
Fashion Design and Garment Production: A Panacea for Nation Building

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ABSTRACT

Over the years, it was difficult to have a comfortable body, in fact, due to the scarcity of materials, some people in certain localities see themselves still moving naked. However, people everywhere have come to appreciate the importance of wearing clothes—putting things on their bodies that do not only cover but also produce aesthetic value. Having gotten clothes from leaves, animal skins, and sack bags to using any material available to shade and protect the body from cold and exposure. As time went on, just using anything did not make sense any longer. Man started craving for better clothing. Fabrics are essential in our lives; the clothes we put on are made of constructed fibres that are arranged in a particular way to become fabrics. The construction and arrangement of these fibres is called fabric production," which is essential to our daily lives because they are used for personal clothing, which is regarded as the third necessity of man after shelter and food. This paper enlightens us on the different cloth types and spells out the different ways of making clothes through tie-dye, batik, printing, and applique. This paper utilised a desk literature survey to take a look at how the clothes are made, the type of material used, and the process to achieve the end result. The paper on fashion and garment production, specifically, emphasised the fashion of today's trend and the ways the factories fashion out. The drastic shift from bare bodies to unique and exotic fashion styles is highly commendable. It was recommended that fibres for weaving, tufting, knitting, tie-dye, printing, and batik resist techniques be widely encouraged and advertised to youths and artists who have a passion for them.

KEYWORDS: Fashion design, garment Production, Nation Building.

Introduction

Textiles in general contain so many fields, ranging from printing to batik, applique, and tie and dye. Textile printing has been practiced since time immemorial; it appears to have originated either in China, Northern India, or Pakistan. The art of textile printing dates back at least a thousand years. Although fragments of printed fabrics have been found in the tombs and pyramids of Egypt, various records show that printed fabrics did exist as early as 2500 BC. Printed textiles have now become household requirements, combining colour and design to enhance the appearance of the living environment. Moreso, another method of colouring fabrics (textiles) is by printing. This method is applied by applying patterns to the surface of fabric, particularly to fabrics that are much more ready for use. In dyeing, we colour the whole surface of the fabric with a single colour through immersion of the fabric in a diluted solution containing dye and colour-fixing agents. In printing, colour patterns or designs are introduced on the

fabric, and the patterns may be of the same or different colours with the use of a highly concentrated solution of dye suitable for thickening with materials such as starch or gum to give a thick paste so that the colour applied in a given pattern does not spread beyond the patterned areas. The patterns can be introduced by various stamping, stencilling, and other printing techniques. The printed colour can be rendered fast to washing by subjecting the printed fabric to a colour fixation process such as steaming or dry heat treatment, depending on the type of dyes used (Kukoyi 2013).

Types of Dyes for Printing Paste

According to Williams (2020), any dye used in dyeing fibres, yarn, or fabric can be used in textile printing. Textile printing dyes are selected on the basis of factors such as the range of colours available, water solubility, versatility, ease of application, and fixation and fastness properties of the print. Udoh (2018) opines that the most common dyes used in printing are reactive, vat, azoic, disperse, and pigments. However, reactive, vat, and azoic dyes are used on cotton, and the fastness properties of the prints to washing and light range from good to excellent. Moreso, disperse dyes are used on synthetic fabrics, especially tricot and polyester, on which they yield prints of very good fastness to washing and to light. Peters (2017) asserts that pigment is another class of colourants. They are not truly dyes but are of increasing importance in printing. They are very versatile in that they can be used to print both natural and synthetic fabrics because they are only attached to the fabric by means of a binder (resin), and any fibre capable of withstanding the heat treatment required for the resin bonding process can effectively be coloured. Also, silk is usually printed with acid dyes, and wool treated with chlorine is usually printed with acid or chrome dyes, which will prevent shrinkage and make it more receptive to colour.

Printed Paste Available

The dye materials used in printing are largely the same as those used in regular dyeing, except that they are applied in printing in the form of a thick paste instead of a liquid. The ingredients required in a printing paste include the following:

- (1) Dyes for printing paste
- (2) Thickener for printing paste
- (3) Water for printing paste
- (4) Dyeing assistants for printing paste
- (5) Mordant for printing paste
- (6) Hygroscopic agent for printing paste

1. **Dyes for Printing Paste:** Bob (2019) views that the dyes that impart colour to the print come in assorted colours ranging from lightest to darkest, including white and black. Thickeners for Printing Paste
2. **Thickeners for Printing Paste:** Thickeners give thickness and viscosity to the printing paste. However, this is necessary to prevent the colour from spreading beyond the confines of the printed patterns (design areas). Also, the choice of thickener depends on the class of dye used. Notwithstanding, various substances

such as starch, dextrin, and tragacanth (natural gum), a reddish or white gum extracted from a plant grown in Asia, Moreso, pills, adhesives, textile printing, stabilisers, thickeners for sauces, and gum Arabic are used as thickeners (Ukpong, 2020).

3. **Mordant for Printing Paste:** Mordant paste is a necessary chemical to bring about fixation, the correct reaction condition to produce the most suitable alkalinity and acidity.
4. **Water for Printing Paste:** Bob (2019) opines that water assists in the dissolution of the dye and other ingredients in the printing paste. It is a solvent used to form a concentrated dye solution.
5. **Dyeing Assistants for Printing Paste:** Kukoyi (2013) asserts that since printing is a localised dyeing process, dyeing assistants specific to the class of dye used should be added to the printing paste; they assist dye levelling, fibre penetration, and colour fixation.
6. **Hygroscopic Agent for Printing Paste:** A hygroscopic agent is necessary to absorb water during steaming. However, steaming is a process of finishing. Also, it confers softness and wetness to the paste in the printed area, thereby preventing it from over-drying and cracking prior to colour fixation. An example of this is glycerine. Moreso, there are other less important ingredients that may be included in the print paste to perform specific functions depending on the class of dye used and the type of fibre to be printed (Akpan, 2020).

The Pigment Printing Paste

According to Peters (2017), the main ingredients employed in the print paste for pigment printing are as follows:

- (1) Pigment: It gives colour to the paste.
- (2) Binder (resin)
- (3) Thickener
- (4) Acid Catalyst: This is used to promote resin polymerization and cross-linking.
- (5) Solvent: It is used to dissolve the pigment, for example, white spirit.
- (6) Antifoam agent: This is used to prevent foaming of the print paste. However, in some pigment printing systems, the binder, thickener, acid catalyst, and solvent are premixed and marketed as a single component. More importantly, all that the printer needs are the components and the pigment.

Printing techniques employ

There are six major printing techniques, which are as follows:

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| A. Hand block printing | B. Stencilling printing |
| C. Engraved Roller Printing | D. Transfer printing |
| E. Screen printing | F. Rotary Screen Printing |

Fabric Designing (Tie-Dye and Batik)

The production of textiles has been practiced in Nigeria since before the era of colonialism. The art has gone through many stages and different techniques, which have been introduced to meet the demands of individuals (Kukoyi, 2013). Also, Akpan (2020) opines that textiles in traditional Nigerian society were seen as a dynamic social activity, and the end products were often unique, beautiful, and of high quality. Although the production of fabrics follows a chain of processes that start with the growth, harvesting, and collection of fibres, ginning, carding, and combing. After weaving, various elaboration and embellishment techniques such as dyeing, embroidery, applique, and other decorative techniques are used to enhance the aesthetic appearance of the product. The Yoruba have a rich and viable textile industry throughout the area, though particular areas could be noted as the chief exponents of the art form. Peters (2017) is of the opinion that the artistry of tie-and-dye (adire) fabrics lies not only in the evolving design patterns but also in the symmetry and lively mastery of surface design skills displayed by the makers.

Dyeing Applicable Methods

Resist dyeing is probably the oldest method of producing non-woven patterns on fabric using dyes. Dyeing textiles involves immersing or dipping a fibre, yarn, or fabric in a colour pigment to change its colour. Colour is known as a pigment, and the way you keep or retain (fix) a colour is by using a mordant (Ekpenyong, 2020). According to Cyril-Eyware (2014), dyeing can be described as the treatment of fibres, yarns, yarns and fabrics with colouring matter in such a way that the fabric retains the colour in a more or less permanent manner. She observes that it is a method that adds beauty to the textile by applying various colours and their shades onto a fabric. However, dyeing can be carried out on fibres, yarns, filaments, or fabrics.

Adire—Tie and Dye

According to Williams (2020), adire is a Yoruba term describing resist-dyeing fabric, traditionally with indigo. Bob (2019) views tie and dye (adire) as an ancient art. It is a method of introducing coloured or white patterns on fabric by tying it strongly with string in various ways before immersing it in the dye bath. Kukoyi (2013) asserts that the art originated in two Indian states, Rajasthan and Gujrat, while the technique originally came from Java. Hence, these states are supposed to be the birthplace of tie and dye. In Japan, it is called "Shibori," and in India, it is called "Bandhani". Also, Kukoyi went on to say that handicraft has its own special place in this country. Nigeria, though famous throughout the world. Presently, in Nigeria, tie and dye is common among Hausa, the Yoruba in Abeokuta, Ibadan, and Osogbo, Moreso, tie and dye is one way to create an explosion of beautiful colours, even though it is mainly a resist technique. However, fabric sections are either tied off, folded, or clamped with blocks or tile rods to keep clothing areas clean. from a dyed and un-dyed pattern against a dyed background is the result.

Design and Patterns for Tie-Dye (Adire Onike/Adire Eleso)

There are several designs and patterns that can be used both traditionally and currently to achieve 'adire Oniko and "adire Eleso" (tie resist). Designs and patterns are

numerous and can be categorised into three ways: twisting, picking, and pleating or folding (Ekpenyong 2020).

Twisting Techniques

In using twisting techniques, it is primarily free-hand design and is quick, easy, and inexpensive to produce. Also, it is so ubiquitous that during the 20th century, dyers called the design "Tom, Dick, and Harry". Moreso, the common examples for them are spiral, hurricane, and irregular star shapes.

Adire Alabere- Stitched Tie and Dye Resist

Kukoyi (2013) suggests that adire Alabere is known to be the oldest technique; of course, it postdates adire Oniko. However, thread is used for the resist, but the designs are made by stitching. Alabere stitched patterns are decorative in nature and represent items commonly found in everyday life. The different patterns used are as follows: scissors, cocoa, fingers, bananas, eggs, and tribal marks. Although contemporary stitching patterns include small and big circles, diamond shapes, triangular shapes, cubes or squares, star shapes, zig-zags, groundnut shapes, stripes, rectangular shapes, "W" shape, oval and love shape.

Batik—A Resist Technique

The word "batik" is Indonesian in origin, however, even if the concept was known by Egyptians and Indians. It is known to be more than a millennium old, and there is evidence that cloth was decorated through some form of resist technique in the early centuries AD in several West African, Middle Eastern, and Asian communities. The word batik is originally an Indonesian-Melay word that means to dot. Although this art of textiles is spread throughout the Hindu and Malay worlds, Indonesia is certainly the home of batik. Moreso, this way of painting and colouring textiles has reached a higher degree of excellence on the island of Java (Kukoyi, 2013). Bob (2019) opines that man has been gifted with various arts and crafts since ancient times, which are passed on from generation to generation. However, batik is one of these ancient arts. Moreso, each art form has its own importance and place. Akpan (2020) is of the opinion that batik originated in Indonesia in the 12th century AD and later developed more in the 16th century on Java Island. However, gradually, it spread to America, Europe, China, Japan, India, and many other countries in the world. Also, Obot (2021) suggests that batik is an Indonesian word describing a form of resist painting and printing with hot wax on fabric. Originally, batiks were painted by the daughters of Javanese mobility with much skill and patience. Batik is a method of dyeing textiles, principally cotton, in which patterned areas are covered with wax so that they will not receive colour. A method of dyeing a fabric in which the parts of the fabric not intended to be dyed are covered with removable wax (Akpan, 2020). Multicoloured effects are achieved by repeating the dyeing process several times, with the initial pattern of wax being boiled off or another design applied before re-dyeing. Although related to tie and dye is the resist method process, the technique employed in batik work makes room for much wider design possibilities. However, in the more elaborate designs, up to sixteen different colours may be employed to achieve the final design. Moreso, wax was applied with bamboo strips in Indonesia, where the technique originated. Thin wax lines are made with a tjanting, a wooden-handled tool with a tiny metal cup with a tiny spout, out of which the wax seeps. The application of wax with a tanting tool is done with great care and is

therefore very time-consuming. How be it, as the population increased and commercial demand rose, time-saving methods evolved. According to Cyril-Eyware (2014), wax is applied to cloth before being dipped in dye. It is common for people to use a mixture of beeswax and paraffin wax. The beeswax will hold to the fabric, and the paraffin wax will allow cracking, which is a characteristic of batik. Also, wherever the wax has seeped through the fabric, the dye will not penetrate. Sometimes, several colours are used with a series of dyeing, drying, and waxing steps. Moreso, after the last dyeing, the fabric is hung up to dry. Besides, it will be dripped in a solvent to dissolve the wax or ironed between paper towels or newspapers to absorb the wax and reveal the deep, rich colours and the fine crinkle lines that give batik its character. The Different Methods of Applying Wax

The different ways of Applying the wax onto the fabric are as follows:

- (1) The Spraying Method
- (2) The Stamping Method
- (3) The Drawing Method

Precautions in Applying Wax

According to Kukoyi (2013), any of the aforementioned methods of application can be employed in the application of wax to the fabric, but some precautions need to be taken into consideration. This includes the following:

- (1) The wax must be very hot but not boiling. Boiling wax brings smoke, spreads uncontrollably, and deforms the design in order to prevent the dye from penetrating the waxed areas.
- (2) If the wax is not hot, it will not hold, enter, or penetrate the fabric very well, and this can easily give room for the dye to penetrate the supposed waxed area and alter the fine, reasonable effects already created.
- (3) Use a stable that is not too deep for easy access and to avoid spillage.
- (4) Use a stove or electric tjanting that can be regularised.

Procedures Available for Waxing the Fabric

The process of waxing the fabric is as follows:

- (1) Wash the fabric to remove dirt, impurities, and other factory dressing, then iron the fabric smooth for an easy flow of wax.
- (2) Properly stretch the fabric on a wooden frame. With the drawing and spraying method of application done, make a design and draw it on the fabric using charcoal or pencil so that it can wash out afterwards.
- (3) Stretch on a long flat board with a straw mat liner by means of pins, staplers, or tape in the case of the stamping method.
- (4) Light the stove and heat the wax in a small pan or pot placed in a larger pan of water for double heat so that the wax cannot ignite.

- (5) Melt the wax to a boiling point and reduce the heat.
- (6) Dip the motif stamp inside the hot wax and stamp on the fabric immediately following the predetermined marked areas, making sure that it penetrates right through the fabric.
- (7) In the case of drawing, dip a tjanting, brush, feather, or pointed foam in the hot wax to draw or soak a little wax, bring it out, and use it to draw on the fabric according to the drawn motif, pattern, or design.
- (8) Dip a broom, spoon, or thread in the hot wax and use it to spray, splash, or create designs on the fabric for the spraying method.
- (9) Wax all through the fabric and leave the wax to cool before putting it in a dye bath for dyeing.

Conclusion

The paper explains the different dyeing methods and the process for going about them successfully. The different techniques engaged in the production of textile material or fabrics are being spelled out and expounded amicably. The ability to acquire a drastic result by using the different techniques is explored. The process of effective practical work should be well demonstrated in the school system to achieve the required results.

Recommendations

The following recommendations were encouraged and made accordingly:

- (1) Mounting of regular exhibitions by fashion designers, tailors, and artists involved in creating unique and dynamic designs
- (2) Proper attention should be given to exhibits, and entrepreneurial education should be advertised through exhibitions.
- (3) Multi-technology, unique, complicated designs should be encouraged; also, foreign technologies should be introduced and blended together for better results.
- (4) Nigerian textile technology and fabric outfits should be exhibited in international exhibitions by Nigerian textile industries to promote tourism.

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