Tie & Dye Textiles in Fashion Domain

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Abstract: Ikat technique is one of the oldest & ancient methods of fabric ornamentation made with fine touch of hand. Basically, the ikat in varn resist method of ornamentation for fabric that is quite different from that of fabric ikat. The yarn resist process is widely adopted method of ornamentation with intricacy, fineness and craftsmanship throughout the design development rather than that of fabric ikat ornamentation. The double ikat fabric i.e. Patalika" appearing in 4th century B.C. is related to Potola of Patan of Gujarat, which refers to a bed spread with floral designs. Later on it was used as a bridal sari with 8 ply silk yarn, which lasts for 80-100 years of use. Even now the very fine calligraphic motifs from historical 'Gitagobinda' scripts (Written by the great poet Jayadev during 12th century) are being used for decoration of specific fabrics especially used for religious purpose. In this article, the process of ikat ornamentation by yarn is discussed in details with its domain of existence in the current era of modern fashion. .

Key Words: BSM-Buyer-Seller-Meet, NH Expo-National Handloom Expo,

1 INTRODUCTION

Food, Water, Clothing and Shelter are the four essential needs of the human being. The discovery of several spindles, as well as a piece of cotton cloth stuck to a sliver vase, establish beyond doubt that the spinning and weaving of cotton was known to the Harppans nearly five millennia ago ⁽¹⁾. The foundation of the Indian Textile Trade with other countries was laid sometime in the second and first centuries B.C. Potola, the double-ikat silk fabrics, was a popular item of Indian export to Indonesia around 13th century where Indian, Portuguese, Dutch and other merchants used them to barter for spices. Towards the end of the 17th century the British East India Company had begun to export silk, mixed cotton and cotton, including very fine muslin from Bengal, Bihar and Orissa ^{(1).} In the new millennium, with change in traditions, customs, fashion and style the people of most advanced countries prefer more value added rich clothing ornamented with non-replicable designs & ikat fabrics keeps its position throughout the ages in the fashion domain.

2. FASHION

Fashion in the narrow sense of the world means the changing form of clothing. Fashion is not the only consideration in developing a garment for a market, but also the overall appearance (style), utility value & fitness for purpose with aftercare.²

In this context, the double ikat silk sari of Gujurat, Bichitrapuri ikat cotton sari of Sambalpur or Silk odhni with calligraphic Ikat effect (Gitagobinda) namely Khandua of Nuapatna of Odisha have been come across a great change Dr. Asimananda Khandual, Head of Dept. Fashion and Apparel Technology, College of Engineering and Technology, Bhubaneswar, Odisha,

on its overall appearance as well as the utility value also have great cultural & aesthetic impact. Khandua, the small silk Odhni with Gitagobinda Sloks written by great poet 'Jayadev' in ikat form prevailed during 12th century for offering to Lord Jagannath of Puri Temple have been transformed to various forms suitable for human use in shape of fashionable modern Garments. Recently, designers select ikat clothes as a creativity item into fashion domain.

However, present textile designers have to study more on traditional ikat designing process & its development in the context of latest developments in style, science & technology. A stylist is the person who co-ordinates the clothes, jewellery, and accessories used in fashion photography and whose designs are based upon extant things, trends, and the latest collections. Ikat is one of the latest suited clothing for a custom clothier making custommade garments to satisfy preferred customers. Most of the models now a day, wear and displays ikat clothes at fashion shows and other display medias.

2.1 Areas of Fashion in Human Life Cycle

Fashions are social phenomena common to many fields of human activity and thinking. The rises and falls of fashions have been especially documented and examined in the following fields: Clothing is the 3rd essential element out of 04 basic essential elements of human life which influence a great on human style & fashion. Food, water are 02 other basic elements where the role of fashion is limited & shelter, the 4th element is also having special impact on human life style including architecture, interior design & clothing or costumes. Other fashion areas may be dance, entertainment, games, sports etc. associated with clothing. The more general term "costume" has been relegated by many to only mean fancy dress or masquerade wear, while the term "fashion" means clothing generally, and the study of it.

2.2 Fashioni in Cloths

Fashion in clothes has allowed wearers to express emotion or solidarity with other people for millennia. When people who have cultural status start to wear new or different clothes a fashion trend may start. In this context, it is seen that, during last decade, the 'Bolbom' (Kaudia) start to wear the saffron coloured cloth with in scripts of Lord Shiv in the month of 'Shravan' & now it is a trend. The age old Khandua silk Odhni of 12th century offered to Lord Jagannath by the great poet 'Jayadev' is now a days transformed into various shapes & used widely as bridal & normal sarees, dress materials & furnishings etc. with different styles.



100 years old Khandua Odhani of Odisha

2.3 Position of Ikat in Fashion Classification

A fashion can be brief or of long duration. Fashion is classified into many types, such as: Style, Basic or classic, Fad, Fashion Forecasting & Trends ².

2.3.1 Style is always constant. It does not change whereas fashion changes. It is not constant. Style is the basic outline of any garment. When we make a different neckline and different sleeves with some trimming here and there over a basic garment then the basic garment is modified into a different look or a different outfit, this modification ferment will become Fashion, when it is accepted by people as in case of sarees, dress materials & furnishing from Khandua Odhni stated above. When a fashion is constant or long lasting, such as, salwar kameez and bridal saree, it is called Basic or Classic like bridal silk ikat saris namely, Patola of Gujurat, Saktapar, Bchitrapuri, Khandua of Odisha & Puchampolly ikat materials of Andhra Pradesh. It is similar to a standard music.

Now -a-days, these basic items especially ikat yardage materials become the most important promotable fashion for the forthcoming designers & remain as an integral part of the fashion domain. But, Fad is something which can either make a designer's life more interesting or tenser. Overall, Fad can be defined as short lived fashion, lasting for a very little time or period, acceptable by only a certain group of people. Such period never came in the ikat domain during last ages.

2.3.2 Forecasting Ikat Fashion

This is the important part of fashion scenario, because when any new garment is designed by the designer and worn, it will not create fashion by itself. It needs the media to spread fashion and this media which spread fashion and gets the fame and name to the designers is Fashion Forecasting. This is done through many communicating media, such as, fashion shows, BSM, NH Expo, participation in international fair, printing of ikat broachers & product catalogues. It also includes, Market Research, Consumer Research, Surveys, Shopping, Sales Records, Evaluating the collections, Fashion Trends & Plan for Target Markets adopted by state apex organisations of the country.



2.3.3 Position of Ikat in Present Trends

Fashion trends are the styling ideas that major collections have in common. They indicate the direction in which fashion is moving. Fashion forecasters look for the styles they think, are prophetic, ideas that capture the mood of the time and signal a new fashion trend. Several designers may use a similar fashion idea because they have been inspired by common sources. Recent trend indicates the need of hand touch value added ethnic ikat wears. Most of the designers are busy on collection of such items with latest developed designs. The life-span of such trend is expected to be more than decade, though it takes time for establishment from a blooming period.

2.3.4 Ikat in Fashion Cycles

Consumers are exposed each season to a multitude of new styles created by designers. Some are rejected immediately by the press or by the buyer on the retail level, but others are accepted for a time. The way in which fashion changes is usually described as a fashion cycle, usually depicted as a bell shaped curve encompassing five stages: introduction, rise in popularity, peak of popularity, decline in popularity, and rejection 2 .

Introduction of style to IKAT domain: The ikat domain was based on traditional culture & fashion without any intervention of designers, rather it was the heart & soul of the customers. With change in time, the domain is in a path to be adorn with multitude of new styles created by designers. The process is at baby stage.

Increase in popularity:

Ikat was limited to traditional saris only, now it has been diversified to many modern wears with new styles as dress materials & furnishings. Now it is in attraction of domestic/foreign consumers by the print/press media & other advertising tools.

Peak of popularity:

When a fashion is at the height of its popularity, it may be in such demand that many manufacturers copy it or produce adaptations of it at many price levels. Such peak period is yet to come in the Ikat domain.

Decline in popularity:

When it takes century together to establish such a trend, it is difficult to forecast a limited span of time for its decline, since it is as like as an integral part of marriage ceremony of tradition with modernity. The presently used one may be an antique for future generation.

Rejection of a style or obsolescence:

The rejection or discarding of a style just because it is out of fashion is called *consumer obsolescence*. But here in case of '*IKAT*' the words of 'Shakespeare' in early as 1600, "fashion wears out more apparel than the man" is not proved. The traditional textiles exist from 5th century AD ³ followed with ikat textiles at about 11th century AD ⁴ is just at baby stage of fashion cycle even at 21st century.

3. ORIGIN AND HISTORY OF IKAT (TIE AND DYE) WEAVING

Ikat is a Malayan word comes from "Magnikat" means to bind, knot or wind around. According to Alfred Buhler ⁽⁵⁾ only hand resist process is called ikat. According to late Dr. Moti Chandra ⁽⁶⁾, the term "Patalika" appearing in 4th century B.C. is related to Potola which refers to a bed spread with floral designs. Presently weavers of our country 'India' working in ikat techniques are Salvi, Bhulia Meher, Gaudiapatra, Asanipatra, Padmasali and Debanga by caste ⁽⁷⁾. Moti Chandra and R. N. Meheta ⁽⁸⁾ have indicated that Bandha or Tie and Dye woven fabrics of Orissa i.e. Gajavandha and Suryavandha appears in Jyotirisvara's Varna Ratnakara of 14th century which was written in Eastern India (Bihar).

The earliest historical documents referring to Ikat weaving in Nuapatna of Odisha, dates back to 12th century. "Jayadev" the great poet desired to offer his "Gitagobinda" to Lord Jagannath and he thought the medium of ikat fabric to express it, similar to other fabrics offered to Lord Jagannath by other devotees. Late Dr. Moti Chandra⁽⁹⁾ refers 5th century A.D. regarding origin of Potola. R. N. Meheta⁽¹⁰⁾ has cited that Patan of Gujurat was centre of double ikat from at least 11th century A.D., though its existence could be well proved from at least 4th century A.D. Thomas Motte⁽¹¹⁾ visited Nuapatna of Cuttack district, Orissa in 1766 A.D. giving an account of weavers weaving silk tie and dye fabrics including Gitagobind fabrics. However, Alfred Buhler has concluded that the technique must have been evolved from 5th century onwards. A. N. Gulati⁽¹²⁾, John Irwin⁽¹³⁾, Pupul Jayakar⁽¹⁴⁾ and R. N. Meheta also have presented the history of ikat weaving in India and socio economic condition of weavers in different manner.

The tie & dye or Ikat is also known as 'Shibori' ¹⁵ in Japan as per W.Choi and N. B. Powell. "Warp ikat" ¹⁶ describes the process of binding the warp in a patterned way to prevent selected areas from receiving dye prior to placing the warp on the loom to weave. Similarly, "weft ikat" is woven from resist-bound dyed weft threads, and "double ikat" is woven from both warp and weft-bound dyed threads. The mass production of warp ikat fabrics in Uzbekistan based on labour practices ¹⁷ is spelled as 'threads backward through time situate the robe as part of the Silk Road. However, no steps have been taken to exploit the advantages of recent developments in textile and allied fields. There is bare need to generalize this technique from a limited number of high skilled artists.

4. MATERIALS & METHOD FOR IKAT (TIE & DYE):

Tie & dye (resist dyeing technique) weaving is a complex method of ornamentation of textiles which combines many of the processes of ornamentation & different methods applied in India for its development are as follows. ¹⁸ Fold resist or bleeding pattern, Stitch resist or Indonesian design, Wrap resist or Rajastani Laharia design, Tie resist or Bandhani of Gujurat, Stencil resist or Italian design, Wax resist or Batik design, Mordant resist with Iron & Alum & Resist dying of yarn of Odisha, Gujurat & Andhra Pradesh.

The last one i.e. resist dyeing of yarn is the most versatile method to produce tie and dye designs. It is done when the yarn is tied in groups and the sequences adopted in this technique ⁽¹⁹⁾ are: Scouring / bleaching in case of cotton or degumming in case of silk, Yarn sub-grouping and grouping, Tying to resist the yarn, Dyeing, Washing and drying, Resisting, dyeing, washing and drying for number of times as per the number of colours required, Untying (removing resisting materials), Separation /unwinding of yarn from group to sub-group, Sub-group to individual threads then Weaving to produce tie and dye designs.

The details of steps involved in ikat weaving starting from silk/cotton yarn preparation to weaving on a handloom at Nuapatna of Odisha are annexed here with at Statement I, II & III.



Silk Warping Drum & Silk Weft Processing (Statement-I)



SILK WEFT IKAT PROCESSING (Statement-II)



Silk Warp Ikat Processing & Weaving of Saree (Statement-Iii)

5.0 TECHNOLOGY OF TIE AND DYE WEAVING

The basic feature ^{20, 21} of the tie and dye technique is to produce design on fabric by ordinarily interlacement with warp and weft in plain weave, which are already tiedyed in different colours according to the design & colour scheme. The yarn in warp/weft is dyed in different colours at different places. Now-a-days the most developed double ikat fabrics are produced by the resist dying by resist yarn method.

5.1. Tying Materials: - Tying materials ²² used are rubber, leaf of screw pine (botanical name Pandanus), polyethylene or cotton threads. Cotton threads are used basically as wrapping or tying material for white outlines or spaces for colour less than 0.5cm. A good Tying material should have the following properties like, Strength to overcome repeated process of dying, Resistance to different chemical and temperature, Smooth surface by which yarn is not damaged, Flexible for easy warping, Phobic nature towards dye stuffs, no reaction with dye solution etc.

5.2. Importances of Tie and Dye Textiles

The method of ikat ornamentation prevailed since 5^{th} century A.D. in India giving both colour and weave effect much before than the invention of Jacquard and modern printers can be stated as "Tie & Dye designs of India are exclusive, artistic and linguistic with high export value, reversible unlike printed goods, needs no costly machine & versatile with respect to size of design repeats and no. of colours" ²³

5.3. Draw Backs of Ikat Process

The major draw-backs ²⁴ of the present ikat weaving by resist dyeing methods applied to yarn can be summarized as "Ikat is not a replicable process and the product from batch to batch differs in design and colour composition, processes are not scientific and more time consuming & involves high skill of craftsmanship and low productivity on handlooms only".

However, during post WTO regime, ikat fabrics have obtained wide recognition in recent international fairs and exhibitions. Indian exporters have diverted their concentration especially towards ikat fabrics production to meet the international market. The tie and dye fabrics prepared by yarn resist methods are mainly classified ²⁵ as Single Ikat on Warp or Weft, Double Ikat with both warp & weft & Combined Ikat,

6. FUTURE OF THE IKAT INDUSTRY

All the four major processes involved in ikat weaving i.e. (i) warp or weft winding, (ii) grouping of warp or weft, (iii) calculation of weight of untied portion to be died & (iv) dyeing are not scientifically defined and no developments have been made in these processes to control over the outputs. All the processes can be tried with developed scientific methods based on newly developed mechanical tools. Some works on this including the 04 spindle domestic bobbin winding machine have been conducted by the present investigator in Nuapatna Handloom Cluster of Odisha & an auto ikat group former has been developed which is to be commercialized in large scale. During dyeing the exact material weight to be dyed after deduction of tied or resisted material is not calculated and till date the total tied material is dyed and inputs including dye staffs and chemicals are added on the basis of total weight of tied material without any relation with weight of the only exposed area to dying, extent of penetration of dye liquor into the tied material, weight of un-exposed area to tying or weight of tying material and its nature.

Some works also have already been conducted on this by the investigator to calculate the exact weight of the material to be dyed after tying on the principle of air flow, which is to be further developed for the Ikat Industry.

7. CONCLUSION

Hence, it is clear that the ikat fabrics of world is having a special identity in the fashion domain with advent of time & trend. It is also having a great scope for research & employment opportunities for upcoming Textile Designers & allied workers. When a ikat product takes years together for its development, the fashion cycle definitely will be of centuries together maintaining its basic or classic characteristics. Ikat fashion is at baby stage & a long way is there to reach the peak period. It is not a fast fashion item ²⁶ referring to low cost collection. It is very difficult to forecast a limited span of time for its decline, since it is as like as an integral part of marriage ceremony of tradition with modernity.

REFERENCES

- [1] J. Jain and A. Aggrawala, Museums India, National Handicrafts and Handloom, New Delhi, P.132-133.
- [2] Georg Simmel, American Journal of Sociology Vol. 62, No. 6 (May, 1957), pp. 541-558 Published by: The University of Chicago Press)
- [3] A. Buhler, E. Fischer and M. L. Nobholz, Indian Tie Dyed Fabrics (**Vol.4**, 1980), P. 20.
- [4] A. Buhler, E. Fischer and M. L. Nobholz, Indian Tie Dyed Fabrics (Vol.4, 1980), P. 21.
- [5] B. C. Mohanty and K. Krishna, Ikat Fabrics of Orissa and Andhra Pradesh (Vol. 1, 1970), P. 13.
- [6] A. Buhler, E. Fischer and M. L. Nobholz, Indian Tie Dyed Fabrics (Vol.4, 1980), P. 20.
- [7] B. C. Mohanty and K. Krishna, Ikat Fabrics of Orissa and Andhra Pradesh (Vol. 1, 1970), P. 15.
- [8] B. C. Mohanty and K. Krishna, Ikat Fabrics of Orissa and Andhra Pradesh (Vol. 1, 1970), P. 19.
- [9] Costumes Textiles Cosmetics & Coiffure in Anicient and Medieval India, P.140-150, 1973.
- [10] R. N. Meheta, Bandhas of Orissa, Journal of Indian Textile History, (VII, Ahemedabad, 1961), P-68.

- [11] The Orissa Historical Research Journal, 3, 1952, Bhubaneswar, P.21.
- [12] A.N. Gul;ati, the Potolu of Gujurat, Bombay, 1951.
- [13] J. Irwin and P. R. Schwartz, Studies in Indo-European Textile History, Ahmedabad, 1966, P. 12.
- [14] P. Jayakar, A Neglected Group of Indian Ikat Fabrics, Journal of Indian Textile History, IV, Ahmedabad, 1959, P. 5.
- [15] W. Choi and N. B. Powell, 'The development of specialized knitted structures in the creation of resist-dyed fabrics and garments', (03.04.2007 U.S.A). http://www.dharmatrading.com/home/ikat-and-shibori.html Shibori,.
- [16] Gujurati warp ikat, http://www.dharmatrading.com/home/ikat-and-shibori.html.
- [17] 'Textiles and Politics': Textile Society of America 13th Biennial Symposium Proceedings, Washington, DC, September 18- September 22, 2012.
- [18] A. Buhler, E. Fischer and M. L. Nobholz, Indian Tie Dyed Fabrics (Vol.4, 1980), P.1-5
- [19] S. K. Patra, "Practical Approach to Tie and Dye Processing", Kaziranga, 1999, IIHT, Gwahati P. 13 – 15.
- [20] S. K. Patra, "Practical Approach to Tie and Dye Processing", Kaziranga, 1999, IIHT, Gwahati P. 14.
- [21] K. Das and S. Behera, Ikat Fabrics- Strength for Orissa Handloom Industry, All India Seminar on 'Sustenance of Handloom sector in the era of globalization, 7-8th August, 2009, the Institution of Engineers (India) Orissa State Centre, Bhubaneswar, P-24.
- [22] K. Das and S. Behera, Ikat Fabrics- Strength for Orissa Handloom Industry, All India Seminar on 'Sustenance of Handloom sector in the era of globalization, 7-8th August, 2009, the Institution of Engineers (India) Orissa State Centre, Bhubaneswar, P-23.
- [23] S. Behera, 'Process development in weaving of Tie & Dye Fabrics' -A dissertation submitted in part fulfilment of M. Tech (Textile), GCTI, Kanpur under Uttar Pradesh Technical University, Lucknow, 2005, P-8 by Er. S. Behera.
- [24] K. Das and S. Behera, Ikat Fabrics- Strength for Orissa Handloom Industry, All India Seminar on 'Sustenance of Handloom sector in the era of globalization, 7-8th August, 2009, the Institution of Engineers (India) Orissa State Centre, Bhubaneswar, P-27.
- [25] 'Ikat *abc*, silk and cotton, mid-19th century', Uzbekistan. Smithsonian collections, (*April 2014*).
- [26] Annamma Joy, John F. Sherry, Jr, Alladi Venkatesh, Jeff Wang & Ricky Chan-Fast Sustainability and the Ethical Appeal of Luxury Brands, Fashion Theory, Vol-16, Issue-3, 2012, PP-273-296.