UNIVERSITY OF EDUCATION, WINNEBA - KUMASI

DEPARTMENT OF FASHION AND TEXTILE DESIGN

PROMOTING THE USE OF HAND EMBROIDERY FOR SURFACE DECORATION OF GARMENTS IN ASHANTI REGION

A DISSERTATION IN THE DEPARTMENT OF FASHION AND TEXTILE DESIGN SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, UNIVERSITY OF EDUCATION, WINNEBA IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF

MTECH FASHION AND TEXTILE DESIGN

BY

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(Bed Art)

NOVEMBER, 2016

DECLARATION

I declare that apart from references made to other people's work which have been acknowledged, this thesis is the result of my personal research carried out at the Department of Fashion And Textile Design and that neither in whole or in part has this work been presented elsewhere for the award of another degree. However, the limitations of this work remain my responsibility.

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I declare that I have supervised the student in undertaking this study reported herein, and I confirm that the student has my permission to present for assessment.

Dr. B. K. Dogbe ……..…..….. ……...…….

(Supervisor's Name) Signature Date

I declare that I have supervised the student in undertaking this study reported herein, and I confirm that the student has my permission to present for assessment.

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ABSTRACT

Textiles as a course and trade tend to be time and energy consuming as exhibited by both students and producers. The various existing textiles decorative techniques are mostly applied by machine to decorate local fabric wares. Such wares though look good tend not to meet all the requirements of consumers in terms of finesse and also not promoting hand embroidery. It is in this regard that the researcher has taken inspiration to promote the use of hand embroidery techniques to decorate fabric wares. Some literature relevant to this research was reviewed in relation to how other scholars express their views and producers talk about their works. Relevant data on fabric embroidering were gathered by the employment of experimental and descriptive methods of qualitative research mainly through observation by the researcher herself on tools, materials and especially the techniques which was the bone of contention. Administration of questionnaires was also employed to collect data from respondents to ascertain their level of knowledge in hand embroidering. Major research findings were revealed during the course of the processes: The large needles tend to create big perforation to distort the beauty of the work and also designs that were too dense could literally carve out the design in the fabric. The chronological grading of applying several stitches posed problems when using the hand to embroider. On the other hand candlewick technique however needed a constant twisting motion of the thread and equal thickness to create a design. In each case diligence was the order. With regards to the benefits that this innovation would bring to the development of human power and the nation as a whole, it is recommended that fashion designers should employ hand embroidery design techniques into the design of fabric wares, moreover; the methodology of transfer adopted is useful for unique productivity.

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N. S.

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TABLE OF CONTENTS

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Content **Page**

CHAPTER TWO: REVIEW OF RELATED LITERATURE

CHAPTER THREE: METHODOLOGY

LIST OF PLATES

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter provides the basic framework of the whole thesis. It embodies the Background to the Study, Statement of the problem, Objectives of the research, Research questions, Delimitations, Limitation, Definitions of terms, Importance of the study and Organization of the text.

1.1 Background to the Study

Embroidery is a decorative technique where a needle and thread are originally used to create stitch designs on fabrics by using the hand. This later became mechanized, which is the introduction of embroidery machine. Holt (1980) asserts that embroidery involves the application of yarn or thread to a base fabric in a planned pattern or design, a method of creating decorative fabric, and continues that the common unit used is the 'Schiffli' machine which applies thread in a complex pattern.

The earliest surviving embroidered cloth is an Egyptian handmade that had been in a preserved state by the condition of the dry desert climate. Embroidery was also practiced by ancient Mediterranean. Ancient Persia, Babylon, Israel, Phoenicia, and Syria were the places where centers of fine embroidery were developed. Few examples of ancient embroidery survived, however, and the history of the craft is difficult to trace until about the sixth century (Encarta Encyclopedia, 2014).

Hand embroidery is a craft that is thousands of years old: Ancient Egyptians used it to decorate the hems of royal robes, it appeared during the Middle Ages in tapestries, and it was used during the Colonial and Victorian eras to create samplers. Today, hand embroidery is considered both a craft and an art form, and there are many people who still use hand embroidery in their homes on personal and home decorating items. Wall hangings, table runners, and quilts are good examples of how hand embroidered items are used as displays in today's homes (www/ buzzle.com)

The history of traditional hand embroidery among Asantes started alongside the production of Adinkra cloth. Yarns were traditionally spun from cotton fibres and these were used for the embroidery. These yarns were dyed locally with traditional dyes prepared from natural sources. Colours used include red, yellow, blue, indigo, green, black, brown and a host of others. Originally embroidery was done to join woven Kente strips together. Embroidery is done on the fabric before stamping or printing. Amoako-Attah (2007) agrees that with Adinkra printing, embroidery is first done with thread and needle after which the stamping is done with the Adinkra dye.

Different types of stitching techniques are used to produce designs that enhance the aesthetic qualities of many fabric wares previously using the hand but now with the aid of embroidery machine. Thus, eliminating hand embroidery that looks more vibrant to the ditch. However due to the monotonous machine embroidery exhibited on fabric wares, it became essential to once again re-introduce and experiment with these hand embroidery decorative techniques on fabric.

1.2 Statement of the Problem

Embroidery design techniques are generally known to be made only by local fashion designers that decorate their wares using machine embroidery design on frocks worn by both genders, termed ‘Joromi’. ‘Joromi’ designers have their style of executing embroidery, which is portrayed only at the neck area, the sleeve edge, and at the base edge of the attire.

Apart from that the indigenous type of embroidery ‘nwomu’ produced in and around Ntonso, in the Ashanti Region of Ghana, has its own aesthetic qualities that are designed to create an array of plain weave-like pattern to join strips of fabric together. However, it was not until recently that badges were made locally using machine embroidery and a few foreign leatherette articles imported, decorated with embroidery are realized. Very intricate textile designs are made possible through embroidery. This makes it one of the most reliable and efficient decorative techniques in the textile industry.

The various existing embroidery designs on the afore mentioned areas deem monotonous and comparatively tend to provide a certain level of aesthetic enhancement, but cannot meet the demand of customers at large, hence can be replicated on contemporary fashioned dresses and on upholstery such as table mats, chair backs, etc. Exploring this versatile hand embroidering decorative technique in this direction is deemed very expedient, thus, it will tend to create possibilities of more jobs especially to recuperate employment for the jobless.

This study is therefore undertaken to develop attractive contemporary garment using hand embroidery as the main decorative technique to add value, for its benefits and promotion.

1.3 Objectives of the Research

a. To identify, describe and experiment with major stitches of hand embroidery decorative techniques on fabric.
b. To find out the extent to which hand embroidery is used for garments decoration in Ashanti Region.
c. To promote the use of hand embroidery among fashion designers through the designing and production of selected embroidered garments

1.4 Research Questions

a. What are the major stitches of hand embroidery for fabric decoration?
b. To what extent do garments producers in Ashanti Region of Ghana use hand embroidery for decorating their products?
c. Can the designing and production of selected garments decorated with hand embroidery promote hand embroidery among fashion designers?

1.5 Delimitation

a. The project was limited to the use of cotton fabric.
b. A few selected embroidery stitching techniques were considered.
c. Hand embroidery was the solitary method of decoration.
d. The study was also concentrated on students of selected Senior High Schools in Kwabre East District of Ashanti Region.

1.6 Limitations

Since the research was mostly an experiment and by the employment of hand stitching, it became evident that it needed diligence and experience, hence much time was spent before the requisite results were achieved.

Furthermore, in every endeavour there are bound to be some imposed restrictions which are inevitable and must be managed. Since the research also relied partially on questionnaire, some challenges emanated from these sources. A few of the sampled respondents were unable to trace their copies of the administered questionnaire, resulting to re-administration of the questionnaire and loss of time in data collection, resulting in the delay of the collation of data.

1.7 Importance of the Study

a. The project will motivate both textile students and fashion designers by relying on the outcome of this study as a source of inspiration.
b. This project will help to provide the means of decorating fabric wares using hand embroidery in the fashion industry.
c. This thesis will serve as a reference material for other researchers.
d. It will help to promote hand embroidery in Ghana to some extent.

1.8 Definition of Terms

a. Clothing

This is covering designed to be worn on a person's body made up of shirts, blouse jackets, belts, caps, etc

b. Upholstery

Upholstery is decorative items used indoors such as dresses, table mats, curtains, seat covers, etc.

c. Decoration

Decoration is something used to beautify or to enhance the aesthetic appeal of something. These comprises of wall hanging, seat back, lamp shade, etc.

d. Grey baft

This is a nearly finished textile material which had been spun and woven but not yet dyed and printed upon.

e. Mercerized cotton

A cotton fabric that has been treated with sodium hydroxide to shrink it and increase its luster and affinity for dye.

f. SHS

Senior High School

g. HND

Higher National Diploma

1.9: Organization of the Text

Chapter One covers the introduction that contains background to the study, statement of the problem, objectives, research questions, delimitations, limitations, definition of

terms, importance of the study and organization of the text. **Chapter Two** deals with theories of various authors in connection with how they view embroidering in different angles. The following areas are considered: historical background of embroidery, embroidery (machine embroidery, hand embroidery, decorative techniques in embroidery, embroidery stitches) and embroidering on fabric (transferring designs onto fabric, choice of color / thread, choice of fabric and needle). **Chapter Three** deals with the methodology and it's relation to the study. It includes the research design, library research, population, data collection instruments, primary and secondary data, data collection procedure, data analysis plan and. It also deals with the identification, observation, description of the experiments conducted to determine the hand embroidery techniques that best thrive on fabric to provide the relevant results. In **Chapter Four**, the valid data are assembled, discussed, analyzed. **Chapter Five** being the last chapter of the whole thesis basically deals with the summary of the contents of the chapters, summary of findings, conclusions, recommendations and proposed innovations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Overview

In accomplishing an effective realization of this project it was prudent to review some literature that relate to it. The subjects taken into consideration were: Historical Background, Fabric Wares, Embroidery (Machine embroidery, Hand embroidery), Decorative Techniques in Embroidery, Embroidery stitches and Embroidering on fabric (Transferring designs on fabric, Choice of Colour / Thread, Choice of Needle).

2.1 Historical Background of Embroidery

According to the web, http://www.annatextiles.ch.(2009), embroidery, the art of forming decorative designs with hand or machine needlework, has been around nearly as long as clothing itself. Evidence shows that Ancient Egyptians, Babylonians, Phoenicians and Hebrews used embroidery for decorating their robes. They had a style of their own which spread to other countries such as Spain and Sicily. The oldest embroidery works still in existence date back to the Middle Ages when embroidery was often used in ecclesiastical vestments as well as clothing. It also represented a sign of wealth, where some rich merchants were intended to pay a huge sum of money in return for luxurious embroidered clothing. An example from this period is the Bayeux Tapestry, which is two hundred and thirty-one feet long and recounts the Battle of Hastings in 1066. Embroidery was also practiced in Asia and America as well.

a. Embroidery in India

Embroidery was known in India probably from prehistoric times, but in the 16th century it was greatly encouraged by the Mughal emperors, under whose patronage many Persian artisans settled in India. Among the best known styles are those of Kutch and Kathiawar, in which satins are stitched with floral patterns inset with pieces of reflective material. In the Punjab, 'Phulkari' embroideries display geometric patterns made by counted stitch work (Microsoft Encarta Encyclopedia, 2013).

b. Embroidery in China

The earliest surviving examples of Chinese embroidery were Tang **ery in China** dynasty (618-907) garments from eastern Turkistan. Heavily influenced by the silk culture, which made exquisite threads and fabrics available to artisans, Chinese embroidery was principally used to decorate garments. Especially well known are Chinese emperors' robes, profusely adorned with traditional motifs and worked on a rich, dark ground often black silk. One characteristic technique was void satin stitch, in which the rows of satin stitch are separated by a narrow strip of background material. Also characteristic were couched rows of silk threads covered with gold and silver (Microsoft Encarta Encyclopedia, 2013).

c. Embroidery in Japan

In Japan, coloured silks continued to be embroidered with long soft stitches in untwisted silk threads. Flowers, birds, bold flowing lines, and abstract motifs are common, and the designs achieve a feeling of calm restraint through their spacious distribution. Japanese embroidery on women's kimonos especially flourished in the 17th and 18th centuries (Microsoft Encarta Encyclopedia, 2013).

d. Embroidery in the United States of America

Early settlers in America brought their embroidery crafts from Europe with vegetable-dyed handspun linen thread probably used first, although wool and silk have also been found in early sampler embroideries. In the late 18th century linen was replaced by commercially spun cotton thread. Although American embroidery designs generally were derived from English designs, they tended to be simpler. As the colonies prospered and resources such as cloth became less scarce, the appliqué quilt became a favourite type, with decorative embroidery stitches used to apply the pieces of coloured cloth that formed the designs. In early examples, wool stitching was used in a kind of self-couching stitch called 'colcha' stitch.

Throughout the 19th century, needlework pictures were popular, the most characteristic type being Berlin work. In the early 20th century a taste for naturalistic design gave rise to shaded silk embroidery, worked in flat satin stitch on linen in delicately shaded colours. From the mid-1960s to the early 1980s there was a renewal of interest among needlework enthusiasts in working their own designs as well as pre-stamped designs of varying complexity; and by 1985 there were signs that crewel work had been taken up again by those seriously interested in embroidery crafts (Microsoft Encarta Encyclopedia, 2013).

e. Manufacture of Embroidery Machine

Jacob Schiess, a Swiss national, was the one who started the first commercial embroidery manufacturing establishment in 1848 in New York, and within a year had his own embroidery plant in operation. All the stitching was done by hand stitching and also exquisite designs by hand.

The development of machine embroidery took place not until the 19th century when Joshua Heilmann from Mulhouse designed a hand embroidery machine. Though he did not sell many, it revolutionized the embroidery industry. Heilmann's invention was quickly followed by the ‘shuttle embroidery’ and the ‘chain stitch embroidery’ methods. The beginning of shuttle embroidery dates back to the 1860's when Isaak Groebli, from St. Gallen, Switzerland, was inspired by the work produced on the sewing machine.

In 1873, Alphonse Kursheedt imported twelve of the then new embroidery hand looms from St. Gallen, making him the first American to use a mechanized embroidery process. The looms used multiple needles and were an unbelievable improvement over the age-old process of stitching by hand. They were however, powered manually. Immediately afterwards, Isaak Groebli invented the first practical Schiffli Embroidery machine. This machine was based on the principles introduced by the newly invented sewing machine. Groebli's machine utilized the combination of a continuously threaded needle and shuttle containing a bobbin of thread. The shuttle itself looked similar to the hull of a sailboat. "Schiffli" literally means "little boat" in the Swiss dialect of the German language, so his machine came to be known as a schiffli machine. In 1876, Kursheedt began imp-orting a number of schiffli machines to America, thereby making him the real founder of the schiffli embroidery industry in the United States.

A German, Dr. Robert Reiner, of Robert Reiner, Inc., Weehawken, came to the United States in 1903 and realizing the potential of the embroidery industry, persuaded the Vogtlandishe Machine Works of Plauen of Germany, to appoint him its

American agent. This began a mass importation of embroidery machines into several countries. The industry grew until 1938, when suddenly the two sources for the manufacture of machines in Plauen, Germany, and Arbon, Switzerland, ceased operation because of World War 2. No additional machines were produced until 1953, when Robert Reiner Inc. introduced the first American-made schiffli machine. Gradually in time, improvements were made to the machine in America as well as in Switzerland and Germany. Today computers are playing a major role in the embroidery process (Encyclopedia Britannica, 2016).

2.2.0 Embroidery

Embroidery is a decorative technique that provides unique finish in terms of colour integration and intricacy nature of designs. Encyclopedia Britannica (2015) describes embroidery as the decoration of textile fabric and sometimes of leather or other materials by means of thread and needle and at times wire. It continues that the basic techniques are described in the article of needle work. Embroidery probably had its origin in the daily needs of humanity. According to Adu-Akwaboa (1989), the term embroidery describes any decorative or ornamental stitches that yarn or thread are used to produce on fabric.

Westland (1974) also looks at embroidery as needlework of pleasure and adornment, not for thrift or necessity and these designs are planned with that in mind. He further states that, all the shapes and compositions are inspired by Nature such as birds, leaves, trees and flowers. There is a saying that, ‘not only is beauty in the eye of the beholder’, so are the endless possibilities for decoration. All these designs can be used decoratively in varied ways. Messent (1989) is also of the same view that the

portrayal of all aspects of nature has been universally popular embroiderers for thousand years. This is found in the remnants of fabrics in burial places as far apart as Egypt and Russia. These portray birds, hares, horses with boarders and geometrical shapes containing foliage of a kind. By this assertion, both Westland and Messent have the same conviction that nature is the source of inspiration of making any embroidery designs. For an ideal accomplishment, the products will showcase designs created from the inspiration of nature.

2.2.1 Machine Embroidery

A characteristic of machine embroidery is that the basic techniques or stitches of the earliest work remain the fundamental techniques of hand embroidery today. Machine embroidery, arising in the early stages of the industrial Revolution, mimics hand embroidery, especially in the use of chain stitches, but the 'satin stitch' and hemming stitches of machine work rely on the use of multiple threads and resemble hand work in their appearance, not their construction (http://www.ansarient.com).

The invention of embroidery machines devastated hand embroidery industry, causing major economic crises in many parts of the world. It is the common allegation that machine embroidery has to go with. It may have been true in that era when most of the people were adept in hand embroidery. Gradually, machine embroidery has developed as an individual art involving as much dedication and technique as hand embroidery. The speed may have increased but the patterns are still the same. The representation may be different, themes are still the same. The motifs can be floral, religious, natural surroundings, geometric or realistic; the fineness comes with practice as in any other art. In the beginning, it may have been the imitation of the

handwork and for that matter modern machine embroidery is an original, unique art form (www.craftsy.com, 2016).

Machine embroidery is a term that can be used to describe two different actions. The first is using a sewing machine to 'manually' create (either freehand or with built-in stitches) a design on a piece of fabric or other similar item. The second is to use a specially designed embroidery machine to automatically create a design from a pre-made pattern that is input into the machine. Most embroidery machines used by professionals and hobbyists today are driven by computers that read digitized embroidery files created by special software (Plate 2.1).

Plate 2.1: Digitized Embroidery Machine
Source: www.emblibrary.com

With the advent of computerized machine embroidery, the main use of manual machine embroidery is in fiber art and quilting projects. While some still use this type of embroidery to embellish garments, with the ease and decreasing cost of computerized embroidery machine, it is rapidly falling out of favor. Many quilters and fabric artists now use a process called 'thread drawing' or thread painting to create embellishments on items (http://www.thefreedictionary.com).

2.2.2 Hand Embroidery

Hand embroidery is a technique that can be used to decorate many items, lending a personal touch to one's home. Whether it's the initials stitched on the edge of a pillowcase or a delicate floral theme on special towels for the bath, embroidery remains a very unique way of personalizing items and has a rich tradition of use throughout the world.

Hand embroidery begins with a few basic stitches such as cross, straight and running stitches. It is the decoration of fabric with stitches worked with thread and a needle by using the hand (www. emblibrary.com). It is a technique that produces a unique finish but the rate of production is relatively very slow. For the purpose of this project hand embroidery is relevant because the designs taken into consideration of this research are such that it needs diligence and accuracy to create.

'Stumpwork' technique for instance, is a form of hand embroidery raised from the background in three-dimensions. The rate at which any embroiderer uses the hand in producing a piece of work in this nature is alarming but at the long run produces unique finish (Plate 2.2).

Plate 2.2: Stumpwork Design
Source: www.emblibrary.com

2.2.3 Decorative Techniques in Embroidery

Microsoft Encarta (2012), defines decoration as 'an item, usually one of a group, attached to something to make it look more attractive or to make a special occasion'. A technique is something done with the stitch when embroidering (Cole, 1989), such that an embroiderer has the ability to manipulate variety of stitches to create a technique.

There are various decorative techniques in embroidery, such as Needlepoint, Blackwork, Crazy Quilt, Cutwork, Hand Embroidery, Pulled Thread, Counted Cross Stitch, Hardanger, Redwork, and Stumpwork.

Below are some sample designs of embroidery techniques (Plates 2.3-2.16):

a. Counted Cross Stitch Embroidery:

It is like painting a picture in thread (Plate 3).

Plate 2.3: Counted Cross Stitch Embroidery

Source: www.needlenthread.com

b. Crazy Quilt Embroidery:

Pieces of different materials are irregularly arranged and joined together by stitching (Plate 2.4).

Plate 2.4: Crazy Quilt Embroidery
Source: www.needlenthread.com

c. Redwork Embroidery*:*

Redwork embroidery is a form worked in monochrome, that is, a single colour thread (Plate 2.5).

Plate 2.5: Redwork Embroidery
Source: www.needlenthread.com

d. Blackwork Embroidery*:*

In Blackwork embroidery the outlines are given deep stitches and the patterns are filled with stitches (Plate 2.6).

Plate 2.6: Blackwork Embroidery
Source: www.needlenthread.com

e. Whitework Embroidery:

In this technique patterns are created by pulling the fabric threads together with the working thread. This thread is normally the same colour as the fabric (Plate 2.7).

Plate 2.7: Whitework Embroidery
Source: www.needlenthread.com

f. Hardanger Embroidery:

Hardanger embroidery is a simple form of Whitework named after the area of Norway where it is found. This form of needlework involves counted thread stitches, drawn thread work and some pulled thread embroidery (Plate 2.8).

Plate 2.8: Hardanger Embroidery
Source: www.needlenthread.com

g. Needlepoint Embroidery:

Needlepoint, also known as canvas work, is sometimes mistakenly called tapestry because real tapestries are woven, not stitched. It is described as stitches worked on canvas, often using wool and normally covering the whole surface (Plate 2.9).

Plate 2.9: Needlepoint Embroidery
Source: www.needlenthread.com

h. Pulled Work Embroidery:

This technique, also known as drawn fabric, is a form of Whitework that does not involve cutting the fabric threads to create the lacy effect. Instead tension is used when working the stitches to draw the fabric threads together. Drawn thread embroidery, however, is where fabric threads are cut and withdrawn leaving a hole. Unlike normal needlework, in pulled work the stitches themselves are not always meant to be seen. Instead the holes or perforations caused by the movement of the fabric threads create the pattern. For this reason the best results are obtained by using the same colour of threads and fabric (Plate 2.10).

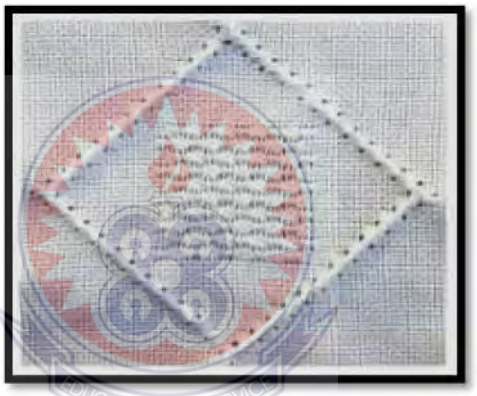


Plate 2.10: Pulled Work Embroidery
Source: www.needlenthread.com

i. Candlewick Embroidery:

Candlewick is a needle art that uses thick cotton yarn. Like chains of pearls, the candlewick-inspired "knot" stitches weave their way through traditional patterns of strawberries, goldfish, and cherries. The designs can be stitched traditionally, in distinctive white on white, or with fashionable accent colours for table linens and apparel like skirts and shawls (Plate 2.11) (www.emblibraly.com).

Plate 2.11: Candlewick Embroidery

Source: www.needlenthread.com

j. Cutwork Embroidery:

This is a surface embroidery technique where two main stitches are used: running and buttonhole stitches. It is worked on fine linen or cotton fabric or lawn, and generally worked in threads that match the fabric colour, traditionally white or cream (Plate 2.12).

Plate 2.12: Cutwork Embroidery

Source: www.needlenthread.com

k. Assisi work Embroidery:

Assisi work uses a method known as voiding in which the background is filled in while the motif itself is left blank. Cross-stitch is used for the background and

Blackwork Embroidery is then used to outline the motif and create the surrounding decorative scrollwork (Plate 2.13).

Plate 2.13: Assisi work Embroidery
Source: www.needlenthread.com

l. Chicken scratch embroidery:

This is a form of cross stitch that is done on gingham fabric using the edges of the squares instead of counting threads. It is usually done with white thread so the end result looks like lace. The designs can also be worked with thread that has the same colour as the gingham, known as reverse chicken scratch (Plate 2.14).

Plate 2.14: Chicken Scratch Embroidery
Source: www.needlenthread.com

2.2.4 Embroidery Stitches

A stitch is a row of straight stitches, a zigzag, or a more complicated pattern of utility or decorative use (Cole, 1989). All stitches are started on the wrong side of material.

A reader's digest magazine, *Complete Guide to Needlework* (1987) talks about embroidery stitches as the basic components with which a design is carried out, although they may seem unlimited, actually each has its origin in the basic family. There are eleven such family groups, such as cross stitch, straight stitch, knotted stitch, pulled work stitch, needlepoint stitch, looped stitch, needle lace stitch, stem stitch, running stitch, and lazy daisy stitch. Variety of stitches derives their roots from these mother stitches. Selecting the suitable embroidery stitches depend on the particular product one is making. This book is of the view that a design stitch is chosen depending on the kind of work to be made, therefore a few stitches after careful observation are deemed potent.

The art of embroidery is old but still popular today. It is fun to create and by knowing how to make a few simple embroidery stitches using a needle and thread, one's ideas may be expressed in luxurious handmade articles (http://craftown.cazza46.nop.clickbank.net).

Below are but a few basic embroidery stitches depicting the processes of stitching:

a. Surface Stitch (Outline or Stem)

This stitch is worked from left to right. A needle is brought up through fabric to right side on the line to be outlined and the thread is held toward oneself (or the thread may be swung to the left away from oneself). A short slanting back stitch is taken along

stamped line. The next and each successive stitch is made from right to left and the needle is brought out to the left at the end of the previous stitch. It is then repeated along Line, keeping stitches small and uniform (Plate 2.15).

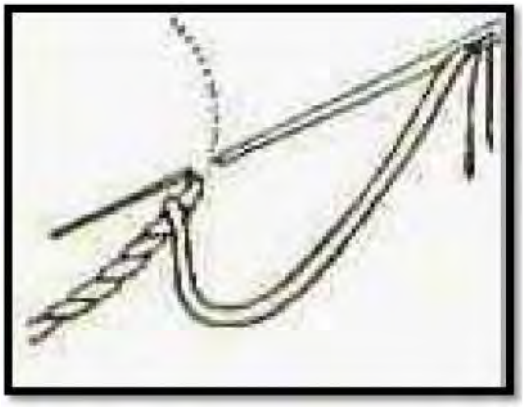


Plate 2.15: Surface Stitch (Outline or Stem)

Source: www.needlework-tips-and-techniques 2016©

b. Whipped Stem Stitch

This is a form of creating an outline design in outline stitch; then, in contrasting thread, whipstitch over the stem stitch (Plate 2.16).

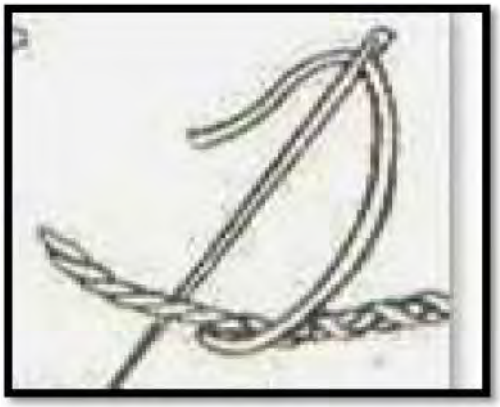


Plate 2.16: Whipped Stem Stitch

Source: www.needlework-tips-and-techniques 2016©

c. Running Stitch

This stitch is used for outline and padding. The needle is carried in and out of material making small up and down even stitches. Several stitches are taken on the needle before drawing it through (Plate 2.17).

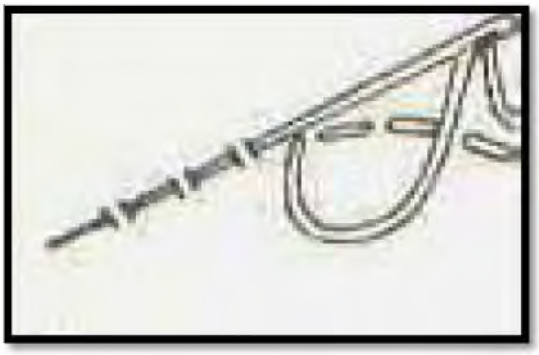


Plate 2.17: Running Stitch
Source: www.needlework-tips-and-techniques 2016©

d. Chain Stitch

The thread is brought to right side of a material, and itis held toward oneself with the left thumb, then a stitch is taken into the same hole where the thread was brought up, forming a small loop. The thread should not be pulled tightly. The needle is brought out a short distance forward and over the loop and then a second loop is made overlapping the first one. It is then continued along the marked line (Plate 2.18).

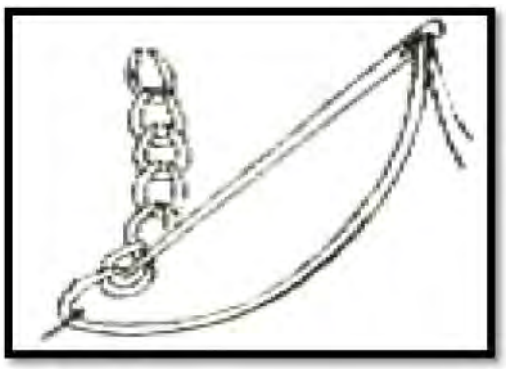


Plate 2.18: Chain Stitch
Source: www.needlework-tips-and-techniques 2016©

e. Back Stitch

A small running stitch is taken and a needle is inserted at the end of a running stitch. A needle is then thrust through to wrong side and over twice as much space as original stitch on wrong side and a needle is brought to the right side and then repeated (Plate 2.19).

Plate 2.19: Back Stitch

Source: www.needlework-tips-and-techniques 2016©

f. Herringbone stitch (Crossed Backstitch)

On the right side, this stitch resembles two rows of backstitch and on the wrong side the catch stitch. The needle is slanted the same as if making a catch stitch, a single back stitch is made, first on the lower side and then diagonally across on the upper side. This stitch is worked on transparent material so the crossing of threads shows through to right side. This stitch is often called herringbone stitch when crosses are worked on right side (Plate 2.20).

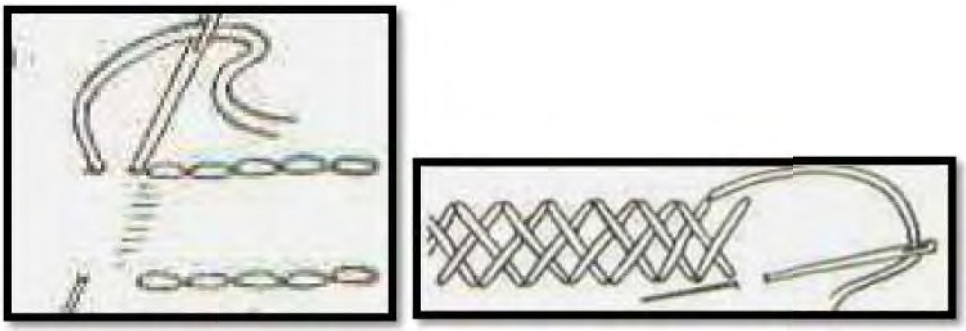


Plate 2.20: Herringbone stitch (Crossed Backstitch): Right and wrong sides

Source: www.needlework-tips-and-techniques 2016©

g. Lazy Daisy Stitch

A needle is brought up at inner point of petal with a thread held toward oneself. A needle is thrust down at inner point of petal, one or two threads to right of point where thread emerges. A point of needle brought out at outer end of petal, going over thread. Loop up is drawn to cover petal, while needle is thrust down outside of loop to fasten it in place. The needle is finally brought out inner point of next petal to left or right (Plate 2.21).

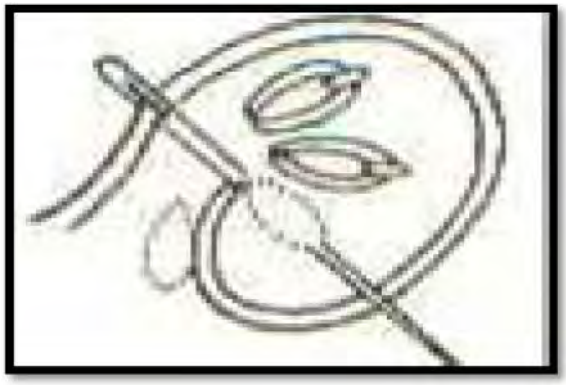


Plate 2.21: Lazy Daisy Stitch

Source: www.needlework-tips-and-techniques 2016©

h. Cross Stitch

Crosses are stamped on material, or a design may be worked on material of a uniform weave like monk's cloth, or on checked gingham. Slanting stitch is made from lower left to upper right corner of cross. A second slanting stitch is made from lower right to upper left corner of cross. All crosses are worked the same way to give a uniform appearance to the work. In working long rows with the same colour, all stitches slanting in one direction are made across the row, and then worked back, crossing all stitches in the other direction (Plate 2.22).

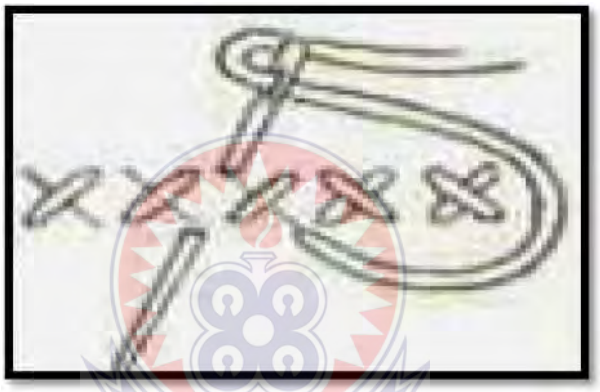


Plate 2.22: **Cross Stitch**

Source: www.needlework-tips-and-techniques 2016©

i. Overcast Stitch

With a heavy corded embroidery thread, overcast the turned hem edge with even, slanting stitches one-fourth inch deep. Finish edge, turn fabric, and work a second row, matching the stitches at each end (Plate 2.23).

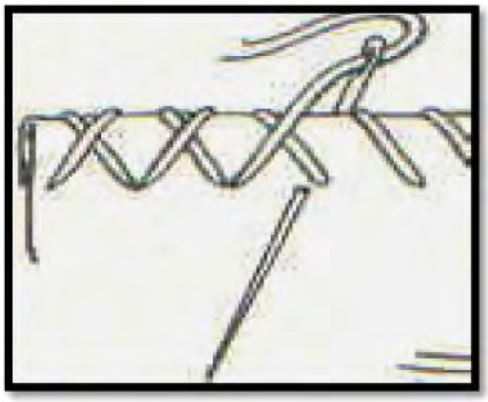


Plate 2.23: Overcast Stitch
Source: www.needlework-tips-and-techniques 2016©

j. Couching Stitch

A heavy thread or cord is held along the line to be followed. A Needle is brought and threaded with finer thread, up close to the cord. The needle is then thrust down on opposite side of cord to make a stitch at right angles to it. The needle is once again brought up to left in position for another right angle stitch. The stitches are taking continuously over the cord, with evenly spacing (Plate 2.24).

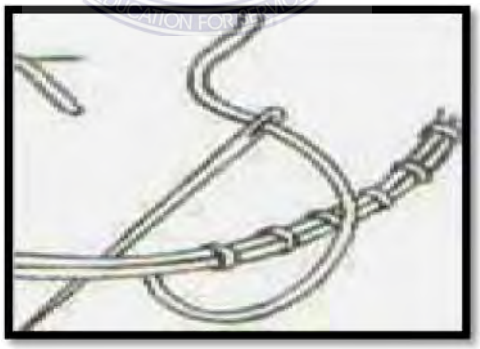


Plate 2.24: Couching Stitch
Source: www.needlework-tips-and-techniques 2016©

k. Knotted stitch (Bullion stitch)

The needle is brought up through the fabric at one end of the bullion, then a 'bite'a taken of the fabric on the needle from a short distance away coming back up in the

first hole. The length of this bite is varied depending on the thread used and the length the bullion knot wished to end up (Plate 2.25).

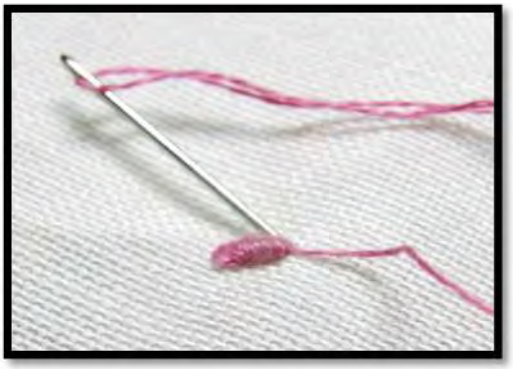


Plate 2.25: Knotted stitch (Bullion stitch)

Source: www.needlework-tips-and-techniques 2016©

l. Pulled work (Cobbler stitch)

The (blue) horizontal rows begun by bringing the needle up at A, down at B, up again at C (missing one hole) and down at D. Come back up at E (4 holes to the left of C) to begin the second set of two stitches. This manner is continued to complete the horizontal rows (Plate 2.26).

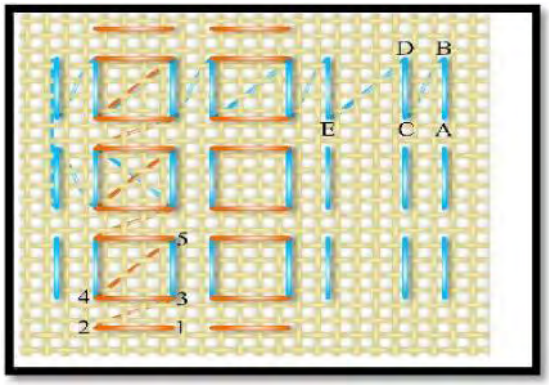


Plate 2.26: Pulled work (Cobbler stitch)

Source: www.needlework-tips-and-techniques 2016©

m. Needlepoint (Rhodes stitch)

By using different holes around the outside of the stitch differently shaped of rhode stitches can be produced. Always the stitch numbered 1-2 is started so that the last stitch would be vertical, 13-14 (Plate 2.27).

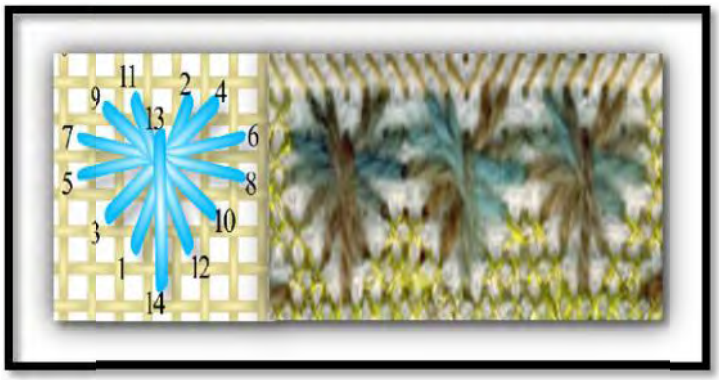


Plate 2.27: Needlepoint
Source: www.needlework-tips-and-techniques 2016©

n. Hemstitch

The hem is held horizontally with the thumb on the hem. The end of a thread is laid in the fold of the hem. Working from left to right, a small backstitch is taken through just the hem to anchor the thread. Two threads are picked up from the work and pulled gently. Then two threads picked up from the folded hem, to the right of the first stitch. The next two threads are moved on to in the work, pulled gently and then two threads are picked up in the hem (Plate 2.28).

Plate 2.28: Hemstitch
Source: www.needlework-tips-and-techniques 2016©

2.3.0 Embroidering on Fabric

2.3.1 Design

Design like civilization, art, education, and management, has many depths of meaning. According to Encyclopedia Britannica (1984, p.298), “Design is from the Latin word “designare” which means to “mark out.” It is the process of development plans and schemes of action whether kept in mind or set forth as a drawing model”. Mitter & Howze (2007) compromised that the word design has many depth of meaning, and that, only philosophical method will strip off all the appended meanings to provide a coherent and comprehensive view. They also see design as an arm of marketing. For a business to make a profit design must be market-driven and market-justified. All that human beings do almost all the time is design. In his point of view, design is basic to all human activity and what constitutes the design process is the planning and patterning of any act towards a designed foreseeable end.

Again from this assertion it could be ascertained that all human beings are designers. When human beings walk, we do see repetition of movement of limbs. There is rhythm in swinging of the arms. There is a space and repetition in footsteps. During a dance, one could see or realize the movement of various parts of the human body in relation to the music being played. In a formation dance on stage in a theatre, audience enjoys and appreciates the balance in movement of various body parts of dancers. The uniformity of the dancers’ costume together with their bodily movements may create design. The arrangement of beats and sound, the rhythms of music to which the dancers need creative planning to create an aesthetic response.

In cooking of light soup, one has to plan, arrange and compose certain elements such as water, pepper, tomatoes, salt, meat and fish to achieve a palatable soup. An effective designer develops methods of ordering elements in a manner which is compatible with his own. According to Amenuke, et al. (1991, p.32) design is a 'plan within a work of art'. In general, certain qualities tend to be inevitable, for without them design couldn't have been possible. These qualities are known as elements of design such as dots, shapes, texture, lines, etc. Most good work of art must have design as the basis, sometimes consciously made and sometimes spontaneous.

The Cambridge International Dictionary of English (1995, p.372) also attests to the fact that design is a plan, to make or draw plans for something or the art of making plans or drawing for something. Design could be a pattern used to decorate something. Often one draws or plans his work of art on a sheet of paper surface before starting the actual work with a chosen material. Oxford Dictionary (2000, p.315), state clearly that when the systematic terminology of art being worked out the word 'disego' has a wider connotation as 'design'. Today the emphasis has shifted. The primary sense here was drawing. In its wider meaning 'disego' to imply, the creative idea in the mind of the artist (as this was often thought to be embodied forth in preliminary drawing). In this context of idea it was the power to 'design' which was held to distinguish the artist from design which was held to distinguish the artist from the craftsman. Design is therefore a concept very close to the principle of construction in any work of art.

According to Appiah (1993), the making of patterns or detail planning and arrangement of lines, shapes for the creation of ornaments, or the creation of shapes is design. To him, design could be helpful in the field of engineering and architecture. When a designer plans a work he puts together certain qualities called elements of design and principle of organization. Dots, lines, shapes, forms, textures, color and space, are elements of design, which a designer employs to enhance what he designs. In a visual art, the structure of any design whether two-dimensional or three-dimensional is based on the planning and arrangement of these elements of design according to certain principles. These are called principles of organization or organization of design. The effective use and presence of these principles namely: variety, unity, harmony, rhythm, balance, contrast, repetition, opposition in a finished product.

Brian (1997), states that 'there are no rules for design, as such any attempt to make rules will limit the range of the designer'. This means that if a designer or an artist is to take into consideration the elements and qualities of design, he would be restricted and limited. Brian contends that it is far more important or useful to make a careful and exhaustive study of the materials with the idea of discovery rather than the objects of producing a definite result. Naylor (1999), stipulated that the craft's aesthetics always concerns with fitness and propriety. It demands that materials and function should determine the design solution and because nature expresses itself in a multitude of exquisite shapes and forms. The assumptions concerning the nature of the design process were fundamental to the 19th century design philosophy as it developed in England and they have been formulated long before the arts and crafts

movement appropriated them and associated with them especially in virtue of handwork.

Design is the principal mark that distinguishes the professions from the sciences. Schools of engineering, as well as schools of art, architecture, business, education, law, and medicine, are all centrally concerned with the process of design Simon (1996, p. 111). There exists a designedly way of thinking and communicating that is both different from the scientific and scholarly ways of thinking and communicating, and is as powerful as the scientific and scholarly methods of enquiry, when applied to its own kinds of problems (Archer 1984, p. 348).

In The Sciences of the Artificial, Simon (1996) argues that science develops knowledge about what already is, whereas design involves human beings using knowledge to create what should be, things that do not yet exist. Design, as the activity of changing existing situations into desired ones, therefore appears to be the core competence of all professional activities. Role Model historically and traditionally, says Simon (1996), the sciences research and teach about natural things, and the engineering disciplines deal with artificial things, including how to design for a specified purpose and how to create artifacts that have the desired properties. The social sciences have traditionally viewed the natural sciences as their main reference point.

However, Simon argues that engineers are not the only professional designers, because

> ‘Everyone designs who devises courses of action aimed at changing existing situations into preferred ones. The intellectual activity that produces material artifacts is no different fundamentally from the one that pre-scribes remedies for a sick patient or the one that devises a new sales plan for a company or a social welfare policy for a state’ (Simon, 1996, p. 111).

Simon (1996) also describes how the natural sciences almost drove the sciences of the artificial from professional school curricula-particularly engineering, business and medicine-in the first 20 to 30 years after World War II. An important factor driving this process was that professional schools in business and other fields craved academic respectability, when design approaches were still largely "intuitive, informal and cookbooky" (Simon 1996, p. 112). In addition, the enormous growth of the higher education industry after World War II created large populations of scientists and engineers who dispersed through the economy and took over jobs formerly held by technicians and others without academic degrees Gibbons et al. (1994). This meant that the number of sites where competent work in the areas of design and engineering was being performed increased enormously, which in turn under mined the exclusive position of universities as knowledge producers in these areas Gibbons et al. (1994).

Another force that contributed to design being almost removed from professional school curricula was the development of capital markets offering large, direct rewards to value-creating enterprises (Baldwin and Clark 2000). In other words, design in the technical as well as managerial and social domains moved from professional schools to a growing number of sites in the economy where it was viewed as more respectable

and where it could expect larger direct economic rewards. View of Knowledge Design is based on pragmatism as the underlying epistemological notion. That is, design research develops knowledge in the service of action; the nature of design thinking is thus normative and synthetic in nature directed toward desired situations and systems and toward synthesis in the form of actual actions. The pragmatism of design research can be expressed in more detail by exploring the normative ideas and values characterizing good practice in professions such as architecture, organization development, and community development. These ideas and values are defined here; several ideas described by Nadler and Hibino (1990) have been adapted and extended on the basis of the work of others; three additional values and ideas-regarding participation, discourse, and experimentation-have been defined on the basis of other sources, including my own work. The first three values and ideas define the content dimension of design Building on Simon (1996) writings.

The idea of design involves inquiry into systems that do not yet exist-either complete new systems or new states of existing systems. The main question thus becomes, "Will it work?" rather than, "Is it valid or true?" Design is based on pragmatism as the underlying epistemological notion. Moreover, design research draws on "design causality" to produce knowledge that is both actionable and open to validation. An important characteristic of design is the use of ideal target systems when defining the initial situation.

2.3.2 Transferring Designs on Fabric

In general where there are diagrams to scale up and copy, one can transfer them unto the fabric in a number of different ways. According to Westland (1974) one of the

simplest is to use the special non-smudge type of dressmaker's carbon paper. Blake and Fisher (1977) also express the same view that it is the simplest method, but not generally considered to be the most satisfactory. A magazine, *Complete Guide to Needlework* (1987) has the same idea that carbon papers and tracing wheel are used to transfer designs to fabric. There is yet another method of transferring designs onto fabric; one can trace the design onto tissue paper, tack the paper on positive over the fabric and then tack round the outline through the tissue, so then a line of stitches are shown on the material when the paper is torn off (Westland, 1974). According to him another way is to pick holes close together through the tissue paper, all round the outline, and then bang a chalky powder over the paper, so that the substance penetrates the holes and leaves a dotted outline.

Blake and Fisher (1977) again recommend "Pouncing" which is the best but a lengthy method. The design is traced unto the film tracing paper then with needle, small holes are picked over all lines, spacing the holes evenly. The powder is then rubbed through the holes. They also share the same idea of the third method which is basting to tissue paper. According to them the design is traced unto fine tracing or tissue paper and is placed by stitching along the lines of the design taking small running of basting stitches. The paper is removed, leaving stitches in position in the material. The stitches are removed as work progresses as they are no longer required. Thus the techniques involved in the processes in transferring designs onto the material, run across and hence, assert the fact according to the above statements that the various authors have enumerated.

2.3.3: Choice of Colour/Thread.

Nature offers an endless variety of colour schemes from which the embroiderer may draw inspiration, and to experiment with them is probably most exciting and rewarding experiences in designing. To clarify this assertion, Messent (1989) discloses that "no amount of theory can help as much as the observation and study of nature's colour changes from one season to the next". A magazine: *Complete Guide to Needlework* (1987) observes that once a design is chosen it is then ready to select colours, a decision that will greatly affect the finished product. It further explains that with colours, as with most design problems there are guidelines that can help one to make a successful choice. Most colour schemes are one of these three basic types:

a. **Monochromatic**: This is a colour scheme consisting of different tones (light and dark hues) of the same colour (a design done in a family of blues)
b. **The analogous**: This uses colours that are closely placed in succession on the colour wheel (blues, blue-green and green).
c. **A contrasting colour scheme***:* This type brings together two or more contrasting colours, the strongest contrast being those that are opposite on the colour wheel (red and green, purple and yellow).

According to Grete (1991), 'the stronger the kind of thread, work well'. Thus a good embroiderer is very critical about his choice of colour and quality of the thread as well. This is depicted in the selection of thread. The wide selection of thread available on the market today makes it much easier to create something different from the ordinary. One may wish to embroider with metallic thread, nylon or rayon thread, pearl cotton, as well as regular embroidery floss which come in a rainbow of colours.

Contrasting colours give an interesting effect. Embroidering with wool yarn on felt jackets, purses, belts, and glass cases, is very pretty.

Below are samples of nylon thread for applications such as upholstery, drapery, vinyl, and more. Hundred percent nylon is resistant to chemicals, abrasion, and sunlight and for that matter it is best designed to suit the tropics **(**Plate 2.29). (http://www.needlenthread.com).

Plate 2.29: Nylon Thread

2.3.4 Choice of Fabric and Needle

Fabric comes in several different types. One will find cotton, linen, wool and a lot of variety. Each type has different qualities: thick, thin, stretchy, or many types that retain their shape with no stretch (http: //www.needlenthread.com. 2014).

A needle will not leave permanent holes in fabric; in this case, the perforations will draw back together as compared to that of embroidering on other materials such as leather. When selecting designs to embroider on fabric, light and sheer designs are chosen. If the designs that are solid with heavy fills and satin stitch columns are chosen, all of those needle perforations may cause the design to pop right out of the fabric. A size 100/14 fabric needle is a good choice when embroidering onto fabric.

This kind of needle has a wedged point that reduces the size of the hole or perforation made in the fabric. When embroidering on fabric, a piece of medium-weight, cut-away stabilizer is used. Temporary spray adhesive is used between the fabric and the stabilizer to make sure that the two stay together nicely and tightly. Cut-away stabilizer acts to hold the fabric together both during and after the embroidery. Smooth the fabric onto the sticky side of the stabilizer to be strongly fastened.

Hooping is always recommended to make sure that the sections of the design will line up in the right place (hooping prevents the fabric from shifting as the hoop moves while embroidering). However, a hoop can leave a permanent mark, or scuff the fabric. To avoid scuffing or permanent marks, strips of muslin are laid on top of the fabric before adding the top hoop. The muslin is moved out of the way before one begins to embroider. Because fabric is lighter than leather, there will be less friction between the needle and the fabric. One may see the fabric pulling up slightly with each rise of the needle (Embroidery Library, 2014).

Based on the literature that has been reviewed, it is pertinent to relate the nature of embroidering and the processes involved to how best it can be replicated by employing the hand method of embroidery. The literature therefore becomes a compass to direct the researcher as to how best to work towards achieving ones goal.

CHAPTER THREE

METHODOLOGY

3.0 Overview

This chapter builds around the structure provided in the previous chapter in relation to how other scholars expressed their views theoretically and producers talk about their works practically. It gives further information on the processes of collecting all data necessary for the study, including the research design, library research, the population of the study, sample and sampling techniques, primary and secondary sources of data, data collection instrument, and data collection procedure. The tools and materials used in this experiment are also described. The chapter chronologically dealt with the description of the project including preliminary experiments and the execution of the final article.

3.1 Research Design

There are various methods taken into consideration when dealing with educational research, but for the purpose of this study, it was expedient to employ qualitative research method because it provided a systematic approach in unfolding the actual facts to determine the suitable and applicable stitching techniques of embroidery that could thrive on leather. Qualitative research answers questions about the complex nature of phenomena, often with the purpose of describing and understanding the phenomena from the participant point of view (Leedy & Ormrod, 2005). Willie (1978) also asserts that, 'in qualitative studies, the logic of inference is one of directly observed, resulting in new insight and reclassification, rather than strict numerical comparison and classifications'.

The researcher employed experimental and descriptive methods respectively under quantitative and qualitative research for the study. Fraenkel and Wallen (1996), opine that 'in experimental research, different treatments are established and their effects are studied with the outcome leading to clear-cut interpretations. The general procedure is that one or more independent variables are manipulated to determine their effect on a dependent variable. Here various experiments of stitching techniques of embroidery are conducted on the fabric to determine their results and applicability. For the first time new initiative is going to be implemented to assert the fact of employing experimental research method.

Descriptive research on the other hand, describes data and characteristics about the population or phenomenon being studied. Descriptive research therefore answers the questions who, what, where, when and how (Fraenkel & Wallen, 1996). The idea of selecting descriptive research method was that, the procedures employed for carrying out the experiment needed to be described chronologically, to produce a very clear and detailed account of all the occurrences and conditions pertaining to the experiment. This method also focuses on what individual actors say and do. It draws both the researcher and subject of the research closer. The approach centers upon investigating social behaviour in natural settings and requires that attention is paid to what ordinarily and routinely happens in a school. The researcher therefore recorded, described, analyzed and interpreted the findings, drew conclusions and came up with recommendations.

3.2 Library Research

Library research is the basis by which a researcher greatly develops the writing of a scholarly thesis. It provides the majority of the secondary data needed and the internet search engines.

Below are the libraries visited to acquire the secondary data essential for the research:

1. University of Education Library, Winneba.
2. University of Education Library, Kumasi.
3. Kwame Nkrumah University of Science and Technology Libraries, Kumasi.
4. St. Louis College of Education Library, Kumasi
5. Wesley College of Education Library, Kumasi
6. The Search Engines of the Internet Café

3.3 Population for the Study

The term 'population' as used in research, refers to all the members of a particular group. It is the group of interest to the researcher, the group to whom the researcher would like to generalise the results of the study. A 'target population' is the actual population to whom the researcher would like to generalise; the 'accessible population' is the population to whom the researcher is entitled to generalise (Fraenkel & Wallen, 1996).

Producers, sellers and users of embroidery wares in Ashanti Region are the target population whilst the accessible population comprises of selected producers, sellers

and users of embroidery wares among Asantes in the Kwabre East District and the Kumasi Metropolis.

3.4 Sampling and Sample Size Used

Frankel and Wallen (1996) define Sample as a group in a research study on which information is obtained. Sampling is subsequently the process of identifying this group and finding information from individual group members. In observing the characteristics of a sample, certain deductions about the characteristics of the population can be drawn.

Leedy & Ormrod, (2005) conclude that the sampling technique employed in any research is also of equal importance as improper sampling could lead to difficulties in the analyses of data and wrong inferences could be drawn. Proper sampling method eventually leads to a good research.

On occurrence, based on previous knowledge of a population and the specific purpose of the research, researchers use personal judgment to select a sample; this sample to the researcher possesses the necessary information about the population. Thus, Purposive Sampling method was employed to select the appropriate human resource from the main population for the study, since the researcher can obtain the necessary information needed for the research.

This method of data collection was appropriate because there was a predefined group or specific groups in mind. The right individuals whom the researcher considers to have the facts and other resources useful to the research being conducted were

contacted and this served as the sample size. Random sampling was targeted at selecting the users since their identities were not established.

With this in view, hundred (100) copies of questionnaire were administered to individuals. They include producers selected from Kwabre district, twenty (20) copies, students learning the skill from Gyaama Pensan, SIMMS, Kofi Agyei, Adventist Girls and Bonwire Senior High Schools, ten (10) copies each amounting to fifty (50) and users, twenty (20) copies respectively (Table 3.1).

Table 3.1: Administration of Questionnaires to Respondents

Respondents	Number of copies	Percentage
Producers	20	30%
Students	50	50%
Users	30	20%
Total	**100**	**100%**

3.5 Data Collection Instruments

In conducting a qualitative research a researcher uses either a single instrument or a triangulation means of collecting data in most cases. Leedy and Ormrod (2005) are of the view that researchers normally make use of a multiple forms of data in any single study through observation, interview, objects, written documents, audiovisual materials, electronic documents (e-mail, websites). In this study however, observation was the main instrument employed. The researcher acted mainly as a participant

observer for conducting the experiment due to the fact that the study involved much more practical solely executed by the researcher herself. She also employed the services of administering questionnaire to solicit data from respondents.

Questionnaire

Oppenheim (as cited in Bell, 1996) writes that "the world is full of well-meaning people who believe that anyone who can write plain English and has a medium of common sense can produce a good questionnaire". Though common sense and ability to write plain English will help, that will not be sufficient. Care has to be taken in selecting question type, in question writing, in the design piloting, distribution and the return of questionnaire". In this study, a questionnaire (see Appendix) was designed to solicit facts on behaviour, characteristics, and happenings pertaining to the designing, producing, teaching/learning and using of embroidery decorated garment in Ashanti Region. Questions on psychological states or attitudes bordering on the topic were constructed. This enabled the researcher to gather perceptions, opinions, attitudes and expectations of respondents of the selected population. The questionnaire was designed with both the closed and opened item style of questions. The questionnaire were designed and administered to producers of embroidery decorated garments, students learning the skills and users. All the 100 questionnaire sent out were retrieved because they were well defined.

3.5.1 Primary Data:

Primary Data in the first instance were gathered from the activities performed during the course of the experiment to identify the embroidery techniques that are applicable and suitable on fabric. This was transpired by critical observation made by the

researcher. Secondary the data were also gathered through the administration of questionnaire.

3.5.2 Secondary Data:

The information collected from books, magazines from various libraries and sources from the internet serve as the Secondary data for the study. The data collected were however assembled, synthesized and critically analyzed with figures and plates.

3.6 Data Collection Procedure

Having collected the secondary data and reviewed the related literature, the researcher built a framework of the study and based upon that, proceeded to collect the primary data by preparing the fabric for the experiment. The result was then analyzed to derive the findings and conclusion, and recommendations were finally drawn.

3.7.0 Procedures Followed in the Project

3.7.1 Design and Production Stages

a. Design

Simon (1996) delineates design as a plan in relation to a goal or purpose and also as organization, arrangement or composition of a work. From an artistic point of view, Amenuke et al. (1999) also describes design as a plan within a work of art. Inferring from the explanation above, design necessitates planning to produce or achieve a purpose, and it forms the foundation of every work and provides a sketchy summary of a plan serving as a template for a work to be executed properly.

The sample designs of the embroidery techniques were selected from the cyberspace and edited by modifying them to improve their aesthetics and functionality and were then used to perform the experiment. The production of the articles was started by making preliminary or thumbnail sketches. The appropriate ones were chosen and with the aid of CorelDraw software designed the works.

b. Concept of design

Simple arrangement of forms of design elements is very necessary for design and production of any art works. It is deemed expedient to eliminate unnecessary and complicated design that causes a lot of drawbacks and hence tends to mar the progress of the processes involved in producing a unique piece of work. The design must also be done so that it unites the tools and materials to be used. The techniques selected must be used in such a way to be recognized as the focal point of the items produced to be attracted at first sight.

3.7.2: Tools and Materials

The tools and materials are the raw materials used for the embroidery. There are wide varieties of tools and materials available in the market which can be used for embroidery and they are selected depending upon the type of the embroidery work. The embroidery materials that one selects for the embroidery to a great extent affects the quality of the embroidery work done using those materials and so has to be selected wisely. Materials and tools play an integral role in any form of production. It is therefore pertinent to describe each of them for the purpose of this research.

Because hand embroidery is a craft, the right tools will make all the difference in the

outcome of a project. Many people wish to personalize something for display because they want it to look professional yet delicate. To avoid the frustration of having a hand embroidered project go wrong, one must be sure to get all the needed tools before beginning the project (www.ebay.co.uk/gds/all-the-tools-you-need. March 3, 2016).

a. Thread

Quality embroidery thread should be used to get the best possible result from a hand embroidery project. A long thin fibre of nylon, silk or cotton used for stitching by the aid of the needle. There are many types available-from silks to cotton-and the type used depends on the desired look of the project. For instance, if the project is a monogram on a piece of linen, silk thread may be a more attractive option because of the sheen that is needed for such a project. A cotton thread that is hand dyed to a vibrant color, on the other hand, might be best suited for an intricate floral design. With so many choices, it is best to think about the desired look before sellecting for thread types and colours. Hence for the purpose of this project nylon thread is necessary (Plate 3.1).

Plate 3.1: Thread

plastic. Many people choose to use frames instead of hoops to embroider items because they find them to be easier to handle. Ultimately, it's a personal choice, and one type is not necessarily better than the other. Whichever type is chosen, it's generally a good idea to loosen the fabric after finishing an embroidery session to ensure that an embroidered piece does not become misshapen by the hoop or frame; this is especially important to remember when doing projects that take a long time to complete. Holding a frame or hoop can tire the non-stitching hand, so for the purpose of relieving the stress on the alternate hand, a lap frame is a useful accessory that allows stitching with both hands so the lap frame was used for a purpose (Plate 3.4).

Plate 3.4: Hoop
Source: www.en.m.wikipedia.org 2016

e. Lap Frame

The lap frame comes in two types, one of which can be placed on a table while the other type can be slid under the legs while seated in a chair and is ideal for compact living situations (Plate 3.5).

Plate 3.5: Lap Frame
Source: www.en.m.wikipedia.org 2016

f. Embroidery Scissors

It is absolutely essential to have a sharp pair of scissors before attempting a hand embroidery project. Scissors that do not have a sharp blade will only tear at embroidery thread, causing it to unravel. This should be avoided as it will ruin the work on a piece of hand embroidery and give it a ragged appearance. Ideally, scissors should be small and extremely sharp for use with a hand embroidery project. Scissors is therefore a tool with two blades that open and shut by sliding against each other causing it to cut. It was used for cutting the fabric and trimming the threads (Plate 3.6).

Plate 3.6: Scissors
Source: www.en.m.wikipedia.org 2016

g. Embroidery Needles

Quality hand embroidery needles which can be found nearly anywhere sewing items are sold, are available in a wide selection of sizes. Sets comprised of the most common sizes can easily be found at an inexpensive price and often come with portable cases to keep the needles organized (Plate 3.7).

Plate 3.7: Embroidery Needles
Source: www.en.m.wikipedia.org 2016

h. Thimble

A thimble is used to protect the finger when embroidering (Plate 3.8).

Plate 3.8: Thimble
Source: www.en.m.wikipedia.org 2016

i. Embroidery Unpicker

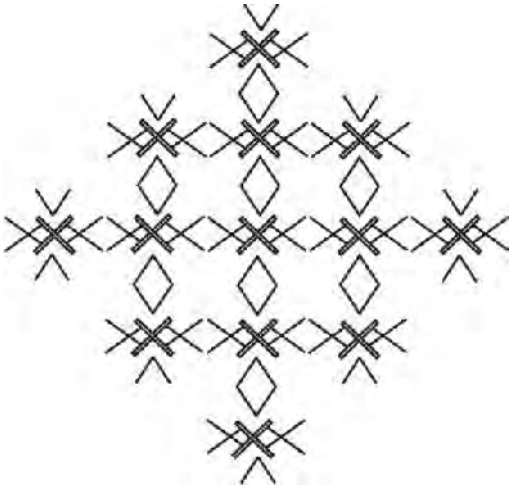
This is used to undo mistakes during embroidery. It has two prongs, one longer than the other (Plate 3.9).

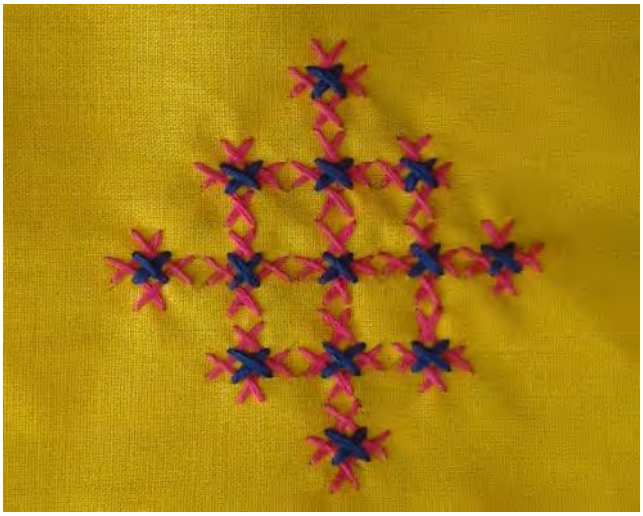
Plate 3.9: Embroidery Unpicker

Source: www.en.m.wikipedia.org 2016

3.7.3: Experiment

The sketched drawing patterns were therefore transferred unto a piece of textile fabric by the aid of carbon paper as stated by Westland (1974), that it is one of the simplest methods of transfer used. Blake and Fisher (1977) express the same view that it is





loosen up the tension of the stitches but compact to make it looks fluffy. Brown colour thread was used to embroider the outer, followed by red, orange and gold respectively enough to enable the stitches become fluffy (Plates 3.19, 3.20 and 3.21).

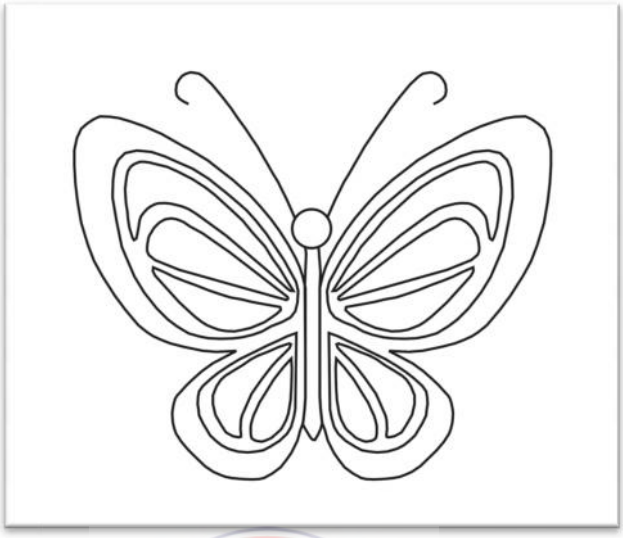


Figure 3.3: Sketch Drawing of Hardanger Embroidery

Source: Researcher's CorelDraw design

Plate 3.19: Hardanger Technique in Progress (Brown and Red thread)

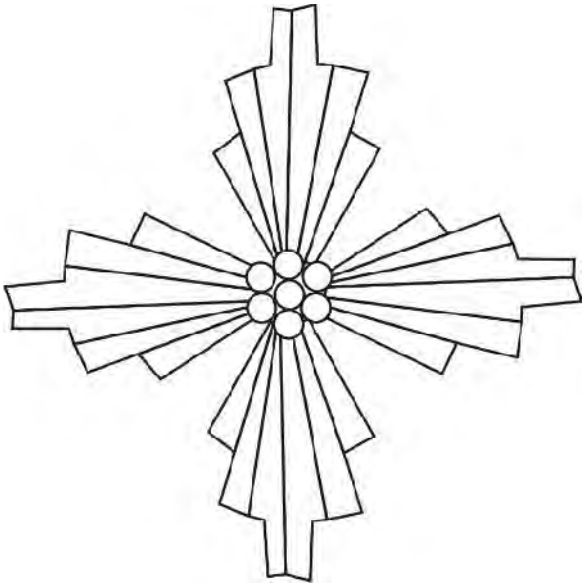


Plate 3.23: Parallel Stitches of Candlewick in Four Directions

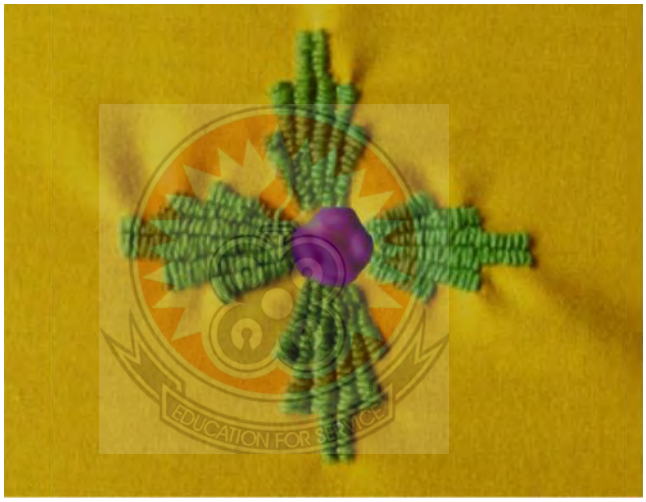


Plate 3.24: Finished Candlewick Embroidery

Step Five:

Transfer of *Needlepoint (Rhodes stitch) Embroidery* stitching technique onto fabric.

In this technique Rhodes stitches were produced by using different holes around the outside of the stitch. Always the stitch numbered 1-2 is started so that the last stitch numbered 13-14 would be vertical in blue colour on yellow fabric (figure 3.5).

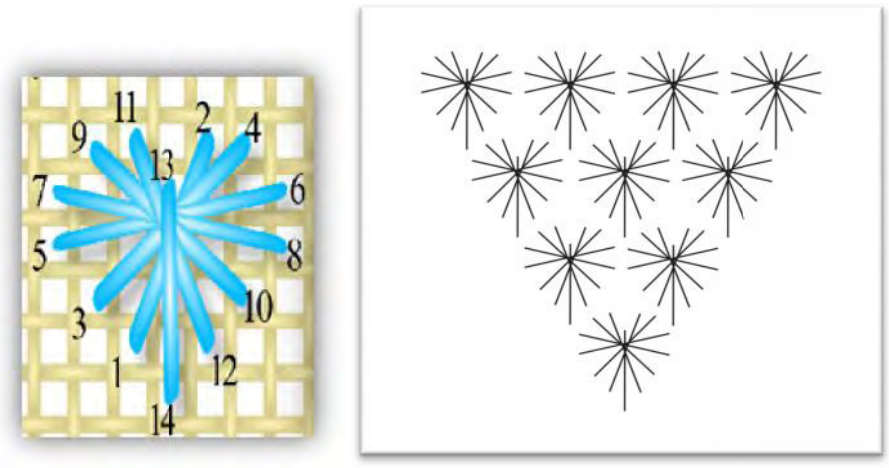


Figure 3.5: Procedure and Sketch Drawing of Needlepoint Embroidery

Transfer of sketch drawing of Needlepoint onto the fabric was preceded by stitching with blue thread (Plate 3.25) to assume a triangular shape (Plate 3.26).

Plate 3.25: Needlepoint Embroidery Technique in Progress

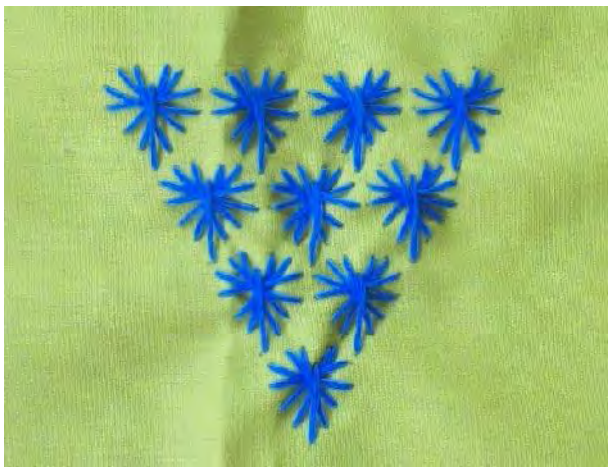


Plate 3.26: Finished Needlepoint Embroidery Technique

3.7.4 Production Stage

A lady's dress was designed and produced by employing a collaboration of selected hand embroidery techniques to decorate it. All the designs for the production were made possible by the aid of 'CorelDraw' software courtesy the researcher.

Figure 3.6: Sketch Drawing Motif of Multiple Hand Embroidery Techniques

The sketch drawing was transferred onto the fabric as described earlier in (Figure 3.6). The needlepoint technique was decorated first with sea blue and pink colours thread (Plate 3.27) and followed by the chicken scratch in gold and pink colours (Plate 3.28). Next was the redwork technique in orange (Plate 3.29), the lazy daisy in pink (Plate 3.30) and green (Plate 3.31), bullion knots in yellow (Plate 3.32) and

3.8 Data Analysis Plan

The data collected have been assembled in descriptive form, analyzed, interpreted, conclusions drawn and based on the conclusions and findings, recommendations were made and innovations introduced.

3.9 Presentation of Photographs

Photographs of the processes involved in conducting the experiment to determine the applicability of the embroidery techniques and the designing and production of the article were taken to render the whole process viable.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Overview

This chapter presents the data that were gathered in the form of observation during the experiment conducted to assess the various techniques on the fabric and their application for the production of ware.

The data retrieved from the observation during the processes involved in the experiment are grouped into categories based on the findings obtained on the use of tools, materials, techniques and the appreciation of the various embroidery techniques and article produced.

4.1 Findings on Tools used

There is the need to discuss the findings of some major tools used.

a. Needle

The needle though proved effective it had some limitations. The research revealed the following as far as the tool was concerned:

The required needle size: 14, 16 and 18 were available depending on the type of fabric used. The thicker the fabric, the thinner the needle to embroider and vice versa. It was realized during the experiment to enable adjustment be made to suit the progress of the work. A smaller needle could penetrate many fabrics without too much resistance and is less prone to getting stuck.

b. Embroidery Hoop

Embroidery is a precision process and if the hoop is not tensioned well, will cause the material to shift hence rendering the process to be slowed down and distorting the outcome of the design. If the stitches are too loose they can look floppy and if they are too tight, the fabric will pucker. It became evident in the initial stages in the experiment and was necessary to therefore do the tension well to ensure descent work.

4.2 Findings on Materials used

The following findings were observed during the preliminary tests:

a. Fabric

Fabrics used for the experiment were light coloured polished cotton which was stretchy and mercerized cotton. The polished cotton posed a lot of problems due to the fact that it possesses the property of being elastic. However, unpolished cotton did the trick, it was stable in the hoop paving way for smooth running of the process.

Transferring designs onto the fabric posed some difficulty by employing the "Pouncing" method which is the best but a lengthy method. The design is traced unto the film tracing paper then with needle, small holes are picked over all lines, spacing the holes evenly. The powder is then rubbed through the holes. It was realized that the traced marks appeared well but when embroidering they turned to fade away. On the other hand the simplest: that is, employing the special non-smudge type of dressmaker's carbon paper was preferred.

b. Thread

The thread was apparently strong as compared to that of machine embroidery thread which is fragile and therefore does not break but it was diligently attended to during the course to minimize the rate of growing clots.

4.3 Findings on the Techniques

Five different embroidery techniques were experimented on. They were Chicken Scratch, Redwork, Hardanger and Candlewick, Blackwork and Needlepoint and respectively in order. In each case the stitches used were chain, bullion, cross and running stitches.

a. Chicken Scratch Embroidery

This technique is usually done on graduated squared fabric but this time on a plain fabric in a form of cross stitch instead of counting threads. It was done with pink and blue thread on yellow fabric so the end result looks like lace. To trace the outline when embroidering, it was cautiously and steadily interpreted, hence the outcome prove eloquent but tedious.

b. Redwork Embroidery

Redwork technique involves only outline chain stitches similar to the outline work of blackwork with the curve areas recording few hitches as it tends to create tension. The bullion stitches were cautiously done to eliminate drawbacks to ensure consistency.

c. Hardanger Embroidery

Since hardangertechnique requires several threads to appear a puff-like, the extreme compact stitches were posing a lot of problems since it involved multiples of stitches to effectively cause to raise the design in relief.

d. Candlewick Embroidery

This technique reminiscent the normal candlewick for lighting purpose is also very delicate due to the fact that it needed constant motion and equal thickness to design using thick oversew stitches. It was cautiously done to avoid any retardation that could cause the thread to fray.

e. Needlepoint Embroidery

This technique is one of the most interesting to stitch. It involves a circular motion to go with and constant spacing. The rate of embroidering is faster as compared to the rest, and its final effect is a delight to watch.

4.4.0 Results and Appreciation

The design models were all based on the embroidery technique motifs vis-a-vis the production of the articles. Natural leather, cotton thread, fabric were the materials used.

4.4.1 Appreciation of the Embroidery Techniques

All embroidery designs are said to be inspired by nature as asserts by Westland (1974). They all symbolize the love of God and how nature is of importance to mankind. Everything that God has created is beneficial, such that all creatures are

interdependent, one cannot live without the existence of the other. The cross and chain stitches used in each case symbolize interdependence, and the sense of mutuality while the running stitches stand for positive and straightforwardness notwithstanding the bullion stitches, their strength. Using embroidery designs to decorate fabric wares however, is prudent to be appreciated. The techniques were experimented on pieces of fabric in each case.

a. Chicken Scratch Embroidery

Plate 4.1: Framed Chicken Scratch

Description

The main design for chicken scratch technique is derived from diamond shape, a quadrilateral, specifically a kite. There are several cross stitches arranged in both vertical and horizontal manner to create intersections in pink as base and blue same stitches at the points of intersection. The background fabric is yellow.

Analysis

This piece of work is produced courtesy the application of elements of design. They are used ostensibly in varying ways to bring into existence an artistic piece of work. As usual lines of similar and different lengths are composed divergent and convergent to achieve forms and figures of square which is major customer in designing this frame work. They depict variety, repetition, rhythm in the design as the name implies by the stiches crossing each other. The yellow background fabric is contrasting to the stitches of blue and pink.

Interpretation

Chicken scratch technique stresses on the crosses that are revealed. They portray positive deeds of refraining from hypocrisy, since they seem to do things in common. The pink and blue colours of the stitches that are somehow in collaboration are aesthetically married, to portray mutual existence.

b. Redwork Embroidery

Plate 4.2: Framed Redwork Embroidery

Description

The design for this redwork technique is orange duo love symbols, one overlapping the other amid pink and green flora colours on white fabric with the application of chain and bullion stitches.

Analysis

Redwork is a seemingly simple technique that embraces the design elements. The love outlines are curved in most cases to create variety of shapes and forms such as circles, semi-circles and angles to generate movement and depth in the work. The supporting flora design in big chain loops unite at some points to entangle the bullion knots.

Interpretation

The love symbols in the Redwork signify affection they enjoy mutually. This indicates the interdependence that exists between the two and the attentiveness to approach things in common, coupled with the green and pinkcolours of flourished standard of living. The yellow bullion knots though hot, symbolizes strength and good health to exist.

c. Hardanger Embroidery

Plate 4.3: Framed Hardanger Embroidery

Description

The main design for hardanger technique is a butterfly. The whole is an arrangement of four oval shapes representing the wings decorated in red, orange and gold colours with brown edges. Two wings are on either sides of a cylindrical abdomen and circular head joining them in the centreto make it complete. All are made with compact but loose stitches of oversew, except two lines antennae of running stitches.

Analysis

The Hardanger technique is also composed of lines, shapes, colour and texture to achieve rhythm, balance, unity, movement, variety, repetition and dominance. These components depicting oval shapes, on either sides of the circle and cylinder and the margin form a unit. The relief nature of the technique also creates balance and harmony in the work.

Interpretation

The oval shapes design of the wings of the butterfly stand for the beautiful and luxurious nature of embroidery, and hence needs to be appreciated as such. The red, orangeand gold coloursare very hot while brown is cool such that it portrays the work of nature to reciprocate nature's inspiration.

d. Candlewick Embroidery

Description

Plate 4.4: Framed Candlewick Embroidery

The Candlewick technique design is a green cross-like pattern with pinkish bullion flora designed on yellow fabric in compact cross stitches.

Analysis

The candlewick technique is also composed of elements of design. These elements are cautiously compounded to come out with good rhythm, balance, unity, movement, and repetition. The design of a cross is made up of uniform thickness of lines, of same

centre of the diamond shapes and sandwiching the orange redwork love designs are needlepoint embroidery technique designs depicting a bird-like shape taking off to fly. The orange redwork designs seem to overlap, decorated around them with flower-like pink and green lazy daisy and yellow bullion stiches. Beneath are three orange leaf-like hardanger designs arranged vertically.

The motif is designed on the front portion of the dress, which is a straight white dress, specifically on the breast but the three leaves are positioned beneath the breast line.

Analysis

This dress is designed courtesy elements of design in collaboration witha combination of selected embroidery techniques to decorate it. They are used ostensibly in varying ways to bring into existence an artistic piece of work. As usual lines of similar and different lengths are composed in parallel, divergent and convergent to achieve forms and figures which are major customers in designing this framework. The design for the motif has curves, circles, spheres and quadrilaterals as the embroidery designs depict variety, repetition, rhythm and dominance in the design. The chicken scratch grouped in diamond shape in gold and pink symbolizes the ability strive hard to achieve one's goal. Above all the simple but unique nature of the dress is composed of lines, curves that are used ostensibly to create different shapes and forms giving an impression of solidarity of rhythm in the design.

Interpretation

The design of the motif, the focal point of the dress represents the ubiquitous nature one must exhibit, symbolizing innovation, that is, creativity, resulting from study and

experimentation. The colours, both cool and warm have the tendency of exhibiting uniformity. The shape of the dress, that is, the concave nature of the waist coupled with the convex view of the hips and the bust seem to reflect how creative God is and the finesse the user exhibits.

Uses

This dress is traditionally designed to be worn by ladies on special occasions such as marriage ceremonies, child naming ceremonies, church service and parties.

4.6 Analyzing the Data from Respondents

The data from the respondents were assembled according to:

a. the information collected from producers about how they go about their work and view their customers' responses.

b. the responses from students of the selected schools concerning their attitude towards teaching and learning of hand embroidery as a subject in textiles affect them positively or negatively.

c. the responses from users of embroidery decorated attires in Ashanti Region.

The data collected in this section have been analyzed in a descriptive form supported by tables. Several tables have been used to illustrate the data concerning the number of producers, students, and users who were involved coupled with their genders and qualifications, checked. It also comprises of the relevant issues associated with hand embroidering and the way forward.

Table 4.1: Age distribution of respondents

Age	**15 - 20**	**21 -30**	**31- 50**	**51 and above**
Producers	4	8	18	3
Students	45	5	0	0
Users	3	28	9	0

In Table 4.1 it is noticed that four (4) of the producer respondents were in the age group of 15-20 years; eight (8) were in 21-30 years; eighteen were in 31-50 while only three (3) were 51 years or above. Forty five (45) student respondents belong to the age category of 15-20 years; five (5) happen to be 21-30 years old and none of them was more than thirty (30)years old. Three (3) of the user respondents were between 15 and 20 years old; twenty eight (28) of them happen to belong to the age group 21-30years; nine (9) of them were also between 31-50 years old but none was 51 or more years.

According to the statistics more adults are into the production of embroidery due to the fact that it is perceived by the youth that it is the work of the aged. The youth regard simple but unique designs exhibited by fashion designers on modern men's and ladies' tops, commonly called 'Africa wear' as their duty. The student respondents were mostly offering textiles as a subject and for that matter have not any or less knowledge as they were now being introducing into the topic. The users on the other hand, mostly between the ages of twenty one and thirty were just interested to find nice fabric wares in the market to buy.

Table 4.2: Gender Representation of Respondents

Respondents	Males	Females	Total
Producers	18	2	20
Students	12	38	50
Users	16	14	30
Total	**72**	**28**	**100**

Table 4.2 shows that eighteen (18) of the producers were males and only two (2) females, totaling twenty (20). Out of the fifty (50) students supplied, twelve (12) were males and thirty eight (38) females. The users, thirty (30) in number, sixteen (16) were males and the rest, 14, were females.

According to the reflection of the above gender representation of the respondents, more males are into either the production or usage of the produce except the students that have more females as against the males because of their interest in the subject.

Table 4.3: Educational Level of Respondents

Respondents	SHS	HND	1st Degree	2nd Degree	PhD	Other
Producers	3	0	0	0	0	17
Students	50	0	0	0	0	0
Users	3	2	10	4	2	11
Total	**56**	**5**	**10**	**4**	**2**	**24**

In Table 4.3 the educational level of the respondents are as follows: only three (3) out of the twenty (20) producers have Senior High School (SHS) as their highest

education; fifty (50) are SHS students, three (3) have their HND and two (2) first degree students. Three (3) of the users are SHS graduates, two (2) have HND, ten (8) are First degree holders, eight (4) possess second degree, two (2) PhD and seven (11) have no certificates or otherwise.

The educational level of the producers shows that almost all but three of them have passed through the SHS education, indicating that the learned are not interested in the production. All the students no doubt are learners, textiles students who were now ushering into or learning embroidering in school. However those of higher level of education are more interested in wearing embroidery decorated fabrics.

According to the producer respondents they are not adept in hand embroidery. They are rather into manually operated machine embroidering where most of them learnt the skill the traditional apprenticeship. Most of them have been into the trade for more than six years, and they are conversant with using sheda and daviva fabrics for their designs because they are smooth to embroider, presentable and above all durable. These producers also confirmed that they do produce their wares and display them in shops for sale and sometimes through modeling.

Most of the student respondents on the other hand are textile students learning hand embroidery as a practical subject. Though it is complex and interesting, it is time consuming. The few textiles student respondent who deem hand embroidering is not interesting are perceived to be th lazy students. Most of them are very much abreast with hardanger technique and a little knowledge on needlepoint and chicken scratch techniques.

As to whether they have any knowledge of their predecessors putting the skills they acquire in school into practice, the response was that a few of them do but not into hand, rather as it were, machine embroidering has taken the stage.

Hand embroidery has not been given the necessary attention because people are not seen patronizing, due to the fact that it is absolutely not in the market, the respondents uttered.

Taken cue from the respondents views, majority of the producers fall within the age group of 31 to 50years which means that the youth, both genders are not interested in the trade. Nonetheless they are the ones that patronize in the usage of machine embroidered attires. They wear when attending church service, wedding ceremonies, naming ceremonies and to any merry making parties.

4.7 Summary of Findings

Candlewick, Hardanger, chicken scratch, needlepoint, blackwork and redwork, embroidery techniques were identified to be applicable hence useful for the production of the wares. However, the ones that proved futile were practically machine made that the hand could hardly cope with. For instance counted cross stitch could not respond to the test because it needs multiple compact cross stitches to produce and therefore one will have to spend so much time to accomplish.

Hand embroidery as it were, has not been giving much attention. Almost all the producers and the users have little knowledge of it. They have not even set their eyes

on any sample before. The students however, especially those that offer textiles have a certain amount of knowledge because it is a required content of the textiles syllabus. It was noted that the educational level of the respondents were too low as a few of the producers and the users can boast of passing through the Senior High School level.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The first objective was to identify and experiment with stitches of hand embroidery techniques on fabric. This was necessary to improve upon the aesthetic qualities of fabric wares to enhance their value and importantly induces students' interest in pursuing textiles as a course. In achieving this objective, various experiments were conducted to help identify the applicable ones. The project presents a comprehensive illustration of the step by step procedure to conduct the experiment with the techniques. The techniques which were identified to be useful for the production of the wares were Chicken Scratch Candlewick, Hardanger and Redwork techniques were quite good. However, the ones that proved futile were practically machine made that the hand could never cope with. For instance Counted cross stitch and cutwork techniques were a few that could not respond to the test because they need to be constructed with compact cross stitches. The applicable techniques played a major role in the designing and production of the ware. Almost all the applicable techniques were employed by integration to aid in the designing.

The cue taken from the respondents, indicates that hand embroidery as it were has been thrown away into the ditch. None of the producers are into the hand embroidering as they have not been introduced, so the samples shown to them by the researcher was their first time and were marveled. The students on the other hand have knowledge but not into detailed. They were abreast with a few techniques such

as hardanger and needlepoint and also know little of chicken scratch. Most users however, were ignorant of any knowledge.

5.2 Conclusions

The outcome of this project has proven to be a reliable one indeed based on the fact that the possibility of applying the techniques in the designing and decoration of fabric wares was viable. The success of this project also buttresses the fact that the promotion of the usage of hand embroidery for decorating fabric comparing to the wares on the market that are similar, but machine embroidered. It has therefore open up avenues for more designs in producing unique leather articles.

Furthermore this success has paved way for students pursuing textiles as a course to express themselves by relying on this project to help them design and produce better works as the transfer of hand embroidery design techniques onto fabric is a pointer to high productivity in textiles. In addition this project has also provided room for fabric designers to explore in this area of business to create varieties of designs with artistic and aesthetic precisions and above all to feed the market in return for hard currency.

The work involved critical observation and careful manipulation of design elements, principles, tools, materials which help foster the development of the senses which is good for the processes of teaching and learning.

The general consensus of the respondents gave a vivid indications that hand embroidery is a perfect design, because of its aesthetic appeal it portrays. It enhances the beauty of any attire decorated with embroidery.

5.3 Recommendations

Regarding to the benefits that this innovations of promoting the use of hand embroidery for fabric decoration in Ghana would bring to the academic, socio-economic, and artistic/aesthetic development of the nation, the following recommendations have been outlined to be considered and for further studies.

1. Fabric designers and students should employ hand embroidery design techniques with the design and production of fabric wares.

2. Hand embroidery should be introduced into textiles as a major topic at Visual Arts Institutions to ensure innovative means of decorating fabric wares to ginger textiles students to exhibit their prowess and encourage other art students to pursue the course acknowledging its unique appeal. It will also benefit textile designers since the methodology of transfer adopted is useful for high productivity.

3. Vocational institutions and non-governmental organizations should adopt hand embroidery in textiles to train and provide employable skills to the trainees and the unemployed.

4. The researcher recommends improving facilities in the textiles sections at the Department of Integrated Rural Art and Industry-KNUST and University of Education Winneba especially and all visual art institutions in the country by furnishing with enough hand embroidery equipment to facilitate and enhance teaching and learning of textiles course.

5. The researcher recommends that this project report should be published and copies made available in libraries and educational centres throughout the country to serve as educational resource material.

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APPENDIX

=QUESTIONNAIRE DESIGNED FOR PRODUCERS, STUDENTS, AND USERS OF EMBROIDERY GARMENT IN KUMASI METROPOLITAN ASSEMBLY AND KWABRE EAST DISTRICT

INTRODUCTION: This questionnaire is to solicit for information from producers of embroidery decorated garments, students and users. Your assistance will mostly be appreciated. Thanks in anticipation.

NAME OF STUDENT: Naomi Sarpong

NAME OF SUPERVISOR: Dr. B. K. Dogbe

Select appropriate answers or tick where applicable.

1. Sex of Respondent Male [ ] Female [ ]
2. Age: 18-25 [ ] 26-35 [ ] 36-50 [ ] over 50years [ ]
3. Status: Student [ ] Producer [ ] User [ ]
4. Education: SHS [ ] HND [ ] First Degree [ ] Second Degree [ ] PhD [ ]
   (Tick as many as applicable)
5. Type of embroidery you produce: Hand [ ] Machine [ ] Digital [ ]
6. How long have you been into this business? [0-5] [6-10] [11-15] [20 and above]
7. How did you learn the skill?

   School [ ] Friend [ ] Parent [ ] Apprenticeship [ ]
8. What type of fabrics do you use for your design?

Mercerized cotton [ ] Wooden [ ] Daviva [ ] Sheda [ ] Grey Baft [ ] Other [ ]

9. Which of the fabrics in question (9) is your favourite?

Mercerized cotton [ ] Wooden [ ] Daviva [ ] Sheda [ ] Grey Baft [ ] Other [ ]

10. Why is that fabric in (10) your favourite?

    Durability [ ] Quality [ ] Less expensive [ ] easily obtainable [ ]

11. Did you learn hand embroidery in textiles as a subject? Yes [ ] No [ ]

12. If 'Yes' how do you appreciate it? Difficult [ ] interesting [ ]

    Time consuming [ ] Irrelevant [ ] Not interesting [ ]

13. If 'No' what is your reason? Difficult [ ] interesting [ ] Time consuming [ ]

    Irrelevant [ ] Not interesting [ ]

14. Did your colleagues or seniors put the skills into practice after they left school?

    Yes [ ] No [ ]

15. Do you know any other type/types of embroidery? Yes [ ] No [ ]

16. Which of these embroidery techniques are you familiar with? Hardanger [ ]

    Candlewick [ ] redwork [ ] chicken scratch [ ] needlepoint

17. Why are you interested in the above selected techniques?

    Simple to make [ ] Complex but interesting [ ] People like it [ ]

18. On what occasion(s) do you wear garments decorated with embroidery?

    Church [ ] wedding ceremony [ ] naming ceremony [ ] funeral [ ]

19. Do you think there are some aspects of the embroidery technique that needs to be explored? Yes [ ] No [ ]

20. If 'Yes', which aspects?

    Production of real objects [ ] Uses of colours [ ] Correct uses of yarn [ ]

21. Which type of garments with embroidery do you wear? Female straight dress [ ]

    skirt and blouse [ ] Male attire [ ]

22. Do you produce for sale? Yes [ ] No [ ]

23. If 'No" why? Low patronage [ ] cheap price [ ] time consuming [ ]

24. How do you market your products?

    Display in shops [ ] Advertisement through the Media [ ] Modelling [ ]

25. Do you think hand embroidery designs have been given the necessary attention?

    Yes [ ] No [ ]

26. To what extent do people use hand embroidery garment in Ashanti Region?

    Often [ ] More often [ ] Not at all [ ]

27. How best can we promote hand embroidery in Ashanti Region? Through:-

Modelling [ ] Education [ ] Social Media [ ] Radio and TV Advertisement [ ]