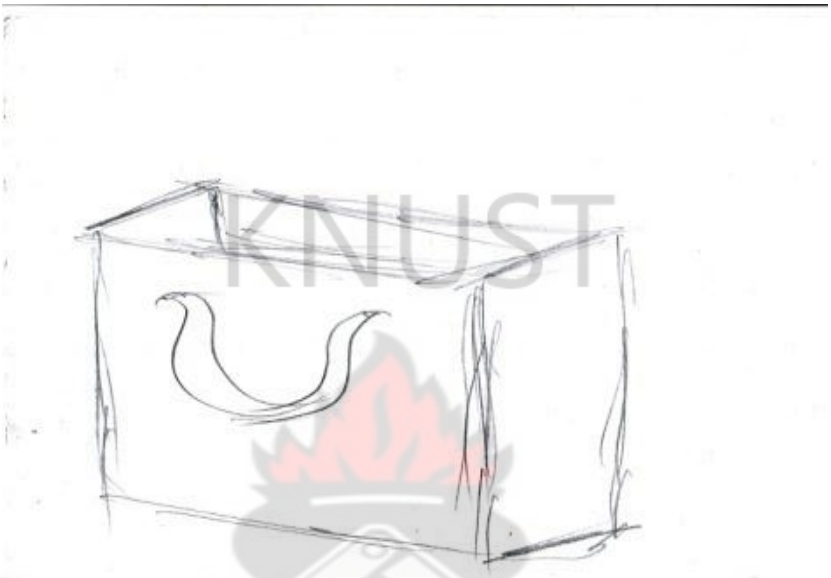


Figure 3.1a

Figure 3.1b

Figure 3.1c

Figure 3.1a, b, 7 c: Preliminary sketch of the bag

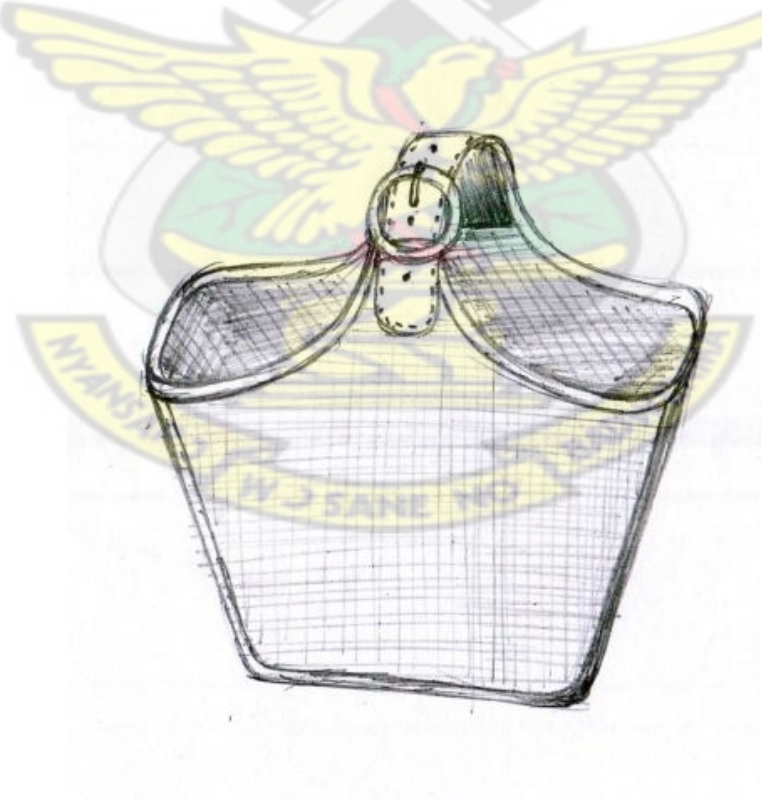


Figure 3.2: The final sketch for the product

Figure 3.3: 3d rendition of the shopping bag

Measuring and cutting:

A rectangular shape of the sides (19cm x 27cm) was transferred onto the woven Panicum maximum for the breadth of both sides, with a pair of scissors the front and back side patterns were cut as shown in a plate 3.9a and 3.9b.

Plate 3.9a : The front side of the woven cut out mat *(Source: researcher's fieldwork)*

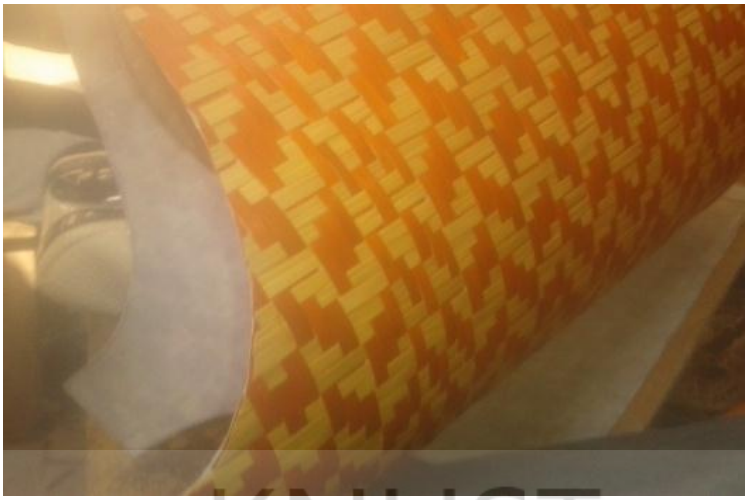


Plate 3.9b: The back side of the bag *(Source: researcher's fieldwork)*

The base of the bag which was (16cm x 34cm).was measured and cut out, and was repeated for both lining and boner.

Edging the cut out pattern with leatherettes:

With the aid of contact glue the edges of the cut out patterns were edged with leatherettes as in plate 3.10 below. This secured the edges of the patterns and aided the joining process during fabrication.

Plate 3. 10a: Securing of the edges with leatherette *(Source: researcher's fieldwork)*

Plate 3.10b: Cut out pattern with leatherettes edges. *(Source: researcher's fieldwork)*

The handle of the bag:

With the aid of a sewing machine, the handle of the bag was constructed as in plate 3.11.

Plate 3.11: Sewing of the handle with a sewing machine. *(Source: researcher's fieldwork)*

Plate 3.12: Hand stitch (Source: researcher's fieldwork)

Joining:

Using a sewing machine both sides of the edges are joined to the base to form the shape. Metal hook was fixed on the bag with an eyelet using the plier (plate 3.13). A bag stop beneath the bag was fixed to give it a support as shown on plate 3.14

Plate 3.13: Fixing of the hook (Source: researcher's fieldwork)

Plate 3.14a : Front view of the finished bag *(Source: researcher's fieldwork)*

Plate 3.14b: Side view of the finished bag *(Source: f researcher's fieldwork)*

The purse

Sketches of the purse:

In the making of the purse, varieties of sketches were made, from which the researcher selected one. Figure 3.4.

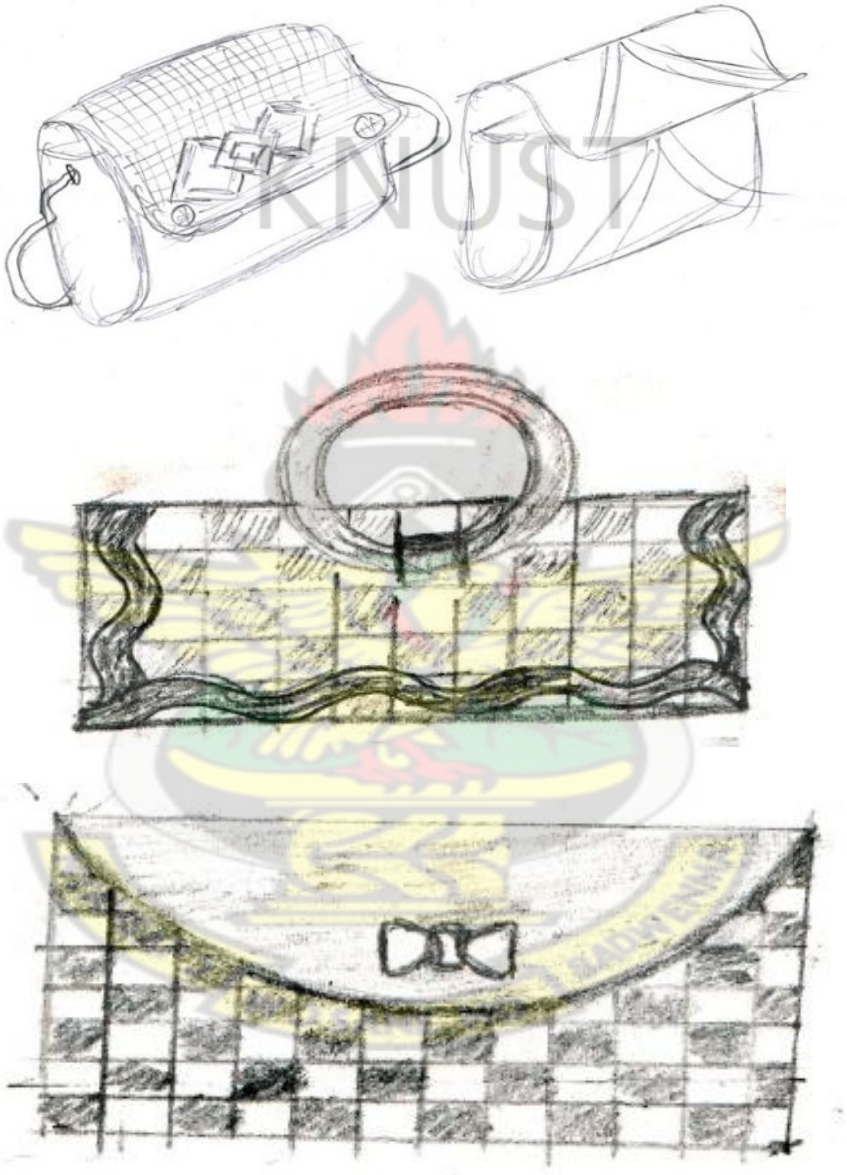


Figure 3.4: Shows the series of sketches on the pause

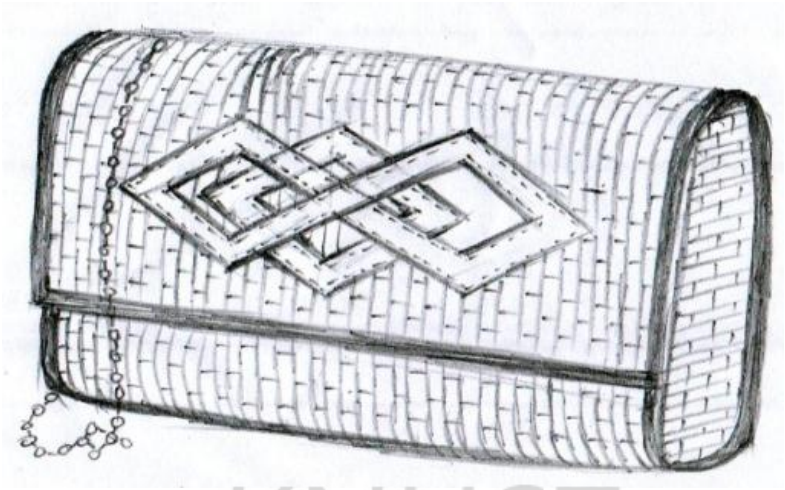


Figure 3.5: Final sketch of the purse

Figure 3.6: Rendered 3D model

Measurements:

Measurements (41cm x 30cm) were taken on the woven Panicum maximum and the pattern marked out with a pencil. The marked outlines were cut out to get the required shape.

Strengthening the cut out patterns with leatherette:

Adhesive was applied at the back of both the woven Panicum maximum and the leatherette. The two stitched together to make the woven Panicum maximum firm and strong.

Decorating the cut out patterns:

The sewing machine was used to sew, cut out leatherette patches to decorate the woven Panicum maximum to enhance the beauty of the bag (plate. 3.15).

Plate 3.15: Sewn decorations on woven Panicum maximum

(Source: researcher's fieldwork)

The sewing machine was used to stitch the edges of the rectangular mats. This was folded to form the purse. The press stub was fixed on the bag for easy fastening as in plate. 3.16.

Plate 3.16: Fixing of the press stub *(Source: researcher's fieldwork)*

The chain handle and the press bottom was fixed with an eyelet punch.

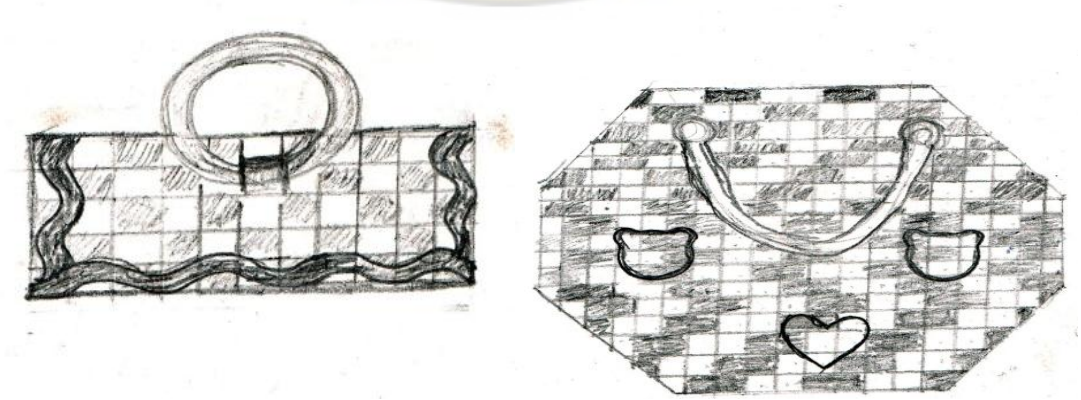
Plate 3.17: Joining the sides *(Source: researcher's fieldwork)*

The parts of the purse were then put together using glue and the sewing machine.

Plate 3.18: The finished purse (Source: researcher's fieldwork)

The hand bag

Preliminary sketches made.



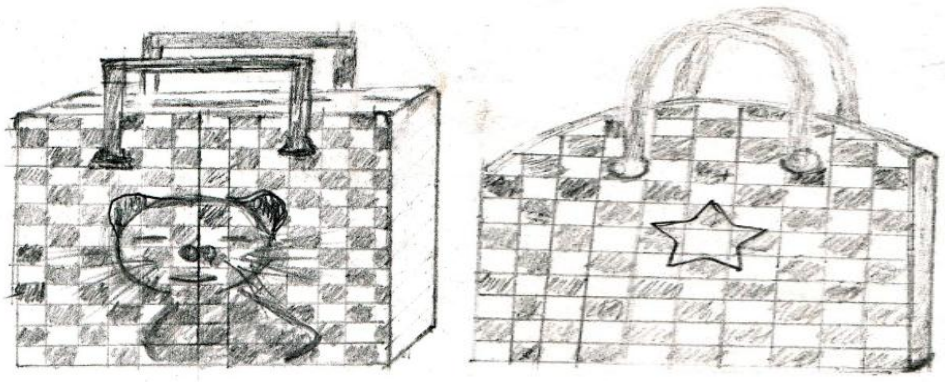


Figure 3.7: Sketches of the hand bag

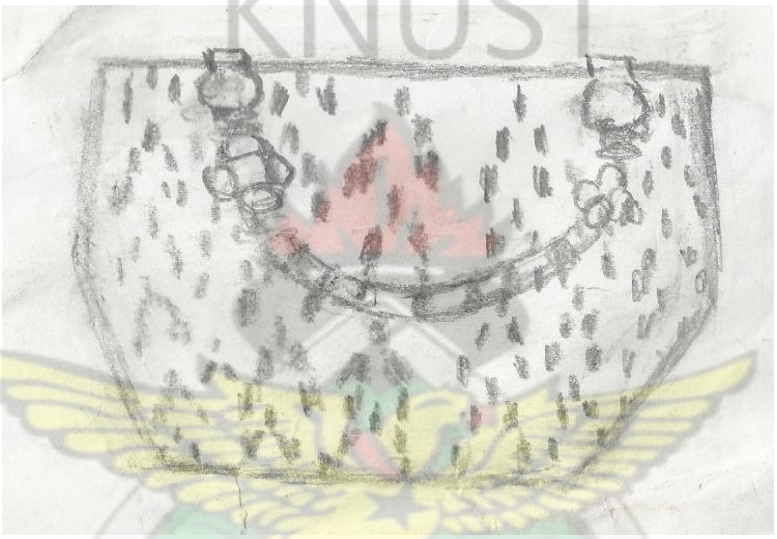


Figure 3.8: Final sketch selected

Figure 3.9: rendered in 3D model

Measurements and cutting out of shapes:

The measurement of the handbag was taken, measuring 25cm x 31cm and the width 10cm and was cut out of the production of the hand bag (Plate 3.19).

Plate 3.19: Marking and cutting of pattern *(Source: researcher's fieldwork)*

Strengthening the woven material:

The researcher applied adhesive on the back side of the woven Panicum maximum, fixed it on the leatherette. (Plate 3.20).

Plate 3.20: Glued patterns *(Source: researcher's fieldwork)*

Strips of leatherette, about 2cm wide were cut, glued and fixed at the edges to aid assembling of the bag.

Joining the parts of the handbag:

The researcher used a sewing machine to join the parts together (plate 3.21). The lining was fixed inside the bag with glue.

Plate 3.21: Sewing of the parts *(Source: researcher's fieldwork)*

Lining and zipping:

The handbag was then lined with a fabric Plate 3.22a. The zip (Plate 3.22b) was fixed at the top opening of the bag, to form the main opening.

Plate 3.22a: Sewing of a lining *(Source: researcher's fieldwork)*

Plate 3. 22b: Fixing of the zip *(Source: researcher's fieldwork)*

The handle:

Raffia was hung on a nail, placed on a wooden ring and then beaded at the ends. Raffia was whipped and plaited alternative to form a rope (plate 3. 23). Four different raffia ends were braided into the rope and square knotted to form the handle of the bag.

Plate 3.23: Beading and whipping of raffia *(Source: researcher's fieldwork)*

Assembling the hand bag

The handle was mounted with a sewing machine (see plate 3.24). The sides were glued, sewn and tightened with a Plier. (Plate 3.23 & 24).

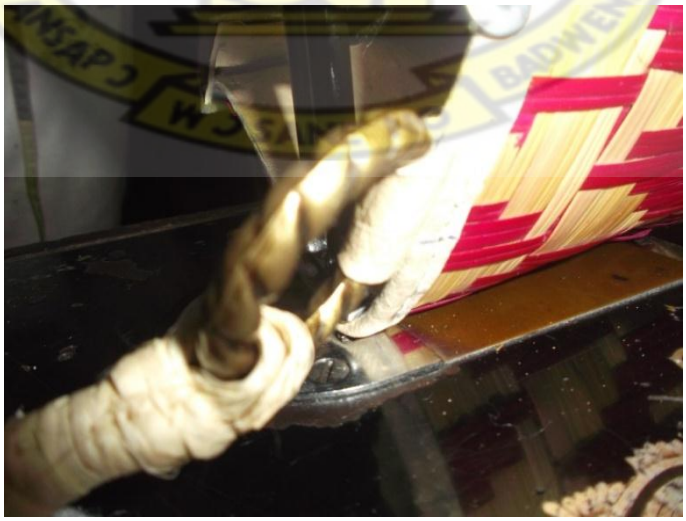


Plate 3.24a : Fixing of the handle *(Source: researcher's fieldwork)*

Plate 3.24b: Gluing and tightening of the edges. *(Source: researcher's fieldwork)*

Plate 3.25: Front view of the bag *(Source: researcher's fieldwork)*

The belt

Preliminary sketches:

The preliminary sketches of the belts a, b, c, d. e & f were made. The final sketch was selected for production.

a. b. c.

d. e. f.

Figure 3.10: Series of thumbnail sketches

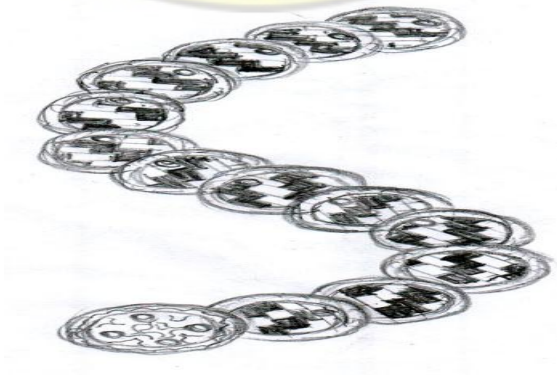


Figure 3.11: Thumbnail sketches selected

Figure 3.12: Belt in 3d rhino drawing

The final selection was made out of the thumbnail sketches as shown in the plate 3.12 above.

Marking and cutting:

The circular patterns (plate 3.25) were marked and cut out by the researcher. Adhesive was applied on both the woven grass and the leatherette and later joined.

Plate 3.26: Shows cut out circulars *(Source: researcher's fieldwork)*

Leatherette was cut into strips and sewn along the edges as in plate 3.27 below. They were put together using eyelets and pliers after which the hook was fixed.

Plate 3.27: Sewn circular edges *(Source: researcher's fieldwork)*

Plate3.28: Fixing of the eyelet *(Source: researcher's fieldwork)*

Plate 3.29: Final work *(Source: researcher's fieldwork)*

The Hat

Preliminary sketches:

In the production of the hat variety of sketches were made from which the researcher selected the best. In figure 3.13 are sketches developed for production.

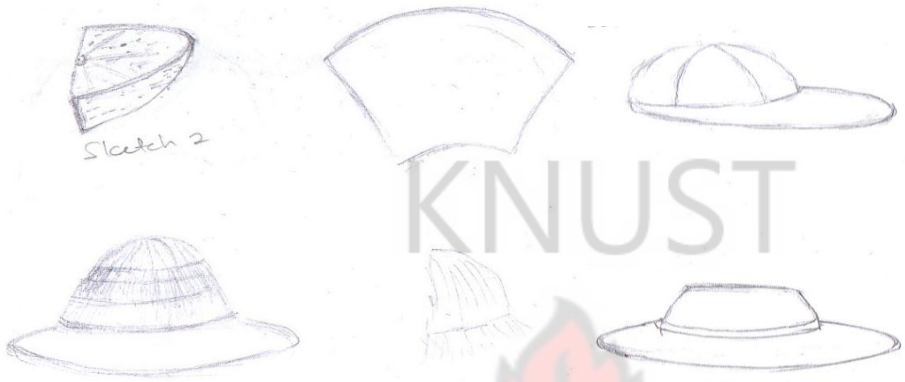


Figure 3.13: Various stages acquired by the researcher

The fig. 3.14: below shows the final sketches and 3d rhino rendition.

Figure 3.14: Final sketch

Figure 3.15: Hat rendered in 3d rhino

Marking and cutting out of the pattern:

With a diameter of 41cm, the brim of the hat was cut on a manila card for the pattern. The researcher measured 18cm and cut out for the top of the brim. Again, 37cm x 7cm was taken from the width and the length of the crown. (Plate 3.30).

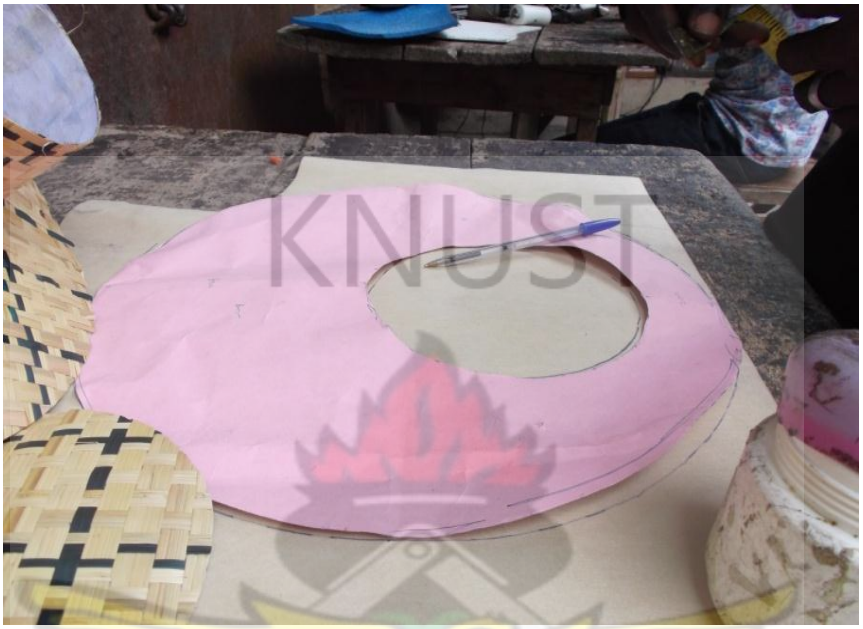


Plate 3.30: Patterns for the brim and top of the hat *(Source: researcher's fieldwork)*

Lining with leatherettes:

Leatherette was used as lining for the brim and other parts that needed to be lined.

Plate 3.31: Cutting of the lining *(Source: researcher's fieldwork)*

Joining the various parts:

The parts of the hat were then joined together with an adhesive as shown in Plate 3. 32)

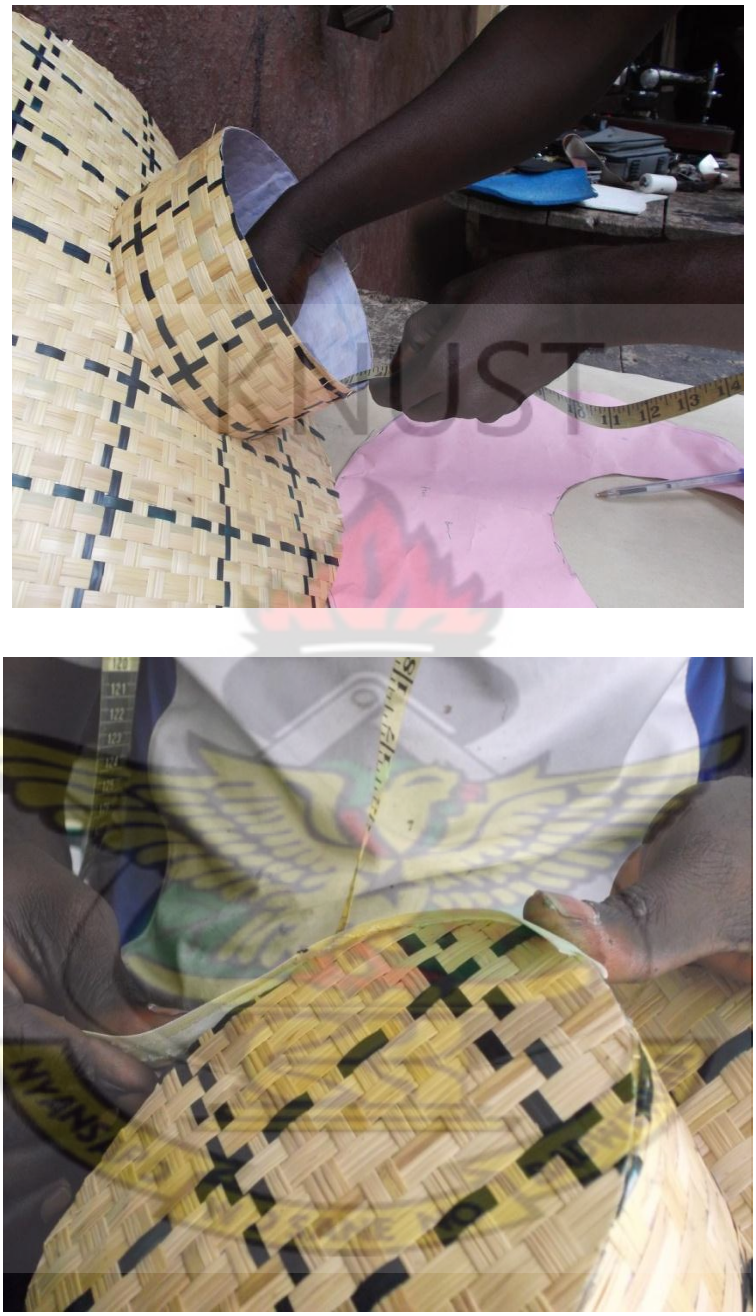


Plate 3.32: Joining of the parts *(Source: researcher's fieldwork)*

Finishing the Edges of the Hat:

The sewing machine was used to stitch along the edges of the brim. As in the plate 3.33 below. The plate 3.34 shows the finished hat.

Plate 3.33: Sewing of the brim *(Source: researcher's fieldwork)*

Plate 3.34: Decorated hat *(Source: researcher's fieldwork)*

Footwear for both male and female

Preliminary sketches made for all the footwear areas shown below (fig. 3.14)

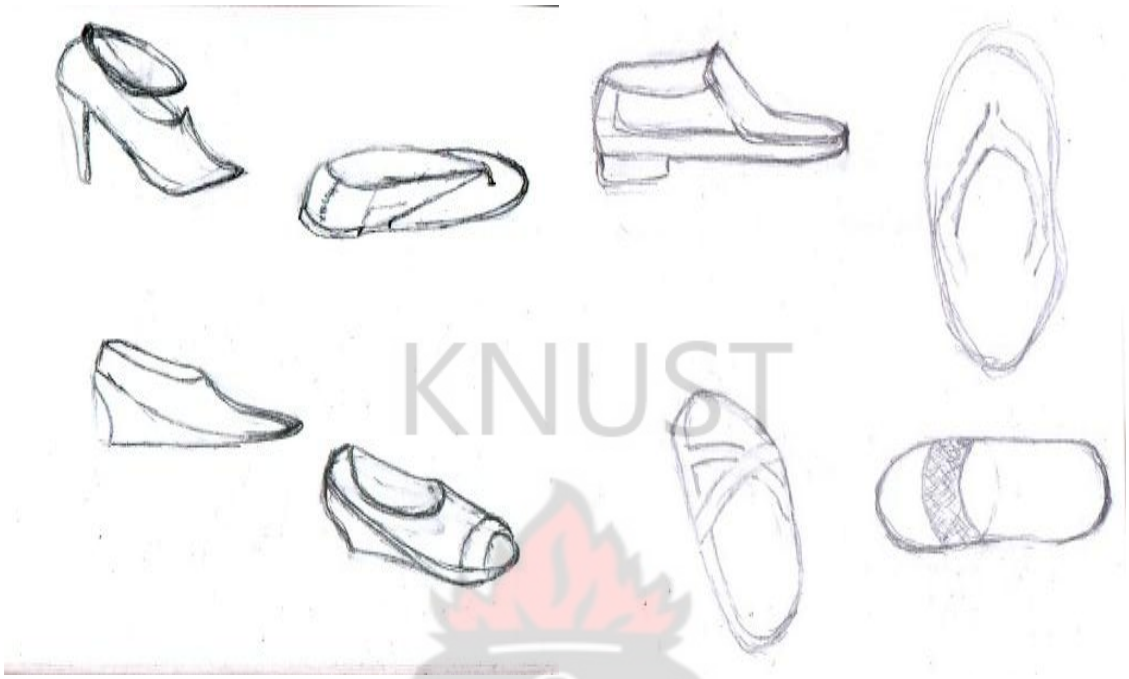


Figure 3.14: Series of footwear

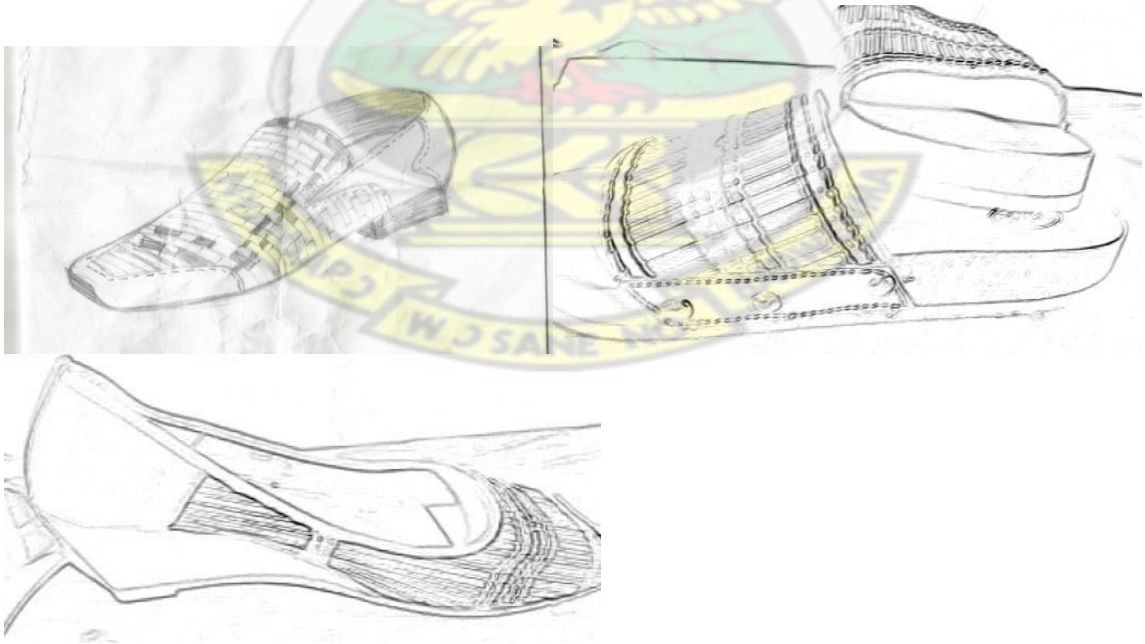


Figure 3.15: Selected footwear for both men and woman

Figure 3.16: 3d Rendition of the foot wears.

The fig. 3.15 is depicting the selected footwear for both men and women and the fig. 3.16 is the 3d rendition of the selected footwear.

The footwear was a combination of hand woven Panicum maximum and leatherette. The twist and ply method of weaving was used to create a mat. The weaves were dyed. This was done to decorate the work. Leatherette was used to line the woven mat and to give it support. This became the main material for the production of the slippers. Slipper patterns were placed on the prepared mat and cut to shape and size to form the upper. The edges of the cut out were secured with bias binding 4cm leatherette was cut and joins on a machine at the sides of the upper (plate 3.35a). The already prepared wooden Scholl was used for the sole as shown in plate 3.35b. The upper was fixed on the sole with a pin

(plate 3.36a). This was done by placing the upper on the sole and the sides with the leatherette joined with pins to hold it well on the sole with the help of a hammer as shown in plate 3.36b below.

Plate 3.35a: Sewing of the bias and the grass Plate 3.35b: Prepared wooden sole

(Source: researcher's fieldwork)

Plate 3.36a: Joining leatherette by sewing Plate 3.36b: Hammering of a pin

(Source: researcher's fieldwork)

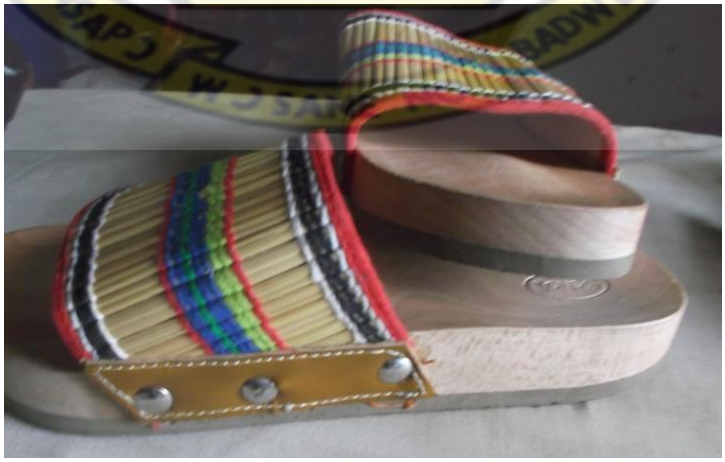


Plate 3.37 Final work (women's slipper) *(Source: researcher's fieldwork)*

In the plate 3.37 above, is depicting the final work for the women's slipper.

After the first slippers, the process was repeated for the ladies shoe.

Plate 3.38: Cut out upper *(Source: researcher's fieldwork)*

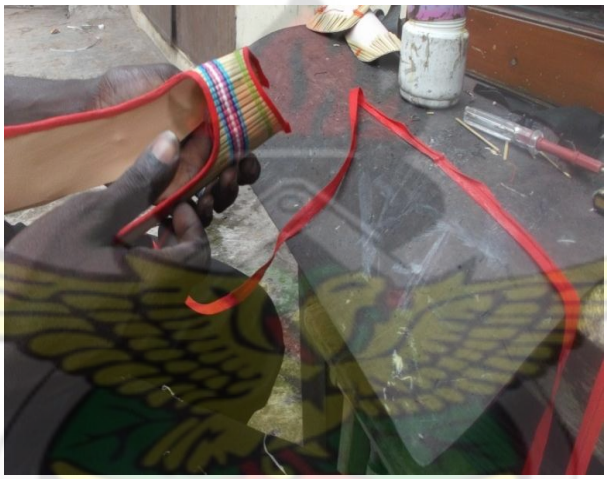


Plate 3.39: Picture showing fixed bias and sewing *(Source: researcher's fieldwork)*

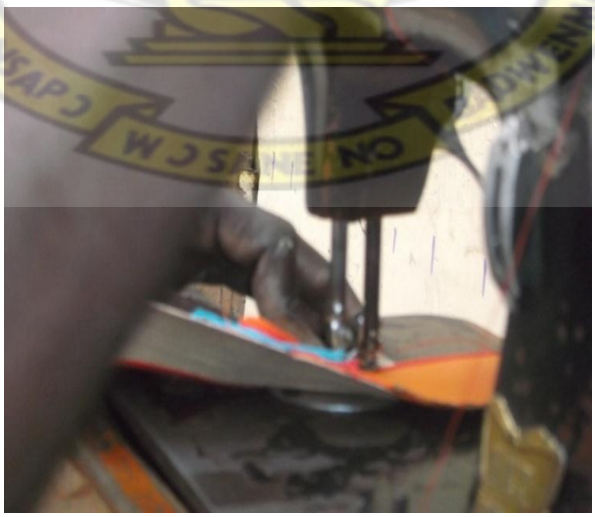


Plate 3.40: Sewing *(Source: researcher's fieldwork)*

Lasting

The upper part of the shoe was fixed onto a last to get the shape of the ladies wedge. The heel was then fixed and put in a last machine as shown in plate 3.41

Plate 3.41: Lasting of the shoe *(Source: researcher's fieldwork)*

Plate 3.42: Final work *(Source: researcher's fieldwork)*

Men's Slipper

Marking the Pattern: Marking and cutting of the woven Panicum maximum. (Plate 3.43a)

Plate 3.43a : marking of the uppers *(Source: researcher's fieldwork)*

Plate 3.43b: Cutting of guinea grass *(Source: researcher's fieldwork)*

Gluing and fixing of the leatherette: An adhesive was applied at the edges of the fabricated mat (Plate 3.44). Again, strips of leatherette were placed along the glued edges of the Panicum maximum and fixed as well.

Plate 3.44: Gluing of parts (Source: researcher's fieldwork)

Plate 3.45: Cutting of the strip *(Source: researcher's fieldwork)*

The researcher again used a leatherette as a bias binding to bind the edges of the upper with a hammer.

Sewing: Strip bias was sewn together at the edges with the lining with a sewing machine.

Plate 3.46: Sewing of the edges with the bias *(Source: researcher's fieldwork)*

Plate 3.47: Cutting of boner *(Source: researcher's fieldwork)*

Marking and cutting the insole: A cardboard as well as a boner was marked and cut out, glued and fixed as shown in the (Plate 3.48) below.

Plate 3.48: Marking and cutting of the insole *(Source: researcher's fieldwork)*

Plate 3.49: Lining the insole *(Source: researcher's fieldwork)*

The outsole and the heel were again scored to smoothen both the surfaces of the heel and the down sole. An adhesive was applied to both surfaces and fixed with a hammer.

Fixing the upper sole: A hole was created using a punch and cut through with a knife to fix the upper as shown in plate 3.50 and 3.51.

Plate 3.50: Cuttings through the holes *(Source: researcher's fieldwork)*

Plate 3.51: Fixing of the upper sole *(Source: researcher's fieldwork)*

Lasting and fixing of the heel: Fixed the wooden last in the sole of the slipper to get the correct shape and size of the slipper. Fixed the heel beneath the sole, applied adhesive on both the upper and the sole and join together.

Plate 3.52: Lasting (Source: researcher's fieldwork)

Plate 3.53: Fixing of the heel *(Source: researcher's fieldwork)*

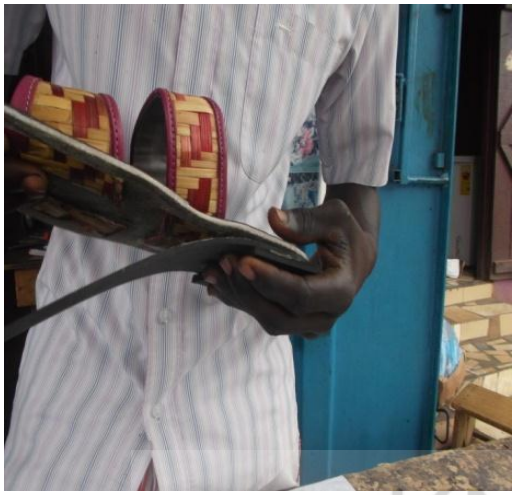


Plate 3.54a : Fixing of the upper and the sole of the slipper

Plate 3.54b : tightening both the upper and the sole with a harmmar

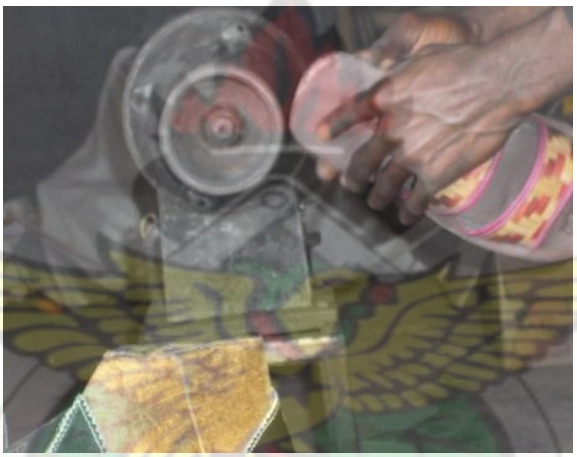


Plate 3.54c: Scotching for proper smoothening of the sole

(*Source: researcher's fieldwork)*

Plate 3.55: Final product (Source: researcher's fieldwork)

Men's shoes

In this activity, a pattern was also developed for the shoe. The weave structure for this work was quite different from the first mat that was woven. In this case, the woven mat was fabricated with Panicum maximum without any weave. The weaving was basically the interlacing of Panicum maximum. This was made by first splitting the Panicum maximum, removing the pith and using that same material as warp and weft to create a sheet of material flexible enough for fabrication in a shoe. This sheet was also supported with leatherette to give it the necessary firmness required for shoe making. The marked outlines were later cut as shown in plate 3.56a & b.

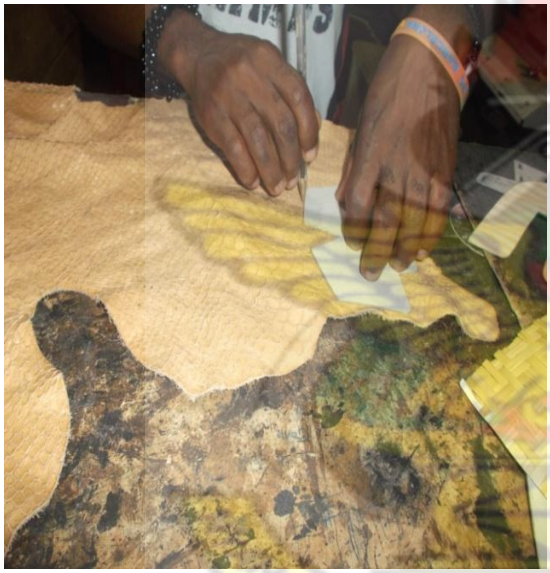


Plate 3. 56a

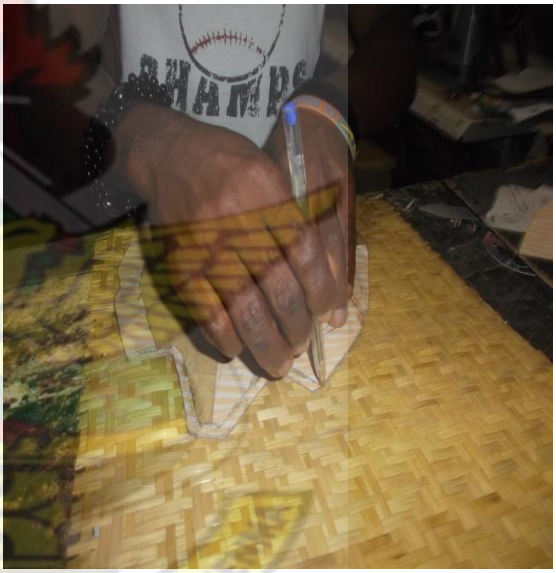


Plate 3. 56b

Plates 3.56a&b: Marking of the leatherette and the Panicum maximum pattern.

(Source: researcher's fieldwork)

Plate 3.57a Plate 3.57b

Plate 3.57a &b: Cutting of leatherette and Panicum maximum

(Source: researcher's fieldwork)

Skiving was done with a knife on the leatherette, in order to make the edges softer, lighter and easier when folding, stretching and gluing.

Plate 3.58: Skiving process (Source: researcher's fieldwork)

After the woven sheet, the leatherette and lining were glued and were sewn together to form the final material for the construction of the shoe upper. The upper was fixed to the quarter of the shoe by gluing and sewing to get the full shape of the shoe to make it easier to fit onto the shoe last.

Plate 3.59: Lining of the upper part of the shoe Plate 3.60: Sewing of the lining lasting

(Source: researcher's fieldwork)

Is a process where the shoe gets its shape depending on the size of the last. Lasting pincer was used to hold the edges and pull down to the insole on the last, to get the shape of shoe.

Plate 3.61: Applying of heat Plate 3.62: Pressing to fix both the upper and the sole

Plate 3.63: Removing of last using pincer

Plate 3.64: Final shoe

(Source: researcher's fieldwork)

Hair clips

Idea development for hair clip.

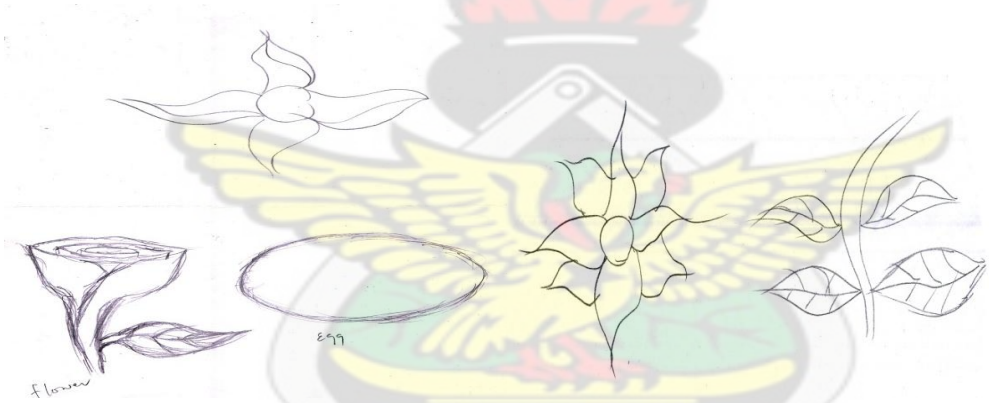


Figure 3.17: Thumbnails for hair clips

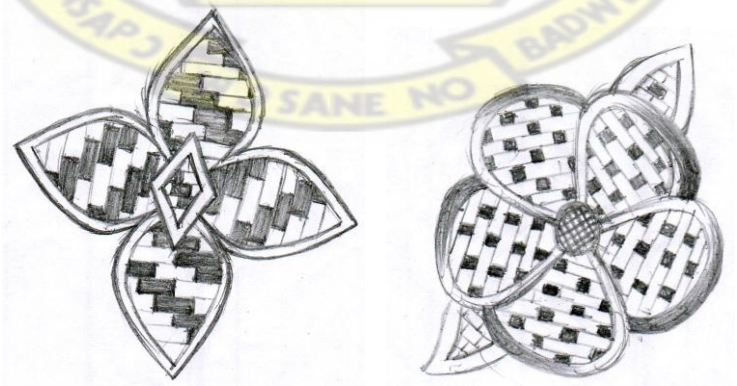


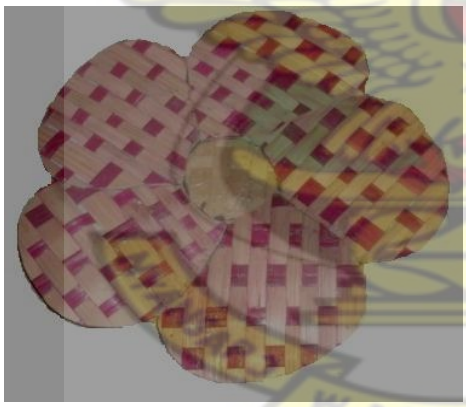
Figure 3.18: Selected hair clips from the researcher's sketches above

Figure 3. 19a

Figure 3.19b

Figure 3.19a &b: Hair clips rendered in 3d model *(Source: researcher's fieldwork)*

Five oval shape woven sheets were cut out of previously woven sheets. These were held together in the centre by a smaller circular disc of the same material. This product depicts a flower with two leaves showing behind the petals. Figure 3.19a & b Bias binding were used to give it a pleasing finish as shown below. A button was fixed in the middle to give it aesthetic look with a glue stick. This was finally attached with a clip.



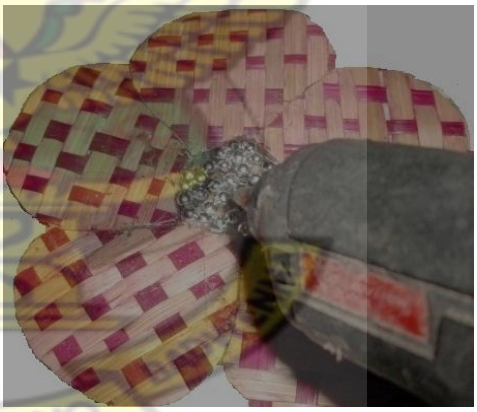


Plate 3.65: Assembling of Parts

Plate 3.66: Fixing of the button

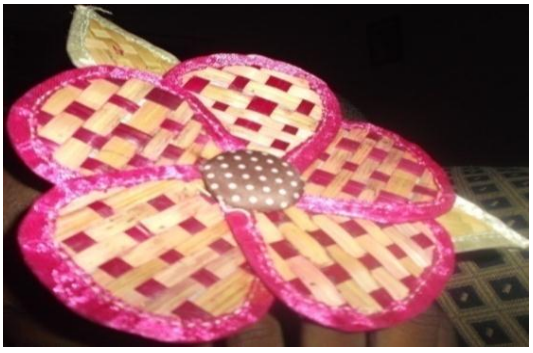


Plate 3.67: Finished hair clip (Source: researcher's fieldwork)

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

4.0. Overview

This chapter is a presentation of the results and discussion of the findings of the study.

The study has confirmed that:

- Panicum maximum can be processed and woven off loom to produce a mat.
- Panicum maximum mats supported with other flexible materials can be used for the production of fashion accessories.
- Panicum maximum must be integrated with other materials for quality and aesthetic finish.

4.1 Panicum maximum can be processed and woven off loom to produce a mat.

Panicum maximum is a plant material that has been in use for several years in predominantly Muslim communities in the production of mats on which they rest, sleep, and as a fabricated material on which most offer prayers during prayer times. Most of the mats produced in the past were products of the loom. Some other items produced were table mats. Although this material has the potential that needed to be exploited, very little effort has been made in that direction. In the Northern regions of Ghana, twisting and dyeing of this material is done to produce baskets of different shapes and sizes which are sold on the export market. The process in this study is off loom. The off loom technique in this has always been limited to the same kind of products, but this study has processed the material by splitting and scraping off the pith to make the material flexible for off loom production, which is now the base material for the production of several fashionable accessories. In this project, it was discovered that the removal of the pith by splitting and

scraping reduces the ability to break easily.

4.2 Panicum maximum mats supported with other flexible materials can be used for the production of fashion accessories.

In this study, it is obvious that, leather, fabric, wood, plastic, metal, are some of the materials considered by producers for the production of fashion accessories. These are chosen or selected based on the qualities of the material. Fabric and leather and leatherette may be chosen because of their flexibility and other possible manipulative properties. It is in this line of thought that Panicum maximum was processed to respond to fabrication like leatherette of fabric. Since the material was going to be cut like fabric or leatherette, it became necessary to give its backing. Without the backing the woven mat disintegrates, making it impossible for cutting and sewing. Materials that were found to be suitable for backing include cotton fabric, leatherette and stiffener. Thus, when used to support the off loom weaving Panicum maximum makes it respond to cutting, folding and other forming techniques adopted in the production of accessories for fashion.

4.3 Panicum maximum must be integrated with other materials for quality and aesthetic finish.

Panicum maximum has a very great potential of becoming an interesting material in fashion. Like any other material, Panicum maximum has limitation and therefore cannot be suitable for everything. Today in the arena of fashion, several different interesting materials are being combined to create effects that are technically correct and aesthetically pleasing. Most of these combinations are for technical reasons and others purely aesthetic. Depending on the item, integrations are very necessary to give the needed quality and aesthetic finish required. It is for this reason that the product below had leatherette integrated.

Plate 4.1: Integrate woven mat with leatherette

4.4 Public views of fashion accessories in Panicum maximum.

A mini exhibition of the products was held to take the views of the public. Students and lecturers in fashion and fashion designers were invited to comment on the works. Areas they commented on include attractiveness of the work, durability, safety in use and fitness for the Purpose of Fashion Accessories. During the exhibition most participants were of the view that the colour of the foot wears blends well with occasional wear, and for that matter caught their attention. Participants also mentioned that the Panicum maximum as material used for the footwear also gives it a unique look.

Plate 4.2: Some participants trying on the foot wears *(Source: Author's fieldwork)*

Plate 4.3: Participants appreciating the foot wear during the exhibition

With respect to the containers, the participants were of the view that the colour used for the shopping bags was attractive and the leatherette along the edges also blends well. The colours blended with the colour of the Panicum maximum.

Plate 4.4: Participants appreciating the hat

Plate 4.5: Fashion lovers displaying the items *(Source: Author's fieldwork)*

4.5 Exposure to liquids

When the woven mat or the material comes into contact with water or any liquid, it must be allowed to dry to prevent it from growing mould.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Fashion is very dynamic and several inputs have been made to keep pace with time. In Ghana different fabrics have been used to create designs that have been used by the aged, the youth and the very young. The creative potentials in people when stirred up give rise to an unending release of product designs that has served to meet the never dying desire of the society. Fashion is a composition made by adapting products to complement dressing. This study considered Panicum maximum as a decorative material for the production of fashion accessories.

To achieve this, the following objectives were outlined for the project.

1. To study forms and functions of selected fashion accessories.
2. To design, fashion accessories to be produced in Panicum maxim
3. To translate Panicum maximum into fashion accessories.
4. To access the durability of the fashion accessories produced in Panicum maximum.

To achieve these objectives, the researcher visited some Panicum maximum weaving centres to see at first hand the processes adopted at the various points for production. There was scanty information on the topic, however the researcher reviewed the available literature and conducted interviews with selected respondents working at the Panicum maximum weaving centres. The experimental and descriptive methods of research were adopted for this project.

Data recorded also indicates that, Panicum maximum can be manipulated using weaving, twist-and-ply technique of weaving, wrapping, and sewing as well as gluing technique. More importantly, Panicum maximum material when treated is durable, it can last for a longer period regardless of the weather condition. Either humid or dry atmospheric conditions, they can be dyed. The Panicum maximum has a light weight, resist wear-and-tear when handled well.

5.2 Conclusion

According to the study, most of the accessories used with Panicum maximum are more of leatherette, wooden, clothing, metal, plastic and paper and it is possible to use processed Panicum maximum as a decorative material to produce fashion accessories. Despite what people think of Panicum maximum, there are a lot of potential gains regarding the use of the material. Various products from the selected settings can be made of Panicum maximum.

5.3 Recommendations

1. It is therefore recommended that, the traditional designers should include the Panicum maximum as one of their complementary material for the manufacturing of fashion accessories. The government must encourage the private sector to establish factories for the production of such fashion accessories

2. Schools in Ghana must set up programmes and activities to help instil its importance and the need to cultivate Panicum maximum in students.

3. The Ministry of Education should include Basketry as a discipline in the curricula for Junior High School and Senior High School levels in Ghana.

4. The NGO's should organize the youth in Ghana and encourage them to cultivate the Panicum maximum, sell and produce artefacts to earn a living.

5. The Department of IRAI K.N.U.S.T. must organize workshops using the Panicum maximum as decorative material to produce fashionable artefacts for interested individuals.

6. Further research must be carried out with Panicum maximum as an alternative material that can be used to produce fashionable items in the fashion industry.

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