

**DEVELOPMENT OF RESIST DECORATED FABRICS FOR FASHIONABLE  
CLOTHING IN SOME SELECTED PARTS OF KADUNA AND KANO STATES  
NIGERIA**

**By**

**HANNATU ALHERI**

**MA/ENV-DESIGN/9385/2009-2010.**

**M.A. THESIS**

**FACULTY OF ENVIROMENTAL DESIGN,**

**DEPARTMENT OF INDUSTRIAL DESIGN**

**AHAMADU BELLO UNIVERSITY**

**ZARIA- NIGERIA**

**OCTOBER 2014**

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**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES,  
AHMADU BELLO UNIVERSITY IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE**

**AWARD OF THE DEGREE OF MASTER OF ARTS**

**DEPARTMENT OF INDUSTRIAL DESIGN**

**FACULTY OF ENVIROMENTAL DESIGN**

**AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA**

**OCTOBER 2014**

## DECLARATION

I declare that the work in this thesis entitled Development of Resist Decorated fabrics for modern fashionable clothing in some selected parts of Kaduna and Kano, States Nigeria, was undertaken and performed by my humble self. The research was carried out in the Department of Industrial Design Ahmadu Bello University Zaria, under the supervision of Dr. Maiwada S. and Dr. Ada P. O. The information derived from the literature has been duly acknowledged in the text and in the list of references provided. No part of this thesis was previously presented for the award of another degree or diploma at any University or institution of higher learning.

Hannatu Alheri

Date \_\_\_\_\_

## CERTIFICATION

This thesis entitled Development of Resist Decorated fabrics to create modern fashionable clothing in some selected parts of Kaduna and Kano, States Nigeria. By Hannatu Alheri meets the regulation governing the award of the degree of Master of Arts in Industrial Design of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

\_\_\_\_\_

Dr . Maiwada S. \_\_\_\_\_  
Date  
Chairman Supervisory Committee  
Department ,of Industrial Design ABU Zaria.

\_\_\_\_\_

Dr. Ada P.O. \_\_\_\_\_  
Date  
Member, Supervisory Committee  
Department, of Industrial Design ABU Zaria.

\_\_\_\_\_

Dr. Maiwada S. \_\_\_\_\_  
Date  
Head of Department  
Department, of Industrial Design ABU Zaria

\_\_\_\_\_

Prof A.Z. Hassan \_\_\_\_\_  
Date  
**Dean, School of Postgraduate Studies**

## **DEDICATION**

This thesis is dedicated to my late uncle Engr. Garba Yaroson and my entire family with gratitude

## **ACKNOWLEDGEMENTS**

The highest gratitude and glory be to Almighty Allah for sparing my life and providing the resources as well as His protection during the period of my study. I wish to acknowledge my supervisors Dr. Maiwada S . And Dr. Ada P.O. for their immense corrections who with their vast experiences and professionalism took the pains in putting me through, i am most grateful for their guidance and assistance.

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Finally, my gratitude goes to my husband, thank you for all the support and prayers, Yusuf my dearest son, my aunties, my mother as well as the rest of my entire family, thank you and may Allah bless you all.

## **ABSTRACT**

The study entitled Development of resist decorated fabrics for modern fashionable clothing in some selected parts of Kaduna and Kano States in Nigeria was inspired by the need to identify, and assess the decorated fabrics for use in fashionable clothing for occasional and everyday wears. In Samaru Zaria, Kaduna and Kano municipal Kano state, the overall objective of the study was to indentify the available types of the decorative fabrics like the tie-dye, batik and the adire- eleko as well as to examine which was the most preferred of the decorated fabrics for fashion. Descriptive survey method was adopted as the research design. Questionnaires, interviews, and observational schedules were designed and administered on the sample population that was made of designers and consumers, and the data was finally analysed. Major findings from the data analysis shows that the designers and consumers liked the tie- dye more, followed by batik then the adire eleko. Other findings from the study were that resist techniques of fabric decoration are a source of supply in fashion business in Nigeria. Also, job opportunities and self reliance can be enhanced in the production of resist decorated fabrics in Nigeria. In conclusion, the study highlighted the usefulness and beauty of the decorated fabrics as an avertable tool in providing more income and appreciation of cultural fabrics for usage in everyday and occasional wears.

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## **Definition of Operational Terms**

**Cotton:** A plant grown in warm countries for the soft white hairs around its seeds that are used to make cloth and threads.

**Small scale Industry:** Manufacturing and commercial small business with limited labour force and simple instruments used for production.

**Stencil:** A piece of card plastic or metal with a design cut out of it, which can be painted over to transfer the design on to the surface.

**Silk:** Fine soft fibre produced by silk worms.

**Fashion:** Styles of clothing that is popular at a certain given time, (fashion trends).

**Adire:** Adire means “that which is tied and dyed”. Is the name given to the indigo blue cloths patterned with resist types of design.

**Adire alabere:** A Yoruba name for tie and dye that patterns are being stitched with needle and thread.

**Adire oniko:** A pattern that is tied on the fabric before it is dyed, with raffia or cotton threads.

**Adire eleko:** A method of resist dyeing by the Yoruba using cassava starch where the starch resists the dye.

**Fabric:** cloth formed through the interlacing of the warp and weft yarns.

**Madder:** A plant with a fleshy red root

**Indigo:** Deep purplish blue colour that lies between blue and violet.

**Resist:** The process of blocking out areas of the fabric so that they will repel dyes.

**Fibre:** Any web of woven material including cloths, mats and baskets.

**Resist Techniques:** The methods of dyeing in which portions of the fabrics are treated to repel the solutions, so as to be able to achieve multicolour designs on the dyed fabrics.





## CHAPTER ONE

### 1.0 Introduction:

The values of textiles to man cannot be over emphasized. Since the existence of mankind these three: food, shelter and clothing have been important for the survival and convenience of mankind. The study of textile according to Oguntona (1994) has enabled a greater understanding and appreciation of textile. We convert textiles into different dimensional structures in the name of fashion, as clothing “often proclaims the man and woman”.

Textiles is defined as felt or spun fibres made into yarn and subsequently looped, or woven to make fabrics. Methods of textile production have continually evolved. The choices of textiles available have influenced how people carried their possessions, clothed themselves, and decorated their surroundings.

Clothing is one of the basic needs of man and it has existed for as long as man himself. Ever since, there has been need for humans to cover themselves from harsh weather, and so on. It is not known when humans began wearing clothes. Anthropologists believe that animal skins and vegetation were adapted into coverings as protection from cold, heat and rain, especially as humans migrated to new climates; alternatively, covering may have been invented first for other purposes, such as magic, decoration, cult, or prestige, and later found to be practical as well.

The need for man’s clothing has been satisfied through the various types of textiles. The textiles are made through the very crude methods to the sophisticated methods. Clothing refers to any covering of the human body. The wearing of clothing is exclusively a human characteristic and is a feature of most human society. The amount of clothing worn depends on functional consideration, such as the need for warmth, and social activities.

Ali et-al (2010) posits that clothing has a never-ending revolution in our every day survival within our environment since time immemorial. They further stated that cloth is a medium which by design, is transformed into clothing.

The production of textiles is a craft whose speed and scale of production has been altered almost beyond recognition by industrialization and the introduction of modern manufacturing techniques. According to Kureave et-al (2005) and Ada (2006) the word textile is derived from the Latin word “texere” which means to weave. Fabrics are produced by weaving, thus the name textile was given to fabrics.

Resist dyeing like many other craft seems to have originated a long time ago and lost in time. History has it that resist dyeing has been very widely used in Eurasia and Africa, since antiquity. The first discovery of pieces of linen was from Egypt and dates from the fourth century. The cloth found was used for the mummies that were soaked in wax, (Wikipedia the free encyclopedia 2011). In Asia, this technique of resist dyeing was practiced in China during the Tang dynasty (618-907), in India and Japan in the Nara period (645-794). In Africa it was originally practiced by the Yoruba ethnic group of Nigeria the Soninke and Wolof in Senegal.

Resist dyeing is a term for a number of traditional methods of dyeing textiles with patterns. Methods are used to **resist** or prevent the dye from reaching all the cloth thereby creating a pattern and ground. The most common forms of resist decorated fabrics in Nigeria are tie and dye,( adire oniko and alabere ), batik (wax resist), and the cassava paste resist method,( adire eleko). These resist decorated fabrics are produced mostly, by the Yoruba of the south-western parts of Nigeria, particularly in Ibadan and Abeokuta. They are also produced in some parts of Northern Nigeria,in States such as Zaria, Kano and Sokoto.

The primitive man, according to Potter et-al (1967) obtained dyes from flowers, nuts, berries, and other forms of vegetable and plant life, as well as from mineral and animal sources. In the process of textile manufacture, there are many linkages and components that work differently towards a common object which is cloth production. There are four primary factors in clothing comfort, fashion, feel, fit and function.

This study intends to use the resist technique on fabric decoration to create fashionable clothing for ladies. This is because, it had been observed that resist decorated fabrics like the tie –dye, wax resist (batik) and the starch resist are mostly used for the female gown and head tie (iro and buba). This emphasis had made the use of the clothes produced from the application of resist fabrics unattractive to the young generation especially females in Nigeria.

### **1.1 Background of the study**

The traditional decorated fabrics, like the local resist techniques of tie and dye, wax resist and cassava paste resist, (adire,eleko), are underutilized now a days. Except for traditional wears like the iro and buba. Even though, much of it is still available in the market. Byfield ,(2002) states that urban dwellers, in the 1960's considered resist clothing like the adire wears for the poor, in the 20<sup>th</sup> century its being considered by the younger people as fabrics used only for traditional wears despite the fact that these decorated fabrics have taken a new dimension with the introduction of more colours and beautiful designs. Hence, the need to utilize the decorated fabrics for the creation of fashionable wears.

The ever growing need for fashionable wears has made the fashion industry one of the biggest garment producing industries in the world. In recent years, Asian fashion has become increasingly significant in local and global markets. Countries such as China, Japan, India, and Pakistan have traditionally had large textile industries, which have often been drawn

upon by Western designers. But now, Asian clothing styles are also gaining influence based on their own ideas. This has become a source for income generation. Nigeria cannot afford to be left behind. This study is therefore an attempt to analyze the extent to which resist fabrics like the tie and dye, the batik and the cassava paste resist, ( adire-eleko) can be utilized for making fashionable wears. The goal is to make these fabrics appealing for use at all times.

## **1.2 Statement of the Problem**

Resist methods of dyeing fabric has been existing in Nigeria for a very long time. However, the use of the fabrics has mainly been restricted for traditional wears like the (buba and kaftans).This seems to be underutilizing the materials, as volumes of it are produced daily. The problem of this study therefore, is to encourage the use of resist decorated fabrics for modern wears, it is hoped that fashionable ladies would use the fabrics for several fashionable wears, suitable for all social functions.

In adequate use of resist fabrics, according to unanimous views of Nkrumah (1971)and Daoud(1974), is attributed to the effect of colonialism which makes Nigerians crazy for foreign goods. Thus, the Nigerian home -made resist decorated fabrics used for garments have today been replaced with foreign textiles like English wax, Hollandaise, China textiles and host of other foreign goods. Now the craftsmen are dying and their offsprings are reluctant to take their places.

Newman (1974), observed that Africa's traditional heritage is likely to disappear as he predicted that the traditional crafts are dying which is all that is best in Africa . True as this statement may sound, the traditional dyeing pots and pits are fast drying up now and may never be able to rekindle the fire of the flamboyant designs which Africa in general and Nigeria in particular were hitherto known for.

The dye pits of Kofar Mata in Kano state, which are situated about one kilometer away from the Murtala Mohammed hospital in Kano, according to Benson (2007), are becoming extinct, the ones that are still existing are run by older dyers.

This study, attempts to document and revive the use of resist decorated fabrics to create modern fashionable clothing, which are of good standards and will attract fashionable younger generation.

### **1.3 Aim of the study**

The aim of the study is to indentify different resist decorated fabrics that are available, with a view of using the fabrics to create fashionable wears for ladies in order to encourage the use of the resist decorated fabrics. In Samaru Zaria, in Kaduna State, and Kano Metropolis, this was achieved through the following objectives.

### **1.4 Objectives of the study**

The aim of the study is to:

1. Identify the existing resist decorated fabrics of tie -dye, batik, and adire eleko for the promotion of fashionable clothing.
2. Promote the use of the traditional resist decorated fabrics.
3. Develop ways of utilizing resist made fabrics for modern fashion wears.

### **1.5 Research Questions**

1. What are the existing resist decorated fabrics available that can be used for promoting creativity in clothing?
2. How can resist decorated fabrics be promoted to encourage its usage?
3. What ways can the resist decorated fabrics be used for modern fashionable wears?

## **1.6 Scope of the study**

The study focused on the utilization of resist decorated fabrics,( tie-dye, batik, and the adire eleko) in two major Nigerian towns, Kaduna and Kano.

## **1.7 Delimitation of the study**

The delimitations sprung from the nature of the target study, population time constraints and the availability of economic logistics.

## **1.8 Basic Assumption of the Study**

The assumptions of this study are that resist technique methods of tie and dye, batik and adire are the most versatile resist processes in Nigeria, including Asia and Europe. The fabrics are very functional and serving, and reflect certain social cultural and even economical aspiration of the people as well as that of the nation.

## **1.9 Significance of the study**

The trend of fashion is ever growing with a lot of influence from Europe. Fashion is the business of creating, promoting, or studying the latest styles of clothing, hair styles and so on. The use of resist techniques to create modern fashion design will accelerate the promotion and utilization of the decorated resist fabrics, of tie and dye, batik, and the adire eleko. Dyed fabrics can be used to create a lot of beautiful clothing for wear. This can be related to the improvement of cotton fabrics available now in high quality, and the production of new attractive designs through the various resist techniques.

Fabrics designed can be used to sew garments that are as attractive as the ones brought from Europe, America, India and China. Dyed fabrics have always been a part of our culture and

it should be put to use. A classical definition of culture was presented by the founder of Anthropological discipline, Edward (1871), in Gbor (2006). He viewed culture as,

“That complex whole which includes knowledge, belief, art, morals, law, customs, and any other capabilities and habits acquired by man as a member of society”

The general interest expressed by the public in fashion and the increase in the number of fashion designers is encouraging. Therefore, there is the need to use or utilize the traditional decorated fabrics to create fashionable clothing attires, different from the iro and buba .

**Economic Significance:** The establishment of vocational institutions, including fashion schools, is fundamental to economic growth. As vocational institutions contribute immensely to the development of talents, textile designers have been designing resists fabrics for sale to foreign markets and also to tourists that come into the country. A good example is in Kano Nigeria, where a lot of resist fabrics like the tie and dye are made locally and foreigners come in to buy these fabrics from the small scale textile industries. Creating job opportunities in the society bring about reduction of unemployment in the communities that practice the production of resist techniques.

According to Ada (2010), this brings about the “promotion of both Nigerian indigenous textiles and dress culture to the world using tourism, venture and vocational scheme”. This will contribute to local revenue generation as well as foreign exchange earnings for Nigeria. Isa (1985) points out that the emergence of small – scale industries can afford them the opportunity to develop entrepreneurship talents which mobilize a lot of local resources and capital for future investments. This area of human Endeavour could be a dependable source of national cohesion and pride, while adding to the economic growth and development, of the country.

**Educational Significance:** This study will contribute to knowledge from a diverse point of view. Resist techniques have been in existence in the commercial sector for a long time, with so many different styles and new methods of resist. People are ready to learn the methods of producing the fabrics formally or informally to earn a living through practical processes. This means being self employed and therefore self reliant, contributing to the nation's development as a whole.

**Cultural Significance:** Culture is said to be people's peculiar way of life. According to Kofgen and Touchie, (1971) in Ahuwan (1994), culture is a product of the creative human response in meeting the need of a group. This study, affords an insight into the resist decorated fabrics of Nigeria, and how to utilize it for modern fashion. Ahuwan (1994), posits that, "the Nigerian culture and traditions are very rich in motifs and design concepts", which makes it critical for the designers that these traditional designs and motifs should be exploited for cultural well being of the country. The inspirations for new styles in fashion, and the world now industrialized our traditional fabrics should also be put to use in the production of the new trends in fashion for economic importance.

Isa (1985) observed that throughout the world, small scale industries have their origin from traditional heritage and occupations which reflect the societal cultural values and beliefs. The modern textile industries came from traditional weaving and dyeing. Shaw (1989) in Hassan (2010) postulates that art, generally is said to have the capability of playing a corrective role in the society. Thus great emphasis has been placed on the role of art in molding the modern society. Using resist dyeing to create modern garments for fashion will also bring about the cultural knowledge of resist dyeing process along with its economic importance.

**Aesthetically:** The usefulness of clothing cannot be overemphasized. In the fashion world, designers carefully choose good fabrics to produce clothing that will go on the front pages of



magazines because the right fabric and style will sell the publication. Resist fabrics are making the front pages because of their beautiful colours and designs.

Technically: Fabrics are brought because of the quality and colour as well as the style, which the fabric has

## **CHAPTER TWO**

### **2.0 Review of related literature**

This chapter is concerned with the review of related literature for the study. Previous works related to the study were extensively reviewed. The aim was to collate knowledge and ideas, related to the study on resist decorated fabrics. Topics reviewed include the following:

1. History of resist techniques
2. Types of resist techniques
3. Materials used for the production of resist decorated fabrics
4. Process of resist techniques
5. Colour
6. Designing Fabrics
7. Uses of resist decorated fabrics
8. Utilization of resist decorated fabrics for fashion in Nigeria.

### **2.1 History of Resist Techniques**

Archaeologists have found evidence of textile dyeing dating back to the Neolithic period. The earliest surviving evidence of textile dyeing was found at the large Neolithic settlement at Catalhoyuk in southern Anatolia, where traces of red dyes possible from ochre (iron oxide pigments from clay) were found <http://en.wikipedia.org/wiki/dyeing> (2011). In China, dyeing with plant, barks and insects has been traced back more than 5,000 years. Wikipedia further states that early evidence of dyeing comes from Sindh (Pakistan), where a piece of cotton vegetable dye has been recovered from the archaeological site at Mohenjo-daro (3<sup>rd</sup> millennium BCE). The dye used in this case was madder, which along with other dyes such as indigo were introduced to other regions through trade. These natural dyes were important

elements of the economies of Asia and Europe until the discovery of man-made synthetic dyes in the mid 19<sup>th</sup> century.

According to Banjoko (2000) resist technique is a process where fabric sections are tied off, folded, clamped with blocks or covered with wax to keep cloth areas from the dye. Resist dyeing is probably the oldest method of producing non-woven patterns on fabric using dyes. Dyeing of fabrics has been found in almost every culture outside Europe. In Europe, it was not adopted until the 18<sup>th</sup> century. And then, only the paste resist and clamp methods were used in Indonesia.

The dyeing of textiles is usually understood to mean giving fabric colours, which is of comparative permanence, meaning that it should not be possible to wash the colour out easily in laundering, nor should it fade rapidly when exposed to light. In Africa, two of the most popular resist dyeing techniques are the tie and dye (Adire Oniko), the wax resist (batik) and the cassava paste resist (Adire eleko). In tie and dye, designs are first tied or stitched into the cloth according to the kind of motif, using cotton or raffia threads. African nations have used tie-dye for years and are still doing it. Americans practicing the craft today learned tie-dye natural recipes from Africa. During the depression, girls in America cut up cottons flour sacks tie-dyed them and sewed them into clothing, curtains and table cloths. [www.harmonymasterpieces.com](http://www.harmonymasterpieces.com).(2011).

While in wax and cassava resists dyers draw on the cloth using an impermeable substance to get the design onto the fabric. The fabric, after being decorated is then dipped into solutions typically made from vegetable dyes, which colour all but the covered areas.

In many African societies, men and women are responsible for different stages of cloth decoration. Indigo dyeing is women's work among the Yoruba and the Soninke of West Africa, but among the Hausa people in the northern part of Nigeria, fabric dyeing is

traditionally men's crafts. Meilach (1973) posits that the methods of resist techniques vary but yet have many similarities. The differences come mostly from the kind of cloth used in the resist procedure. Fine cloth is more adaptable to fine binding and small pattern while heavier cloth adapt itself to larger patterns.

### **2.1.1 Fabric Decoration**

From the earliest recorded history, man has decorated the fabric surfaces of his environment. Born (1941) states that, man's clothing was decorated first, then other items necessary to his environment. He further posits that, decoration may also have served as a means of identification within and between cultural groups. Other designs may have occurred by accident, such as hand or footprints of mud or clay on fabrics. Whatever, the origin of the earliest fabrics, decoration has been a significant and dynamic force in man's cultural history. Religion and economy, are recurring factors in the continued development of this aspect of the fabric arts.

### **2.1.2 Origin of resist techniques**

The origin of resist techniques seems to be from China and other parts of Asia like Indonesia and India. According to "Wikipedia the free encyclopedia" [www.harmonymasterpiece.com](http://www.harmonymasterpiece.com) March, 2011, tie and dye was used in the early Chinese T'ang dynasty (A.D 618-906) and Japan during the Nara period (552-794 A.D) These countries' art was very outstanding in the sense that they had silk and hemp . The silk fabrics which were highly priced were used for tie and dye clothing of the nobility and priests.

Resist dyeing using wax (batik) was a highly accomplished art form in Java and Bali by the 13<sup>th</sup> century as a pastime for fine ladies. The exact origin of batik is uncertain, but fragments probably of Indian origin have been found in 1<sup>st</sup> century Egyptian tombs. Meilach (1973), and

Banjoko (2000) state that batik is an Indonesian word, derived from the word “tik” meaning “a little bit” or “a drop”.

Cassava resist dyeing known as paste resist according to “Wikipedia the free encyclopedia.” <http://hartcottagequits.com/africantextiles3.htm> July 2011 was not used in Africa until the early 1900s. But tie and dye was used as early as the 11<sup>th</sup> century. “Adire eleko” which is the Yoruba name for starch resist originated in Ibadan, Nigeria around 1910, and commercially owes its existence to the colonial policies. In the 1920s and 30s adire was a major local crafts in the towns of Abeokuta and Ibadan, attracting buyers from all over West Africa. More complex and beautiful starch resist designs continued to be produced until the early 1970s. Like transition stages in other crafts according to Stanfield et al (1971), the earliest starch patterns tended to copy the stitched designs, but as the craftswomen became familiar with their methods the designers developed their own characteristics.

## **2.2 Types of Resist Techniques**

There are basically two types of resist dyeing techniques mostly used for decorating fabrics in Nigeria. These methods include the tie and dye known as Adire Oniko in the Yoruba land, and the cassava paste resist which is known as Adire eleko also in the Yoruba land, then the batik, where wax rather than starch is used to create designs on the fabric, before dyeing it.

### **2.2.1 Tie and Dye**

Tie and dye is a technique for decorating fabrics by the use of resist which includes crumpling, pleating, folding the fabric into various patterns and tying with string, hence, the name. <http://www.wisegeek.com/what-is-tie-dye.htm> April (2011). The protected sections do not absorb the dye and an un-dyed pattern against a dyed background is the result. Tie and dye from each country has exhibited distinguishing design and colour characteristics by which many scholars, according to Meilach (1973) have been able to chart the origin and

types of fabric produced throughout the world at different times in a particular culture. The methods of tie and dye vary from one country to another one century to another, but yet have many similarities. Meilach(1973) further aver that tie and dye existed along with beads, shells and other ornamentation. Meilach(1973) further contest, that tie and dye was probably well developed in India earlier than in Japan.

The Indian tie and dye technique Bandhani also known as Bandhni and Bandhej, is the oldest tie and dye tradition that is known to be still in practice. The Malay-Indian name for this technique is Plangi. The technique involves a design made of dots in which many small points are tied with thread before putting the fabric in dye.

([www.harmonymasterpieces.com/specialhistory.html](http://www.harmonymasterpieces.com/specialhistory.html).2011)

### Patterns in Tie and Dye

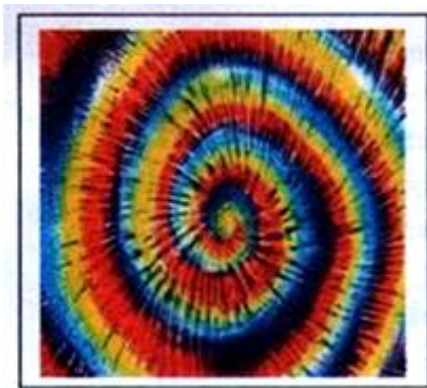


Plate 1a

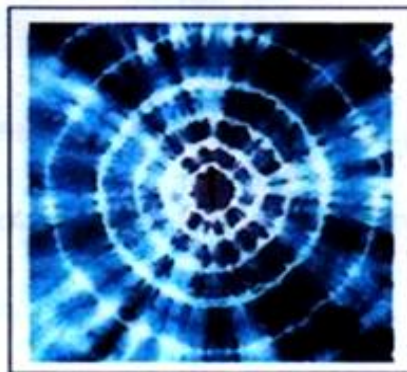


plate 1b

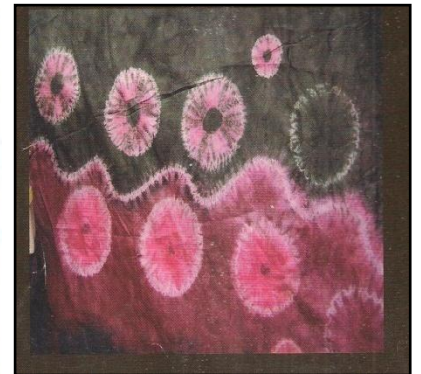


plate 1c

**sourced from tie and dye images Wikipedia (2011).**

- a. Marble tie-dye pattern- crumble your fabric until it is very crumpled then plunge it inside the dye bath for one colour, for more than one colour use a tray.
- b. Folding methods: This is the common modern tie-dye pattern”

- c. Spiral patterns which are created by gathering a small section, usually with a cloth pin or kitchen fork in the middle of the fabric and slowly rotating the piece creating pleats.

**Folding ideas:** There are hundreds of ways to fold and dye fabrics to achieve exciting results with dyes. It is a good idea to practice on paper the folding techniques, because it is stiffer than fabric and less expensive Meilach (1973). Unusual, exciting patterns can be created by applying pressure to areas of folded cloth. Pressure applied using C- clamps with objects between them and dipped in dye can come out with very fine design.

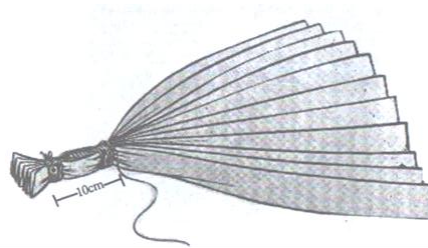


Figure 2.1

**Pleating technique (folding and tying)**

**Sourced from Banjoko (2000)**

**Random circles:** The effect is made by tying knots with strings in different places on the fabric depending on the kind of design. The more fabric that is tied the larger the pattern.

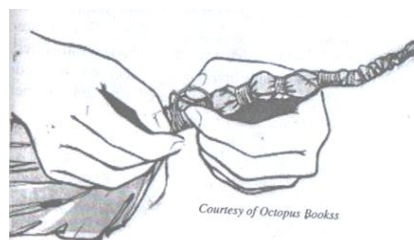


Figure 2.2

**Circle method, sourced from Banjoko (2000).**

**Tying in Objects** Exciting patterns can be achieved in tie dye process or variations when objects like wood, marbles, stones, rings, tin covers and so on, that can create a shape when tied on the fabric are used. Meilach,( 1973) and Banjoko (2000) and Anyakoha and Eluwa (2008), all reported that pattern interest depends on the shape of the object, how it is tied and arranged.

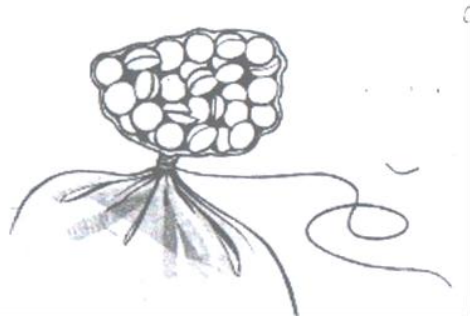


Figure 2.3 tying with pebbles

**Source Banjoko (2000)**

### **Stitching or Tritik**

Tritik or stitching method of tie-dye consists of drawing up a thread sewn into the fabric so the folds that results after pulling resist the dye. With this method one can draw any shape from diamond, square, curve, line and so on and then outlined by stitching with string or thread. The main rule when tritik or stitching is always to knot the thread at each end and leave extra length for grabbing it and pulling it from both ends, Tie-dye methods always come out in unique and very beautiful, designs.

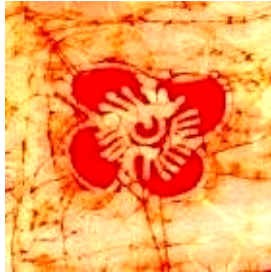
### **2.2.2 Wax Resist**

Wax resist is both an art and a craft which is becoming more popular and well known in the west as a wonderful creative medium, as stated by the “Batik Guide>what is Batik (2011). Wax resist is a process in which method candle wax is applied on the fabric to resist the dye. Batik according to Banjoko (2000) is recognized widely for its unusual effects and creative possibilities.



As seen in the plates below, contemporary batik while owing much to the past is markedly different from the more traditional and formal styles.

Batik according to the batik guild (2011) is historically the most expressive and subtle of the resist methods.



**Plate 4(a)**



**plate 4 (b)**

**Sourced from batik images Wikipedia (2011).**

The art of decorating cloth in this way, using wax and dye, has been practiced for centuries. In Java Indonesia, batik is part of an ancient traditional art, and some of the finest batik cloth in the world is still made there “Wikipedia free encyclopedia (2011). The batik process was modified for use in textile factories and quickly adopted in Europe since there was a great demand for this beautiful and exotic fabric. As production methods became more advanced, Europeans mastered the art and soon the Swiss and Germans were mass producing batik fabric. Modern batik patterns and processes can now be controlled by computers, a development that is giving rise to interesting, new and never before seen geometric designs. The earliest batiks were monochrome patterns against an indigo background but multicoloured ones were produced from the 18<sup>th</sup> century, onwards using methods learnt from expert Muslim dyers in India.

### **2.2.3 Starch Resist (Adire eleko)**

As a distinctive textile type, adire first emerged in the city of Abeokuta, a center for cotton production, weaving, and indigo-dyeing in the nineteenth century.

Adire is the name given to indigo dyed cloth produced by Yoruba women of South Western Nigeria using a variety of resist dye techniques as reported by Clarke (2002), Adire eleko is one of such techniques. It involves the use of cassava paste to create motifs on the fabric to be dyed. Designs are applied on the cloth surface with the cassava starch paste; the paste is applied with a feather or a broom straw and carefully dried after which it is dyed, mostly in indigo dye as reported by the Hart Cottage Quilts (2011). The Yoruba women that design the cloth with starch are known as “aladire”, they use cassava paste to paint, or stencil repeated abstractions of animals and plants onto the cloth before dyeing it in indigo dye. africana.com (2011). Adire according to Stanfield et al (1971) is an inherited craft. Young girls work with their mothers and at an early age become skilled in painting and tying patterns. The early Adire were dyed on handspun and hand-woven cotton material.

In the early decades of the twentieth century, a vast trade network for adire spread across West Africa. Adire wrappers were sold as far away as Ghana, Senegal, and the Congo Byfield (2002), at the height of adire production in the 1920's Senegalese merchants came to Abeokuta to buy as many as 2000 wrappers in one day.

In the twenty-first century, the new colourful adire continues to meet fashion challenges and to be an alternative to machine prints. In Nigeria one can still buy indigo dyed adire made by the older women in Abeokuta and Ibadan and by artisans at the Nike Center for the Arts and culture in Oshogbo where the artist Nike Davies Okundaye trains students in traditional adire techniques.



### **Adire eleko fabrics**

Sourced from, <http://angelasancartier.net/adire>( 2012)

## **2.3 Materials for the production of resist fabrics**

Product design and development require the use of certain materials that are peculiar to its production, Burden et al (1989). The case in study here is not different. Three basic resist methods of fabric design namely, wax resist, tie and dye and the cassava resist (Adire eleko), were considered. The materials required for each differ from one another and a rundown of the materials for each of the methods is here treated.

### **2.3.1 Wax Resist (batik):**

As mentioned before, wax resist is another popular dye resist technique in which the design is applied to the material with a substance that will resist the action of the dye. Banjoko (2000), Hollen (1979) further aver that the wax (batik) resist is the process in which hot wax is poured on a fabric in the form of a design. The materials required for its production includes:

1. White cloth, preferably vegetable fibre – not synthetic. Natural fibres include – cotton, linen, silk and wool. Cotton and linen come from plants, silk from the cocoon of the silkworm, and wool from sheep. Merlach (1973)
2. Wooden Frame –Adjustable wooden frames especially made for batik are convenient. They are adjustable to any size as reported by authors like Banjoko (2000), Anyakoha (2008) and Stanfield (1971).

3. Pins to hold the fabric to frames.
4. Brushes for applying wax, which are preferably material bristle; of assorted sizes and inexpensive.

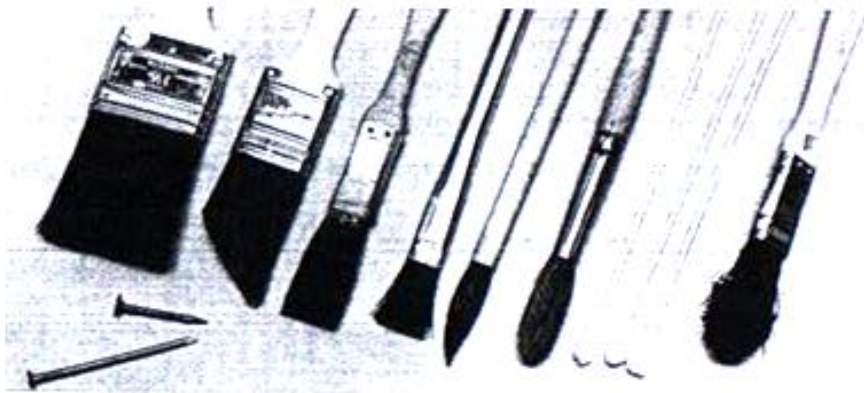


Figure 2.4

Sourced from Meilach (1973)

Small pieces of mattress form bindles to a stick with a thread can also be used to apply wax on to the designed fabric. The Tjanting tool (optional) is used for drawing with hot wax is a special tool used by professional batik designers. The tool produces interesting linear effects. (Banjoko 2000). Another material also used in applying wax to the fabric is the Tjap, the intricately patterned traditional Japanese tjap, is used for stamping wax patterns, which can also be improvised with wood.

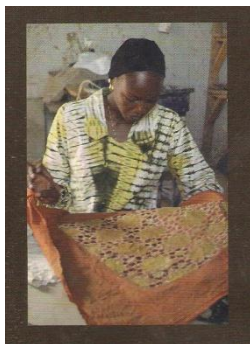


Figure 2.5 Photograph by Hannatu Alheri (2011)



Figure 2.6 Tjanting tools

Sourced from Meilach (1973)

5. Kerosene cooker
6. Aluminum pan to hold melted wax
- 7 Rubber gloves
9. Lots of old newspaper to remove wax after it has been dyed.
10. Plastic bucket/bowls to mix and hold dyes
11. Dyes of various colours
12. Chemicals for dyeing
13. Mixing cans /spoons

### **2.3.2 Tie and Dye**

Tie and dye is another way to create an explosion of beautiful colours. It is also a resist where protected sections do not absorb the dye and an un- dyed pattern against a dyed background is the result. Materials are also needed to achieve the above goal. The materials required are:

1. 100% clean cotton fabric, silk or wool
2. Strings, ropes and raffia. These are used to tie the fabric to resist places that the dye is not entering.
3. Plastic bowls: They should be large enough to accommodate the fabric in ample solution to cover.
4. Heat source (cooker, stove and so on).
5. Rubber gloves: for protection from chemicals and dyes.
6. Sticks: to stir dye baths
7. Dyes of assorted colours
8. Chemicals

### 2.3.3 Starch Resist (Adire eleko)

Starch resist or Adire eleko on the other hand has been defined as the resist method in which cassava paste is painted on fabric to resist dye as stated by Barbour, (1971). Ibadan is the chief centre of this method where it is a “luxury” cottage industry with seldom more than one or two girls painting the cloths in any one house. The process also requires its own kind of materials in order to produce.

1. Cotton materials
2. Alum which serves as a binder
3. Brushes – Hen’s feathers, fine mid ribs of palm leaf taken from the house sweeping broom Stanfield (1971). Match stick or similar piece of hardwood. Small knife with a point.
4. A flat surface on which to work. This is generally the cement floor of the house verandah.
5. Cassava flour, in some places yam flour is added to the cassava flour.
6. Stencil: The stencil making is the work of men; it also has its own materials.
  - a. Board for cutting on stencil
  - b. Piece of flattened “pan” (corrugated iron sheet, thin variety) or thin zinc.
  - c. Hammer or mallet
  - d. Knife, chisels, nails for making the design
  - e. Straight edge ruler
  - f. Pencil or pen
7. Stick for removing stencil from cloth to drying pole.

## **2.4 Process of Resist Techniques**

The process of resist techniques is done mainly with some portion of the fabrics prepared to resist colour when dyed. The procedures to resist can be through traditional use of molten wax or starch paste and also the use of ties, folds, and knots to resist the colorants.

### **Tie and Dye process**

Tie and dye is a technique for dyeing natural fabrics that results in interesting, colourful patterns. The procedure of tie and dye, according to scholars like Meilach (1973) ,Banjoko (2000) and Anyakoha (2008) can be done with slight variations; different types of designs can be tied, folded and stitched to get different beautiful design and patterns. In the process of making tie and dye it is important to select natural fabrics as synthetic materials do not readily accept dye. Making cotton a very excellent choice silk and wool can also be tie and dyed. The procedure of tie and dye is as follows.

#### **1. Wash the Fabric**

Fabrics used for tie and dye are constructed from the natural fibers like cotton, linen, silk and wool, which must be washed according to Meilach (1973) to remove sizing. Banjoko (2000), states that the fabric should be washed vigorously with soap and hot water, while Anyakoha (2008) reports, that after washing the fabric ironing should also take place.

#### **2. Plan the design to be produced**

By planning the design one needs to decide what kind of design is to be on the fabric. Anyakola (2008) posit that for a circular pattern pull the fabric up towards the centre like a closed umbrella and bind downwards at intervals. Other methods include

marbling, folding, clamping wrapping in objects and stitching. In planning it may be wise to first experiment with a scrap of cloth.

3. Prepare the dye, wear gloves and follow the instructions. Dyes used for tie and dye can be hot water dyes as well as cold water dyes.
4. Dip the rinsed fabric in the dye solution; leave the material in the dye for only a few minutes or as one desire, but not unnecessarily longer, so that the dye will not penetrate the tied places.
5. Remove the fabric from the dye and rinse in cold water.
6. If another colour is to be used, re-tie at other spots and dip into the next dye solution. Always start with the lightest colours and end with the darkest e.g. Yellow should come before green or blue.
7. Allow to drip dry or squeeze out excess water untie the fabric and then press cloth, with hot iron when cloth is still damp which will help fix the colours

#### **2.4.1 Adire eleko procedure**

The procedure of Adire eleko is as that of the wax-resist, the difference is that in place of wax the designers use starch paste gotten from cassava tubers.

1. The starch is painted on the cloth to resist the dye from penetrating through it when it is in the dye pot. It is painted on one side of the cloth only, and allowed to dry thoroughly, before being dyed.
2. The basic lines of the design are made by folding the new cloth. This gives the painter some guide lines. A plain strip is left either end of the cloth approximately five inches wide. This according to Stanfield (1971) is for the hem.
3. During painting the designer takes care not to disturb and so crack the starch. If the starch is left in a rusty bond the rust will mix with it making a yellowish brown colour. This “coloured” starch appears on the cloth but disappears after dyeing.



4. The complete painted cloth according to Stanfield (1971) is carefully lifted over a thick bamboo pole to dry. Drying can take up to three days or more depending on the weather.

### **Process of stenciled cassava resists**

The fabric to be starched is placed on the table, one yard wide and two and a half yards long. Africana.com (2011), it is nailed on to the table. A stencil is placed in the position that the dyer wants according to the design. The starch is applied through it with a semi circular piece of pliable metal. It is pressed on the fabric and any surplus scrapped back into the bowl.

The lifting and drying is just as mentioned above like that of the painted cassava starch type, eleko. After all these procedures the fabric is then dyed in indigo dye stuff. The process of indigo dyeing according to Clark (2002) is a lengthy one. The dye is obtained from a plant and a mordant is also made by the dyer to mix with the colour in the water. The actual preparation of the ingredients according to Stanfield (1971) is hard work and the process of dyeing, can be quite tedious.

### **Wax Resist Procedure**

Wax resist procedure should always be done in a well ventilated area.

1. Wash the material to remove any sizing (cotton materials are the best for wax resist), and starch will be removed when washed because it retards dye penetration.
- 2 Designing the fabric: The fabric for wax resist should be spread flat, and lightly draw the design with pencil, pen or charcoal. One can place a paper beneath the fabric and trace. Another way of designing is by just drawing directly with the wax. Anyankoha (2008).

- 3 Prepare the molten wax (wax need not be boiling because it can catch fire) use only enough heat to render the wax liquid.
- 4 Paint the melted wax on the fabric with soft inexpensive, natural, bristle paintbrushes of different widths, artist's brushes or paste brushes. Make sure the wax penetrates through the cloth.
- 5 Crumple and submerge the material in the bowl of dye (dye bath) for batiking the dye water must be cold so that the wax does not wash off. Meilach (1973) states that there are special cold water wax dyes are best for use in wax resist. The longer the cloth stays in the dye bath, the stronger the colour. Colour tint is also controlled by the amount of dye used in relation to the size of the material.
- 6 Remove the fabric from the dye and rinse in cold water, spread the fabric out on a wax paper or plastic to dry. If the design has more than one colour, wax is then painted over the just dyed to retain the colour and then put into another solution of dye.
- 7 Remove the wax from the material in boiling water or by ironing for wax removal, change the papers often.

After removal of wax, the cloth is then given final ironing, folded and ready as a batik material.

## **2.5 Colour**

Colour is an element of design. If one has the basic understanding of the functions of colour, it will help one use it effectively. Hollen et al (1979) posits that colour has always been important in textiles, Hollen et al (1979) further stated that until 1856 natural dyes and pigments were obtained from plants and insects. Graves (1951) further stated that colour can affect us as strongly as a sound, for the eye is as sensitive as the ear. He further stated that the

reason this is not always obvious is that a colour is usually seen in a small patch that partially fills the eye whereas a sound may completely fill the ear. Colour has its own characteristics which are hue, value and intensity.

**Hue:** Hues can be formed by combining each of the primary hues with one of the other two.

Hues are basic or pure colours.

**Value:** This refers to the lightness or darkness of a colour. If white is added to a colour, the result is a tint that is higher in value than the original hue. When black is added, the value is lowered and that is referred to as a shade.

**Intensity:** This is the brightness of a colour. Pure colours are brighter and more intense than colours mixed with the neutrals, black, white or grey.

An understanding of basic concept of colour and knowing how to apply the right hue, values and intensity as well as harmonies in our dressing according to Madaki (1994), enhances skin colouring and appearance of a person. For this reason, colour in our clothing should sometimes be selected to enhance the skin and figure and not just because they are in fashion.

Craig (1973), in Madaki (1994), contends that “for every season, colours are coordinated with outfit for dress wear, blouses, sweaters, skirts, and dresses for school or work. However, because warm colours are advancing they tend to make a person appear larger or plumper; and because cool colours recede, they tend to make a person smaller or thinner. Therefore colour choices in our wardrobes should be chosen with care.

### **2.5.1 Usage of Colours in the Dye**

When using colours in resist method of dyeing because of the process of dyeing, one has to be sure of the colours to be chosen. In dyeing, one works out the colour scheme from light to dark. For example if the first colour is yellow and then over dyed in blue the fabric would come out green.

One can also refer to the colour wheel, according to Meilach, (1973). To determine the colours that harmonise, which are complementary colours that lie directly opposite each other, but are not mixed. One can be intrigued with how colours mix during the over dyeing process, as one progresses. Mixing of dyes is essential in some cases because the colour range in dyes, are limited.

### **2.5.2 Types of dyes;**

Each fibre has its natural colour. However, this natural colour may not be very attractive when the fibre is made to fabric. Kureave et al (2005). They further stated that for this reason fabrics are usually coloured with dyes and designed to make them attractive. The use of dyes to make fabric more beautiful started many years ago.

Dye is a coloured substance that has an affinity to the substrate to which it is being applied. Dyed flax fibres have been found in the republic of Georgia dated back in a prehistoric cave to 36,000 B.P. Findings showed that particularly in India and Phoenicia, dyeing has been widely carried out for over 5,000 years.

Dyeing is the process of adding colour to textiles products like fibres, yarns, and fabrics. Dyeing is normally done in a special solution containing dyes and particular chemical materials. There are mainly two classes of dye, natural and man-made, the majority of natural dyes are from plants sources. A root, berries, barks, leaves wood and fungi. Man made (synthetic), was discovered by Williams Henry Perkin in 1856. Hollen (1971) states that, these synthetic dyes, quickly replaced the traditional natural dyes, they cost less and offered a vast range of new colours, unlike, the natural dyes.

Different classes of dyes are used for different types of fibres and at different stages of the textile production process. Acrylic fibres are dyed with basic dyes, Nylon and protein fibres such as wool and silk are dyed with acid dyes, Polyester yarn is dyed with disperse dye.

Cotton is dyed with a range of dye types, including vat dyes, and modern synthetic reactive and direct dyes.

## **2.6 Designing Fabrics:**

Hearthcote (1976), and Haskett(1987), in Donatus(2004) opined that all things made by man have been designed in a way, at a given time in a particular place by someone. According to Conaday (1980), design has been in existence and has served life as embellishment right from the day the pre-historic ancestors first smeared magical signs on their bodies with coloured clay and has since then continued to gain perfection in history through the Bauhaus, as opined by Peter and Murray(1976) to this era of sophisticated industrial design development.

Fabrics are made attractive by designing them. Design is a way of producing a variety of motifs into fabrics. Designs can be made or applied during the construction stage or after the fabric has been constructed. There are many types of designs that make fabrics beautiful, interesting, different and suitable for specific purposes, which the fabrics can be used for. Fabric design is divided into two groups' structural designs and surface/applied designs.

### **2.6.1 Structural Designs:**

Structural design according to Kureave et al (2006), is woven directly into the fabric by variation of yarns and weaves. They may be yarn designs or woven designs. They further stated that surface/applied designs are applied to fabric after the fabrics are woven. This can be by printing on the fabric, with fabric ink or using wax to paint motifs on the fabric.

## **2.7 Uses of resist fabrics:**

Resist decorated fabrics are used for many things these days in the outside countries and also here in the country, but in a limited form.

**Dress:** resist decorated fabrics are used to produce dresses mostly, but now skirts, and trousers are also made using the dyed fabrics. Shirts and scarfs are also done with resists decorated fabrics to mention but a few.



Plate 6 a



6 b

**Sourced from, tie-dye images (2011).**

**Bags:** resist decorated fabrics are used to create or make bags and purses for women to carry about.

**Furniture:** like pillow cases, seat covers and even window blinds for the windows

## **2.8. Utilization of resist decorated fabrics for fashion (clothing) in Nigeria.**

The resist decorated fabric was revived, somewhat in the turn 21<sup>st</sup> century, due to the efforts of fashion designers according to Hitchcock (2011), in Wikipedia the free encyclopedia, by incorporating new colours, fabrics and patterns. Hitchcock (2011), further posit that wax resist (batik) is a fashion item for many young people in Indonesia, utilizing the fabric for shirts, dresses, and scarves for casual wear.

This can also be done in Nigeria, the utilization of the resist fabrics which has also changed over the years, because of the introduction of bright and fast colours (dyes). The new designs now used in the tie and dye, cassava paste resist and the batik, are very beautiful. These

decorated fabrics can be used by fashion designers to create beautiful clothing. Sadiq, (2011), stated that there is absolutely no style or cut that our fabrics cannot pull off, be it casual, evening or dinner outfits.

Fashion is a trend, and as such the trend should be to look inwards using our traditional attires like the resist decorated fabrics we have, which is very much a cultural part of us. Lovely gowns, kaftans and so on can be sewn in breath-taking Kampala batik and adire eleko. Sadiq (2011), went on to state that “one won’t be looked over in Africa’s timeless and flawless work of art.

### **2.8.1 History of Fashion:**

Fashion design is generally considered to have started in the 19<sup>th</sup> century with Charles Federick Worth who was the first designer to have his label sewn into the garments that he created. Fashion means clothing in general, including the study and making of garments, aspects of it (clothing) can be feminine or masculine.

Cultural and costume historians agree that the mid -14<sup>th</sup> century marks the emergence of recognizable fashion in Europe. From this century onwards the historians reported that Western fashion changed at a pace quite unknown to other civilizations, whether ancient or contemporary. In most other cultures only major political changes, such as the Muslims conquest of India, produced radical changes in clothing, and in China, Japan and the Othman Empire fashion changed only slightly over periods of several centuries.

Technology has influenced many areas of fashion. When most people think of modern technology innovations, the first thing that often comes to mind is the advance in computers and communication devices.

Clothing however, has taken great technological strides in its production and influence in the fashion world. Factories largely replaced homemade clothings.



## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.0 Research Design

This shows the step by step approach in realizing this study from beginning to the end. It shows the order of progression on how this project was accomplished. This progression includes: methodology, population, instruments

#### 3.1 Methodology

The research methodology used in this study is the descriptive survey method. As suggested by Orodho (2003) in Kumbo et-al (2006), towards the use of resist decorated fabrics, this was done in line with, collection of information on the resist decorated fabrics that exist in the country through the administration of questionnaires, oral interviews and observational schedules, cameras was also used to snap pictures.

#### 3.2 Population of the Study

The population of this study comprised dressmakers and consumers in the research areas of Samaru in Zaria of Kaduna State and Kano Municipal of Kano State, Nigeria.

##### 3.2.1 Population listing

(i) **Dressmakers:** A total of 50 dressmakers 30% were male dress makers while 20 were female dressmakers, from Samaru in Zaria Kaduna and Kano Municipal in Kano State

(ii) **Consumers:** 60 consumers were identified in the study areas with Kaduna having more 40 consumers and 20 from Kano State. The total population was  $50 + 60 = 110$ .

### 3.3 Sampling technique

This study used the systematic random sampling. The procedure involved classifying the population into dressmakers and consumers. A list of dressmakers was obtained, from which a sample was randomly selected. For the consumers which were ladies being homogenous, the sample was obtained by simple random method.

### 3.4 Sample size

The actual number of persons used in this study as sample comprised 50 dressmakers, and 60 consumers, given a total sample size of 110, of the targeted population. Out of the 50 dressmakers 30 (60%) were males while 20(40%) were females also, 30 dressmakers were sampled in Kano metropolis while 20 were sampled in Samaru Zaria in Kaduna state. Out of the 60 fashionable ladies 20 (33%) came from Kano and 40 (67%) were from Kaduna state

### 3.5 Instruments

This study employed the used of questionnaires, oral interview and observational schedules, which were validated by the researcher's supervisors. Camera was also used to snap pictures of the clothes sewn by the dressmakers and some consumers in the fashionable dresses.

#### 3.5.1. Results of the distributed and returned instruments:

<b>respondents</b>	<b>Frequency of distribution</b>	<b>% of distribution</b>	<b>Frequency of returns</b>	<b>% of returns</b>	<b>Frequency of wastage</b>	<b>% of wastage</b>
<b>Designers</b>	<b>50</b>	<b>100%</b>	<b>36</b>	<b>72%</b>	<b>14</b>	<b>28%</b>
<b>Consumers</b>	<b>60</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>0</b>	<b>0%</b>

### **3.5.2 Source of the resist decorated fabrics**

The resist decorated fabrics were sourced from local producers that are in Kofar Mata dye pits in Kano, some were produced by the researcher while some were bought in the market like the adire eleko.

### **3.6 Validation of the instruments**

The validation of instruments was established by testing the instruments before professionals, who are the supervisors of the research work and other senior lecturers in the Faculty of Environmental Design ABU Zaria.

### **3.7. Data Collection:**

. Two sets of data were collected in this study. The first data which is the primary data was needed to gather information directly from the respondents about the development of resist decorated fabrics for modern fashionable clothing. This was done through questionnaires, oral interviews, and observational schedules. The next data that was crucial to this study was the secondary data which was based solely on relevant knowledge accumulated by scholars in relation to resist decorated fabrics techniques. Nworgu (1994), states that secondary sources are those materials which contain an account of an event by someone who was not a direct observer or participant in the event or phenomenon being described. Kombo et al (2006), state that secondary data collection may be conducted by collecting information from a diverse source of documents or electronically stored information. This is often referred to as desk research.

The researcher used existing libraries within Ahmadu Bello University Zaria which include the Kashim Ibrahim Library, the library in the Department of Fine Arts, as well as the

Industrial Design Departmental library. British council library Kano, and the use of internet for browsing and collection of relevant data for this study. The type of information needed is

- (a) What types of resist decorated fabrics exist in the country?
- (b) Who are the patrons of these decorated fabrics?
- (c) Functions of the resist decorated fabrics in the Nigerian society, its economic and cultural values.
- (d) The influence of modern clothing on the resist fabrics.
- (e) The use of the resist decorated fabrics for fashionable wears.
- (f) The design techniques employed in the making of fashionable clothing using the resist decorated fabric.
- (g) The materials used in the production of the resist fabrics

## CHAPTER FOUR

### DATA ANALYSIS: PRESENTATION AND DISCUSSION OF RESULTS.

#### 4.0 Introduction:

This chapter presents the data that has been gathered for this study, and at the same time gives the analysis of the said data. The data presented and the analyses were based on the responses to the questionnaires. A total of 50 designers and 60 consumers (fashionable ladies), were given the questionnaires in some selected parts of Kano Municipal and Kaduna state, Samaru Zaria formed the respondents in this study. About 50 copies of the questionnaire were given to designers, but only 36 copies were returned. 60 copies were equally distributed to consumers (fashionable ladies) all the copies were gotten. The first section presents the frequencies and percentages of the designer tables and then the customers' table each followed by interpretation. The second section presents the answers to the three research questions through the responses of the designers and the customers' responses

**Table 4.1 frequency and percentage of designers' level of education**

Level of education	Frequency	Percentage
Primary	9	25
Secondary	18	50
Tertiary	9	25.0
Total	36	100

According to the table above, 9 of the designers are primary school leavers; while 18 others are secondary educated and the rest 9 (25%) have tertiary education.

**Table4.2 frequency and percentage of designers' gender**

<b>Gender of Designer</b>	<b>Frequency</b>	<b>Percentage</b>
Male	22	61.1
Female	14	38.9
Total	36	100

A total of 22 of the designers' representing (61.1%) are males while the rest 14 representing (38.9%) are females.

**Table 4.3 frequency and percentage of designers' experience in years**

<b>Experience</b>	<b>Frequency</b>	<b>Percentage</b>
Under 5 years	6	16.6
6 – 10 years	11	30.6
11 – 15	14	38.9
16 years and above	5	13.9
Total	36	100.0

A total of 6 (16.6%) have under 5 years of experience as against 11 (30.6%) that have between 6 – 10 years, while another 14 (38.9%) have between 11 – 15 years working experience while the rest 5 (13.9%) of the designers have 16 years and above.

**Table 4.4 frequency and percentage of designers' ages**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
Under 30 years	10	27.8
31 – 39	7	19.4
40-49	18	50.0
50 years and above	1	2.8
Total	36	100.0

The designers' by age showed that 10 (27.8%) are under 30 years, while 7 (19.4%) others are between 31 – 39 years of age while another 18 (50.0%) are between 40 – 49 years and just 1 of the designers is 50 years and above

**Table 4.5 frequency and percentage of designers' opinion on resist decorated fabrics**

<b>Awareness of decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Tie – dye	18	50.0
Batik	13	36.1
Adire eleko	5	13.9
Total	36	100.0.

The designers' Knowledge of different resist decorated fabrics showed that 18 of them representing (50.0%) are aware of Tie- dye while another 13 (36.1%) are aware of Batik, the rest 5 (13.9%) are aware of Adire eleko resists decorated fabrics.

**Table 4.6 frequency and percentage of designers' regularity of sewing decorated fabrics**

<b>How often do you sew with resist decorated fabrics?</b>	<b>Frequency</b>	<b>Percentage</b>
Weekly	3	8.3
Monthly	3	8.3
Quarterly	30	83.4
Total	36	100.0

A total of 30 of the designers' representing (83.4%) sew with resist decorated fabrics quarterly, while 3 (8.3%) sew with it weekly or monthly.

**Table 4.7 frequency and percentage of designers' assessment on what customers sew with decorated fabrics**

<b>What wears your customers sew with decorated fabrics?</b>	<b>Frequency</b>	<b>Percentage</b>
English wears	2	5.6
Native wears	34	94.4
Total	36	100.0

A total of 34 of the designers' representing (94.4%) said their customers sew native wears with the resist decorated fabrics while 2 (5.6%) sew English wears.



**Table 4.8 frequency and percentage of designers' views on availability and supply of decorated fabrics**

<b>Availability of decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Very scarce	2	5.6
Scarce	3	8.3
Undecided	13	36.1
Hardly available	2	5.6
Readily available	16	44.4
Total	36	100.0

A total of 16 of the designers' representing (44.4%) said that the resist decorated fabrics are readily available, while 13 (36.1%) were undecided in their responses, 3 (8.3%) considered it scarce while 2 (5.6%) considered it very scarce or hardly available

**Table 4.9 frequency and percentage of designers' suggestions for promoting resist decorated fabrics in Nigeria**

<b>Ways of promoting decorated fabrics in Nigeria</b>	<b>Frequency</b>	<b>Percentage</b>
By providing job opportunities	9	26
By reducing the prices	17	47.2
Other reasons	10	26.8
Total	36	100.0

According to the table above, 17 (47.2%) of the designers suggested reduction of the prices of decorated fabrics will promote it in Nigeria, while 9 (26%) others said it should engage and provide job opportunities for people, and 10 (26.8%) had other suggestions

**Table 4.10 frequency and percentage of Consumers' level of education**

<b>Level of education</b>	<b>Frequency</b>	<b>Percentage</b>
Primary	6	10.0
Secondary	13	21.7
Tertiary	41	68.3
Total	60	100

The table above revealed that 41 of the consumers representing 68.3% have tertiary education, 13 (21.7%) have secondary education while the rest 6 (10%) of the customers have primary education

**Table 4.11 frequency and percentage of Consumers' marital status**

<b>Marital status</b>	<b>Frequency</b>	<b>Percentage</b>
Married	28	46.7
Single	24	40.0
Divorced	8	13.3
Total	60	100

The table above revealed that 24 of the consumers' representing (40.0%) are single while another 28 (46.7%) are married and the rest 8 (13.3%) are divorced

**Table 4.12 frequency and percentage of Consumers' ages**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
Under 30 years	26	43.3
31 – 39	22	36.7
40 – 49	12	20.0
Total	60	100

According to the customers' ages, 26 of the consumers representing 43.3% are under 30 years, while another 22 (36.7%) are between 31-39 years old and the rest 12 (20.0% are between 40-49 years of age.

**Table 4.13 frequency and percentage of Consumers' Occupation**

<b>Occupation</b>	<b>Frequency</b>	<b>Percentage</b>
Trader	16	26.7
Student	21	35.0
Civil servant	21	35.0
Others	2	3.3
Total	60	100

The table above revealed that 16 of the consumers' representing 26.7% are traders, while another 21 (35.0%) are students and the same 21(35.0) are civil servants and the rest 2 of the consumers' representing 3.3% are in other occupation

**Table 4.14 frequency and percentage of consumers' opinion on resist decorated fabrics**

<b>Awareness level of decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Tie – dye	30	50.0
Batik	21	35.0
Adire eleko	9	15.0
Total	60	100

The consumers' Knowledge of different resist decorated fabrics showed that 30 of them representing 50.0% are aware of Tie- dye while another 21 (35.0%) batik and the rest 9 (15%) are aware of Adire eleko resist decorated fabric

**Table 4.15 frequency and percentage of consumers' responses on number of decorated fabrics they have**

<b>No of decorated fabrics possessed</b>	<b>Frequency</b>	<b>Percentage</b>
Under 5	23	38.3
6 – 10	30	50
11 and above	6	10.0
None	1	1.7
Total	60	100

According to the table above, 23 of the consumers' own at least 5 different types of decorated fabrics, while 30 (50%) others have between 6 – 10 number of decorated fabrics and 6 (10.0%) others have 11 and above, and only 1 (1.7%) of the consumer has none decorated fabrics

**Table 4.16 frequency and percentage of Consumers' regularity of purchasing decorated fabrics**

<b>How often do you purchase decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Weekly	5	8.3
Monthly	13	21.7
Quarterly	42	70
Total	60	100

Details of the above table revealed that 42 (70%) of the consumers purchase decorated fabrics quarterly, while another 13 (21.7%) do purchase decorated fabrics monthly and the rest 5 (8.3%) purchase it weekly.

**Table 4.17 frequency and percentage of consumers' source of decorated fabrics**

<b>Source of the decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Open market	39	65.0
Home/producer gate	21	35.0
<b>Total</b>	<b>60</b>	<b>100</b>

A total of 39 (65.0%) of the consumers' sourced their decorated fabrics in the open market While ,the remaining 21 (35.0%) sourced their decorated fabrics from the home/producer gate.

**Table 4.18 frequency and percentage of consumers' preference of decorated fabrics for sewing fashionable wears.**

<b>Choice of decorated fabrics in sewing cloths</b>	<b>Frequency</b>	<b>Percentage</b>
Tye dye	31	51.7
Batik	18	30.0
Adire eleko	11	18.3
<b>Total</b>	<b>60</b>	<b>100</b>

According to the table above 31 representing 51.7% of the consumer's prefer tie dye while another 18 (30%) prefer batik and the rest 11 (18.3%) prefer adire eleko decorated fabric in sewing their wears

**Table 4.19 Frequency and percentage of Consumers' reasons for choosing Tie dye to sew with**

<b>Reasons for choosing tie dye to sew with</b>	<b>Frequency</b>	<b>Percentage</b>
It is colourful	30	50.0
It has many designs	23	38.3
Other reasons	6	10.0
No response	1	1.7
Total	60	100

According to the table above 30 of the customers prefer tie-dye because of its colours while 23 (38.3%) prefer it because it has many designs while 1 (1.7%) did not respond to this question.

**Table 4.20 Frequency and percentage of Consumers' suggestions on ways of promoting decorated fabrics in Nigeria.**

<b>Ways of promoting decorated fabrics in Nigeria</b>	<b>Frequency</b>	<b>Percentage</b>
Improvement on the creativity of resist decorated fabrics by designers	11	18.3
By showing advertisements of decorated fabrics	27	45.0
Reducing the prices of decorated fabrics	18	30.0
Training many fashion designers in sewing resist decorated fabrics	4	6.7
Total	60	100

Majority of the customers numbering 27 (45.0%) suggested that regular advertisements of decorated fabrics is a good way of promoting it in Nigeria, while another 18 (30.0%) suggested that prices of decorated fabrics should be reduced, also another 11 of the customers representing 18.3% suggested the improvement on the creativity of resisted decorated fabrics by producers and the rest 4 of the customers representing 6.7% suggested the training of many fashion designers on how to sew beautiful clothing of taste and fashion with the decorated resist fabrics.

**Research question 1:**

What are the existing methods of resist technique, for promoting creativity in clothing?. This question was responded to using response 5 of the questionnaire instrument the outcome is presented in table 4.2.1 (a) and (b).

**Table 4.2. 1 ( a ) : Opinion of Consumers’ responses on the different techniques of resist for promoting creativity in clothing**

<b>Consumers’ knowledge of resist technique for promoting creativity in clothing</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Tie – dye</b>	<b>30</b>	<b>50.0</b>
<b>Batik</b>	<b>21</b>	<b>35.0</b>
<b>Adire eleke</b>	<b>9</b>	<b>15.0</b>
<b>Total</b>	<b>60</b>	<b>100</b>

The table above reveals opinions of consumers’ on existing resist techniques for promoting creativity in clothing. Out of a total of 60 consumers, 30 of them representing (50.0%) know

about the Tie-dye resist technique while 21 others representing (35.0%) know about the Batik resist technique and the rest 9 of the consumers representing (15.0%) are aware of the Adire eleke resist technique for the promotion of creativity in clothing

**Table 4.2. 1 ( b ) : Opinions of Designers’ responses on the different methods of resist techniques for promoting creativity in clothing**

<b>Designers’ knowledge of resist techniques for promoting creativity</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Tie – dye</b>	<b>18</b>	<b>50.0</b>
<b>Batik</b>	<b>13</b>	<b>36.1</b>
<b>Adire eleke</b>	<b>5</b>	<b>13.9</b>
<b>Total</b>	<b>36</b>	<b>100</b>

The table above revealed opinions of designers’ responses on existing resist techniques for promoting creativity in clothing. Out of a total of 36 designers 18 of them representing 50.0% know about the Tie-dye resist technique while 13 others representing 36.1% know about the Batik resist technique and the rest 5 of the designers representing 13.9% are aware of the Adire eleke resist technique for the promotion of creativity in clothing

**Research question 2:** This question was responded to using responses 21 and 24 of the 2 questionnaires of consumers and designers. The outcome is presented in the tables below 4.2.2 (a) and (b).

How can resist techniques be developed and used for modern fashion?



**Table 4.2. 2 ( a ) .Opinions of Consumers’ responses on ways of promoting resist decorated fabrics in Nigeria**

<b>Consumer responses on ways of promoting resist decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
Designers should improve the creativity of resist decorated fabrics	11	18.3
Regular advertisement on resist decorated fabrics fashion be displayed	27	45.0
By reducing the prices of resist decorated fabrics	22	36.7
<b>Total</b>	<b>60</b>	<b>100</b>

The table above revealed the opinions of consumers’ responses on ways of promoting resist decorated fabrics in the country. Out of a total of 60 consumers, 27 (45.0%) believe that regular advertisement on resist decorated fabrics fashion be made. Another 22 of the consumers representing (36.7%), believe that reducing the prices of resist decorated fabrics will help in promoting it in the country .Also 11 of the consumers representing (18.3%)

however, believe that if designers should improve on their creativity skills in using resist decorated fabrics in their sewing .

**Table 4.2.2 ( b ): Opinion of Designers’ responses on ways of promoting resist decorated fabrics in Nigeria**

<b>Designers responses on ways of promoting resist decorated fabrics</b>	<b>Frequency</b>	<b>Percentage</b>
To improve on the creativity of resist decorated fabrics design	8	22.2
Regular advertisement on resist decorated fabrics by fashion displays	16	44.4
By reducing the prices of resist decorated fabrics	10	27.8
By training many fashion designers in the sewing of resist decorated fabrics	2	5.6
<b>Total</b>	<b>36</b>	<b>100.0</b>

The table 4.2.2 (b) above revealed opinion of designer’s responses on ways of promoting resists decorated fabrics in the country. Out of a total 36 designer’s, 16 of them representing 44.4% believe that regular advertisement on the resist decorated fabrics by fashion displays should be done to enlighten people. And adequate publicity should be given to resist decorated fabrics in our society which will help in promoting it in the country. 10 (27.8%), believe that by reducing the price of the fabrics customers will buy it more. The rest 8 (22.2%) believe that improving the designs on the fabrics and also the creativity will make it much better.

**Research question 3:** This question was responded to using responses 15, 16, 17, and 18 of the consumer questions and 12, 13,14,and 15 of the designers questions the outcome is presented in tables 4.2.3.

What benefits and acceptability are derived from the resist decorated fabrics in Nigeria.

**Table 4.2.3 Opinion of Consumers and designers on the level of benefits and acceptability of resist decorated fabrics in Nigeria**

s/no	Items	Group of respondents	Response categories					MEAN	S.D	S.E
			SA (5)	A (4)	UD (3)	D (2)	SD (1)			
1	resist techniques of fabrics decoration is a source of supply in fashion business in Nigeria	Designers	9	22	5	0	0	2.8889	.6223	.1037
		consumers	24	26	10	0	0	2.7667	.7217	.3810
2	creativity can be developed through resist technique of fabric decorations	Designers	11	25	0	0	0	2.6944	.4672	.1480
		Consumers	21	35	3	1	0	2.7333	.6342	.1820
3	job opportunity and self reliance can be enhanced in resist method of fabric decoration in Nig	Designers	13	22	1	0	0	2.6667	.5345	.1128
		consumers	24	32	4	0	0	2.6667	.6342	.2134
4	Resist techniques can be a source of entrepreneurship for contemporary Nigerian society	Designers	11	25	0	0	0	2.6944	.4672	.1234
		consumers	24	34	2	0	0	2.6333	.5513	.1128

The table above showed the opinion of consumers and designers on the benefits and acceptability of resist decorated fabrics. The highest mean responses of 2.8889 and 2.7667 by designers and consumers respectively are that resist techniques of fabrics decoration is a source of supply in fashion business in Nigeria. The details of designers' responses on resist techniques being a source of entrepreneurship for contemporary Nigerian society?, this opinion showed that 9 strongly agree, 22 agreed, 5 were undecided.

**The following are the major findings of the study:**

- Majority of the Customers and designers are aware of tie-dye decorated fabrics than Batik or Adire eleko fabrics.
- Regular fashion advertisements with the resist fabrics is a best way of promoting the use of resist decorated fabrics among Nigerians.
- Resist techniques of fabric decoration is a source of supply in fashion business in Nigeria and also through it job opportunities and self reliant can be enhanced in resist method of fabric decorations in Nigeria.
- Most of the respondents prefer using tie dye resist fabric due to its colour
- The use of Batik resist decorated fabrics is due to its uniqueness.
- Customers who prefer using Adire eleko for their wears do so because of its usage of indigo
- Over 65% of the customers source of their resist decorated fabrics is the open market
- Customers have shown willingness to sew fashionable clothing with the resist decorated fabrics.

## **CHAPTER FIVE.**

### **5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION.**

This chapter is a summary of this study, what was done in chapter 1-4, in order to provide an overview of the work throughout the study. The chapter also contains the conclusions arrived at; based on the findings of the study, and some recommendations.

#### **5.2 Summary**

The use of resist decorated fabrics to create modern fashionable wears was the main aim of this work. The study dealt with decorated fabrics like the tie-dye, batik and adire- eleko to create fashionable wears for ladies in some selected parts of Nigeria (Kaduna and Kano States). Ensuring, the sustainability of such resist decorated fabrics. Which are mostly used for traditional wears, even though the fabrics are of good quality and also adaptable to fashionable wears.

Foreign influence has taken over cultural and traditional wears, the acceptability of these foreign influences has hastened and established the new ideas of contemporary wears. All these grew through political and social changes. Cline (2013) admits that “because of low prices, chasing trends is now a mass activity accessible to anyone with a few bucks to spare” Quality is no longer an issue because you need clothes to last just “until the next trend comes along”.

The wastefulness encouraged by buying heap and chasing the trends is obvious but the hidden cost is even more galling. Contrary to the assumption that crafts production in the country has declined to the point of extinction.

### 5.3 FINDINGS :

The resist decorated fabrics commonly used and produced in the country are Tie- dye, Batik and Adire –eleko. The study found out that among these resist decorated fabrics, the tie –dye was the one a lot of the fashionable ladies went for. Out of the 60 fashionable ladies 30 representing (50%) know tie –dye and would use the fabric for fashionable wears. Their reasons were as follows,

1. They have seen tie-dye used on stage by fashion designers like Kelvin Klein and Gucci e.tc and it was looking good. Like the samples below



Sourced from, Thisday Style (2011).

2. The tie- dye is bright and with very bold designs, and brilliant colours. That goes with what fashion they say is all about.

3. Among all the resist fabrics mentioned they see tie- dye more often than the rest of the resist fabrics. This has to do with the location of the study which was in (Kaduna and Kano).

#### **Batik**

Batik was the next resist chosen by the ladies, 21 representing (35%) out of 60 choose the fabric. Their reasons were as follows

1. They like the designs on the fabric not like the tie-dye the batik they say has more designs due to the usage of various motifs in different shapes and sizes, examples flowers, geometrical shapes and so on.

2. Some liked it because it is much cooler than the tie-dye, these were much older ladies who liked fashion but did not like bright colours.

### **Adire eleko**

For adire eleko, many ladies were not aware of the decorated fabrics, only the much older ladies knew them and liked them mainly because of their unique deep indigo colour. When some of the younger ladies saw them sewn they appreciated them also.



Photograph taken by Hannatu Alheri (2013)

Nigerian designers have also tried to bring out the fabrics by sewing different kinds of wears with them as they are shown in the local fashion magazines, and News papers as seen below



Plate 7(a) (b)

Sourced from, (Treasure, Life and style) 2012.

A lot of gowns, skirts and blouses are now being sewn with the resist decorated fabrics, by designers who claim that the customers like them and are ready to use them not only for occasional wears, but also for everyday wear as seen below.



Photograph taken by Hannatu Alheri (2013)





Photograph taken by Hannatu Alheri (2013)

The research instruments designed by the researcher for this study were two different questionnaires (one for fashion designers and the other for the consumers ladies) camera was also used for obtaining pictures. This was done in accordance with the views advocated by Miller (1970), and Nwana (1981) on the need for multiple instruments along with supervisor inputs in research.

### **5.3 Conclusions:**

From the research carried out and the results obtained, it is concluded that the resist decorated fabrics locally produced in the country can be used to produce fashionable wears. The potential of the fabrics in the production of everyday clothing is underutilized. As most users agree that the fabrics are of high quality.

The outcome of this research has added knowledge, and removed fears a lot of fashionable ladies have been using traditional resist fabrics to create fashion wears other than the normal traditional wears it is used for, which most of these women grew up to see the fabrics used

for. The designers have also seen the need to encourage their customers to go into more advanced everyday and occasional wears with these fabrics. By combining the resist decorated fabrics with other fabrics to create beautiful wears an example is seen below of an evening gown.



Photograph taken by Hannatu Alheri (2013)

Also with the regular use of these resist fabrics the local dyers' market will boost, thereby creating more income to the local entrepreneurs' job opportunities and cultural awareness.

#### **5.4 Recommendations:**

Based on the analysis and findings on the field survey and the practical exploration of this study, the following recommendations have been made

1. Government should encourage the opening of vocational centers, where the creation of decorated fabrics can be learnt, this will create gainful employment to the youths as well as making them appreciate our cultural fabrics.

2 .The government, should also assist the indigenous fabric producers and designers by giving them access to funds and materials that will enable them produce massively for both local and international markets.

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## APPENDIX 1

### 1. QUESTIONNAIRE FOR FASHIONABLE LADIES (CONSUMERS)

Dear Respondent,

This questionnaire will be used by a student of Department of Industrial Design, Faculty of Environmental Design, Ahmadu Bello University, Zaria. Please, tick ( ) the option you think is most appropriate in the box or column provided in each section. All information will be treated with utmost confidentiality and will strictly be used for the purpose of research only.

#### SECTION A-DEMOGRAPHIC INFORMATION

1. Level of Education

i) Primary [ ] ii) Secondary [ ] iii) Tertiary [ ]

iv) Others (specify) \_\_\_\_\_

2. Marital Status

i) Married [ ] ii) Single [ ] iii) Divorced [ ]

iv) Separated [ ]

3. Age of respondents (in years)

i) Under 30 [ ] ii) 31 -39 [ ] iii) 40 -49 [ ]

]

iv) 50 and above [ ]

4. Occupation

- i) Trader [ ]    ii) Student [ ]    iii) Civil Servant [ ]
- iv) Others (specify) \_\_\_\_\_

**SECTION B- Questions on Resist Decorated Fabrics.**

1. What are the resist decorated fabrics you know?

- i) Tie –dye [ ]    ii) Batik [ ]    iii) Adire eleko [ ]

2. How many resist decorated fabrics do you have?

- i) Under 5 [ ]    ii) 6 - 10 [ ]    iii) 11 and above [ ]
- iv) None [ ]

3. How often do you purchase the resist decorated fabrics?

- i) Weekly [ ]    ii) Monthly [ ]    iii) Quarterly [ ]
- iv) Others (specify) \_\_\_\_\_

4. What is the source of your resist decorated fabrics?

- i) Open market [ ]    ii) Home /producer gate [ ]

5. What do you mostly sew with the resist decorated fabrics?

- i) English wears [ ]    ii) Native wears [ ]

6. How often do you use resist decorated fabrics to sew fashionable wears?

- i) Monthly [ ]    ii) Quarterly [ ]    iii) Annually [ ]
- iv) Others (specify) \_\_\_\_\_

7. How do you assess the quality of home goods made in fabrics?

- i) Very low [ ]    ii) Low [ ]    iii) Undecided [ ]  
iv) High [ ]

8. What do you know about the supply of the resist decorated fabrics in Nigeria?

- i) Very Scarce [ ]    ii) Scarce [ ]    iii) Undecided [ ]  
iv) Readily available [ ]

9. How's the demand of resist decorated fabrics in the state you live?

- i) Very low [ ]    ii) Low [ ]    iii) Undecided [ ]  
iv) High [ ]

10. Will you be willing to wear fashionable clothing done with the resist decorated fabrics?

- i) Yes [ ]    ii) No [ ]    iii) Undecided [ ]

11. Resist techniques of fabric decoration is a source of supply in fashion business in Nigeria?

- i) Strongly agree [ ]    ii) Agree [ ]    iii) Undecided [ ]  
iv) Disagree [ ]    v) Strongly disagree

12. Creativity can be developed through resist technique of fabric decoration?

- i) Strongly agree [ ]    ii) Agree [ ]    iii) Undecided [ ]  
iv) Disagree [ ]    v) Strongly disagree

13. Job opportunity and self reliance can be enhanced in the resist method of fabric decoration in Nigeria?

- i) Strongly agree [ ]    ii) Agree [ ]    iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

14. Resist techniques can be a source of entrepreneurship for contemporary Nigerian society?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree

15. What is the cost per piece (5 yards) of the resist decorated fabrics you have purchased

Tie- dye \_\_\_\_\_ Batik \_\_\_\_\_

Adire eleko \_\_\_\_\_

16. Which of the resist decorated fabrics will you use most in sewing fashionable wears?

i) Tie- dye [ ] ii) Batik [ ] iii) Adire eleko [ ]

17. If you have chosen Tie - dye what are your reasons?

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

v) \_\_\_\_\_

18. If you have chosen Batik what are your reasons

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

19. If you have chosen Adire eleko what are your reasons?

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

20 Suggest ways of promoting resist decorated fabrics in Nigeria.

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

21. Socio cultural importance is equally attached to resist method of fabric decoration?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

Thank you.

## QUESTIONNAIRE FOR DRESSMAKERS (FASHION DESIGNERS)

Dear Respondent,

This questionnaire will be used by a student of Department of Industrial Design, Faculty of Environmental Design, Ahmadu Bello University, Zaria. Please, tick ( ) the option you think is most appropriate in the box or column provided in each section. All information will be treated with utmost confidentiality and will strictly be used for the purpose of research only.

### SECTION A –DEMOGRAPHIC

1. Level of Education

i) Primary [ ] ii) Secondary [ ] iii) Tertiary [ ]

v) Others (specify)\_\_\_\_\_

2. Gender

i) Male [ ] ii) Female [ ]

3. Number of years of working experience?

i) Under 5 [ ] ii) 6 – 10 [ ] iii) 11 – 15 [ ] v)

16 and above [ ]

4. Age of respondent

i) Under 30 [ ] ii) 31 – 39 [ ] iii) 40 - 49 [ ]

v) 50 and above [ ]

### SECTION B- Questions on Resist Decorated Fabrics.



1. What are the resist decorated fabrics you know?
  - i) Tie – dye [ ]
  - ii) Batik [ ]
  - iii) Adire eleko [ ]
  
2. How often do customers sew with the resist fabrics?
  - i) Weekly [ ]
  - ii) Monthly [ ]
  - iii) Quarterly [ ]
  
3. What do your customers mostly sew with the resist decorated fabric?
  - i) English wears [ ]
  - ii) Native wears [ ]
  
4. How often do customer's demands for the sewing of different styles using resist fabrics instead of native wears?
  - i) Weekly [ ]
  - ii) Monthly [ ]
  - iii) Quarterly [ ]
  
5. English wears have replaced / taken - over the native wears in Nigeria.
  - i) Strongly disagree [ ]
  - ii) Disagree [ ]
  - iii) Undecided [ ]
  - iv) Agree [ ]
  - v) Strongly agree [ ]
  
6. What do you know about the supply of resist decorated fabrics?
  - i) Very scarce [ ]
  - ii) Scarce [ ]
  - iii) Undecided [ ]
  - iv) Hardly available [ ]
  - v) Readily available [ ]
  
7. How's the demand of resist decorated fabrics in your State?
  - i) Very low [ ]
  - ii) Low [ ]
  - iii) Undecided [ ]

iv) High [ ] v) Very high [ ]

8. Resist techniques of fabric decoration is a source of supply in fashion business in Nigeria?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

9. Creativity can be developed through resist technique of fabric decoration?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

10. Job opportunity and self reliance can be enhanced in the resist method of fabric decoration in Nigeria?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

11. Resist techniques can be a source of entrepreneurship for contemporary Nigerian society?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]

12. What is the cost per piece (5 yards) of the resist decorated fabrics you have purchased

Tie- dye \_\_\_\_\_ Batik \_\_\_\_\_

Adire eleko \_\_\_\_\_

13. Which of the resist decorated fabrics will you use most in sewing fashionable wears?

i) Tie- dye [ ] ii) Batik [ ] iii) Adire eleko [ ]

14. If you have choosen Tie - dye what are your reasons?

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

v) \_\_\_\_\_

15. If you have choosen Batik what are your reasons

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

16. If you have choosen Adire eleko what are your reasons?

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

17 Suggest ways of promoting resist decorated fabrics in Nigeria.

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

18. Socio cultural importance is equally attached to resist method of fabric decoration?

i) Strongly agree [ ] ii) Agree [ ] iii) Undecided [ ]

iv) Disagree [ ] v) Strongly disagree [ ]