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Article

Assessing the sustainability of Indigenous Indigo dyeing in Ibadan, Oyo State, Nigeria

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Abstract

The Yoruba art of fabric decoration resists dyeing, is unique, and possesses a peculiar identity in terms of designs and a rich, indigo-blue colour of different shades. The traditional art of indigo dyeing, *known as Adire-eleko*, is nearing extinction due to several factors. These include government negligence, a shortage of raw materials, low production rates, and changing attitudes among the youth towards this art form. This study assessed the sustainability of indigenous indigo dyeing in Ibadan, Oyo State, Nigeria. A descriptive survey design was adopted. Two categories of people were interviewed: the aged indigo fabric sellers and the young indigo fabric sellers, whose expressions were also noted. The findings show that traditional indigo dyeing is strenuous and labour-intensive, yet the art can be sustained through eternal assistance. The study recommended establishing indigo dyeing centres where indigo plants will be farmed and processed by both the government and the investors. Additionally, the employment of skilled and experienced dyers as instructors at the dyeing centres, along with the enrollment of youth, would be extremely beneficial. To sustain indigenous indigo dyeing, the government should encourage the dyeing centres by patronising the finished fabrics.

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Sustainability; Indigenous; Indigo-dyeing; mordant; processes

Introduction

Ibadan is located in South-Western Nigeria. It is the capital of Oyo State and the largest indigenous city in Africa. It is situated 78 miles inland from Lagos and has an estimated population of about 3,800,000 according to 2006 estimates. The Yorubas are the major inhabitants of Ibadan. Some local crafts such as weaving, spinning, pottery making, blacksmithing and dyeing can also be found in Ibadan. A long time ago, tie-dye cloth (*adire)* dyed locally in large pots of indigo dye was very popular. In the 1970's the researcher witnessed a dyer's shed behind his family's house at Idi-Arere, Ibadan. A series of large earthen pots about five to six feet tall were being used but they are no longer in use any more because the dyer died, and the children could not continue the art. Other notable places where traditional indigo dyeing was being practised in Ibadan. Many years ago, are Idi-aro, Idi-ape, Idi-kan, Idi-ayunre, Oje, and Agbeni.

According to (Charu, 2011), man wears textiles and decorate their fabric by dyeing and patterning to make it beautiful. Patterns were achieved through the resist processes. (Areo and Kalilu, 2013) opine that dyeing among the Yoruba is of two types; total immersion of cloth

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in the dye bath is known as "*Amure*'. The second type, which did not cover all parts of the fabric due to dye resistance or pattern formation, is known as '*Adire*'. This involves creating patterns on the fabric through any of a variety of available techniques before immersing the cloth inside the dye bath. (Eicher, 1976) records that tie-dye consists of tying, knotting, binding, folding or sewing certain parts of the cloth in such a way that when it is immersed in the dye solution, the dye cannot enter the tied areas of the fabric. According to (Oguntona, 1986), indigo is a favourite blue colour of the Yoruba. It was also noted that the early *'adire'* fabrics were made from hand-spun and hand-woven cotton materials. The patterns on the fabrics were made with either the seeds or pebbles resist method (*Adire-eleso*) or the needle/machine resist method (*Adire-alabere*). Sometimes patterns were created with the starch-resist (*Adire-eleko*) technique before dyeing them with indigo dye (*aro*). (Polakoff, 1980) attests that paste resist, that is, cassava starch (*lafun*) or corn starch (*eko*), has been used in Africa for centuries to make designs on cloth. The system of resist dyeing is similar to Javanese batik, where wax is used as a medium of resist (Eicher, 1976).

Understanding Indigenous Textiles

Indigenous fabrics dyed with indigo possess unique characteristics due to the various materials that contribute to their design (Barbour, 1971). The cassava or cornstarch paste forms a surface design on the fabric. (Mullick, 2006) suggests cotton, silk and rayon to be the best materials for batik and tie-dye. The bounded parts of the fabric secured with twine/rope/raffia create the design, while circles in varying sizes and shapes depend on the thickness and width of the binding thread. The circles are placed anywhere on the material and bound with a thread. The stitched and tied patterns are often enhanced with tied spots. The material is folded into two thicknesses and stitched. The straight-line designs of various lengths are stitched on pleats or tucks. The length of the lines can vary due to the cloth's length or width. (Barbour, 1971) observes that many of the stitched patterns are based on a foundation of squares with spots or geometrical shapes inside them. (Madam Aduke Tiamiyu, 2015), a notable indigo fabric seller in the Oje market in Ibadan, further explains that adire design is based on rectangles of four and eight. The rectangle measured about eight inches by eleven inches or eight inches square. The designs in the rectangles vary. In some designs, there are four or more different motifs. It was noted that finding two pieces of the same clothes with identical designs is difficult in the hand-painted technique. Some of these motifs are stylised birds, animal and human forms, trees and plants. Stencil designs can be used, and this is repeated on the cloth. Stencilled clothes are covered with simple geometrical patterns. When these designs are made of fabric, they are more difficult to recognise. The size of the stencil depends on the cutter used. Some are large and oval, others are square or circular. Sometimes two or more different stencils may be used for a design. The old traditional patterns have their names, but these vary in other places. The use of a sewing machine has helped to develop and add variation to the folded, stitched, and tied clothes.

The designs on indigenous indigo-dyed fabrics have brought out the beauty of great craftsmanship. (Aremu, 1994) stresses that different types of symbols are drawn on '*Adire*' cloth to form motifs, and these are given different names. These names include:

i. ***'Ibadan-dun'*** – Ibadan is pleasant: It was named in connection with contemporary events and the experience of the maker. The designer has been enjoying Ibadan and is probably thriving in Ibadan (see Figure 1).

ii. ***'Olokun'*** – the Sea-goddess: The images are not shown but symbolically represented. '*Olokun'* is believed to be a giver of children. Therefore, people worship and ask for children to show their devotion to the goddess; the image is used as a pattern on clothes. These images include geometric shapes, abstract figures, birds, leaves, stars, matches, wire, plantains, four-legged stools, tops and mats. Sometimes 'OK' is included to fill the blank spaces (see Figure 2).

iii. ***'Eiye pe'*** – means birds gathered together (the assemblage of birds). The central motif of the fabric consists of a group of birds drawn together with other patterns surrounding it. The birds are distorted and geometricized. At times, designs surrounding it include 'O.K.', leaves and circles. Each design is completed in a rectangular closure.

iv. ***'Ooya'*** means a traditional wooden comb. '*Ooya'* is used to part hair among the Yoruba. When '*Ooya*' is used, it means that there shall be an opening of a door of success, there shall be moving forward and advancement ('*Ooya ma ya wa'* let there be no discord among us.'*O.K.'* means it is alright. That means it is acceptable; it is correct. This is an imported concept in Yoruba design.

v. ***'Ikorita'*** means roundabout. It consists of circles with some lines drawn from the circle going in different directions. There is a saying in Yoruba that '*Ikorita meta ti n daamu alejo'* – the roundabout that confuses a stranger. It is expected of a stranger to ask for directions in a place where he has not been before.

vi. ***'Onikoto-nla'*** – big snail shell. According to Yoruba interpretation, Snail means 'peace' (see Figure 4).

vii. ***'Onikoto-weere'*** – small snail shells. In this design, snail shells and geometric shapes are drawn with starch paste on the fabric to form designs.

viii. ***'Onisana'*** – matches. The design represents the sticks of the match, with small lines having two small circles at their sides, which are also drawn in squares. It is suggested that the idea of this design comes from the materials used in the house.

ix. ***'Opon-ifa'*** means divination tray. The design is represented by distorted trays, birds and some inscriptions such as '*O.K.*' to fill the space. Among the Yoruba, if there is any trouble or a problem with a person, '*Ifa'* – the divination god- is consulted to know the source of the problem and the solution to it. Also, if a new baby is born, *Ifa* is consulted to see the child's future. Some inscriptions like '*Omolaso*', and '*Omowumi*' mean I like children. '*Orimipe'*, - my head is correct. All these are used as designs on cloth. Apart from 'Adire-eleko' designs, tie-dye, with raffia designs, is also given names. These names depend on the way they are tied. For example, we have *'Dooyika'*, *'Osu-banba'*, *'Olosupa'*, *'Eleso'*, *'Elelo'*, and so on (see Figure 6).

x. ***'Doyika'*** means turning around. The cloth is tied around until it forms a cone shape.

xi. ***'Osu-banba'*** means a big moon. The cloth is tied with a big circle design (see Figures 3 and 5).

xii. ***'Elelo'*** means that which is twisted. The designs are achieved by twisting the fabric. Furthermore, some designs are achieved by tie-dye, if with a needle, called '*Adire-alabere'*. The name given is a result of its outlook or appearance and, sometimes, how it is made. Some of these designs are '*Onika'*, *'Pele-Onika'*, *'Oni-koko'*, *and 'Agbagba.'*

xiii. ***'Onika'*** means 'finger-like'. The design looks like fingers.

xiv. ***'Pele- onika'*** - '*Pele'* is a mark on the face, the tribal mark common with the Yoruba people. Therefore, the design looks like '*Pele,*' which resembles a finger.

xv. ***'Onikoko'*** – that which resembles cocoa seed or pods (see Figure 8).

xvi. ***'Agbagba'*** means plantain. The design looks like pa lantain (see Figure 7).

Most motifs used in '*Adire-eleko'* do not symbolise anything in particular apart from the fact that they are objects available in the environment of a designer (Aremu, 1994). In making *'Adire-eleko'*, Yoruba textile designers sometimes use totem animals to symbolise their cultural heritage. These motifs include tortoise, crocodile, fish, lizard, snails, etc.

The Procedures for Making Indigenous Indigo Dyeing

A shelter is made, and the dye pots are sunk into the ground. Sometimes a shady tree can serve as a working place. The shelter is high enough for the dyer to stand upright in the middle of it and work under it. Around the dye pots are bamboo poles over which the dyed cloths hang to drip dry. The dyers are mostly old women, and some have young apprentices who work for three years or longer, during which time they learn how to prepare the dye, how to do the actual dyeing, and how to sell the finished cloth in the market (see Figure 9).

The entire traditional indigo dyeing process is carried out by women through a division of labour. Madam Aduke Tiamiyu lamented that the young generation did not like traditional indigo dyeing work because the processes were too tedious and time-consuming. Nowadays, there are easier ways and faster things to do to generate money. The availability of commercial dyes in various assorted colours is readily available in the market at any time throughout the year. (Kanwar, 2009) considers dyeing as a means of enhancing the appearance of fabrics. Meanwhile, the process of indigo dyeing is lengthy. The dye is obtained from dried indigo leaves, *Indigofera tinctoria (ewe-elu*), and Indigofera plants, and a mordant is also made by the dyer herself to mix with the colour in the water. The preparation of the ingredients and the process of dyeing take weeks. The natural indigo process produces an incredibly vibrant, saturated and clear blue colour that does not fade.

Ash Balls Preparation

The materials needed for ash balls include a kiln, dry wood, greenwood, old ash balls and a basket sieve.

Procedures of Ash Ball Preparation

A mud kiln about four feet high and four feet wide is made. The mud walls are thick, and before each firing, any visible crack is repaired. A mud shelf, or sieve of one foot from the top, is built inside. This sieve has holes in it through which the flames pass to the sticks, which are placed on it. There is an opening in the ground through which the kiln is fed with logs of dry wood. Greenwoods are placed on the sieve of the kiln, layer upon layer, till they reach the top of the walls. Then ash balls of about tennis ball size are put on top of the sticks and piled up till the kiln appears to have a hat of grey balls. It is lit early in the morning. The firing takes from ten to twelve hours, the dyer carefully tending and feeding it all the time. It burns all day and is left to cool off during the following night and the next day. On the third morning, the ash is collected. A small area of ground is well swept beside the kiln, and the balls from the

top of the kiln are placed there to be broken up with a thick stick. The ash is sieved through a basket sieve and made into balls by mixing it with weak dye water in the dye pot. The balls are left to dry thoroughly in the sun before they are used or stored in a dry place.

Mordant Water Preparation

The pot with a hole in the side is dug into the ground to prevent it from falling over. On this is placed the pot with the hole in the bottom. The hole in the top is covered with either a mass of dry old stems of a climbing plant or with small sticks laid in a crisscross, and then, over this, a handful of fibres from the weak dye pot is dropped. This makes a sieve. This sieve is now covered with ash. Some of the new, specially made ash balls are mixed with fresh ash from the cooking fire. The new ash balls are finely broken up and mixed with fresh ash, and the mixture is sprinkled onto the prepared sieve, layer upon layer, and left to settle for three hours before the water is added on top of it. The water drips through the ash, taking the salt from the ash with it. The dyer is most particular to see that the salt ash water is good. She kept testing it by dipping her finger into the liquid and licking to know when it was good: that is, it had a bitter taste and the colour of weak tea. She transfers the water a little at a time as soon as it has dropped down. When all the water has dripped through the ash, the top pot is emptied, fresh ash is added, and the process continues till the necessary amount of salt water is produced. The pot is kept covered during the process to prevent foreign particles from entering the solution.

Procedures of Indigo Dye Balls

Materials needed for the preparation of indigo dye balls are a pestle, a mortar and indigo leaves *(ewe-elu*). Fresh green leaves of Indigofera Tinctoria are used to produce the blue dye. The leaves are picked and pounded in a wooden mortar with a heavy wooden pestle. The leaves are quickly bruised, and a blackish-coloured juice is produced. The stems and leaves turn black shortly after picking from the plant (Figure 10). When the leaves are well pounded, a blue-black mass is left in the mortar scooped out with hands and moulded into the size of tennis balls or larger. The balls are put into the sun to dry for two or three days before being used.

Procedures for Dyeing

Materials and tools for dyeing indigo fabrics include: water, dye balls, salt ash water, dye pots and covers, draining boards, a long stick for stirring the dye, a hooked stick, a scoop bowl and drying poles.

Procedures Dyeing Cloth

The dye pots are dug into the ground to prevent falling. The dye balls are broken up and put into the pot. Fifty balls are for a popular indigo-blue colour. The mordant water is then poured over the dye until the pot is adequately full and the dye is stirred. It is left to stand covered for about three days before it is ready to use. It is stirred frequently during this period. After three days, the dye shows blue and is frothy with small bits of leaf fibres floating on the top. Meanwhile, the number of dye balls varies according to the depth of colour required in the dye bath. A deep colour requires more balls than a paler tone. Some blue-black shades take up to one hundred and fifty balls, and the dyeing process takes two days or longer. The cloth to

be dyed is immersed in fresh dye. It is dyed in the pot until all the colour is absorbed from the dye, and a brownish-coloured liquid is left. This weak liquid is used to mix with ash in the making of the ash balls. Also, the floated leaf fibres are used as a 'sieve' when making the salt ash water.

The cloth to be dyed is held in the liquid for about two minutes and then lifted onto the draining board. This is dipped three or four times, then carefully laid on stones or spread out over bushes or poles to dry in the sun. This process is repeated five or six times until the required colour is obtained. To test the colour, the dryer squeezes a small piece of the cloth between her fingers. During the process, the dye pot is kept covered and never stirred. When the dyed clothes are first brought out of the dye into the light, they are a greenish colour, but soon change to blue. When a deep black is needed, the second dipping is made in a pot of new dye. To keep sufficient liquid in the pot during the dyeing, more salt, and ash water are added to it. The dye will only remain good for five days, after which it will have a very unpleasant smell. The dyed clothes are never rinsed but always drip dry.

Finishing

The finished clothes have a bright metallic sheen on them due to the overloading of the dye. The finishing process of beating preserves the sheen. The clothes are well folded and taken to the Oje market for sale.

Findings

i. Indigenous indigo dyeing is no longer practised in Ibadan. The researcher could not locate any indigenous indigo dyeing centres in Ibadan.

ii. Contemporary adire centres in Ibadan now use synthetic dyes of various colours to replace Indigenous indigo dyes because it is more convenient and faster to use.

iii. Contemporary designs, such as the use of stencilled designs, are preferable to hand-drawn designs.

iv. Some contemporary dyeing centres in Ibadan design fabrics and take them to Abeokuta for dyeing.

v. The adire cloth sellers in Ibadan purchase their bulk fabrics in Abeokuta.

Conclusion

Traditional indigo dyeing is fading away. It has been observed that none of this younger generation is ready to pass through the rigours of indigo and mordant ash preparations when there are faster, easier and more productive ways of fabric decorations. Also, commercial indigo dye is readily available with synthetic mordant to meet the dyer's needs. Whenever there is a need to use traditional indigo dye, such clips are designed and sent to either Osogbo or Abeokuta. Madam Tiamiyu stated that nowadays, some dyers prefer synthetic indigo dye because it is easier to use and less laborious than preparing and using traditional indigo dyes. It was explained further that a little black or navy blue could be used to achieve a darker colour. Madam Tiamiyu confirmed that there is no traditional indigo dyer in Ibadan any more. The dyers in Ibadan have shifted to the use of commercial dyestuffs because of their simplicity, fastness, availability and profitability.

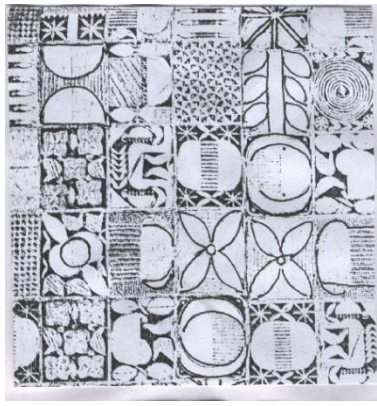

Figure 1. Ibadan –dun Design
Source: Kristiina Korpela

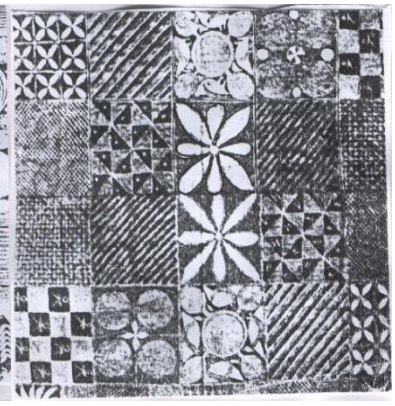

Figure 2. Olokun Design
Source: Kristiina Korpela

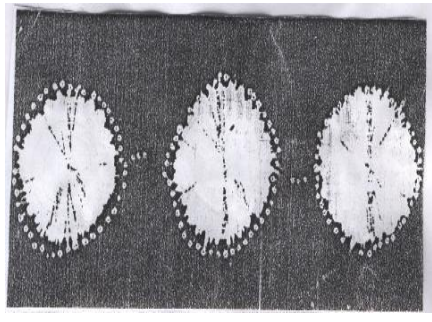

Figure 3. Osu-banba Design
Source: Kristiina Korpela

Figure 4. Olokoto Design
Source: Kristiina Korpela

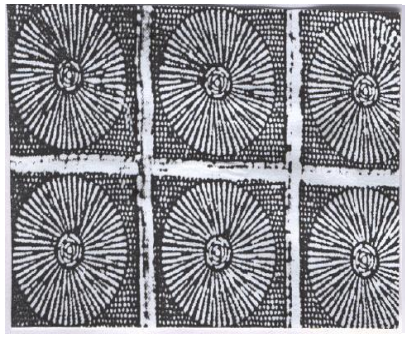

Figure 5. Osubanba Design
Source: Kristiina Korpela

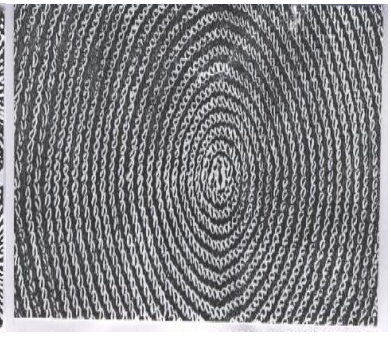

Figure 6. Doyika Design
Source: Kristiina Korpela

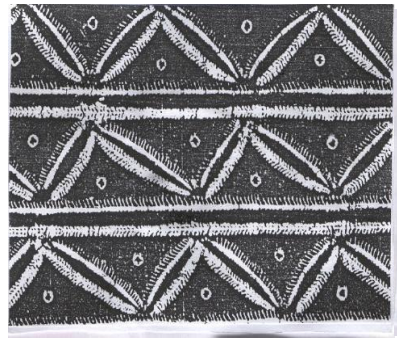

Figure 7. Agbagba Design

Source Kristiina Korpela

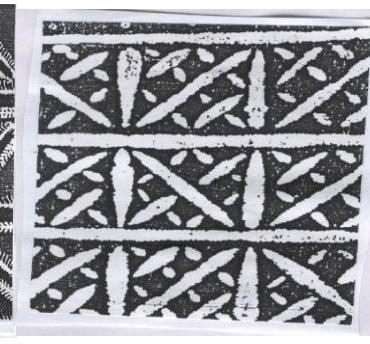

Figure 8. Onikoko Design

Source: Kristiina Korpela

Figure 9. A traditional Indigo dyer shed

Figure 10. A traditional Indigo dyer shed

Declarations

Competing interests: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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