THE HISTORY AND DEVELOPMENT OF WAX-PRINTED TEXTILES INTENDED FOR WEST AFRICA AND ZAIRE

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ABSTRACT

THE HISTORY AND DEVELOPMENT OF WAX-PRINTED TEXTILES
INTENDED FOR WEST AFRICA AND ZÁIRE

By

Ruth T. Nielsen

The wax-printed textiles discussed in this study were designed and produced especially for West Africa since the late nineteenth century, and in 1974 they are still in great demand as best cloth and dress for special occasions.

The premise of the investigation was that African wax-printed textiles are not just ordinary printed fabrics, but a significant part of the African culture and socio-economic structure. The consumers were discriminating in choice of fabric and gave evidence of a highly developed sense of design, color, and quality.

The objectives of this study were to investigate the origin and development of wax-printed textiles intended for markets in West Africa and Zaíre; to observe and report on the contemporary production in Europe of such prints; to investigate the use of wax-prints in Africa; to analyze and classify a sample collection obtained in 1971 during visits to the factories in England, Holland, and Switzerland; and to describe and compare the motifs of selected samples from the collections.

The procedure followed was to search the literature, to correspond with producers of African wax-prints and holders of textile collections,

to tape in depth interviews with designers and producers, and to observe the production of African wax-prints in three European factories, as well as to examine the holdings of African wax-prints in museums, private collections, and manufacturers' showrooms. Photographs were made of numerous fabric designs, and a sample collection of 225 African wax-prints (135 different designs or 4.5 percent of present holdings in three showrooms) was acquired from the three manufacturers. The producers made the selection of samples, but upon request they agreed to provide samples from various decades, traditional and contemporary prints, "best sellers" and cloth which did not sell too well, "good" and "bad" designs, prints showing Javanese influence, and prints with motifs acceptable to African preferences. As a result two almost identical collections of wax-prints are available: the Eicher collection at Michigan State University (108 samples); and the Nielsen collection at Andrews University, Michigan (117 samples).

The technique of producing African wax-prints was found to be basically similar to the one practiced in the eighteenth and nineteenth centuries except that the technology was ingeniously mechanized. The design was printed with hot resin (wax) on both sides of high quality cotton fabric of plain weave; it was dyed indigo, and the resin was washed out, leaving a blue pattern on a white background. Additional coloring was done by successive repeated procedures, hand-blocking or printing. Throughout the process attempts were made to attain the appearance produced by the old hand method.

The wax-prints exhibited great diversity in color combination, style, design, and source of inspiration. The designs were inspired by Indian cottons, Javanese batiks, European prints, African indigenous cloth, traditional African objects and symbols, consumer contacts, historical events, religion, mythology, proverbs, utilitarian objects, natural forms, and geometrical designs. Selected samples of wax-print designs were described according to inspirational source, historical background, arrangement of motif, and description and color of design. A comparison was made of ten similar designs produced by the various manufacturers. It was proposed that a simple classification system be used to arrange the collections into categories according to the dominant motif of the design.

The findings of this study provided evidence that African wax-printed textiles are a significant part of the dress in West Africa and Zaïre, and that they will continue to be used and valued for a long time to come, provided that designs and colors continue to conform to African preferences. The search for the symbolic meaning of the wax-print design is complicated by the fact that African consumers often perceive the motif differently from what was intended by the producers, and that the consumers sometimes name the design according to certain circumstances in connection with the purchase or use of the cloth.

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By

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CHAPTER I

INTRODUCTION

A visitor to West Africa would invariably be impressed by the colorful fabrics of intricate design worn by many of the Africans in the large cities or the thousands of small villages, by Africans attending church services, ceremonial celebrations, official functions, or patronizing the sprawling open cloth markets and fabric stalls. As Butler stated:

> Many people believe that the African is a person of very simple tastes who is ready to accept all sorts of second quality goods and clearing lines, and crude designs and garish colors, which the more fashionable nations reject. This is far from the truth. It has been the life's work of many merchant converters in Manchester to produce speciality African prints for the people, men and women, "on the coast." The development of a new design for this market normally absorbs more time and effort than is taken over one for the transitory fashion markets.[1]

"Speciality African prints" is a broad term used interchangeably with "Manchester cloth" and "African prints" to describe cloth made in Europe for the African market. The cotton fabrics bought and used by the Africans were always an important part of their inherent culture. The designs of the cloth evolved primarily from the indigenous hand textile industry of West Africa, where the people had a highly developed

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[1] Ray Butler, "Sale of British Cotton Goods in West Africa," The London Times (August 13, 1958), p. 12.

sense of design, color, and quality.[2] The exotic looking fabrics used by the nationals in West Africa and Zaire (formerly the Congo) have been largely unknown to Europeans and Americans, but increased awareness of the cultural heritage of Africa has stimulated recent studies of African dress and textiles. Publications, such as Eicher (1970),[3] Plumer (1970),[4] and Sieber (1972),[5] added new dimensions to the existing literature on African dress, but no extensive study had been made to investigate the speciality African prints. An incentive to study these prints was partly a result of encouragement and interest by the writer's advisor, and partly a result of eight years of educational work in West Africa where the investigator received unforgettable impressions of the variety and beauty of the African dress. Therefore, in order to contribute to the history of textiles, to acquire a more complete picture of African dress, and to encourage further study of African textile design, it appeared justifiable and logical to pursue a study of printed textiles produced in Europe for export exclusively to Africa.[6]

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[2]"Manchester's African Trade", West Africa, No. 1751 (September, 1950), pp. 850-51.

[3]Joanne B. Eicher, African Dress: A Select and annotated Bibliography of Subsaharan Fabrics. (East Lansing: Michigan State University, 1970), pp. 1-134.

[4]Cheryl Plumer, African Textiles: An Outline of Handcrafted Subsaharan Fabrics. (East Lansing: Michigan State University, 1970), pp. 1-146.

[5]Roy Sieber, African Textiles and Decorative Arts (New York: Museum of Modern Art, 1972), pp. 1-240.

[6]An example of a similar study of printed textiles in Asia is: Tamezo Osume, Printed Cottons of Asia. Translated by George Saito. Japan: Bijutsu shuppan-sha. (Rutland, Vt., C. E. Tuttle Co., 1963)

Printed textiles exported to Africa were of two main types: wax-prints (wax-batiks) and non wax-prints (fancy or roller prints). An African wax-print is a printed cotton fabric of plain weave where the design is applied with hot wax or resin on both sides of the cloth. It is usually dyed indigo, leaving a blue pattern on a white background after the resin is washed out. Additional colors may be added by either hand-blocking or duplex printing. Roller prints are ordinary printed fabrics where the design is applied on one side of the cloth in a continuous process by engraved metal rollers.

This study is limited to the wax-prints and restricted to West Africa and Zaire, since these prints are primarily exported to those regions. The African wax-prints are successful in competition with roller prints probably because they are loaded with tradition, contain expressions of West African culture, are geared to the tastes and preferences of the people, often are adopted as the national costume, and acquire the significance of a status symbol, indicating wealth and social prestige. Furthermore, in the nineteenth and twentieth centuries these countries were primarily trading with Europe, and their populations were far more traditionally inclined than, for example, the people of East Africa.

African wax-printed textiles are produced in Japan, Europe and more recently in West Africa. An increasing number of African textile mills have taken up production of wax-prints, some of them in cooperation with the European manufacturers. This study involved a trip to Europe in 1971 for the express purpose of observing and collecting data from

the three remaining factories then producing African wax-prints. The factories were situated in England, Holland and Switzerland. The factory in Switzerland was closed down in the summer of 1973.

The objectives of this study were: 1) to investigate the origin and development of wax-printed textiles intended for markets in West Africa and Zaïre; 2) to observe and report on the contemporary production in Europe of such wax-prints; 3) to investigate their use in Africa; 4) to analyze and classify a sample collection obtained in Europe in 1971; and, 5) to describe and compare the motifs of selected samples.

The study is comprised of five sections. In chapter two the types of research procedures and the method of textile sample collection are discussed. A brief historical overview of textile trade in West Africa is presented in chapter three, and in the fourth chapter the origin and development of wax-printed textiles for West Africa is described. In chapter five the contemporary production and use of African wax-printed textiles is related, followed in chapter six by the classification of the sample collection, including a description and comparison of selected textile samples.

CHAPTER II

PROCEDURE

The discussion of the procedure for this investigation includes the following parts: 1) types of research and methods of data collection; 2) selection of samples of African printed textiles; 3) description and analysis of data collection; and 4) classification of printed textile collection.

Types and Methods of Research

The types of research employed in this investigation were: (1) historical study, dealing with origins, backgrounds, developments, and trade patterns of printed textiles as well as culture contacts, attitudes, and accomplishments of the past; (2) descriptive study, providing information on contemporary designing, manufacturing, and use of African wax-prints; (3) field study, visiting and observing the designing and production of wax-prints for Africa in England, Holland, and Switzerland; (4) survey, analyzing, interpreting, and reporting on the prints in museums, private collections, and manufacturers' showrooms; and (5) classification, sorting out the motifs of the prints according to categories, and comparing and describing the motifs.

The specific methods of data collection were as follows:

1. Inquiry. Letters of inquiry pertaining to printed textiles intended for the African market were sent to two museums in the United States and fourteen in Europe, and to one private collection, all known to hold African textiles. Furthermore, inquiries were sent to four universities and colleges, seven manufacturers in Europe and 30 in Africa, one textile council, two textile institutes in England, four other sources of information, and thirty Chambers of Commerce in Africa, two in England, and one in Japan (see Table 2.1).

Table 2.1. Summary of Correspondence about African Wax-prints.

Source of information	Number of letters sent	Number of replies received
Museums, United States	2	2
Museums, Europe	14	13
Universities & Colleges	4	3
Textile Institutes	1	0
Textile Councils	1	1
Private Collections	1	1
Miscellaneous sources	18	15
Manufacturers, Europe	7	4
Manufacturers, Africa	30	9
Chambers of Commerce, Africa	30	16
Chambers of Commerce, England	2	2
Chambers of Commerce, Japan	1	0
Total	111	66

2. Correspondence. Correspondence with knowledgeable persons on African wax-prints allowed the writer to obtain additional information and clarification. Included among the informants were: Mr. L. Cooper, Director of Brunnschweiler, (UK) Ltd. Manchester, England; Mr. C. H. Krantz, Director of Vlisco, Hatema-Texoprint, n.v., Helmond, Holland; Mr. E. Voirol, Director of Hohlenstein, Ltd., Glarus, Switzerland; Mr. Stuart Robinson, Head of Department of Arts and Crafts, Coventry College, England; Dr. Rene Boser, Curator, Textile Department, Museum for Völkerkunde, Basel, Switzerland; Dr. A. Claerhout, Deputy Keeper, Etnografisch Museum, Antwerp, Belgium; and Miss M. A. Bolland, Assistant Curator, Royal Institute, Amsterdam, Holland. (Table 2.1).

3. Questionnaires. Questionnaires were prepared and mailed to Mr. Cooper, Mr. Krantz, and Mr. Voirol as guidelines in preparation for intended personal interviews during a planned field investigation in the summer of 1971. (Appendix A)

4. Library research. The literature on the origin and development of textile trade in Africa, the history and development of printed textiles in Asia, Indonesia, Europe, and Africa, and the contemporary manufacture and use of wax-prints in West Africa and Zaire, was investigated. The following libraries were used: Michigan State University; Andrews University (Michigan); Northwestern University (Illinois); Manchester University, and Gawthorpe Hall, England. In addition some unpublished documents were obtained from Brunnschweiler, Ltd., Manchester, England.

5. Field studies. The investigator visited museums, libraries, exhibitions, private collections, textile mills, and textile manufacturers' showrooms in England, Holland, Belgium, and Switzerland during the summer of 1971 to obtain first hand data on African wax-prints.

6. Museums and Collections. Museums and Collections with African textile holdings were visited and examined for data on African speciality prints. The following museums hold collections of interest:

1) The British Museum, London, England.
"The Charles Beving Collection of African Prints."
(Nos. 1934-3-7, 387-427. Recorded in 1934.)

2) The Victoria and Albert Museum, London, England.
Collection of African Prints (1909-1939)

3) Gawthorpe Hall, Near Burnley, Lancashire, England.
"The Rachel Kay-Shuttlework Collection."
Twentieth century printed fabrics made for export to Africa.

4) The Royal Tropical Institute, Amsterdam, Holland.
Exhibits of African prints draped on mannequins.
Slideshow of the peoples of Africa depicting many samples of African printed fabrics.

5) Etnografisch Museum, Antwerp, Belgium.
Collection of Printed Textiles for Export to Africa. (1900-1940).

7. Photography. Kodachrome 35 mm slides of selected prints were photographed at Victoria and Albert Museum Textile department in London. Additional slides were taken of African prints at the Etnografisch Museum, Antwerp, and of the designing and manufacturing processes at Brunnschweiler, Ltd. (Manchester), where a collection of photographs of unavailable textiles was acquired. Upon return to the United States a slide series of the sample collection was prepared for educational purposes.

8. Observation. In order to obtain first hand information about the manufacturing process of African wax-printed textiles the only three remaining mills producing speciality prints for Africa were visited. The designers were also observed while working in their studios, and the finished products were examined in showrooms. The following firms kindly consented to the observer's visits:

1) A. Brunnschweiler (UK), Ltd., Manchester, England.

2) Vlisco, Hatema - Texoprint (nv), Helmond, Holland.

3) Hohlenstein Textile Printing Works, Ltd., Glarus, Switzerland.

9. Taped interviews. Taped interviews were conducted in depth with the following individuals to obtain pertinent information about the origin and development, motifs, and use of the African wax-prints: Mr. Cooper, Mr. Jones, and Mr. Preece, Director, Chef d' Atelier, and Agent to French speaking territories, respectively, all of the Brunnschweiler, Ltd.; Mr. Krantz, Director of Vlisco, Hatema-Texoprint, nv.; Mr. Voirol, Director of Hohlenstein, Ltd., and his assistant Mrs. Hunzier. In addition Mr. J. D. Fage and Mr. B. Fagg were contacted in the British Museum; Mrs. Morrison in the Victoria and Albert Museum; Mr. Van Deuren and Mr. Thys in the Etnografisch Museum, Antwerp, and other curators and librarians also made themselves available for interviews and assistance.

10. Sample collection. The three manufacturers generously agreed to make available 135 different samples of African wax-prints, each about 36" x 46". As a result two almost identical collections belonging to Eicher and Nielsen are presently being used for teaching

purposes and are available for additional studies at Michigan State University and Andrews University (Michigan), respectively.

The following may serve as an example of how information on African wax-prints was obtained. An article was read in The London Times which in passing mentioned a famous Manchester design, the "Flying Duck," that had been produced and sold in remarkable quantities for many years. The "Flying Duck" and the "Tulip" were printed on a combined quantity of 1,500,000 yards annually in the late 1950's and sold in Ghana where the population at the time was 4,500,000.[1] Letters of inquiry about the "Flying Duck" and other African prints were sent out. Later, during personal, taped interviews with the three manufacturers, specific questions were asked about the history, sale, and use of the "Flying Duck" which proved to be one of the oldest African wax-prints. The discussions led to additional information about other designs, and the investigator was invited to observe the designing and production of the prints. Samples of the "Flying Duck" and others were obtained, analyzed, described, catalogued, and photographed. The methods of data collection and the resources used were summarized in Table 2.2.

Selection of Samples of African Wax-prints

In initial planning for the investigation the following alternatives of random sampling of the African wax-prints were suggested:

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[1]Butler, "Sale of British Cotton Goods in West Africa," p. 12.

Table 2.2. Summary of Data Collections

		Inqr.	Interv.	Coll.	Corsp.	Fld. St.	Obs.	Quest.	Photgr.
RESOURCES	Chambers of Commerce	X			X				
	Private Collection	X	X		X	X	X		X
	Manufac-turers	X	X	X	X	X	X	X	X
	Museums	X	X		X	X	X		X
	Public Library	X							X
	Specia-lists	X	X						
	Text. Inst.	X				X			
	Univ.	X	X		X				

Every fiftieth design of the production from 1950-1969;
every fortieth design of the production from 1930-1949;
every thirtieth design of the production from 1910-1929;
and every design from the years prior to 1900

However, none of these were acceptable to the manufacturers. The prints were not stored according to the year of production, and such alternatives would not provide a fair selection of the many types of design. Therefore upon request the producers agreed to select an assorted collection, providing samples from various decades, of traditional and contemporary prints, "best sellers" and cloth which did not sell too well, "good" and "bad" designs, prints with motifs illustrating certain ideas and concepts acceptable to the Africans, and prints with Javanese influence. A total of 225 samples with 135 different designs or 4.5 percent of holdings, were selected by the manufacturers, who held the following number of designs in their showrooms in 1971: (Table 2.3).

Table 2.3. Holdings and Assorted Samples from Manufacturers 1971

Manufacturer	Holdings of wax-print designs	Acquired wax-print samples	
		Eicher	Nielsen
Brunnschweiler	800	63	66
Texoprint	2000	25	28
Hohlenstein	200	20	23
Total	3000	108	117

Description and Analysis of Data Collection

The collected data were presented as: (1) a historical overview of the trade patterns of textiles to West Africa; (2) a survey of the origin and development of wax-prints; (3) an investigation of the contemporary production and use of speciality African prints, and (4) analysis, description, and comparison of selected designs from the assorted collections.

Classification and Cataloging of African Waxprint Collection

The samples of African wax-prints were classified according to categories of motifs occurring in the collection, and a classification system was made to facilitate the grouping of the prints.

A catalog was made of the collection specifying each manufacturer and based on the following criteria: 1) year of design; 2) arrangement; 3) motif category; 4) color; 5) size of repeat, and (6) intended market. The catalog also included the production number, the catalog number, and the name of the print. Additional information was recorded under "remarks" (Appendix B).

Definition of Terms

The following terms were used throughout this study and the intended meaning is as indicated in the definitions.

African prints is a general term describing all types of printed cloth intended for Africa, and it is used interchangeably with Manchester cloth and speciality African prints.

African wax-prints are machine made batiks which imitate Javanese hand made batiks, but with designs acceptable to African tastes. They are printed cotton fabrics of plain weave where the design is applied by engraved copper rollers with hot wax or resin on both sides of the cloth. They are usually dyed indigo, leaving a blue pattern on a white background after the wax or resin is washed out, and additional colors are added by either hand-blocking or duplex printing.

Batik is a name given in Indonesia to the process of applying resist-dyed patterns to cloth. The special feature of this process is that those parts of a design not intended to take the color in a particular dyeing operation are protected or "reserved" with a coat of wax, clay or starch paste.[2] Originally this kind of design was accomplished by hand painting on fine-spun cotton, but was at a later time also applied by engraved copper blocks.

Block printing is fabric decoration by hand, using engraved wood blocks.

Calico prints are hand-printed fabrics from Calicut, India, with distinctive characteristics from that area.[3]

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[2]J. Irwin and V. Murphy, Batik (London: Victoria and Albert Museum, 1969), p. 6.

[3]Florence H. Pettit, America's Printed and Painted Fabrics, 1600-1900 (New York: Hastings House Publishers, 1970), p. 49.

Chintz is presently a term used for fabrics with floral patterns. The term was derived from a Hindu word for "variegated",[4] and it was originally used in the West Indies for painted and printed cottons. In the eighteenth century it was a cotton fabric produced by the process of mordant and resist dyeing.

Crackle is an effect of fine lines produced in the wax-prints and batiks by the cracking of the wax or resin and subsequent entering of dye into the fabric.

Exotic fabrics are fabrics of unusual color and design, foreign to Western taste.

Field is a designation used in this study for the major section of the repeat in a wax-print.

Imitation African prints are fabrics printed as direct roller prints, imitating the white spots and crackled lines, distinctive to African wax-prints.

Imitation Madras is an imitation of the Real Madras from India, but it was manufactured in Europe on hand- or power-looms.

Indian cottons is a broad term for the various colorfully printed and woven cotton textiles from India.

Indigo dye is the name given to the blue coloring matter obtained from the leaves of the plant Indigofera tinctoria. It has been used for almost 5000 years and probably was the most important dye of the past, except in Europe where it was introduced in the sixteenth century by the Dutch. In the process of dyeing, the yellow cotton will turn

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[4]Pettit, America's Printed and Painted Fabrics, p. 50.

through green to blue as it is exposed to the oxygen of the air.[5]

Madras (Real Madras) is a woven cotton cloth originally from the area near Madras, India. It has a woven pattern, often checked or striped, and has been produced continuously for about 200 years. During this period it has pleased the tastes of the people in West Africa and West Indies.[6]

Manchester cloth is a broad term describing all types of printed cloth produced particularly in Manchester, England. It is used interchangeably with African prints and speciality African prints.

Mordant is a metallic salt which in soluble state reacts chemically with the dye solution to form an insoluble colored compound called a "lake".

Motif is the individual unit of a pattern which may be repeated in various ways.

Negative reserve pattern is a process where the pattern is painted or printed onto the fabric with one or more mordants. When this is dyed and washed the pattern appears where the mordant reacted with the dye.[7]

A Pattern book is a collection of textile samples with formulas and technical information prepared for the textile producers.

Printed Textiles are fabrics to which a decorative pattern is

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[5]Stuart Robinson, A History of Dyed Textiles (Cambridge, Massachusetts: MIT Press, 1969), pp. 23-24.

[6]A. O. Brunnschweiler, History of the Madras Handkerchief Trade. Unpublished notes, 1957, p. 2.

[7]Robinson, A History of Dyed Textiles, p. 39.

applied in one or more colors and by various methods, such as, direct, discharge, and mordant dyeing, and resist printing.

Repeat is the basic unit of design in fabric decoration, which is repeated at fixed intervals and creates a rhythmic flow over the entire fabric.

Resins are chemical compounds (trade secret) used instead of real bees' wax in the resist dyeing process.

Resist printing is application of a pattern to a fabric in which the dye is prevented from reaching certain predetermined areas ('resisting') which are covered by wax, clay, starch paste, or a chemical resin while the cloth is dipped into the dye bath. The four principal resist processes are batik, tie-and-dye, stenciling, and the negative reserve pattern.

Speciality African prints is a term used interchangeably with Manchester cloth and African prints to describe printed cloth made in Europe especially for the African market.

Stenciling is a process in which the fabric is protected in predetermined areas by stencils or engraved plates before the dyeing.

Stylized design is a design which represents a motif according to a stylistic pattern rather than a naturalistic pattern.

Tie-and-dye refers to another resist process in which parts of the cloth are tied up with waxed strings (knotted, plaited or stitched) before it is dipped into dye, preventing the dye from penetrating the tied portions.

West African countries in this study are comprised of Senegal, Mali, Gambia, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana,

Upper Volta, Niger, Chad, Togo, Dahomey, Nigeria, Central African Republic, Cameroun, Gabon, and Congo. The main African areas covered in this investigation can be observed on the map of Africa on the following page.

The five types of research employed in this investigation were: historical study, descriptive study, field study, survey, and classification of two sample collections. The specific methods of data collection were: inquiry, correspondence, questionnaires, library research, field investigation, study of collections, photography, observation of production, taped interviews, and acquisition of two sample collections. The data collection was described and analyzed, and the two wax-print collections were classified and cataloged.

In order to appreciate more fully the importance of cultural heritage of wax-printed textiles in contemporary African dress a brief overview of the trade history of textiles imported to Africa follows.

Source: AFRICA REPORT, Vol. 18, No. 4 (July-August, 1973) p. 2.

CHAPTER III

HISTORICAL OVERVIEW OF TRADE WITH TEXTILES IN WEST AFRICA

The interest in decorated textiles dates back to the merchants and kings of the early West African empires of Songhai, Mali, and Ghana (what now is known as Upper Volta and Ghana) who wore richly embroidered robes, often decorated with threads of gold.[1] These merchants and kings encouraged the establishment of trade and trading routes across the Sahara, and the extensive trade eventually led to the founding of cities, states and empires in West Africa; foremost of these was Ghana. Its people played a significant role as middlemen between producers and merchants, and about 1100 A.D. textiles and linen were among the chief imports from the north.[2] The trade pattern was as follows: ships from Spain, Portugal and Italy delivered cargoes of European goods, including cloth, in exchange for African goods at Africa's Mediterranean ports. The products were transported to the markets in a variety of ways: on the backs of donkeys and camels, on the heads of porters, and in the holds of river boats. The bulk of the

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[1]"Prints from the New Africa", American Fabrics, Winter, 1965-66, No. 73, p. 57.

[2]Boahen A. Adu, "Kingdoms of West Africa", The Horizon History of Africa, edited by Alvin M. Josephy, Jr. (New York: American Heritage Publishing Company, 1971), p. 185.

products bound for Central and West Africa were loaded onto camels, and reached their destinations by an intricate network of caravan routes. In "ports" such as Timbuktu, Walata, Gao, and Takedda on the southern rim of the Sahara another exchange took place, and the porters who had brought the African goods from the south and west returned through the forest to the inland kingdoms and the coastal markets with the European products.[3] In the fourteenth century the trade routes had been extended to Axim in southwest Ghana, and Boahen claims that a proof of the extension of the northern trade routes down to the coast of Ghana was the fact that shawls and dressing gowns manufactured in Morocco and Tunis were in great demand on the coast of Ghana before the arrival of the Portuguese.[4]

The trans-Sahara trade traffic was supplemented, beginning in the fifteenth century, by European sailing ships. In the beginning the Portuguese caravels carried most of the trade with contact points at Axim and Elmina, but they were later challenged by the English, the Dutch, and others. Extensive trade with non-Africans was carried on in the 1500's, when the chiefs of Ghana acquired from the trade ships in exchange for gold, great amounts of linen cloth which they used for apparel and draped around their middles.[5] In the absence of money

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[3]Basil Davidson, African Kingdoms (New York: Time-Life Books, 1966), pp. 89-92.

[4]Boahen, The Horizon History of Africa, p. 188.

[5]Freda Wolfson, Pageant of Ghana (London: Oxford University Press, 1958), pp. 40-54.

various articles, including metals, beads, and cloth were used as media of exchange. For example, the people of Kanem, a kingdom spanning the area between present day Libya, Chad, and Northern Nigeria, used a kind of cloth called "Wendy" as money. Each piece was ten cubits long but to facilitate exchange it was cut into pieces of a quarter of a cubit or smaller.[6] The cubit length was measured from the elbow to the tip of the outstretched finger in a full grown man.[7] In the early 1600's Dutch linen cloth served as currency in the markets of Ghana,[8] and in the nineteenth century fabric was still valued as currency, for example, in bartering for slaves.[9]

British chartered ships started to trade on the coast of West Africa in 1553,[10] and according to Ramsay, it was the textile and provision export along with the tobacco and sugar import that in time led to the participation of the Liverpool merchants in the slave trade during the seventeenth centery. It involved a triangular voyage with the sale of cotton, metalwares and firearms to Africans in exchange for

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[6]Basil Davison, "The Niger to the Nile", The Horizon History of Africa, p. 235.

[7]R. W. Beachey, "East African Ivory Trade in the Nineteenth Century", Journal of African History, Vol. XIII (1967-68), p. 269.

[8]Elliot P. Skinner, "West African Economic Systems", Economic Transition in Africa. Edited by Melville J. Herskovits and Mitchel Herwits (Evanston: Northwestern University Press, 1967), p. 92.

[9]Daryll C. Forde and Phyllis M. Kaberry, West African Kingdoms in the Nineteenth Century (Oxford: Oxford University Press, 1967), p. 134.

[10]G. D. Ramsay, English Overseas Trade (London: Macmillan Co., Ltd., 1957), p. 29.

slaves who were brought out to the coast by the African intermediaries, to be transported to the West Indies and North and South America in exchange for sugar and molasses.[11] In the year 1600 the English East India Company was established to promote the trade.

The Dutch began to send their ships to West Africa in 1593 and by the end of the century they had established contacts with Benin (Nigeria) and soon virtually excluded the Portuguese. In the beginning they bought ivory and pepper for the European market, and in addition they took cotton cloths and stone beads (coris) from Benin, the Facados river, and Ijebu to barter for gold on the Costa da Mina.[12] The Dutch East India Company was established in 1597 and like the English East India Company bought up vast quantities of Indian cloth for their trade with the Guinea Coast and the Niger Delta.[13] These cloths became commonly known as Indian Cottons in the literature. The Dutch traders were generally successful, and by 1620 they had supplanted the Portuguese as the leading traders on the coast of West Africa. In 1621 the Dutch West India Company was formed and granted a 24 years' monopoly of all Dutch trade with West Africa, but gradually it encountered serious financial problems, and in 1674 it was replaced by a smaller organization.[14]

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[11] G. D. Ramsay, English Overseas Trade, p. 156.

[12] A. F. C. Ryder. "Dutch Trade on the Nigerian Coast During the Seventeenth Century", Journal of the Historical Society of Nigeria, Vol. 3, No. 2 (1965), p. 195.

[13] Eve de. Negri, "Nigerian Textile Industry Before Independence", Nigerian Magazine, No. 89 (June, 1966), pp. 95-96.

[14] Ryder, Journal of the Historical Society of Nigeria, p. 195.

According to Jones, D. O'Dapper in 1686 listed a number of cloths and linens suitable for export to West Africa,[15] and another list of fabrics and prices recommended for the West African coast was presented by Adams.[16] Throughout the centuries both indigenous and imported textiles were traded and used in sub-Saharan Africa, and ever since the first trading vessels visited the coast, cloth was consistently a principal trade item and a stimulus to economic production and trade. It is also significant that it was the great demand for cloth in the sixteenth through the eighteenth centuries that encouraged the establishment in West Africa of a system of "trust" based on credit trading. According to Ryder, its origin was obscure, but it was generally used in trade with the Africans by the Portuguese, the English, and the Dutch. "Trust" was firmly established in Benin at the end of the sixteenth century, at least in the purchase of cloth, and it persisted until modern times in various forms.[17]

During the eighteenth century trading posts were established along the coast where palm oil and other goods were exchanged for various commodities including cloth. From 1720-50 a trade struggle took place between the exporters of Indian prints and the dealers in Manchester

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[15]William O. Jones and Christian Merat, "Consumption of Exotic Consumer Goods as an Indicator of Economic Achievement in Ten Countries of Tropical Africa," Food Research Institute Studies, Stanford University, Vol. 3, No. 1 (February, 1962), p. 38.

[16]John Adams, Remarks on the Country Extending from Cape Palmas to the River Congo (London: Frank Cass and Co., Ltd., 1823) (reprint 1966), pp. 235-59.

[17]Ryder, Journal of the Historical Society of Nigeria, p. 204.

cloth. The latter was a broad term used particularly to describe all types of printed cloth produced in Manchester. At first Manchester printers provided coarse linen in dull colors, but these did not satisfy Africans who preferred the lighter all-cotton India prints in bright colors. Therefore, the Manchester cloth was modified to suit the African taste, and by 1750 it had acquired a quality comparable to the Indian textiles, and from that time onward the Manchester cloth gained acceptance in Africa along with the Indian cottons. Gradually the demand increased, helped by the decline of the East Indian Traders who were suffering from the Indian unrest following an insurrection in 1751 at the cloth port of Surat.[18] As a further incentive, the Manchester merchants varied their cloth in color and pattern to cater to the different regions in the West African countries, each having its own fashions and tastes, and thereby giving rise to a special West African market for the Manchester cotton industry. Consequently in the 1800's the Manchester cloth captured the textile trade on the coast and replaced the more expensive Indian cottons which, according to Jones, sold for 15 shillings compared to only 3 shillings for the Manchester cloth.[19] Nevertheless, Africa was not as yet an important market for the Manchester cloth, because in 1856 it accounted for no more than 3 percent by value and 5 percent by volume of the total textile export.

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[18]Robinson, A History of Dyed Textiles, p. 76.

[19]G. I. Jones, "Import Trade of Cloth Into Eastern Nigeria". Unpublished manuscript, 1962, pp. 1-8.

West Africa took only 20 million yards per year at that time; but about 1880 the Chamber of Commerce (England) made more deliberate attempts to develop new markets, and as a result there were increased exports of Manchester cloth to West Africa and Zaire. An exact calculation of the amount and value of this export was not possible since many Lancashire cotton goods were exported to West Africa and Zaire by way of Holland and France.[20] However, by comparison to the total export of 20 million yards of cloth to West Africa in 1856, England exported 41 million yards of Manchester cloth to British West Africa in 1880 and 145 million yards in 1913.[21] Another comparison indicated that the export of cotton goods to Nigeria in the 1850's was insignificant but had risen to 21.4 million yards in 1963 (Table 3.1). There was a considerable increase in the trade with cotton goods in the 1900's, partly due to the following reasons:

1) British merchants were looking for new and increased markets;
2) Cloth was still used as means of barter;
3) Production of special colors and patterns suited for West Africa and Zaire increased;
4) The quality of cloth improved;
5) Cheaper materials brought about lower prices;
6) Foreign cloth became a status symbol in parts of Africa; and,
7) Means of communication and transportation improved.

When enormous quantities of cheap cloth were brought into West African countries in the 1930's, they became more popular than the local

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[20]Arthur Redford, Manchester Merchants and Foreign Trade 1850-1939 (Manchester: Manchester University Press, 1956), pp. 60-62.

[21]Redford, Manchester Merchants and Foreign Trade, p. 75.

Table 3.1. Export of Cotton Goods to Nigeria 1850-1963.

1850	Cotton piece goods	Insignificant
1866	Cotton piece goods	262,000
1870	Cotton piece goods	515,000[1]
1899-1901	Cotton piece goods	322,000[1]
1909-1911	Cotton piece goods	1,188,000[1]
1919-1921	Cotton piece goods	3,913,000[1]
1929-1931	Cotton piece goods	2,634,000[1]
1935-1937	Cotton piece goods	3,371,000[2]
1939	Cotton piece goods	1,377,000[3]
1949	Cotton piece goods	17,890,000[4]
1953	Cotton piece goods	18,066,000[4]
1963	Cotton piece goods	21,447,000[3]

[1]Redford, Manchester Merchants and Foreign Trade, p. 60.

[2]P. T. Bauer, West African Trade (Cambridge: Cambridge University Press, 1954), p. 47.

[3]G. Brian Stapleton, The Wealth of Nigeria (Ibadan: Oxford University Press, 1967), p. 181.

[4]Bauer, West African Trade, p. 48.

cloth, which could not compete with the imported cloth either in quality, pattern or price.[22] For decades imported cotton goods dominated the stalls at large open markets in West Africa's cities and towns and even out on the desert fringes.[23] Therefore, as mentioned by Hance, at one stage of development in West Africa (1961) import of textiles loomed very large on the list of imports, even if there was an increasing desire to produce cloth locally.[24]

The beginning of the African wax-print market, as it is known today, is somewhat obscure. Mr. Krantz from Texoprint stated that trade in wax-prints actually started with the young unmarried European men who came to West Africa to trade in the second half of the nineteenth century. As they settled down to trade they quickly engaged the African women in their business. The women taught them the language and received sewing machines and instruction in how to use them in return, and before long the sale of prints flourished. Another beginning was attributed to West African soldiers who were serving in Indonesia (1810-62). They reportedly brought back Java batiks as gifts for their wives who soon developed a liking for such cloths.[25] Dutch East India

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[22]G. T. Basden, Niger Ibos (London: Seeley, Service and Company, Ltd., 1938), p. 26.

[23]Guy Hunter, The New Societies of Tropical Africa (London: Oxford University Press, 1962), p. 133.

[24]Will A. Hance, "Analysis of West African Industry", Journal of International Affairs, Vol 15, No. 1 (1961), p. 37.

[25]G. H. Rodenburg, "Dutch Wax-Block Garments", Textielhistoriische Bijdragen (1967), p. 47.

Company merchants trading to Elmina (Ghana) also played a role in the build-up of local demands for the batik cloth.[26] About 1830 the Dutch still used the Indian cloth as barter trade in West Africa, and between 1850-1900 they introduced the Java cloths which became a threat to the trade with Indian prints and therefore were prohibited for awhile. By 1893 West Africans had developed a taste for this type of cloth. Mr. Fleming of the Scotch Cotton Concern noticed this interest for wax-batiks, and as a result he had such cloth manufactured by Previnaire in Holland, who had invented a machine that could produce satisfactory imitations of hand-made batik. Just as the designs of the Indian cottons were adjusted to African tastes, likewise were the Java batiks. Thus the African wax-printed textiles became one type of Manchester cloth. Mr. Voirol of Hohlenstein explained that the Basel Trading Company (BTC), catering to the various needs of missionaries, also supplied them with batiks, and that the Africans eventually adopted the use of wax-printed textiles as a result of their influence. Therefore, it appears that traders, merchants, missionaries, and returning soldiers all played a role in introducing the wax-batiks to the West Africans.

The survey of textile trade patterns in West Africa is summarized in Table 3.2, and the trade routes from 500-1600 A.D. were traced on the map of Africa on page 31. In the following chapter a brief description of the origin and development of wax-printed textiles will be presented.

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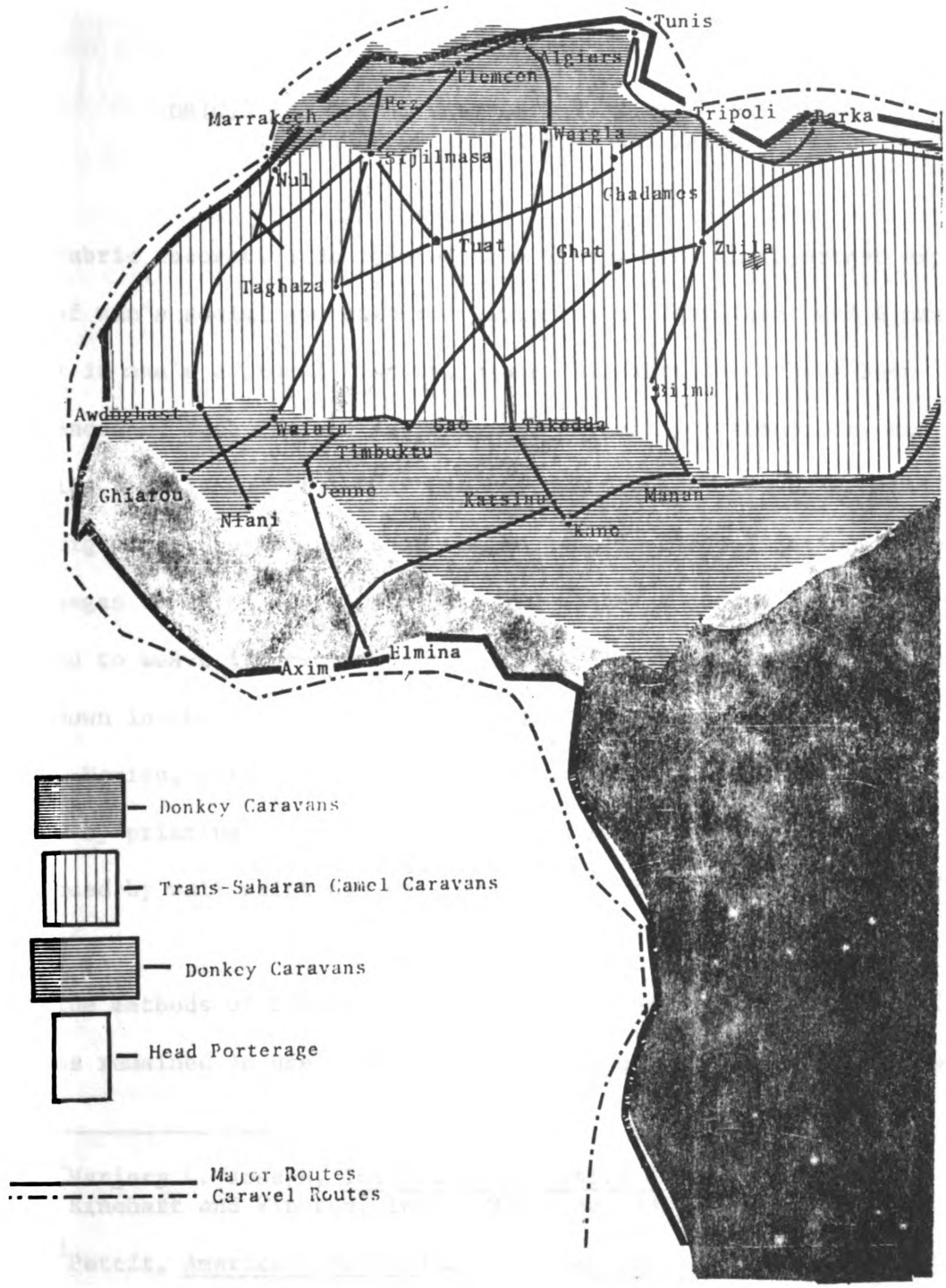
[26] P. C. Beauchamp, "A Gay Garb for Ghana", West Africa, Vol. 41, No. 2081 (March 2, 1957), p. 209.

Table 3.2. A Date Chart Summarizing Important Trade with Textiles in West Africa.

AD 1100	Textiles delivered to North African ports, re-routed by caravans to West Africa.
AD 1300's	Trade routes extended to Axim, Southwest Ghana.
AD 1400's	Portuguese sailing ships arrived.
AD 1500's	Expanded trade by ships to West Africa.
AD 1500-1800	Cloths used as currency.
AD 1553	First British ships began trading.
AD 1593	Dutch ships were sent to West Africa.
AD 1597	Dutch East India Trading Company began trading.
AD 1600	English East India Company was established.
AD 1600's	"Trust" introduced as credit trading.
AD 1620	Dutch succeeded in taking over trade from the Portuguese.
AD 1621	Dutch West India Company established.
AD 1686	D. O'Dapper published list of cloth suitable for West Africa.
AD 1700	Trading posts permanently established.
AD 1720-1750	Trade struggle between merchants of Indian cloth and Manchester cloth.
AD 1750	Manchester cloth became accepted on Africa's West Coast; sale of Indian cloth declined.
AD 1800's	Manchester merchants produced cloth appealing to African tastes, capturing West African market.
AD 1893	Recorded requests for wax-printed textiles.
AD 1900's	Rapid increase in export of cotton goods to West Africa, interrupted by two world wars.
AD 1970's	Cloth continues to be one of chief imports.
AD 1974	Wax-printed textiles are still imported, even if they are also produced by indigenous factories.



Map of Early Trade-routes.

CHAPTER IV

ORIGIN AND DEVELOPMENT OF WAX-PRINTED TEXTILES INTENDED FOR WEST AFRICA AND ZAIRE

Fabric decoration has conceivably always been an important expression of man's social and cultural patterns, a significant and dynamic factor in man's cultural history, since the fabric arts have been influenced by such factors as religion, psychology, economics, and politics. It is doubtful that one specific country can be credited as the originator, but artisans of the most ancient civilizations probably began to color cloth with dyes and patterns almost as soon as they learned to weave it, because application of surface design to cloth was known in the ancient civilizations of Phoenicia, Egypt, China, India, Mexico, Peru, and Indonesia.[1] For example, the art of producing design by printing color onto fabrics was practiced 5000 years ago as evidenced by wall paintings and remnants of cloth in ancient Egyptian tombs.[2]

The methods of fabric decoration inherited from the ancient civilizations remained in use with little changes until the nineteenth century.[3]

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[1]Marjory L. Joseph, Introductory Textile Science (New York: Holt, Rinehart and Winston, Inc., 1972), pp. 331-32.

[2]Pettit, America's Printed and Painted Fabrics, pp. 47-48.

[3]"Dyes and Dyeing," Encyclopedia Britanica, Vol. VII, p. 814.

Each country had its own characteristic methods and motifs, but during wars and conquests, and when trade routes were opened, some designs changed hands and were modified or adapted by other nations.[4] Therefore, textile design throughout history was influenced when one culture borrowed from another, and the borrower altered patterns in accord with his own interpretations, while each group acquired a characteristic manner of expression different from other cultures, resulting in individual differences within the groups but possessing a certain kinship.[5] Consequently the story of fabric decoration was the story of design and made a significant contribution to the cultural heritage of countless civilizations of the past,[6] and African wax-printed textiles today continue to be one expression of West African culture.

In a variety of distinctive styles of design, craftsmen throughout the ages were using hand processes that changed little. As the techniques persisted, fabrics were patterned by the application of color pigments, whether by painting, printing or a combination of these methods. The pattern was applied to the fabric with a brush, by printing with woodblocks, engraved copper plates, more recently by metal rollers, and also by various kinds of resist processes. The principal

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[4]Pettit, America's Printed and Painted Fabrics, p. 49.

[5]Verla Birrell, The Textile Arts (New York: Harper & Brothers, 1959), p. 4.

[6]Meda Parker Johnston and Glen Kaufman, Design on Fabrics (New York: Reinhold Book Corporation, 1967), p. 7.

resist processes are, firstly, tie and dye, where parts of the fabric are tied up, knotted, plaited or stitched and drawn up before dyeing. Another form is the protecting of the fabric by placing or sewing on stencils or clamping between engraved plates before dyeing. A third group of processes includes the negative reserve pattern, where a pattern is painted onto the fabric with one or more mordants. When the cloth is dyed and washed the pattern appears where the mordant reacted with the dye.[7] A fourth form is batik which is the process of primary concern in this study. The word batik in Malay comes from the sound "tic" derived from the dropping of the wax on the cloth[8] and denotes a certain method of applying resist dyed patterns to finished fabrics. That part of the design which is to remain free of dye is carefully covered, or "reserved" to protect it from contact with the dye. The substance used for reserving or covering, usually liquid wax, but also perhaps resin, paraffin, rice paste, clay or any other dyeproof substance, is called the resist.[9] This protective coating can be re-applied to different parts of the cloth for successive dye-baths to produce a variety of patterns.

The origins of batik are obscure, but it has been suggested that wax-batiks probably came either from Asia to Java where the process

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[7]Robinson, A History of Dyed Textiles, p. 39.

[8]Mattibelle Gettinger, personal correspondence to Joanne B. Eicher, Spring 1974.

[9]Alfred Steinman. A Survey of Batik Design (London: F. Lewis, Publishers, Ltd. The Tithe House, Leighon Sea, 1958), pp. 13-15.

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reached its highest accomplishments or perhaps from India, and finally reached Europe.[10] Batik may have been used in Java since the seventh century, because twelve hundred year old figures of stone, wearing garments decorated with similar patterns to those worn today on the wax-batiks, were discovered in Java. Apparently these designs were handed down through the centuries. According to one source some of the earliest and finest batik were called tulis which means "writing" and it is now thought the original tulis batik derived from "painter's" art. The very finest tulis batik were almost always done by men but later the noble women took over the art. However, it is felt that common women along the coast have done it all along.[11] From the thirteenth century the craft ceased to be the monopoly of the royal family and spread to the whole court which in turn encouraged a rapid development of motifs and colors. The art of batik progressed through the centuries and developed into a powerful industry in Java, resulting in a steady export to neighboring countries and also to Europe.[12]

Javanese batiks were introduced to Holland in the seventeenth century and spread to other parts of Europe, but due to their exotic appearance they were not readily accepted. When Sir Thomas Raffles (1781-1826) in the nineteenth century gave a full description of the processes and uses of batik, and when at the same time the European

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[10]Robinson, A History of Printed Textiles (Cambridge, Massachusetts: The MIT Press, 1969), p. 39.

[11]Gettinger, correspondence with Joanne B. Eicher, Spring 1974.

[12]Steinman, A Survey of Batik Design, p. 13.

merchants were looking for ways to expand the trade, the interest was aroused for batik fabric. Therefore, they began to study the market, the dyes, the procedure, and the best ways of producing machine batiks cheaper than the costly handprinted originals.[13] When first producing batiks, the Dutch used the Javanese technique, attempting to work in the manner of Indonesian craftsmen; but eventually they began to experiment with machine made batiks and established factories in Leyden (1835), Rotterdam, Haarlem, Helmond, and Appledorn. However, as stated by Rodenburg, the Dutch cotton printers did not immediately start to produce machine made batik for West Africa.[14] During the 1890's batik became popular in Europe, and handprinted fabrics which had little in common with the true Javanese batiks were in great demand. For example, in the early 1800's, batik evening gowns were used at the Berlin Court in Germany. Machine made batik industries were also developed in Glarus (1840's), Thurgau, and Zurich (1850's) in Switzerland, for export to the British and Dutch Indies. But already in the 1870's the Swiss encountered serious difficulties in continuing the production of machine wax-prints, and during the economic difficulties of the 1920's the large scale production of machine batiks in Europe collapsed. Only a few individual manufacturers were able to continue the production.[15]

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[13]Robinson, A History of Dyed Textiles, p. 40.

[14]Rodenburg, "Dutch Wax-block Garments", p. 43.

[15]Robinson, A History of Dyed Textiles, p. 41.

As mentioned in Chapter III the Javanese wax-batiks and the machine made batiks were introduced to West Africa in the nineteenth century by various means; such as, traders, merchants, explorers, missionaries, and soldiers who had returned from service in Indonesia. Apparently Previnaire at Haarlem in Holland made the first machine made wax-prints for West Africa, because Flemming, from the Scotch Brown Flemming Company, about 1893 reported that the West Africans were very fond of wax-prints, especially the designs from Previnaire. The speciality of Previnaire was red dyeing, but the firm abandoned it to concentrate on the printing of machine batiks for West Africa. However, the quantity produced and sold is unknown because all records were kept by the Previnaire family and presumably have been lost.[16]

Production of African wax-prints began in Lancashire, England, at the end of the nineteenth century and became part of the Manchester trade structure. The most famous of the English wax-print manufacturers was Newton Banks Works of the Calico Printers Association, Manchester (known today as the English Calico, Ltd.).[17] The merchant converters in Manchester at first had the cloth produced in Holland, but later on it was also produced in England and elsewhere. For example, virtually the whole trade of Dutch wax-prints was handled by United African Company (UAC) of Manchester; but some smaller firms also participated.[18]

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[16]Rodenburg, "Dutch Wax-block Garments", p. 47.

[17]Butler, "Sales of British Cotton Goods", p. 12.

[18]"Manchester's African Trade", West Africa (September 16, 1950), p. 850.

Basel Trading Company (BTC), Switzerland, attempted to obtain wax-prints for West Africa from UAC but was unsuccessful. Therefore, they decided to produce their own prints. They bought a mill in Glarus-Ennenda, ordered the designs from UAC, and started the production. This was the beginning of the Swiss wax-print production for West Africa, 1922-24.[19]

African craftsmen had for some time made starch resist cloth which was well accepted by the Africans. Consequently, to cater to the conservative tastes of the consumer and to attempt to gain a stronger foothold on the West African textile market, the European textile printers made special trips to the West coast to bring back examples of the indigenous cloth, which they copied. African prints, inspired by the designs of such African cloth, are now held in the "Charles Beving Collection" in the British Museum, in the "Rachel Kay Shuttlework Collection" in Gawthorpe Hall, Lancashire, England, and in the "Collection of Printed Textiles for Export to Africa" in the Etnografisch Museum, Antwerp, Belgium.

In summary, fabric decoration can be traced back to the ancient civilizations and may have existed as long as the art of weaving. Even if various cultures borrowed designs from one another, groups acquired characteristic manners of expression all their own, and their cultural heritage was reflected in their decorations. The African wax-prints can be traced to the batiks of the Far East, and reached West Africa in the nineteenth century by way of Indonesia and Europe by means of

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[19]Voirol, Director, Hohlenstein, Ltd., personal interview, 1971.

returning Ashanti soldiers, and various traders, merchants, explorers, and missionaries. They were first produced in Holland and later in England, Switzerland, and other European countries, and eventually became an important part of the Manchester trade structure. In the following chapter the contemporary production of African wax-printed textiles is presented.

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CHAPTER V

CONTEMPORARY PRODUCTION AND USE OF WAX-PRINTED TEXTILES FOR WEST AFRICA AND ZAIRE

During the summer of 1971 the investigator visited the only three remaining factories in Europe which practiced the ancient craft of wax-printing on cloth intended for export to Africa. They were as follows:

A. Brunnschweiler (UK), Ltd., Manchester, England.

Hatema-Texoprint nv., Helmond, Holland.

Hohlenstein Textile Printing Works, Ltd., Glarus, Switzerland.

The technique employed in the three factories was basically similar to the one practiced in the eighteenth century except that the technology was ingeniously mechanized. The design was printed with hot resin on both sides of high quality cotton fabric of plain weave, it was dyed indigo, and the resin was washed out, leaving a blue pattern on a white background. Thereafter, colors were added by successive repeated procedures, hand-blocking or printing.

Development of Printed Textiles in England

During the seventeenth century Indian printed and painted cottons (chintz) became popular in Europe, and since the demands could not be satisfied by sufficient imports, attempts were made in various parts of

Europe to produce imitations of the chintz.[1] In the 1670's European calico printers were successful in mastering the difficult dyeing processes which were basic to the production of chintzes.[2] It appears that Huguenot textile printers who fled to England in the seventeenth century were the first to introduce the technique of producing imitation prints in England.[3] William Sherwin, an engraver of West Ham, founded the first calico printing works, east of London.[4] Other printers established themselves in Lancashire, Derbyshire and Scotland, and by 1840 there were 93 firms in Lancashire and 70 in Scotland. On November 8th, 1899, the Calico Printers' Association, Ltd. was formed under the chairmanship of F. F. Grafton, and it included 85 percent of the British calico printing industry with 32 printers in England and 14 in Scotland. In addition, the association included 5 Manchester merchants, 5 Glasgow merchants and 3 from other towns.[5]

Some time during the evolution of the printed textile industry in England, the technique of producing machine copies of the genuine Javanese batiks was introduced. According to one source it came to England before 1865,[6] but another source suggests that the production of

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[1]Robinson, A History of Printed Textiles, p. 15.

[2]"Printed Textiles", Encyclopedia Britanica, Vol. XXI (1971), p. 913.

[3]Robinson, A History of Printed Textiles, p. 15.

[4]Pettit, "America's Printed and Painted Fabrics", p. 75.

[5]Calico Printers' Association, Ltd., Fifty Years of Calico Printing (Manchester: Calico Printers' Association, Ltd., 1949), pp. 14-18.

[6]Robinson, A History of Printed Textiles, p. 46.

these prints began in Lancashire at the end of the nineteenth century.[7] These wax-prints became a part of what in the literature is referred to as Manchester cloth or African prints. In 1893 we learn of export to West Africa of wax-prints, when Mr. Flemming, a shipper from Steiner and Company in Scotland, discovered that the Africans had developed an interest in wax-prints. Consequently, he started to trade in these prints which he obtained from Previnaire in Holland.[8] This suggests that such prints were not in general production in England at that time.

History of Brunnschweiler, Ltd.

K. A. Brunnschweiler, born in Switzerland in 1848, made his apprenticeship in a Swiss firm producing among other things imitation Madras handkerchiefs which were presented at the great exhibition of 1851 in London.[9] He got involved in the "Madras" trade, and when he immigrated to England in 1863 to work for his Swiss uncle, J. G. Wirth, of J. G. and A. Wirth, he apparently continued the selling of Swiss "Madras" cloth, presumably mostly to merchants trading in West Africa. In the 1870's he became acquainted with the real Madras which he incorporated into the trade,[10] and in 1874 he established himself in Manchester to

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[7]Butler, The London Times, p. 12.

[8]Rodenburg, "Dutch Wax-Block Garments," p. 46.

[9]A. O. Brunnschweiler, History of the Madras Handkerchief Trade. Unpublished lecture notes. Manchester (1957), p. 2.

[10]Brunnschweiler, History of the Madras Handkerchief Trade, p. 3.

deal in the Madras trade. Plate II, No. 95 shows an example of Madras intended for Africa. He continued to deal with West Africa from a distance, but did not send a representative to the West coast before 1928. And when branches were opened in 1934 they were still operated at the names of their respective managers, according to Mr. Cooper (Brunnschweiler, Ltd.), who himself spent many years working in Nigeria and Sierra Leone, and gave evidence of first hand knowledge about the trade with textiles. He also stated that the branch in Freetown, followed by the one in Nigeria, was in 1941 registered under the Brunnschweiler name, but continued to trade as a private company until 1960, specializing in the Madras trade but also selling wax-prints. In 1960 the Calico Printers Association (CPA), which traded in printed cloth to West Africa, decided to acquire a direct line of wax-prints to West Africa, and since the Brunnschweiler firm was already well-established in the Madras trade, the CPA bought the company and encouraged them to further develop the wax-print trade just as they had done the Madras trade. Consequently these two specialities became the backbone of the Brunnschweiler trade with West Africa. They were competing with the Dutch, and the French Company C.F.A.O. who cooperated with the Japanese and made a serious attempt to acquire the wax-print market in Africa. After World War II the Japanese succeeded in taking the market in East Africa, but Brunnschweiler Ltd. were concentrated on the countries of West Africa and Zaire. The company became part of CPA in 1960. In 1968 the Calico Printers Association merged with the English Sewing Cotton Company to form the English Calico, Ltd., and

A. Brunnschweiler (UK), Ltd., was the trading name for the African section.[11] In 1971 the English Calico, Ltd., was probably the only manufacturer of African "48" printed cotton textiles in Great Britain. This company also has joined with the government of Zaire and two other parties in the establishment of a print works at Kinshasa, Zaire.

Brunnschweiler Production

Two major production lines of African prints exist, stated Mr. Cooper: 1) wax-prints, and 2) fancy prints. Wax-prints are wax-batiks which imitate the genuine Java batiks, but they are machine printed rather than hand-painted. The fancy prints included Green Ground, Alizarine, Blotch print, and straight-forward roller print, imitating the white spots and crackled lines, distinctive to African wax-prints. For many years the fancy prints formed a large part of the Brunnschweiler production, but as a result of the CPA take-over and growing Japanese competition in fancy prints the emphasis was changed to wax-prints.

The investigator was invited to observe the production of African wax-prints. Brunnschweiler imported bulks of 117 yard long pieces of Gray cotton cloth from Taiwan, Korea, Japan, China, India and Pakistan which were sewn together in lengths of 12,000 yards for the manufacturing of the printed cloth. The cotton was bleached, straightened and printed with resins on both sides by engraved copper rollers, and as the fabric fell down in layers, the resin creased and the material

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[11] L. Cooper, Director, Brunnschweiler, Ltd., personal interview, 1971.

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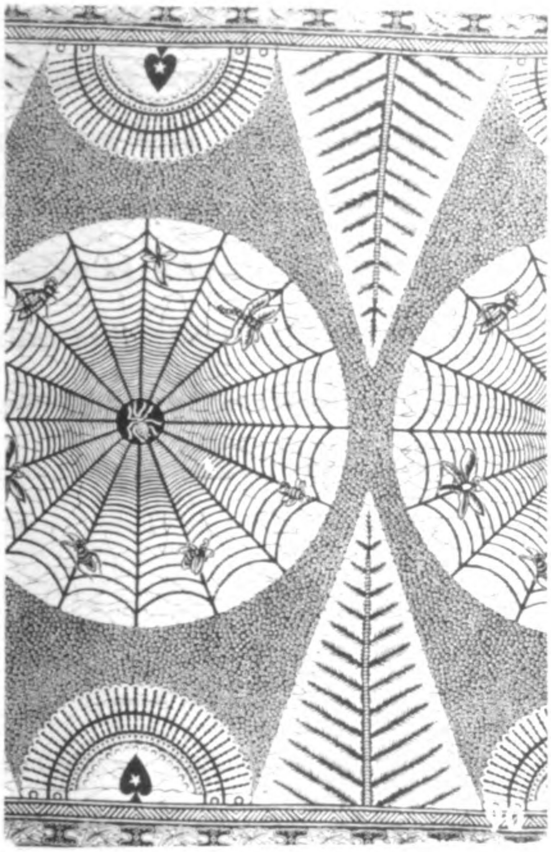
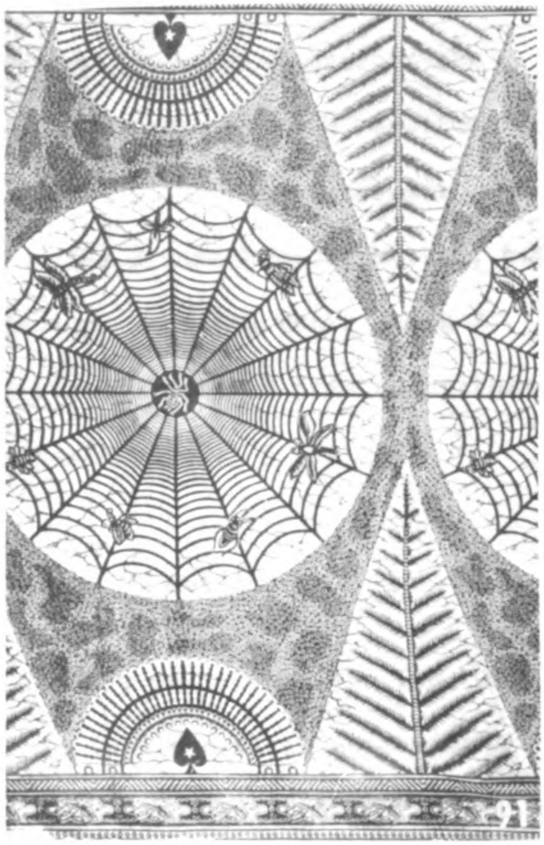
acquired the "cracked" lines characteristic of Javanese batik. Sometimes it was sent through a wringer to produce the same effect. In this duplex process of waxing both sides of the cloth were printed simultaneously, one side a little ahead of the other. Such a misfit was exploited for the purpose of adding a subtle effect to the cloth. Mr. Cooper pointed out that it was significant for good results that the temperature of the resin be exact. The next step involved passing the fabric through several indigo dye baths, interrupted by oxidation between each bath. The cloth appeared green after the first dip, but turned more and more blue after each subsequent dip and airing. This was followed by a washing to remove nearly all the wax, but purposely leaving small spots of resin on the cloth until the terminal washing to produce spots called "lights". Application of further coloring was done by a continuous machine process, a treatment which had to be very exact for satisfactory result and was regarded a trade secret (Plate I). Only occasionally did they use the hand-block technique. Throughout the printing every attempt was made to retain the effect and appearance produced by the old established hand-block method. No wash and wear finish was applied, because the African customer prefers design and eye appeal over convenience.

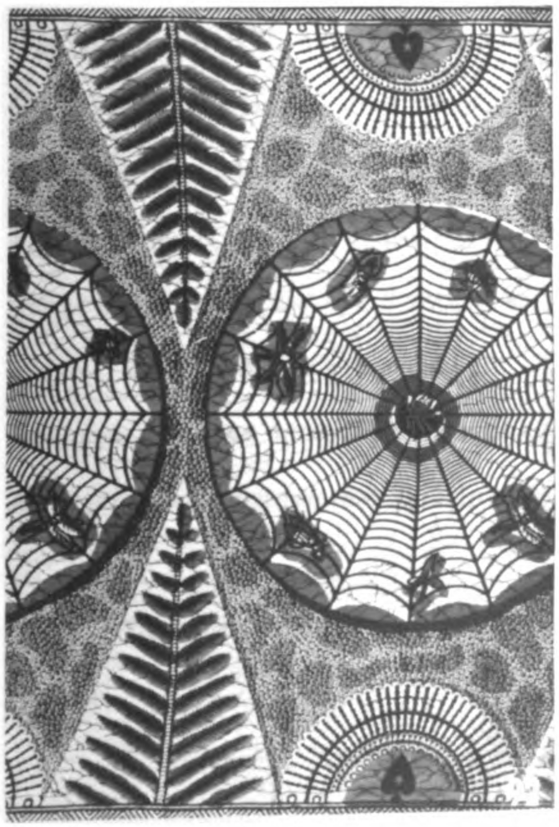
In 1971 Brunnschweiler presented 800 samples in their showroom, and offered a total range of 4,500 engraved designs, but had records of 20,000 different patterns on rollers, photographs, or cloth samples. The chef d'atelier, Mr. T. Jones, pointed out that a print was taken off production if there were no sales during a 4 or 5 year period; yet it was never considered dead, and was re-introduced when orders were received. The company employed 40 designers and produced about 25 new

PLATE I

Plate I is an illustration of how the depth and vividness of the same design was improved by additional color application. No. 90 has only indigo and white colors; No. 91 has one color added, and No. 92 has two colors added.







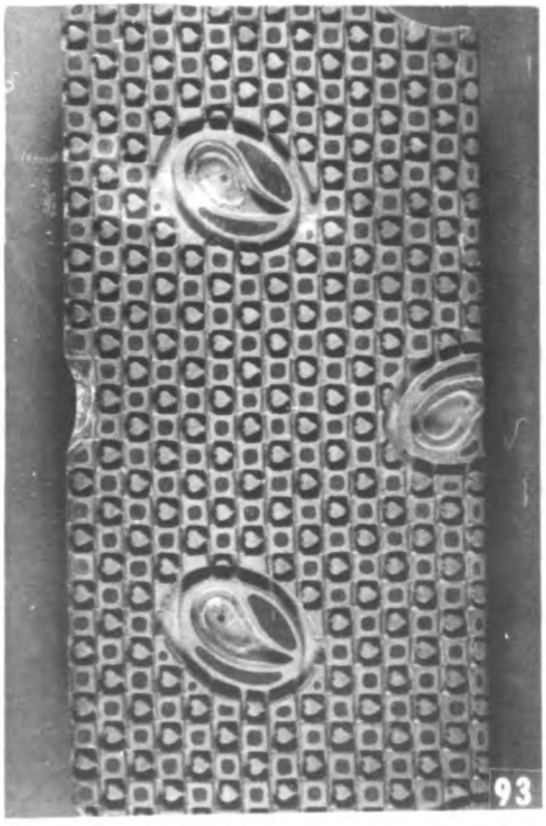


PLATE I

designs a week. Many of the traditional designs originated from the Scottish firm, Brown Flemming, which was taken over by F. W. Grafton in the 1920's. Between 1930 and 1960 several Print producers were merged with Graftons, and in 1961 Grafton and Brunnschweiler merged, both then being part of C.P.A. In 1930 Grafton re-recorded their designs embracing all collections. C.P.A. registers all designs printed by them and this procedure was continued for Brunnschweiler.

Development of Production in Holland

Historically Holland was always a country well-known for its textile industry, including printed fabrics.[12] In 1678 the first establishment for cotton printing using the Indian technique was built by Jacob ter Gou and Hendrik Popta at Amersfoort.[13] By the second half of the eighteenth century the Dutch printers succeeded in copying the Asiatic cottons by using copper plates, but keen competition from the English, French and Germans, together with the economic and import restrictions imposed by various countries, gradually reduced the number of print shops.[14] Originally the textile factories were situated in the southern Netherlands, but when this region in 1830 received independence and was named Belgium, it was considered necessary to build some textile factories in Holland, and consequently King Willem I established three new factories

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[12]"Hatema-Texoprint n.v.", American Fabrics, No. 92 (Winter 1971-72), p. 20.

[13]Rodenburg, "Dutch Wax-Block Garments", p. 48.

[14]Robinson, A History of Printed Textiles, p. 118.

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that same year. One of these factories was Previnaire at Haarlem which bought up the print works of Poelman in 1842 and the print works of Wilson's in 1872. After years of struggle Previnaire was producing well by 1900.

P. F. van Vlissingen & Company was founded in 1846 as a Calico print work in Helmond, and it specialized in batik-like prints produced by the handblock method for export to the Netherland Indies. By the end of the century the firm had acquired high esteem as batik printers, especially in Java, but was also exporting to East and West Africa.[15] In the beginning, the Dutch attempted to use the Javanese technique in making handblocked batiks, employing craftsmen from Indonesia, but as stated by one writer, the results lacked the richness and charm of the Javanese batiks.[16] In 1835 the first batik factory was established in Leyden, and shortly after was followed by factories in Rotterdam, Haarlem, Helmond and Apeldoorn. However, as mentioned by Robinson, these first attempts were hardly imitations but rather work in the manner of Indonesian craftsmen.[17]

In 1852 Previnaire invented a machine called the "Javanaise" which could produce batik with the appearance of handmade prints, and after having specialized in various textiles the company eventually concentrated on the printing of textiles for Africa. According to Rodenburg,

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[15]"Hatema-Texoprint n.v.", American Fabrics, No. 92 (Winter 1971-72), p. 22.

[16]Robinson, A History of Dyed Textiles, p. 40.

[17]Robinson, A History of Dyed Textiles, p. 41.

Previnaire was the first to make machine made batik for West Africa (in 1893)[18] and, the firm kept up the production until 1918 when it closed as a result of World War I.[19]

History of Texoprint

At the end of the nineteenth century, Haarlemsche Katoendrukkerij, the former Previnaire at Helmond was the most outstanding printer of wax-prints, and it was noticed that this factory also designed and manufactured wax-prints to the order of Messrs. Brown Flemming in Manchester. However, in 1920 "Haarlemsche Katoendrukkerij", was liquidated and van Vlissingen acquired their original design collection, even though Brown Flemming of England insisted on his rights to the designs, because they were produced in England as well. During the financial crisis in the 1920's the van Vlissingen Company of Helmond also took over designs and sample books from the liquidated "Leidsche Katoenmaatschappij," and furthermore acquired another wax-print collection when the factory of Ankersmit at Deventer closed down in 1966.[20] In 1969 the Helmond factory known as Vlisco merged with another large textile manufacturer, Hatema, to form one of the largest printed fabric producers in Europe and one of the major textile producers in the world, and

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[18]Rodenburg, "Dutch Wax-Block Garments", p. 46.

[19]Rodenburg, "Dutch Wax-Block Garments", p. 48.

[20]G. H. Krantz, Director of Texoprint, n.v. correspondence, February 17, 1971.

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became known as Gamma Holding nv. Up to 1970 the company operated 17 production facilities, employed 4500 persons, and produced 2,000 new designs.[21] One of its divisions was devoted to the production of exotic prints intended for markets in Africa, and acquired participating ownership in five overseas printworks located in Ghana, Ivory Coast, Nigeria, and Zaire.[22] This African division employed 1,500-2,000 people, including 25 designers, and was the only division that employed designers; the others bought all their designs. The division held 4,000 designs but only 2,000 were in actual production in 1971. Two thousand designs were taken off production because no orders had been placed for them in the preceding two years. However, it was stated that any design could be brought into production on a short notice. Approximately 200 new designs were added annually.[23]

During World War II the factory encountered various restrictions. G. H. Krantz related how the factory continued secretly to produce African wax-prints. The laboratory director worked day and night to improve his prints and to achieve high standards, while others were successful in concealing the prints between layers of paper; they were never discovered by the occupying Germans. As a result of his efforts the Dutch at the end of the war could send three shipments of printed cloth to West Africa to supply an eagerly waiting market.[24]

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[21]Krantz, personal interview, 1971.

[22]"Hatema-Texoprint, n.v.", American Fabrics, No. 92 (Winter 1971-72), p.22.

[23]Krantz, personal interview, 1971.

[24]Krantz, personal interview, 1971.

Texoprint Production

Mr. Krantz informed the investigator that Vlisco (Texoprint) produced: 1) non wax-prints; and 2) wax-prints (batiks) for the market in Africa. The non-waxes were: a) Java's (Dutch Java prints, alizarine dyed and reserve printed large repeats (Plate II, No. 94); b) Khangas (special prints with large repeats and printed proverb, produced until recently for East Africa (Plate II, No. 96); and c) Imitation African waxes (cloth printed as direct roller prints, imitating the white spots and crackled lines, distinctive of African wax-prints).

The manufacturing process was somewhat similar to the one observed in Manchester. A comparative analysis is presented on pages 58 and 59, pointing out how the Dutch technique differs from the English and Swiss.

Development of Production in Switzerland

As previously stated, in the early seventeenth century fast-dyed, multi-colored printed and painted cottons became very popular in Europe. The increasing demand encouraged the establishment of European print works and expanded trade. Already in 1599, according to the old Tagwensbuch of Glarus (Switzerland), a fulling mill was erected "at the hollow stones" by Master Johann Kaser.[25] When some other European governments (for example, France and England) in the seventeenth and eighteenth centuries issued decrees against import and printing of cotton goods, Switzerland did not have any such restrictions, and the printing textile industry flourished.

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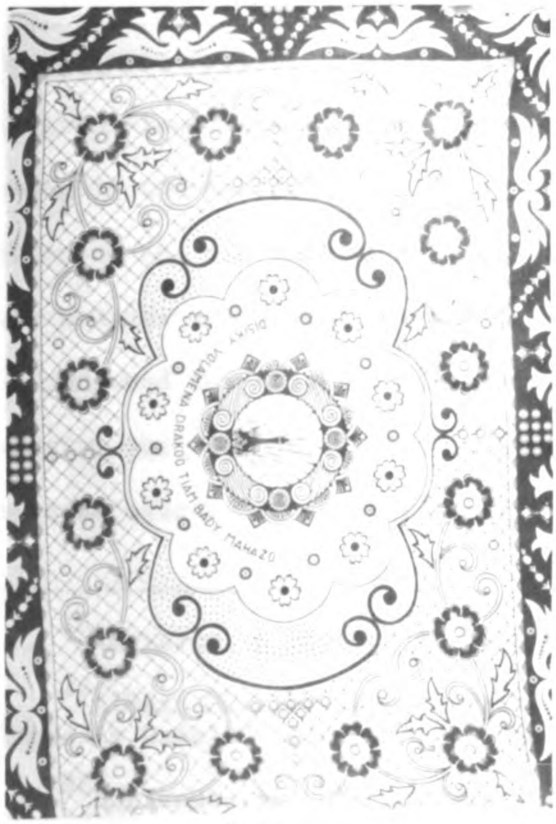
[25]Hohlenstein Textildruckerei AG, "Glarner Batik in West Africa" (Ennenda-Glarus, Switzerland: no date), p. 1.

a) Jaya

c) Madras



b) Khanga

PLATE II

The first two print works were founded in Geneva in 1687 and 1689 and employed printers from Lyons. The most famous manufacturer was Jean-Solomon Fazy (1709-82) who had learned calico printing in Holland and established his own print works which became a learning center for block designers and manufacturers from many countries. In Zurich, David Esslinger (1679-1750) started to print cottons in 1720, but others had been active in printing before him, probably since the turn of the century. Many small print works were established in Berne about 1706, but the most important areas were the cantons of Neuchatel in the West (1700s) where the Huguenots had settled in the seventeenth century, and where the roller printing technique was adopted, and Glarus in the East (late 17th century).[26] In 1740 Landmajor Johann Streiff (1708-1780) of Glarus established the first plant for cloth printing, producing mainly wax or paste resists on an indigo-blue ground with geometrical and stylized flower designs, and became the founder of an extensive factory system in the canton Glarus.[27] In 1829 Heinrick Tschudi bought the location of the old fulling mill at Glarus at which a certain Jakob Jenny from Ennenda ran an indigo-dyeing mill at the time.[28] By 1840 Glarus was renowned for its wide variety of printed cloths, by 1860 machine printing was introduced, and in 1865 the textile industry in Glarus employed over 6,200 people, working in 22 factories, which produced

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[26]Robinson, A History of Printed Textiles, pp. 120-21.

[27]Albert Mueller (Konservator), "Der Zeugdruck in Museum des Landes Glarus in Nafelt" (Glarus Museum Publication, no date, pp. 11-12).

[28]Hohlenstein, "Glarner Batik in West Africa", p. 1.

approximately 48,000 kilometers of printed cloth annually, and brought into the province 25 million francs, making it the most industrial valley in the Alps.[29]

A batik industry was also developed in Switzerland (Glarus, Thurgau and Zurich) for export to India and the Dutch East Indies. The cloth was printed with wooden blocks reproducing the original hand painted Javanese batiks. The first Sarongs were made in 1842 by the firm P. Blumer and Jenny, and in 1860-61 Egidius Trumpi at Glarus began to imitate the true wax effect by applying a reserve of colophonium with wooden blocks and dyeing with indigo.[30] By the late 1870's the Swiss experienced great difficulty in continuing economic production despite the use of superior dyes and the excellence of their crackle effects, because the Indonesian merchants were able to reduce their prices. Gradually the batik print works as well as the formerly prosperous calico printers closed down due to foreign competition, hindering tariff agreements, changing fashions, and the introduction of double printing. In 1971 Hohlenstein Printing Works in the town of Ennenda was the only factory producing wax-batik textiles for the African market.

History of Hohlenstein Printing Works

The Hohlenstein Textile Printing Works Joint-stock Company at Glarus, Switzerland, was situated in Ennenda but with the offices in Glarus on

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[29]Kaspar Freuler, "Aus der Geschichte des glarnerischen Zeugdrucks" (Publication Glarner Land Museum, Switzerland, No. date).

[30]M. L. Nabholz-Kartaschoff, personal correspondence with Joanne B. Eicher, April 6, 1973. (Museum for Völkerkunde and Schweizerische Museum Fur Volkskunde, Basel Switzerland)

the opposite bank of the river Linth which divides the two towns. According to the director, Mr. Voirol, Hohlenstein was in the beginning operated by the Basel Trading Company which was one of the first established trading companies on the coast of West Africa. It was first organized in Ghana and Nigeria to provide articles from the homeland for the missionaries in West Africa, but as the Africans learned to appreciate and consequently to request the imported goods, the company expanded and became independent of the Basel Mission. During World War I the name Basel Trading Company (BTC) was adopted.

As previously mentioned, in 1922-24 the company attempted to obtain wax-prints intended for West Africa from the United African Company (UAC) but they were unsuccessful and therefore decided to produce their own prints. The mill in Glarus-Ennenda was bought, the designs were ordered from UAC and sent to Glarus for reproduction, and a production was started of Swiss wax-prints for West Africa. During World War II increasing trade difficulties forced Hohlenstein to deal with West Africa through a wholesale firm, and after the war it was decided to restrict the sales to Ghana and Nigeria. When the Ghana market was closed the distribution was shifted to Nigeria and Zaíre, and the wax-prints were then re-distributed from Lagos (Nigeria) to other markets. In 1960 the Basel Trading Company started to operate its own factories in Ghana and Nigeria utilizing the Glarus system of textile printing, and in 1969 an additional factory was opened in Dakar (Senegal). Hohlenstein had no market among Afro-Americans because the demand was too small to set up a production line. The Hohlenstein Textile Manufacturing Company decided to close down its production of wax-prints in the summer of 1973.

Hohlenstein Production

The Hohlenstein factory was surrounded by mountains, 2 to 3,000 meters high, supplying plenty of glacial water, which, explained Voirol, contained a fine grade of sand that aided in the process of washing off the wax from the cloth. Production of wax-batiks was difficult and required great skill, because the technique employed was almost the same as the one used centuries ago. Since so much work was put into the production of the prints they deserved a high quality cloth to assure a good appearance; consequently the ground cloth was imported from Taiwan and considered to be of a superior quality to the one used for regular cotton prints. The steps in the process of manufacturing wax-prints at Hohlenstein were as follows: First the cloth was provided with resist printing, using a resin from the stone-pines of the Louisiana (USA) marshes. Next, when cooled down the cloth was drawn over big wheel frames that were dipped into the dyeing baths, followed by 36 hours of rinsing and interrupted by periods of aeration. Not until after this preparation were the illuminating colors impressed by hand with wooden blocks or "moulds" made of pear wood pieces covered with absorbing materials which were impregnated with colors (Plate I, No. 93). The final stage of the process was the drying of the prints in the "hanging tower", a tower-like structure with overhanging roof projections where the cloths were hung to dry after the final dyeing and washing.[31]

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[31]"Batik", International Trade Journal for Contract and Home Furnishings, No. 10 (October, 1969), p. 66.

Comparison of the Manufacturers Techniques

The three manufacturers followed the same general procedure in production of wax-printed textiles for Africa, but some marked differences were observed. Much of the work is performed by hand in the Swiss production, compared to England where the factory was largely mechanized. Furthermore, the Swiss employed a larger number of women in making the prints. Resin was imported, but the blending and standardization differed and was a trade secret. Since the Swiss used small amounts of resin, they were unable to blend. They all considered an exact temperature of the wax of utmost importance. The English and the Dutch had extensive breaking of the wax, but no breaking took place on the Swiss cloth. The British and the Dutch purposely left spots of resin (wax) on the cloth until the terminal washing to produce spots called "lights", but the Swiss made no such attempts. Indigo ground color was generally used in England, while in Switzerland brown, or lately, brown/indigo was preferred. In Holland, brown, dark red and lately dark orange, dull green and combinations of indigo/orange, indigo/red, indigo/brown were made. The Swiss apparently also differed in drawing the cloths on wheel frames during the dyeing process. Furthermore, the Swiss producers differed from the others in air-drying of the cloths in "Hanging towers" at 40-45° F. (Apparently brown cloth cannot dry on high temperatures without detrimental effect.) All manufacturers alternated dyeing and oxidation of the indigo cloth, repeated up to ten times. The Swiss claimed that the sand in the glacial water used for the washings aided in the removal of the wax. The Dutch stated that they used special soft water for washings which together with their special blend of resin produced clear edges and a bright appearance. Additional colors were added in

England by special printing of the cloth on both sides, using engraved rollers. This was a procedure that demanded great exactness for satisfactory results and was considered a trade secret. Holland and Switzerland applied additional colors by hand blocking which the English used in exceptional cases only. Typical for the Swiss was production of one color prints (that is, one color in addition to the ground color) and relatively few two color prints, but the others still produced two or three color prints. A wash and wear finish is now being used by the Dutch in a luxury article printed on a fine cambric cotton cloth which has proved to be a success. No wash and wear finishes were used by the English and the Swiss manufacturers (Table 5.1).

The Use of Wax-Prints in West Africa and Zaire

During her stay in West Africa the investigator noticed that many of the people attached great importance to their dress, and it was well-known that in some countries, for example, Ivory Coast, Ghana and Nigeria, they would invest much of their capital in cloth for themselves and their wives. Wealthy people frequently changed apparel, and some had an immense variety of robes. Even the poor people would attempt to have several changes or at least one good handsome cloth to wear on gala days. Imported wax-prints were a sign of prestige, and the rich were known to have a collection of such prints along with their own indigenous cloths. Mr. Voirol (Hohlenstein) stated that it was not unusual for an important person to have 70 to 80 wax-prints in his wardrobe, and that African ambassadors stationed in Europe or traveling through Switzerland often would stop at Glarus to stock up on wax-prints.

Table 5.1: A Comparison of Production Techniques*

Table 5.1. A Comparison of Production Techniques*

Processes	England	Holland	Switzerland
Resin (wax)	standardized resin (wax), blended. wax breaking "lights" trade secret	standardized resin (wax) blended. wax breaking "lights" trade secret	resin not standardized or blended. no wax breaking no "lights"
Dyeing	indigo ground frame dipping repeated up to 10 times.	indigo ground repeated up to 10 times.	brown ground wheel frames repeated up to 10 times. 36 hours
Oxidation	alternate with dyeing	alternate with dyeing	alternate with dyeing
Washing	repeated wax left for "lights"	repeated special soft water wax left for "lights"	repeated glacial water no attempt to produce "lights"
Additional	duplex printing (trade secret) occasional hand- blocking 1-3 colors	hand-blocking 1-3 colors	hand-blocking 1-2 colors
Drying	in dryers	in dryers	"hanging towers" 40-45° F. also in dryers

*Much information unavailable (trade secrets).

The wax-prints (produced at Brunnschweiler, Texoprint, and Hohlenstein) were still in great demand in West Africa in 1974, even if these prints made up only a relatively small percentage of the total cloth market. They were in general use from Senegal in the north to Zaire in the south as the best cloth for holidays and special occasions. In certain areas the sales would amount to 50 percent of the cloth market, according to Mr. Krantz (Texoprint), but generally it was less. Abidjan in the Ivory Coast had a large market for wax-prints, but in Chad (as in East Africa) the people placed little importance on tradition and consequently used imitations of the genuine African wax-prints instead. Such imitations were also used in Tamale in Northern Ghana until about 1954 when the first wax-prints were introduced. Wax-prints have been increasingly popular ever since. Mr. Voirol claimed that the cloth printed in West Africa was actually as good as the European, but that the Africans for some reasons preferred the imported prints. Mr. Jones (Brunnschweiler) volunteered that there were two kinds of prospective customers: 1) those who knew what they wanted, maybe because they were already acquainted with the wax-prints; and 2) those who did not know what they wanted, and when they saw the wax-prints did not want them anyway.

According to the informants, people in the different West African countries as well as Zaire had different preferences of design and color, just as did the people living in the cities compared to those in the country. Interestingly enough, cloth with designs regarded as fashionable in one area was described as dowdy in a neighboring district.[32]

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[32]Ellen Thorp, Ladder of Bones (London: Jonathan Cape, 1956), p. 172.

Apparently many Africans preferred something intermediate between the traditional and the fashionable. Mr. Preece (Brunnschweiler), who constantly traveled to West Africa and who specialized in the wax-prints for the French speaking territories, stated that Záire and Ghana were primarily interested in the traditional designs, while Nigeria was less interested, except for the Rivers area (Port Harcourt district) where the people favored the traditional more than they did in Lagos. After the Biafran conflict the Nigerians requested prints with pre-war designs, but since these had been taken out of production they were unavailable. Therefore, the Nigerians had no other choice but to accept the prints intended for Togo and Záire, even if the motifs were too traditional for their likes. A cocoa farmer from Ghana would probably be very conservative in his choice of color, but he might nevertheless, prefer a cloth with patterns such as typewriters or umbrellas rather than, as in previous days, a "medicine bag" design. Some of the designs were very ephemeral. For example, in Záire a picture of a factory producing textiles for the local agent soon declined in favor; and elsewhere, Dutch windmills and Western heraldic designs quickly dropped in popularity.[33] Naturally the European producers were watching the popularity of the various prints. It was stated that they often took a chance with new designs, but they observed that if the customer shopping for cloth took a quick casual look and put it back, it probably would have little chance for popularity. However, if she stayed with it, adored it and discussed it with other customers, the print would stand

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[33]Beauchamp, "A Gay Garb for Ghana", p. 209.

a good chance.[34] The better the design the longer its popularity would last, and some designs selling today date back seventy or more years. Generally the motifs used on the African wax-prints are common property, but once in a while a chief or family clan will "buy" a pattern and it may thereafter be used exclusively by the owner. In the Western world a woman at a party would attempt to wear a dress different from anyone else, but in West Africa the best and most expensive design of wax-print would be worn by a number of people. In the Ivory Coast, prints with distinctive white spots were popular and in the Cameroons the people had a liking for cloth with large designs. In general, the West African consumer was a person of taste, who knew what he (she) wanted, and who usually was prepared to pay the price of the wax-prints, provided they were of the desired design and the right tone of color.[35]

Color preferences varied considerably from country to country, stated the European manufacturers. In Záire they preferred brown cream, maroon, pink, purple, and a light green and yellow. Recently they also adopted a cloth with a greenish effect which was derived from yellow/blue. This cloth had been in popular use along the West Coast the previous four years, but at the time of the interview the people on the coast had changed to tangerine/indigo and tangerine/yellow cloths. In Ghana the bright blues and yellow were popular as well as the green/black. East Nigeria gave preference to white, bordeaux, deep red, and yellow.

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[34] E. Voirol, personal interview, 1971.

[35] L. Cooper, personal interview, 1971.

Togo did not like very bright colors. Ivory Coast cherished brown, dark brown, yellow red, dark red, yellows and greens. Generally the rural people had a preference for darker colors, while city people liked the brighter. Consequently the special fashions and color preferences of the various regions had to be honored, because the customer would only buy cloth within his (her) chosen color range. The traditional color range is indigo blue, dark maroon, dark green, ochre yellow and all tones of brown and cream. The reason for this choice of color range is, according to one writer, that these sombre tones take on great richness when seen against the African landscape.[36] In Northern Ghana a special cloth called "wax-covered" was used by the poor. It was an indigo/white cloth printed in Java design which was printed over arbitrarily with an orange color.

In Ghana the wax-prints were used by men as well as women and children. They used the wax-prints as a national costume, draped around the body in a traditional way,[37] but at times they also made the fabric into western style shirts and dresses. It was expressed by one writer that the consumers in Ghana were very discriminating in their choices, and that they were able to distinguish a genuine wax-print at a distance of 50 feet by its characteristic fissures caused by the cracking of the hardened wax-resist, and that they would even check it against imitation

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[36]Grace Fraser, Textiles by Britain (London: G. Allen and Unwin, 1948), p. 104.

[37]Wolfson, Pageant of Ghana, p. 139.

by tasting the cloth for the presence of indigo dye.[38] Ghana was considered the fashion center of Africa by the manufacturers. In Nigeria wax-prints were used occasionally and to a much lesser degree by the men, but were used extensively by the women and to some degree by the children. In Zaire the prints were used by women and children only. Mr. Krantz mentioned that when a market woman died in West Africa it was customary to exhibit her entire wardrobe of wax-prints, and that the collection of treasured designs would give an idea of the status and life of the deceased. Obviously she was esteemed according to the number and value of the wax-prints.

It was an important part of the West African tradition to use printed fabrics of certain color and design for special events, and to attach special significance to design and color.[39] Wax-prints were especially used for important occasions as burial cloth, funeral garments, wedding and anniversary dress, national costume, dress for church attendance, and for official and state functions. A design often received a name from the consumer and might refer to his (her) conception of the design, or personal circumstances connected with the purchase or wearing of the cloth.[40] An example of how a cloth connoted certain ideas of the wearer was the design used in Zaire and known as the "six bougies." This particular cloth presented a pattern of 6 spark plugs and conveyed the idea that the person wearing it was held to be big and highly powered.[41]

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[38] Beauchamp, "A Gay Garb for Ghana", p. 209.

[39] American Fabrics, No. 73 (1965-66), p. 65.

[40] Krantz, correspondence, June 26, 1973.

[41] Beauchamp, "A Gay Garb for Ghana", p. 209.

Another example was a well-accepted print from Hohlenstein with a motif of 5 Olympic rings (about 1950). It became very popular in Ghana and sold in millions of yards the next seven years, not because the people wanted to honor the Olympic games, but because the rings to them became a symbol of a very popular song at the time, which in part read something like this: "Don't be too unhappy because I am in prison and walk with my hands tied." Actually they saw in the rings the chain that at the time tied the political prisoners' hands. It appeared to the investigator that they chose to wear this particular cloth for similar reasons that many Americans wore bracelets for the POW's kept in the prison camps of North Vietnam. It also seemed that the symbolic meaning of many of the early designs were forgotten, and that the meaning of a design meant different things to different people in the various countries. The symbolism of African prints needs further investigation and should be derived from the consumers' conceptions of the meaning.

The wax-prints were used primarily for clothing and were sold in lengths varying from 3½ to 12 yards, depending upon the location. In Ghana it was cut in pieces of twelve yards, in Nigeria it was 6 to 8 yards, and in Zaire it was 4 3/4 yards in the past and that was still the standard length in the country, while in the cities it sold in lengths of 6 yards. Niger cut the cloth to 8 yard lengths, and Togo, Dahomey and Ivory Coast cut it to 12 yards.

The costs of cloths, according to Mr. Voirol, can be arranged as follows, the most expensive types of cloth listed first:

1. Handmade cloths
2. General wax-prints
3. Imitation wax-prints
4. General European roller prints

He further stated that wax-prints from various countries can be arranged on a grading scale according to price, the most expensive listed first:

1. Swiss made wax-prints
2. Dutch made wax-prints
3. English made wax-prints
4. Japanese made wax-prints
5. African made wax-prints

The Swiss cloth was sold in the markets cut in the following lengths: 3 3/4 yards, 6 yards, 8 yards, and 12 yards. The price depended on how many colors were used, but in 1971 a one color print cost five Francs per yard. The Dutch wax-prints would sell for 12 to 15 dollars per 12 yards in 1971, but would vary some according to the different countries.

In conclusion, in 1971 wax-printed textiles were produced for West Africa and Zaire by three European manufacturers as well as an increasing number of indigenous factories. One European print works (Switzerland) was closed down in 1973. The process of manufacturing was largely similar with some distinct differences, and by comparison the Swiss production took considerable time, because they used much hand work. The prints were made of high grade cotton, which was bleached, straightened, and printed with resin (wax) to resist the dye where needed. The cloth was passed through several dye baths, alternated with periods of oxidation, and eventually washed to remove the wax. Additional coloring was done by hand blocking or engraved copper rollers, and finally the cloth was dried at a suitable temperature. The cloth is used almost exclusively in West Africa where it has become an important part of the tradition to use such prints for special occasions by men, women, and children.

The African wax-prints were signs of prestige and were collected and kept by the consumers, and it was not unusual to exhibit the collection of cloth of a deceased person to show his (her) status in life. Great variation in color and motifs was found in the wax-prints, with each country and area expressing specific preferences. The symbolism of the motifs is not always evident to the observer and needs further investigation based on the consumers' conceptions. The following chapter provides an analysis, description, and comparison of selected motifs and a classification of the sample collections.

CHAPTER VI

ANALYSIS OF THE SAMPLE COLLECTION

Two almost identical sample collections of African wax-prints were obtained from the three manufacturers; one each in England, Holland, and Switzerland. These collections, owned by Eicher and Nielsen, are presently available for examination and additional studies at, respectively, Michigan State University and Andrews University (Michigan). Two hundred and twenty-five samples were obtained with 135 different designs. The Nielsen collection described in this chapter contains 117 different samples produced from cotton fibers and constructed in plain weave. The printing method in design application is wax-resistant. (The Eicher collection contains 108 samples and a few of these were included in the description and comparison.)

Design and Classification of Wax-prints

From the designer's point of view a good textile design is one that has a unified composition, serves the purpose intended for it, and represents the culture that created it. It may echo the past or anticipate the future but it must above all else reflect the actual source of its origin.[1] Artists and designers have been employed by the textile

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[1]Verla Birrell, The Textile Arts (New York: Harper and Brothers Publishers, 1959), p. 8.

manufacturers to prepare imaginative forms and details in every known color, shade and tone. The results have been a great variety of cotton goods which have been placed on the market through the years, few of which have been seen by the general public, as most people outside the textile industry are unaware of the great number of beautiful textiles available. This is especially true of the African wax-prints.

Classification of African wax-printed textiles has never been seriously attempted, to the knowledge of this writer. Therefore, an attempt was made to make a practical system of classification to be used for the orderly arrangement and storage of wax-print collections. Previous classification systems were worked out for other types of textiles. For example, Sir Peter Buck (1911) used motif as the basic criterion for grouping.[2] Buck was concerned with the evolutionary theory and attempted to determine the sequence of development of motifs. W. J. Phillips (1966) restated and improved on Buck's classification, emphasizing pattern analysis and description, and added another class of motifs.[3] Irene Emery (1966) developed an illustrated classification of fabrics according to structure.[4] Janet Harrell (1967) classified the Eicher collection of handcrafted Nigerian textiles,[5] according

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[2]Sir Peter Buck (Te Rangi Hiroa), "On the Maori Art of Weaving Cloaks, Capes, and Kilts", New Zealand Dominion Museum Bulletin, No. 3 (1911), pp. 69-90.

[3]W. J. Phillips, Maori Pattern and Taniko Designs (Wellington: Wingfield Press, 1960).

[4]Irene Emery, The Primary Structures of Fabrics. An Illustrated Classification (Washington, D. C.: The Textile Museum, 1966).

[5]Janet Harrell, "Classification and Documentation of the Eicher Collection of Selected Nigerian Textile Fabrics," An unpublished Master's problem, Michigan State University, 1967.

to region, fabric construction, design process and use for which fabric was designed, and S. M. Mead (1968) made a classification of Taaniko patterns (Taaniko refers to a specialized ornamented cloth among the Maori of New Zealand).[6] He aimed at exhaustiveness, and focused attention on the dominant motif used. Patterns were graphed and photographed.

Design

African wax-printed textiles are carefully and brilliantly designed with exotic and beautiful motifs of unusual colors, and are prepared by designers steeped in the tastes and traditions of the Africans.[7] The designs are either traditional or untraditional. A design is declared traditional by manufacturers when in the course of time (i.e., after three and more years) it was purchased regularly by the African market in varying quantities. Such a design was at one time or another named by the consumer and marketed under that name. When the consumer bought the cloth, it was kept throughout life and often exhibited after death as commemoration of the life and status of the deceased. Therefore, the three criteria for designating a textile as a "traditional design" were: 1) that it was sold regularly over a course of years; 2) that it was given a name; and 3) that it was kept and valued. Some traditional designs dated back 85 or more years. The "Flying Duck" is an example. Many others were dated pre-World War I and II, and some were post-World War II. Apparently there are various degrees of traditional

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[6]Sidney M. Mead, The Art of Taaniko Weaving (Wellington: A. H. and A. W. Reed, 1968).

[7]Fraser, Textiles by Britain, p. 103.

designs, that is, some are more traditional than others, and, of course, some are not traditional at all and therefore quickly drop out of production and use. Krantz suggested that perhaps the tradition could be kept alive by favorable construction of design and the very best use of color proportions. When wax-prints are not significant enough to be named by the consumers, they are not kept, not considered traditional and soon cease to be produced.

The name of a design reflects either the consumer's conception of the design or perhaps a personal experience or incident related to the purchase or wearing of the print. Therefore, a traditional design would indicate to the bystander certain known circumstances in which the person wearing the cloth, was, is, or hopes to be.[8] One writer stated that once the African public gives the design a name, sales will consistently continue to improve, even though the name may not appear to the non-African to have any connection with the design.[9]

Messrs. Cooper, Jones, Krantz, and Voirol all agreed that it often took many years to produce a classic, and that there were no fixed rules or directions on how to produce an exceptional African design. The designer sometimes had certain expectations about a design but he would not know how well it was accepted until he, after some time, saw the sales record. The popularity of a design was the result of the totality

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[8]Krantz, correspondence, June 26, 1973.

[9]Beauchamp, "A Gay Garb for Ghana", p. 209.

of the African culture, language, geography, and the environmental conditions of the people.

Krantz pointed out that examination of the old "Haarlemsche Katoendrukkeri" collection indicated great diversity of style and source of inspiration. Motifs of designs in general have various inspirational sources. According to Richard F. Bach of the Metropolitan Museum of Art in New York, designs always lived and prospered on: 1) the inspiration of past masters acquired from museum collections; 2) the inspiration brought by the consumers, directed either by need or satisfaction; and 3) the inspiration derived from living artists and craftsmen who reflect current life that swirls around them.[10] More specifically the African wax-print designs were derived from the following inspirational sources.

1) Indian cottons. Generally the Indian cottons provided a rich legacy for the designers, including the pattern book of the East India Company of the early 1800's.[11] According to Albert Muller, curator of the Glarus Museum, the Indian original patterns raise a fantastic world. The pattern books have page after page of naturalistic drawings and paintings in wild ecstasy suiting the tastes of the people in distant countries.[12]

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[10]Garett Warren, Romance of Design (New York: Doubleday, 1926), p. XIII.

[11]Robinson, A History of Printed Textiles, pp. 114-16.

[12]Albert Muller, "Der Zeugdruck in Museum des Landes Glarus in Nafels".

2) Javanese batiks. Originally the designs and symbols of Java batik were derived from natural forms and evolved toward the abstract. Java batik was influenced by the myriad cultures and religions of Asia, and designs were based on historical and mythological events as well as local customs.[13] The Dutch brought the Java batiks to Europe in the seventeenth century, and in the nineteenth century they started to make machine batik using craftmen from Indonesia. Undoubtedly Java batiks served as inspirational sources for many years.

3) European prints. Some of the European prints could be traced to other cultures and historic periods. According to Muller, the old pattern books at the Museum Fur Völkerkunde und Schweiserishes Museum for Volkerkund at the Freuler Palace in Nafels, presented a vivid picture of the nineteenth century civilization; the colorful cheerfulness of the peasant ornamentation was preserved in the oldest cloths, which later on became the crucible of ornaments and symbols from the whole world, while batiks with amazing skill arose for destinations in Africa and elsewhere. Fabrics were saturated with timeless symbols and bits of history of civilization were handed down to us by the Glarus designers.[14]

4) African indigenous cloth. The designs of Manchester cloth, including the African wax-prints, evolved from the indigenous hand textile industry of West Africa. The peoples of the West Coast have a

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[13]"The 'Writing' of Batik" (Wood-Ridge, N. J.: Craftools, Inc.), p. 6.

[14]Albert Muller, "Der Zeugdruck in Museum des Landes Glarus in Nafels".

highly developed sense of design, color, and quality, and their cotton goods are an immensely important part of their inherent culture.[15]

5) Traditional African objects and symbols. Another important source of inspiration was the many traditional objects and symbols found in West Africa. For example, a favorite motif in Ghana was the stool used by rulers. Fertility was used as a motif for design by depicting a woman and two children's heads, suggesting twins, or in another instance a pod containing three beans which symbolize triplets.[16]

6) Contacts with consumers, traders, and market women in Africa. Another source of inspiration was the direct contact with consumers, the African traders and especially the market women who at times came up with their own suggestions and requests. Designs from other companies were also used and altered.

7) Historical events, current events, political figures and ideas. Generally non-traditional designs depicting political figures and events were of short duration, except when the individual died an extraordinary death (for examples, Lumumba and J. F. Kennedy). In 1946 Zaire requested cloth with the allied victory design, including the busts of President Eisenhower and Winston Churchill, together with tanks and the dove of peace.[17] However, the producers were generally reluctant to use

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[15]"Manchester African Trade", West Africa, p. 850.

[16]Beauchamp, " A Gay Garb for Ghana", p. 209.

[17]Beauchamp, "A Gay Garb for Ghana", p. 209.

politics in the making of designs. For example, Brunnschweiler refused to take sides in the Biafran conflict, when the two involved parties requested printed cloths with certain political and nationalistic sentiments and symbols.

8) Religion and mythology. Some designs can be traced to African mythology and a few prints have religious influence. There are many taboos in the African culture, and the producers take great care not to offend the African customs.[18]

9) Natural forms. Many designs were derived from nature; for example, from plants and their parts (roots, stems, leaves, flowers, and fruits) or from animals such as mammals, birds, reptiles, amphibians, fishes, insects and other invertebrates. Celestial bodies, rocks, minerals and diamonds were also inspirational sources.

10) Geometrical designs. Since Mohammed forbade the making of the likeness of living objects, great development of geometrical designs took place, especially in designs for areas with strong Muslem influence.

Classification

It is proposed that an adequate classification system for wax-printed textiles intended for the African market should meet the following minimum criteria. The classifier should:

1) State the classification clearly
2) Consider the dominant motif
3) Describe rather than interpret
4) Make the classification be comprehensive and expansive
5) Make the classification simple and easy to use

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[18]Cooper, personal interview, 1971.

6) Facilitate grouping of samples for easy access
7) Number and catalog samples

According to Johnston and Kaufman, the motifs of printed African fabrics fall into three general categories (although more than one may be combined in a single fabric). First, there are those that tell a story; secondly, those that have symbolic significance or that serve as identification; and thirdly, those that are simple ornamentations with a pattern.[19] Such a general classification is not specific enough to make it practical for a large collection. Some other classification schemes which could be used are:

1) Traditional or non-traditional designs. As previously mentioned an African printed design is considered traditional when it is sold regularly, when it has received a name from the consumer, and when it is kept and cherished by the buyer. The criteria for non-traditional design are: lack of a name bestowed by the consumer, lack of sufficient admiration to make the print worth "treasuring", and lack of enough sales to keep the print on the market for several years. However, to divide the printed textiles into two groups only, appears to be too simple. Furthermore, since it takes some years to determine if a design is traditional or not, it is impossible to predict whether new designs will be traditional.

2) Symbolic meaning. The symbolic meaning of a motif is often very obscure, because it involves time, and cultural and historical relationships which are not always clearly understood. Some designs

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[19]Meda Parker Johnston and Glen Kaufman, Design on Fabrics (New York: Reinhold Book Corporation, 1967), p. 21.

selling today date back to originals prepared in the last century, and the meaning of the symbols have been lost. The temptation to attach meaning and even religious symbolism to the motifs of the decorative arts was always strong in the East, especially in Java, but the fact that such interpretations were often contradictory and inconsistent encouraged the assumption that invention of the forms sometimes preceded the meanings.[20] It is the opinion of the writer that this is equally true for the African wax-printed textiles, as evidenced by the fact that the symbolic meaning and the naming of the print often was conceived in connection with the purchase or use of the fabric. Many designs apparently have no symbolic meaning, and others can only be ascertained by the specialist or the African consumer. Therefore, since the symbolic meaning is obscure and subject to interpretation, this particular classification method is less desirable, at least until further research has established the meaning of the symbolism.

3) Inspirational sources. Since the printed textiles often were inspired by other prints; traditional objects and symbols; direct contacts with consumers, designers and traders; historical and current events; political figures and concepts; past masters in art; religion and mythology; and natural and geometric shapes; it would be possible to classify the prints accordingly. Such a system would probably also involve evolutionary developments, cultural, historical, and social relationships; it would be an exhaustive task, requiring the work of a specialist. Furthermore, other inherent weaknesses are that the

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[20]John Irwin, Batiks, p. 9.

inspirational source of many textiles is unknown and untraceable today, and such classification often would involve a certain amount of interpretation by the classifier.

4) Style. The concept of style, familiar to artists, anthropologists, and archaeologists, is a rather difficult one, because style has different meanings to different people. It is subject to interpretation complicated by one's value system, and somewhat limited by a person being conservative (resisting change) or progressive (adopting innovations). Meyer Schapiro (1953) defined style as "the constant form--and sometimes the constant elements, qualities, and expression--in the art of an individual or of a group."[21] By this he meant that the work of an individual or a group exhibits similarities of form, quality, and expression to a degree that an investigator would have little difficulty in recognizing that the works belong to that individual or group.[22] Classification according to the style revealed in a design is certainly feasible, but has little practical value for a collection used for general teaching purposes, although it may be of value in art and costume history.

5) Shape. The universe is composed of shapes of infinite variety, shapes that have meaning for man, often in a symbolic sense. Giving them connotations from his past experience, man learns to read shapes as we read handwriting.[23] Shapes can be divided into four categories:

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[21]Meyer Schapiro, "Style", in Kroeber, A. L., Anthropology Today. An Encyclopedic Inventory. (Chicago, 1953), p. 287.

[22]Mead, The Art of Taaniko Weaving, p. 47.

[23]Marjorie Elliott Bevlin. Design Through Discovery (New York: Holt, Rinehart and Winston, Inc., 1970), p. 37.

1) Realistic shapes present a likeness of an object that is easily recognizable; 2) Abstract shapes are derived from nature or familiar objects but are simplified, distorted or exaggerated to enhance their qualities; 3) Geometrical shapes are mathematical in character, often expressing the man-made environment, or depicting purely geometrical shapes. 4) Nonobjective shapes rarely resemble any recognizable object. Nevertheless, they have a close relationship to nature (are biomorphic) since they are fluid and express growth and flexibility. This method of classification by shape of motif appears to be a useful instrument in grouping of textile designs, but it presupposes considerable knowledge and understanding of design. It would also necessitate subdivision since it is impractical to hold a large textile collection in four categories.

6) Color. Printed textiles could also be arranged in groups according to the dominant color. Colors are impressive and important but for classification purposes not as significant as motifs. Therefore, such a grouping would be of little value in arranging a printed textile collection, unless the collection was for the specific purpose of studying predominating colors.

7) Combinations. Since none of the schemes listed are entirely satisfactory, perhaps a combination of two or more would be a valuable solution. That is, a textile collection could be arranged into major groups according to one of the preferred schemes, and it could possibly be further subdivided according to one or more of the other schemes. One limitation of this method would be that if two selected schemes

had different purposes, it would not be practical. For example, classification according to shapes of the motif would be at variance with classification according to color.

Considering the limitations of the described schemes, the investigator suggests that a collection of African wax-prints could be arranged for easy access in categories according to the subject matter inherent in the main motif. Religion, mythology, tradition, culture, history, current events, nature, science, technology, architecture, art, artifacts, non-objectives, musical instruments, personal objects, as well as all other aspects of daily life could be drawn upon. A collection of early prints (1909-39) for West Africa was studied and photographed at the Victoria and Albert Museum in London during the summer of 1971. Mrs. Morrison of the museum's circulation department had made a tentative classification of these prints according to subject matter. Some of the interesting designs from the collection were classified as: 1) anatomical designs, 2) architectural designs, 3) occupational designs, 4) tie-and-dye designs, and 5) umbrella designs.

A similar method was utilized in the classification of the Eicher and Nielsen collections, because it was easy to use, concentrated on the dominant motif, allowed for distinct classification into known subjects, could be cataloged and numbered, and suggested itself to further expansion.

At the courtesy of the three manufacturers their show-rooms were visited and the designs of the African wax-prints were studied and in some cases photographed. The collections obtained were classified and cataloged according to subject matter as listed in "Key to classification

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system" (Table 6.1). For convenience the subjects covered in the present collections were arranged alphabetically. Additional letter combinations can be added when the collection expands into new subjects and sub-divisions. A catalog of the collections was included in the Appendix (see Appendix B).

Description and Comparison of Selected Samples from the African Wax-printed Textile Collection

Selected samples of African wax-prints from the acquired collections were described and compared. To present a representative sampling of the collection, selection was based upon the following criteria: Samples were selected (1) from each of the three manufacturers; (2) from various decades; (3) from a variety of motif categories; (4) from prints with available information, and (5) from representative types:

a) Traditional and non-traditional
b) Old and new
c) Old designs presented in new ways
d) Combinations of several motifs
e) Unusual motifs and striking colors
f) Traceable inspirational sources
g) Acceptable or rejectable to consumers
h) Those known to have been named by consumers
(Selected samples of wax-print designs were arranged in categories in Table 6.2.)

In describing each of the selected samples an attempt was made to present the following information:

1) Collection number and name of design (if known).

2) Reason for choice of sample. For example, traceable inspirational source. Miscellaneous information.

Table 6.1. Key to Classification System

Production number:	producers provided a production number which was entered in space provided in the catalog.
Collection number:	each sample was assigned a collection number composed of three parts:
	(1) Producer: Roman numeral I assigned to A Brunnschweiler II assigned to Texoprint III assigned to Hohlenstein
	(2) Category: determined according to subject matter of dominant motif. Designated by capital letters as listed in key. (Sub-divisions were designated by small letters as listed in key.)
	(3) Accession: samples were assigned numbers in sequence of acquisition and appear as last numeral in the collection number.
	Example: I-A-sb-2

Animals	A	Man	M
Birds	A-b	Eye	M-e
Fish	A-f		
Insects	A-i	Masks	Ma
Mammals	A-m		
Millipedes	A-ma	Nationalism	N
Reptiles	A-r		
Shells	A-s	Non-objective	Na
Snails	A-sa		
Spiders	A-sb	Plants	P
Wings	A-w		
		Flowers	P-f
Calendars	C	Fruits	P-fa
		Seaweeds	P-s
Combinations	Ca	Trees	P-t
		Vines	P-v
Education	E		
		Umbrellas	U
Games	G		
Geometric designs	Ga		
Insignia	I		

Table 6.2. Selected Samples of Wax-print Designs Arranged in Categories

Traditional designs	I-A-b-1	The Flying Duck	
	I-Ca-20	The Banana	
	I-Na-19	The Shell	
	I-Na-22	The Good Husband	
	I-G-15	Dice Check	
Old designs	I-Ga-8	The Target	(pre-1920)
	I-Ca-12	The Lamp	(pre-1920)
	I-Ca-11	The Staircase	
	I-Ca-22	The Good Husband	
	I-Ca-18	Day and Night	
Recent designs	I-U-4	The Umbrella	(1971)
	I-U-64	Umbrella stripe	(1971)
	I-E-25	The Alphabet	(1970)
	I-Ga-58	Tieplate	(1970)
	I-N-62	Congo Independence	(1969)
Old designs presented in new ways	I-A-b-47	Migration	
	I-Ga-56	Eye Target	
	I-Na-65	Damask	
	II-Ca-109	Back of Tortoise	
	III-Ca-114	Four Fields	
Combinations	I-Ca-	The Batik	
	I-Ca-46	Diamond-Record-Shell	
	II-Ca-101	Broken Pots	
	III-Ca-114	Four Fields	
	III-Ca-115	Linoleum	
Designs with unusual motifs and colors	I-U-63	Umbrella	
	I-U-64	Umbrella stripe	
	II-Ca-78	Broken Pots	
	II-Na-107	"Gecko Feet"	
	III-A-r-131	Snake	

continued

Table 6.2--continued

Traceable inspirational source	I-Ca-6	Java Lion	(Java)
	I-P-t-29	Tree of Life	(Persia)
	I-Na-65	Damask	(Arabs)
	I-Ca-36	The Arab Horseman	(Arabs)
	I-A-b-44	Bird in Maize	(Java)
Designs named by consumers	II-Ga-69	"A red eye cannot turn into flames of fire."	
	II-P-77	Unity is strength "One tree alone cannot stand the wind."	
	II-A-f-83	Women are fond of fish	
	II-M-e-86	The eye/ The eye of God.	
	II-Ga-92	African Mat / Show your love.	
Designs well received by consumers	I-Ca-21	Yaw Donkor	
	I-M-45	Mask	
	III-A-b-118	Heron (Nigeria only)	
	III-Ca-124	Tarquajah (in Zaire)	
	III-Ga-128	Olympia	
Designs rejected by consumers	III-Ca-124	Tarquajah (in Ghana)	
	III-A-b-118	Heron (all countries, except Nigeria)	
Designs with political influence	I-N-62	Congo Independence	
	I-N-66	Uhuru	
	I-N-67	4th Anniversaire---	
	I-N-68	President Kennedy	

3) Arrangement of design in one of four categories:[24]

   a) "Centerpiece." A dominant motif in center of field;

   b) "Four corners." Two or four different motifs per repeat of 36 inches;

   c) "Patchwork." Parts of various designs arranged systematically or scattered per square yard;

   d) "All-over." A square yard covered with similar motifs in the same position and dimensions.

4) Description of the repeat. The major section of the repeat is in this study designated as the field. The single or double panels surrounding the field or parallel to the selvedge are named the border.

5) Size. Size of repeat, motif or any parts of the design are presented in inches.

6) Color. The colors are listed and, as far as possible, based on the Calico Printers' Association Limited's Wax-prints: Standard Shades.[25]

7) Finally a reference is made to the collection which holds the sample.

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[24]Krantz, correspondence, June 26, 1973.

[25]Calico Printers' Association, Wax-prints: Standard Shades (Manchester: F. W. Ashton & Company, Ltd., no date).

PLATE III

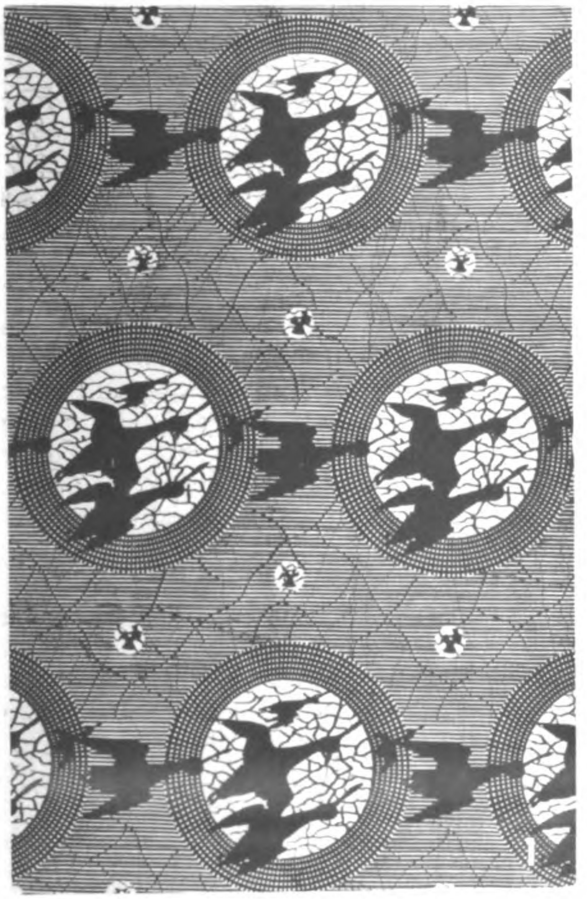
Description of Selected English Samples

I-A-b-1 The Flying Duck. The Flying Duck remains one of the oldest designs, and it is traditional because it is old, named, kept, and still in use. The design was acquired from the old Brown Flemming collection and probably dates back to the 1880's. Brown Flemming was one of the first merchants who traded in wax-prints for Africa, and when he went out of business in the 1920's the Grafton company took over his collection of old designs. Arrangement is patchwork. The design is composed of a number of circular motifs, each 12" in diameter, and each made up of 7 concentric indigo colored rings, enclosing 3 indigo colored birds on a marbled lime-yellow background. Each ring is linked to the next by two other birds. Two of the five birds are of smaller size, giving an illusion of depth to the motif. The overall background is indigo colored vertical stripes and crackled veining on a lime-yellow background. Colors are indigo and lime-yellow. (Eicher and Nielsen)

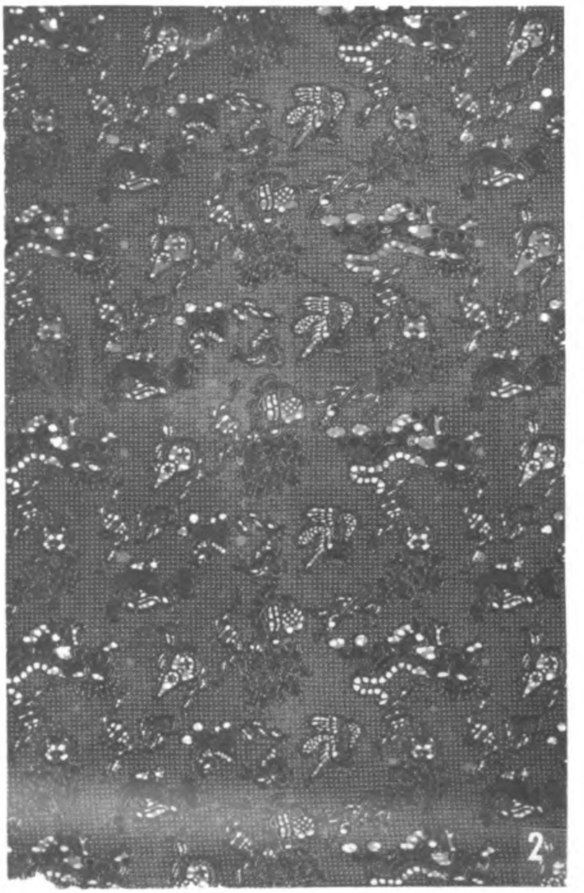
I-Ca-6 Java lion. Java lion is an old Grafton design which borrowed its motif from the Java batiks. Arrangement is patchwork. The field is patterned with stylized lions, birds, and plants on a dotted background. Colors are indigo, brick-red on white (Nielsen), and indigo and dyed yellow on white (Eicher).

I-Ga-8 Target. Target is an old Grafton design which was always popular on the coast. Arrangement is all-over. The field is covered with 8" olive-drab colored targets on a red background with indigo colored dots. Colors are indigo, olive-drab and red (Nielsen), and indigo, yellow and dolphin brown (Eicher).

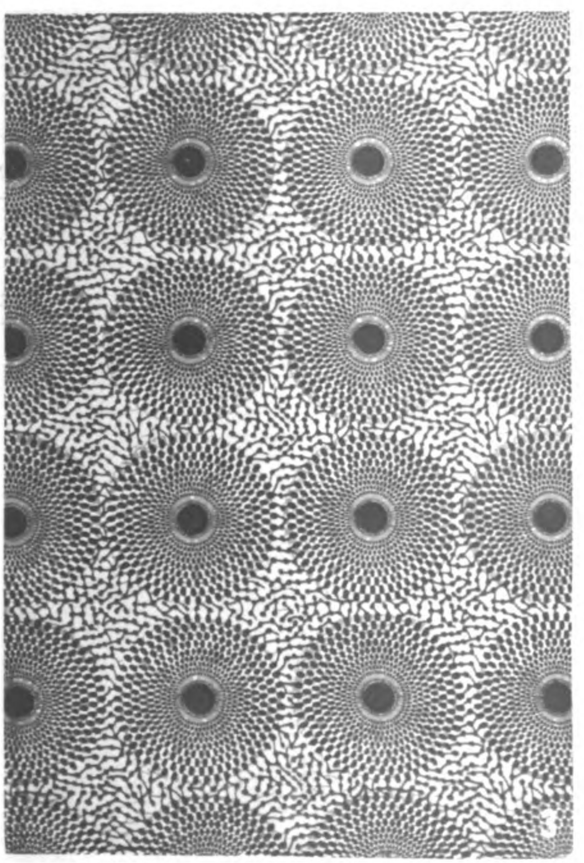
I-Ca-11 The Staircase. The staircase is an intriguing old design which gained popularity all down the West Coast of Africa to Zaire. Arrangement is centerpiece. A large yellow heart is placed in the center of the field, enclosing what appears to be a crown decorated with two Fleur de lis and one Maltesian Cross. Ten streamers radiate from the heart, each suspending a smaller heart bearing the name of a large Ghanaian town and also the picture of Minerva. In each corner of the field is a square containing three banners. Two large squares are connected by a chain containing seven smaller squares of Minerva heads. The field is surrounded by a wavy-lined border. The colors are indigo, yellow and tange (Eicher and Nielsen).



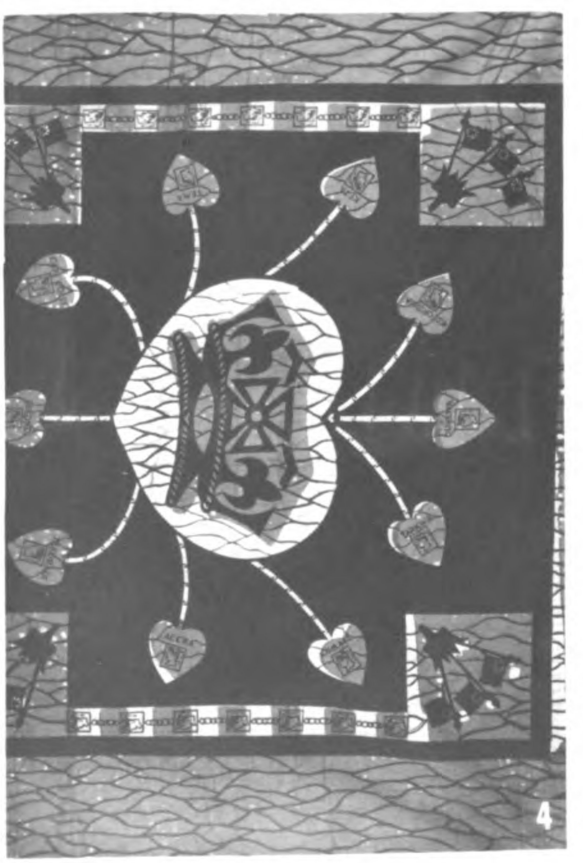
I-A-b-1 The Flying Duck



I-Ca-6 Java Lion



I-Ga-8 Target



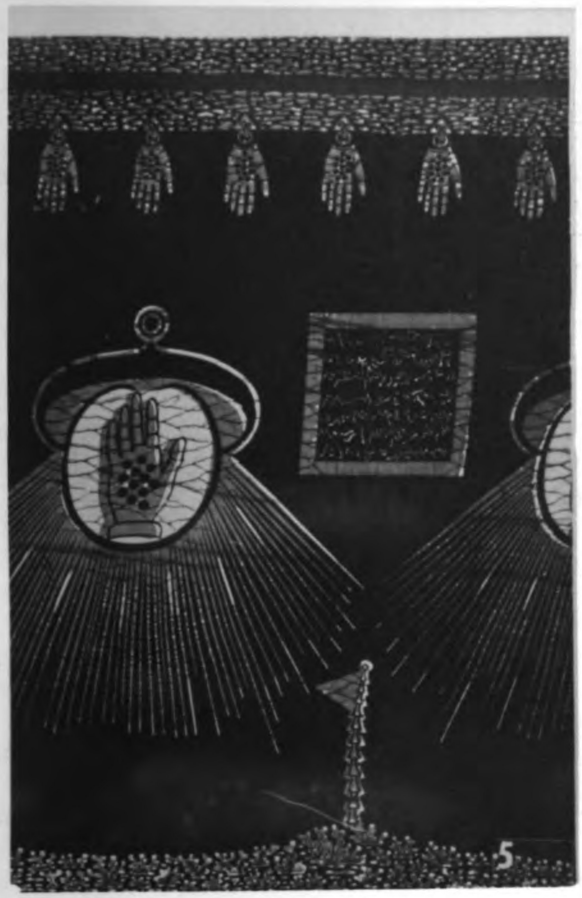
I-Ca-11 The Staircase

I-Ca-13 The Lamp Pattern. The lamp pattern is another old Brown Flemming design with a unique motif. Arrangement is centerpiece. The motif is a human hand with 12 dots in the palm, placed in the center of what appears to be an old lantern from which the rays of light emanates over a landscape of plants and standards. A row of hands is hanging as a cover over the motif, and a square of simulated script is placed between each lamp. Colors are traditional indigo, tange and white (Eicher and Nielsen).

I-G-15 Dice Check. Dice check is an old Brown Flemming design which has been a best seller all along the coast of West Africa. Arrangement is patchwork. The main design is composed of 3" squares depicting dice and checkerboard arranged in diagonal rows. Colors are indigo, red and buttercup yellow (Eicher and Nielsen).

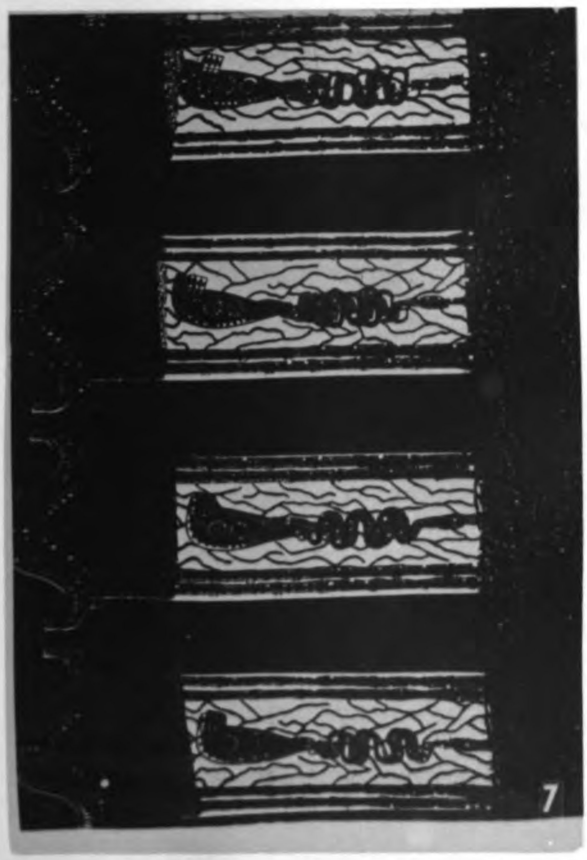
I-I-16 Staff of Kingship. Staff of kingship is also an old Brown Flemming design. In Ghana each state, clan and family have their traditional emblems. The staff which is represented in this print is the kind carried by the chief's linguist, an individual to whom all persons wishing to address the chief should direct their words. Arrangement is centerpiece. The design is a series of four representations of the staff of kingship covering the entire field and on a solid indigo background. Colors are the traditional indigo, white and dark brown (Eicher and Nielsen).

I-Ca-18 Day and Night. Day and night is yet another Brown Flemming design. Arrangement is patchwork. The rectangular field is divided into two triangles, representing day and night respectively. The former is dominated by light indigo background color, and the latter by dark indigo background. Stylized plants interspersed with semi-circular shapes and crosses is patterning the field and the whole rectangle is enclosed by a border which is patterned with geometric designs. Colors are indigo, white and lime yellow (Eicher and Nielsen).

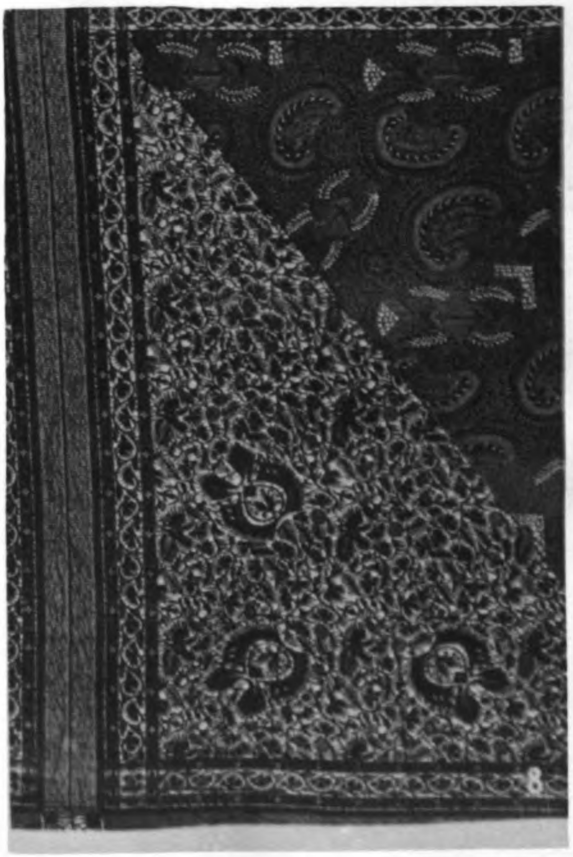


I-Ca-13 The Lamp Pattern

I-G-15 Dice ~~Check~~ Chock



I-I-16 Staff of Kingship



I-Ca-18 Day and Night

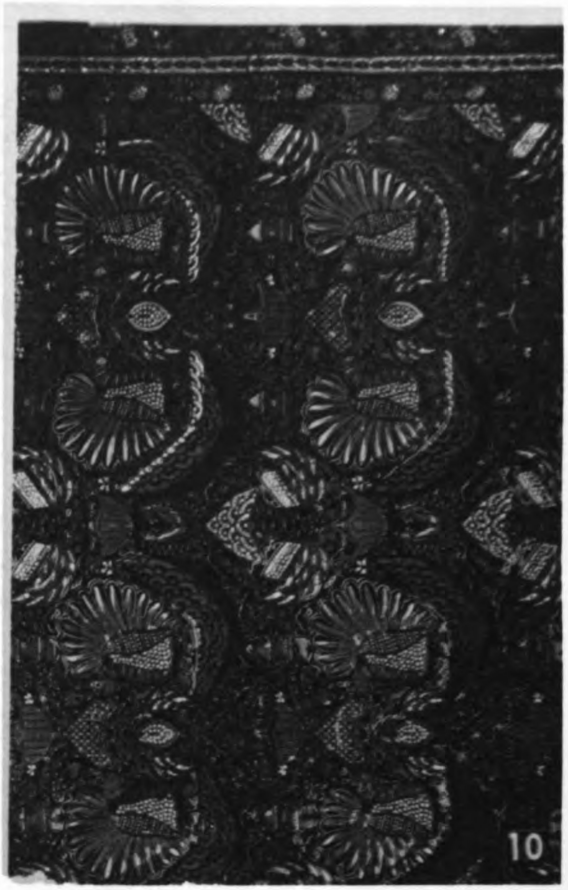
I-Na-19 The Shell. The shell is one of the famous Brown Flemming designs, which is classified as non-objective because the Dutch call it Bunch of bananas. Arrangement is all-over. The design is composed of rows of 9" x 7" stylized "cowries" which face each other on a yellow background. Colors are indigo, red and yellow (Eicher and Nielsen).

I-Ca-20 The Banana. The banana is an example of a traditional design from the Brown Flemming collection, and it is still considered a best seller. Arrangement is patchwork. The field is patterned with red banana-like shapes, stylized seashells, javanese wing designs and foliage. There is a border of flowers and foliage to the one selvedge only. Colors are indigo, red and olive drab (Eicher and Nielsen).

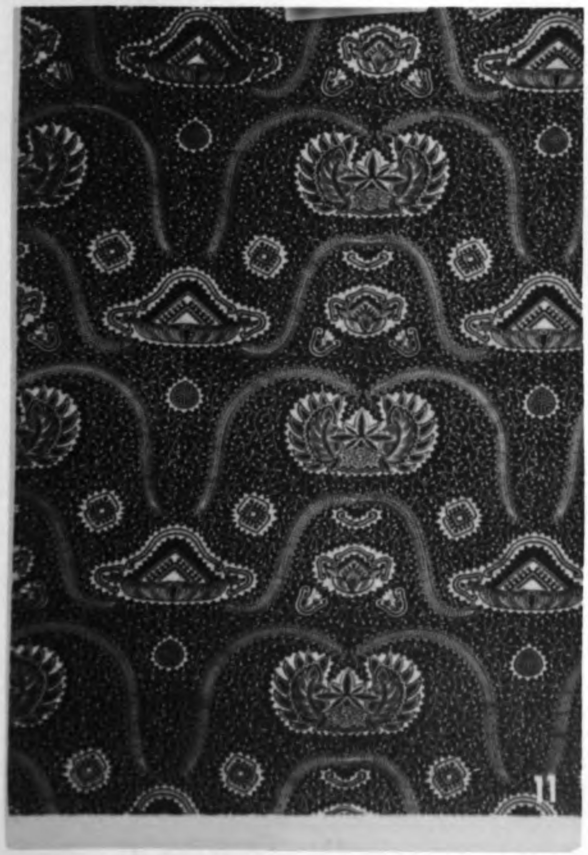
I-Ca-21 Yaw Donkor. Yaw Donkor was designed for Ghana only and was also named Little trailground. Arrangement is patchwork. The prominent motif is the wing design which is used frequently in the Java batiks. The wings are tied together by garlands. Another dominant motif resembles a covered dish. Colors are indigo, white and yellow (Nielsen).

I-Na-22 The Good Husband. The good husband is yet another best seller from the Brown Flemming collection. It has served as inspirational source for three other designs. Why is it called Good husband no one seems to know. Arrangement is centerpiece. The center of the field is made up of various geometrical motifs, interspersed with simulated script, and the borders, which are all around the field, are panels patterned with smaller geometrical designs. Colors are indigo, gold and white (Eicher and Nielsen).

I-Na-19 The Shell



I-Ca-20 The Banana



I-Ca-21 Yaw Donkor

I-Na-22 The Good Husband

I-E-25 The Alphabet. Recently educational designs became popular in Africa, and in 1970 Brunnschweiller revived an old Grafton design depicting some school materials. Arrangement is centerpiece. The alphabet is placed on a checkerboard centered on the field, and between the checkerboards are two groups portraying: (a) an open book, pencil and ruler, and (b) a chalkboard placed on an easel flanked by two slates. Colors are indigo, claret and broken-gourds yellow (Eicher and Nielsen).

I-P-t-29 The Tree of Life. The tree of life can be traced to old Indo-European chintz with a motif which recent research considers a hybrid product of cross-cultural trade influences of the seventeenth and eighteenth centuries.[26] Arrangement is patchwork. The design is presented as a tree trunk with serpentine branches, and bearing foliage, flowers, and fruits of a rather mixed and multiformed botanical association. Colors are indigo and brick-red on pale blue background (Eicher and Nielsen).

I-Ga-30 Polomint. The name of the design Polomint is derived from the small candy which is also called Life-saver and is sold in most of the world. It was made in 1963 and is a typical Nigerian design which has been popular for years. It was also used in the production of imitation African wax-prints, and it was the first design produced in the African wax-print mills. All-over is the arrangement. The entire field is covered with polomint design which is repeated in rows containing heavy "mints" in the middle progressing to very thin "mints" at each end. Colors are indigo and mustard green (Eicher and Nielsen).

I-G-31 Okwe Board. Okwe board is a design from 1963 which borrowed its motif from a popular West African game. Arrangement is centerpiece. The design is two okwe boards linked by a diamond on a background of tendrils. Colors are indigo, buttercup yellow, and deep tange (Eicher and Nielsen).

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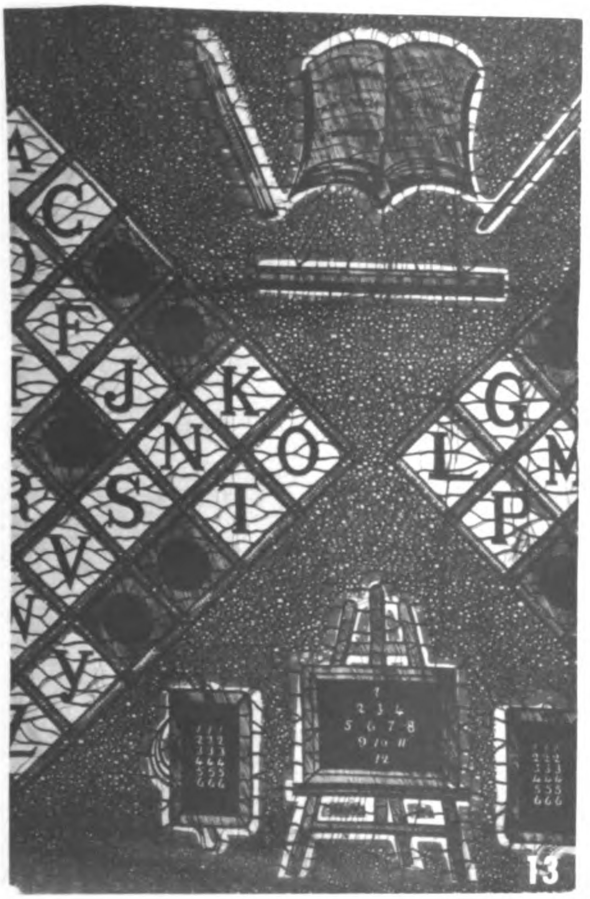
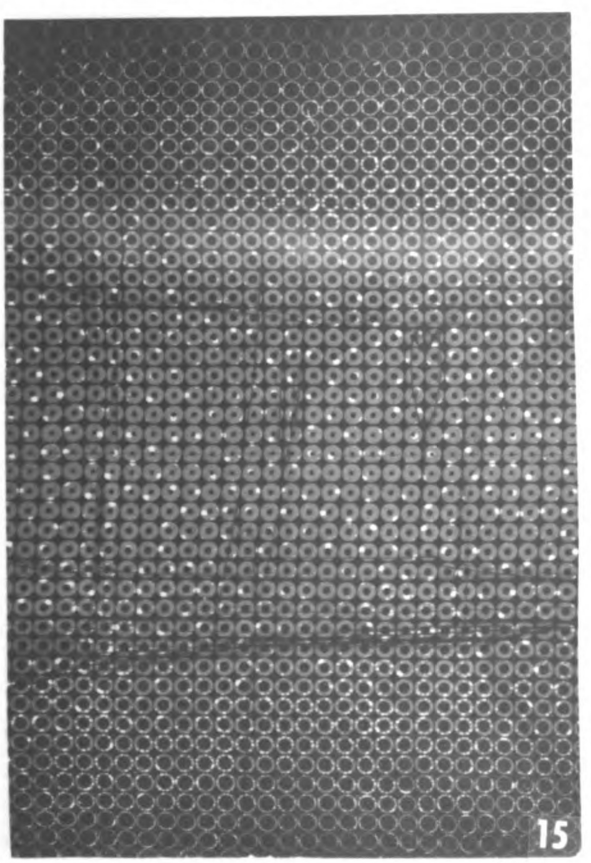
[26] John Irwin and Katharine B. Brett, Origins of Chintz (London: Victoria and Albert Museum. Her Majesty's Stationary Office by Butler & Tanner Ltd., 1970), p. 16.

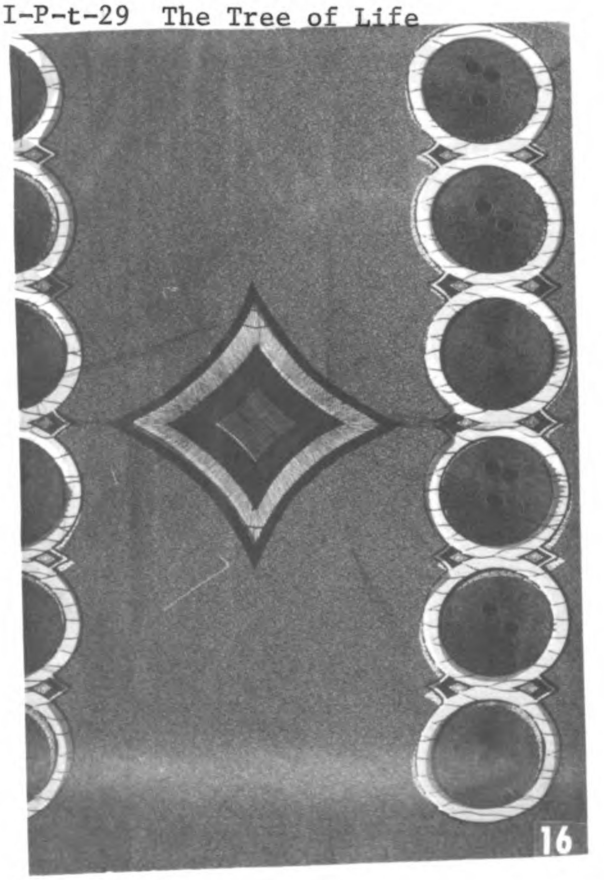


I-E-25 The Alphabet

I-P-t-29 The Tree of Life



I-Ga-30 Polomint



I-G-31 Okwe Board

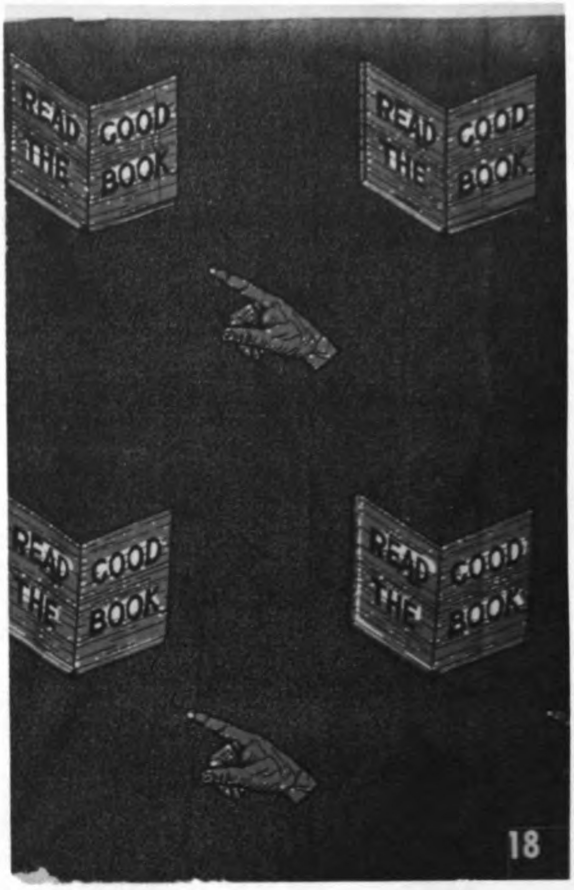
I-Ca-36 The Arab Horseman. The Arab horseman is a new design from 1968 which was inspired by the horsemen of the Arabs and the Hausa. The costume of the rider is typically eastern in origin. Arrangement is centerpiece. The central motif depicts a rider clothed in white with only face and hands showing and mounted on an elaborately decorated horse. In the foreground is a tent with the door left open, and a large bird is flying above. Colors are indigo, white and tange on a basket weave background (Eicher and Nielsen).

I-E-37 The Good Book. The good book was designed in 1965. Arrangement is patchwork. The motif is a finger pointing to the open book, inviting the spectator to read the good book. Colors are indigo, white and tawny (Eicher and Nielsen).

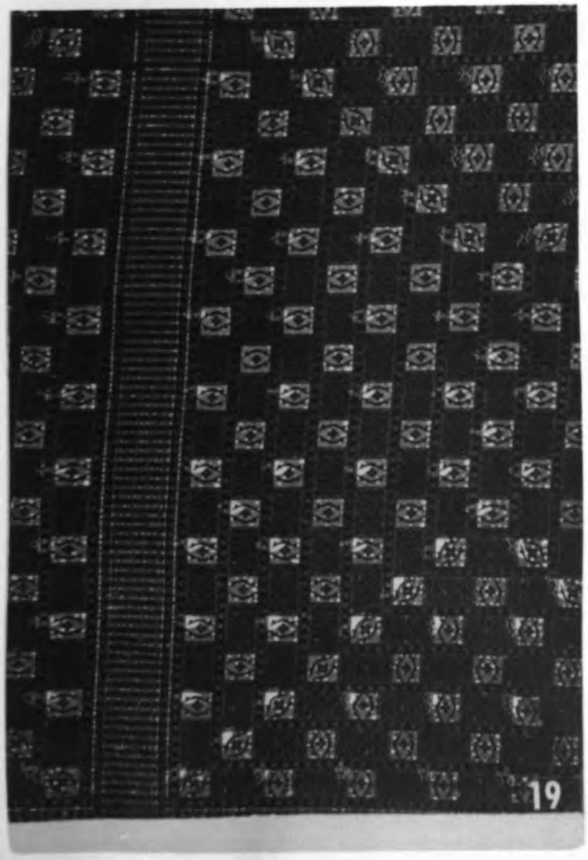
I-Na-39 The Good Husband Panels. This design is inspired by the Good husband. Arrangement is all-over. The entire field is covered with rows of the same geometrical motifs as was used in the borders of Good husband design. It is a combination of small squares and rectangles. Colors are indigo, gold and white (Eicher), and indigo, tabac and white (Nielsen).

I-Na-41 Two Husbands. The motif idea in this print is also borrowed from Good husband, but the geometrical designs are arranged as four corners. The field has two large squares with geometrical designs arranged in a star, superimposed upon an inverted square and surrounded by simulated script. Borders are covered with small geometrical designs. Colors are indigo, sienna and white (Eicher and Nielsen).

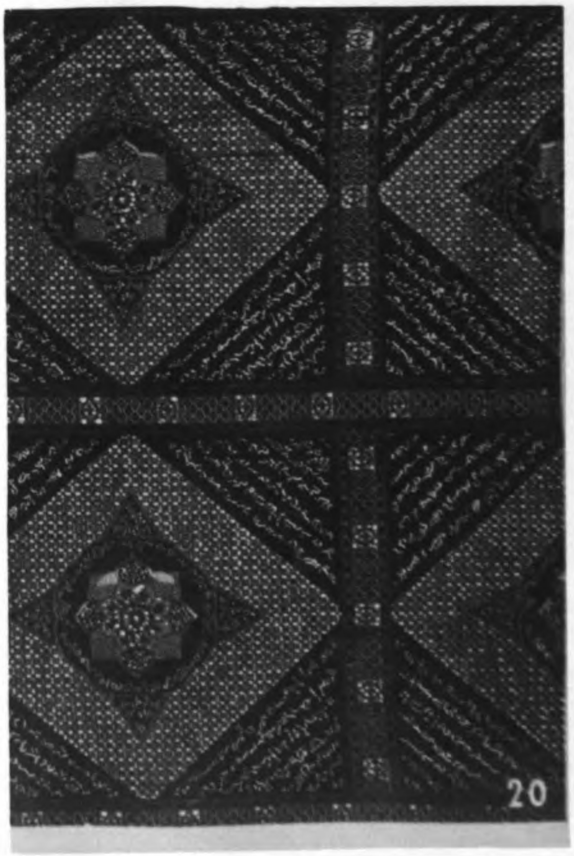
I-Ca-36 The Arab Horseman



I-E-37 The Good Book



I-Na-39 The Good Husband Panels



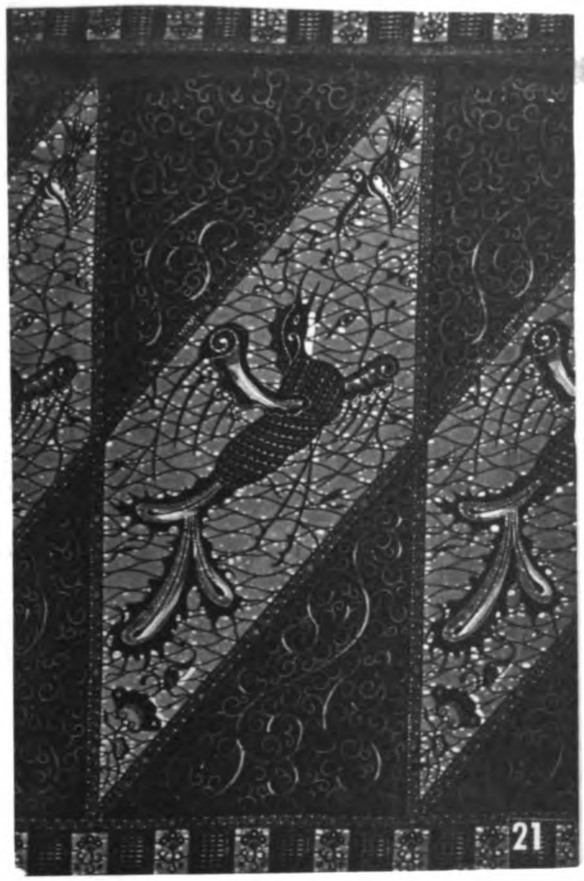
I-Na-41 Two Husbands

I-A-b-44 Bird in Maize. A bird in maize is a 1967 print with a definite Java influence. Arrangement is centerpiece. The motif is a large stylized bird with a smaller stylized bird to the right and a stylized flower to the left, enclosed in a parallelogram and flanked by triangles with tendril designs. The border is made of small rectangles with designs. Colors are indigo, tange and white (Eicher and Nielsen).

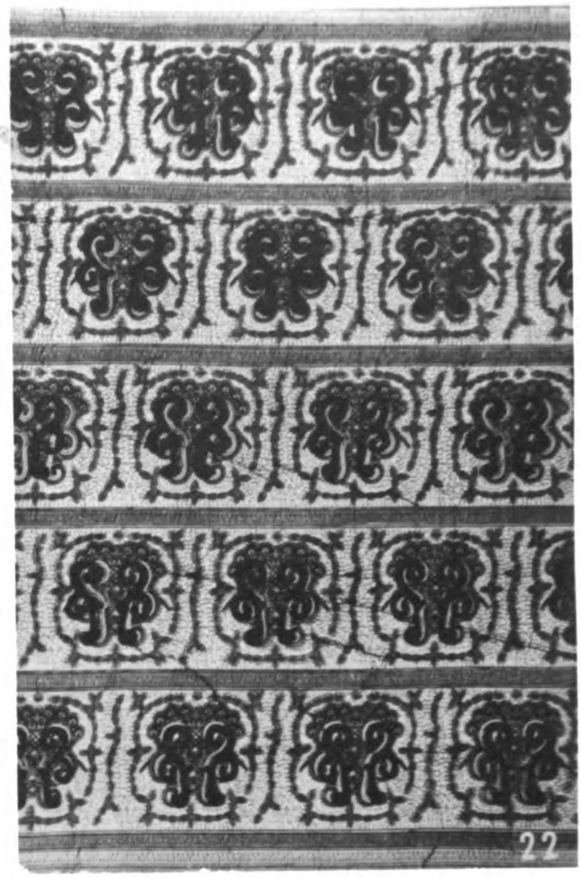
I-Na-45 The Mask. In the African culture masks have a myriad of meanings and functions and are frequently used in ritualistic ceremonies. Since masks are of many types, reflecting regional variations and intertribal influences, the designer chose not to depict any specific type of mask but an abstract representation. The mask turned out to be a best seller. Arrangement is all-over even if the motifs are larger than usual. The field is covered with rows of abstract masks. Colors are indigo, virus brown and lime-yellow on white (Eicher), and indigo, red, tabac on cream background (Nielsen).

I-A-b-47 Migration. Migration is a 1967 sample derived from the old Flying Duck, illustrating how manufacturers introduce old designs in new ways. Arrangement is all-over. The circular motif was reduced from 12 to 5 inches, and the two birds linking the circles in the original design were eliminated. In Migration the circles are arranged in 8 straight rows as compared to the original 3 rows with the motifs alternating. The all over background was not striped as in the Flying Duck but rather indigo dot and line pattern on red. Colors are indigo, flame and cream (Eicher), and indigo, red and olive green (Nielsen).

I-Na-35. Skin. The skin was designed in 1968 and is one of the few African prints imported to the United States. All-over is the arrangement. The motif resembles a snake skin. Colors are indigo, ox-blood and tabac (Eicher and Nielsen).

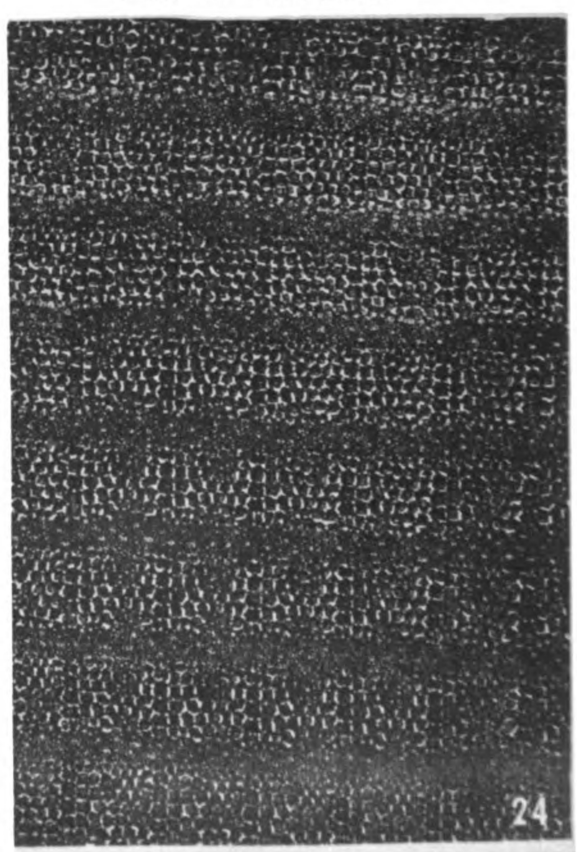


I-A-b-44 Bird in Maize



I-Na-45 The Mask

I-A-b-47 Migration



I-Na-35 Skin

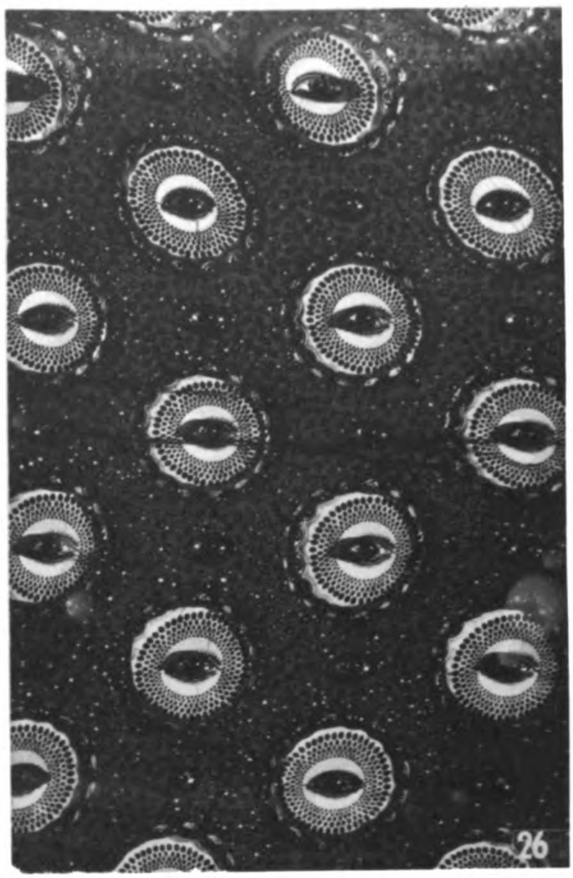
I-A-i-55 Papillon. Papillon is an example of a design inspired by the designer's visit to Africa. Arrangement is patchwork. Large butterflies on honey-combed background are centered in diamond shapes and repeated throughout the field. Colors are indigo and green (Eicher), and indigo, red, broken-gourd yellow and brown (Nielsen).

I-Ga-56 Eye Target. A 1970 design with a motif borrowed from the old Target. The target in this design is only 6" and the center is replaced by an eye. The target is surrounded by a ring of small eyes as well as eyes interspersed between the targets. Colors are indigo, white, yellow and red (Eicher and Nielsen).

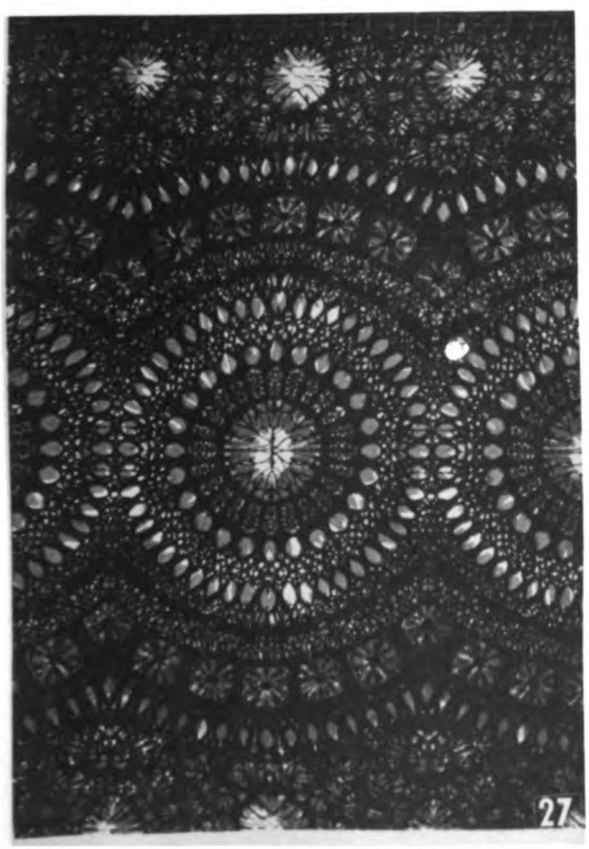
I-Ga-58 Tieplate. Tieplate is a contemporary design from 1970. Arrangement is centerpiece. The motif is a set of concentric circles made of various non-objective forms, surrounded by spiderweb abstracts, and flanked by non-objective shapes in the borders. Colors are indigo, gold and lime (Eicher and Nielsen).

I-A-b-60 Guinea Fowl. A 1968 print with the Guinea fowl as the motif. Arrangement is patchwork. The field contains a central square with a Guinea fowl in still another square superimposed diagonally on the former, and flanked by 5 other Guinea fowls, of which the 4 are shared with the adjoining repeat. The effect is three continuous rows of Guinea fowls, enclosed by borders along the selvedge, patterned with squares and triangles with small Guinea fowls. Colors are indigo and tabac on white (Eicher and Nielsen).

I-A-i-55 Papillon



I-Ga-56 Eye Target



I-Ga-58 Tieplate

I-A-b-60 Guinea Fowl

I-N-62 Congo Independence. Congo independence was produced in 1969 to commemorate the first decade of Zaire's (Congo) independence (1960-1970). Arrangement is patchwork. The repeat is composed of rows of circular shapes, overlapping and inscribed with: 1960 Independence 1970. Most of the circular shapes contain a star, but a few depict a map of Zaire. Colors are indigo, gold and red (Eicher and Nielsen).

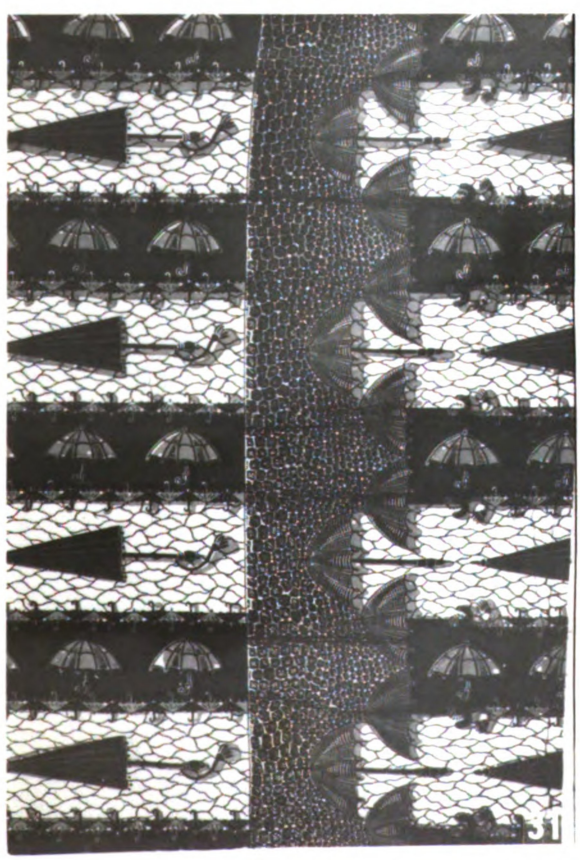
I-U-63 The Umbrella. The umbrella came as a new and popular design from 1971. The umbrella is a significant status symbol in Ghana and to a less degree in some other African countries. It is an item of practical importance to all Africans living under the tropical sun and experiencing tropical rains. Arrangement is centerpiece. The motif is a large open umbrella and four smaller ones with tassels, flanked by a border of twenty small umbrellas. Colors are indigo, white, red and mustard (Nielsen).

I-U-64 The Umbrella Stripe. The umbrella stripe is another 1971 wax-print with the umbrella motif. Arrangement is patchwork. The umbrellas are arranged in nine vertical panels, and the repeats are 23½" x 10½". Four columns of closed umbrellas, each topped with three open umbrellas, alternate with five panels of open umbrellas in various sizes. The former are placed on a white marbled background, the latter on indigo. Each repeat is separated by a border with a "skin" pattern. Colors are indigo, tange and white (Eicher).

I-Na-65 The Damask. This motif is borrowed from one of the old damasks used by the Muslims. Arrangement is centerpiece. The motif is similar to the Fleur de lis of the fourteenth century Syria. The Fleur de lis is placed in a 14½" diamond against a background of abstract designs. Colors are indigo and gold (Nielsen).

I-N-62 Congo Independence

I-U-63 The Umbrella



I-U-64 The Umbrella Stripe

I-Na-65 The Damask

I-N-66 Uhuru. The uhuru is an example of a print which was used to commemorate an African political leader, and more than 50,000 yards were sold upon his death. Arrangement is centerpiece. A portrait of Lumumba is centered in a golden star, surrounded by a circle with the inscription: Congo independence 1960 MNC. Two portraits make up one repeat. Above and below the circles are Zaire flags and the inscription: Uhuru, which means freedom. Colors are indigo, buttercup yellow and white. This print is a typical example of extended use of "lights" (Nielsen).

I-N-67 4th Anniversaire De L'Independence. This is a design made to commemorate the 4th anniversary of independence in Zaire (1964). Arrangement is centerpiece. On a background of ideographic designs the cloth portrays the prime minister S. E. Cyrille Adoula, arched by the labels: 30 juine 1964 and Anne'du Travail, and undergirded by the labels: Anne'du Travail and 4th anniversaire de l'indépendence. The inscriptions are flanked by the label: 1964 Reconstruction Nationale and a circle with a bird holding a leaf in the beak. Colors are indigo, claret and buttercup yellow (Eicher).

I-N-68 President Kennedy. This print is an example of how a politically important person from outside Africa sometimes is chosen as a design motif. It was sold all along the coast of West Africa in the years following the assassination of President J. F. Kennedy in 1963. Arrangement is centerpiece. President J. F. Kennedy is portrayed in the center of a diamond shape, flanked by the American presidential seal in the four corners. Colors are indigo, gold and white (Nielsen).

I-N-66 Uhuru

I-N-67 4th Anniversaire de L' Independence

I-N-68 President Kennedy

PLATE IV

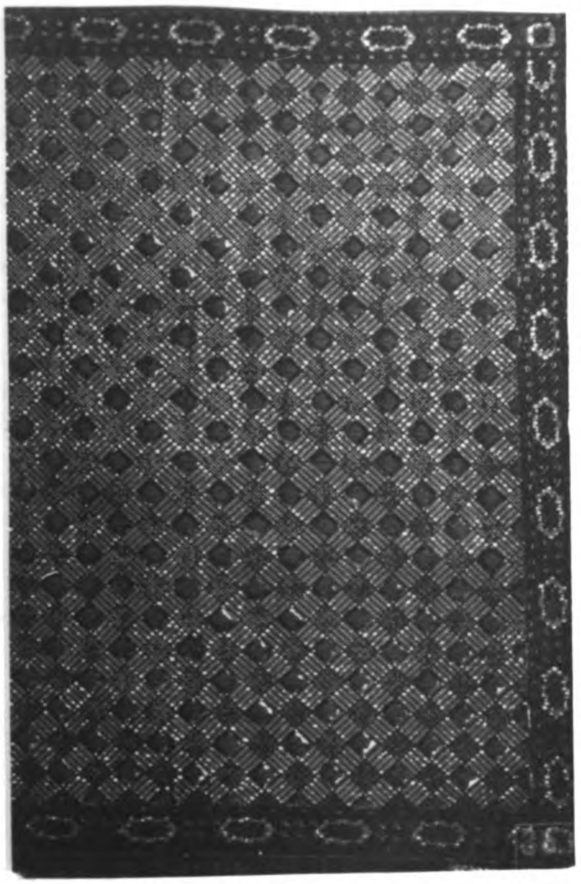
Description of Selected Dutch Samples

II-Ga-69 "A red eye cannot turn into flames of fire." "A red eye cannot turn into flames of fire" is an example of a design named by the consumer using a proverb. The arrangement is patchwork. The field is covered with 1¼" mustard colored squares in different geometric patterns, arranged in diagonal rows. In every other row every second square is a red blotch which apparently gave rise to the name. The field is framed by a 3" border patterned in a conventional geometric design. Colors are indigo, mustard and red (Nielsen).

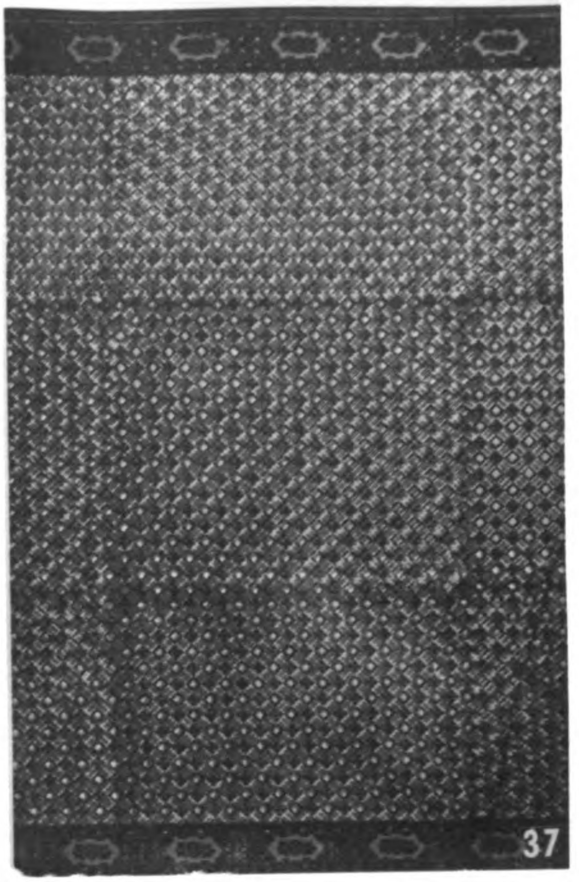
II-Ga-71 Name Unknown. This design is identical to II-Ga-69 but in reduced size and in a different color combination. Colors are indigo, pink, tabac on cream background (Eicher).

II-A-i-76 Butterfly. Butterfly is an example of a traceable inspirational source. The arrangement is patchwork. Pairs of indigo and buttercup yellow butterflies, stylized plants, and geometrical forms are repeated on a red background filled with indigo "tendrils." Colors are indigo, buttercup yellow and red (Nielsen).

II-P-t-77 Unity is Strength. The unity is strength motif is significant in being associated with a proverb: "One tree alone cannot stand the wind." The arrangement is centerpiece. The motif is composed of a single fallen tree in contrast to a group of standing trees. In the foreground are stylized flowers and close to the center is the inscription: "Dua Kur Gye Enum A Obu." The 6½" border is parallel to the selvedge and contains leaves and flowers. Colors are indigo, rust and broken-gourd yellow (Nielsen).



II-Ga-69 "A red eye cannot turn into flames of fire."



II-Ga-71 Name Unknown

II-A-i-76 Butterfly

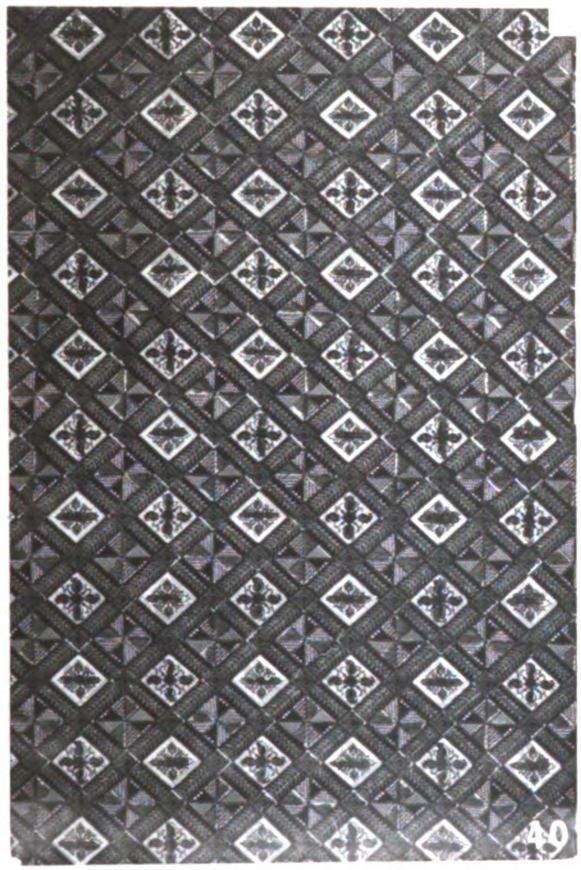
II-P-t-77 Unity is Strength

II-Ca-78 Broken Pots. This print from 1934 is an example of a combination of natural and geometrical designs. Arrangement is patchwork. The field is covered all over by squares, arranged in diagonal rows, separated by rectangular and square dividers. The squares are of two kinds, (1) squares combining eight triangles resembling pieces of a broken pot, and (2) squares filled with stylized foliage. Colors are indigo, red, light mustard and cream (Nielsen).

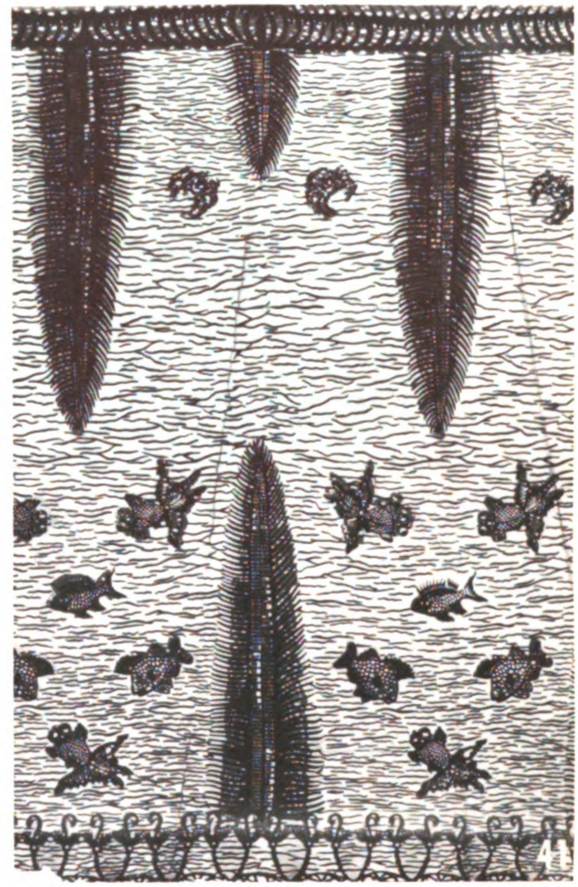
II-A-f-83 Women are Fond of Fish. Women are fond of fish is another example of a print named by the consumer. It is arranged as patchwork, and the motif is borrowed from the sea. The field is patterned with stylized seaweed and a school of fish, repeated on a background of undulating lines. Borders only at the selvedge. One border is patterned with rows of "fish hooks," and the other border with "fishbones." The colors are indigo, brick red and yellow (Nielsen).

II-M-e-86 The Eye. In Ghana the consumer named The Eye "The Eye of God." It is another patchwork arrangement. The field is covered with alternate wide and narrow panels. The narrow panels are patterned with a tange colored net design on indigo, and the wide panels depict indigo and tange colored eyes of various sizes on a white background with wavy lines. On every third wide panel an exceptionally large eye is incorporated into the design, presumably the "eye of God." Colors are indigo, rust and white (Nielsen).

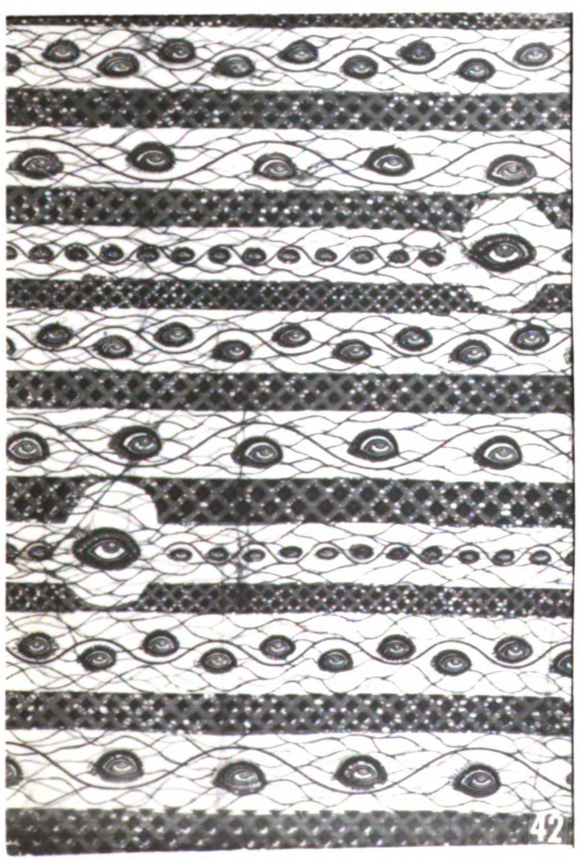
II-Ca-87 Name Unknown. An example of a striking motif. It is patchwork arrangement, and the motif is an octahedron in the center of the field, surrounded by 10 diamonds and 16 sixpoint stars intermingled with leaves. Borders on the selvedge are filled with stylized flowers and leaves and sixpointed stars. Colors are indigo, red and tange on white (Nielsen).



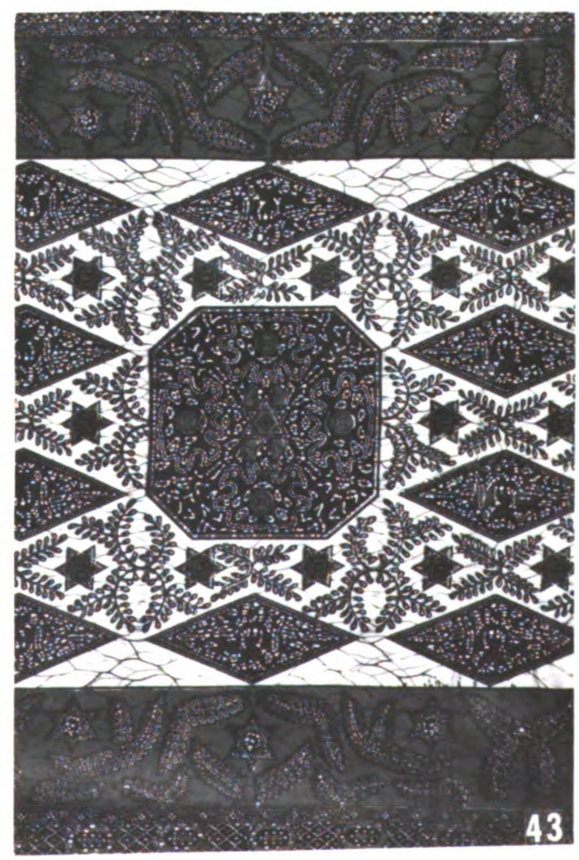
II-Ca-78 Broken Pots



II-A-f-83 Women are Fond of Fish



II-M-e-86 The Eye



II-Ca-87 Name Unknown

II-A-b-88 Name Unknown. Birds served as source of inspiration. Arrangement is patchwork. The field is patterned with alternating 8½" x 6½" rectangles depicting (a) flying birds on a white marbled background, and (b) tange and indigo stripes and white dots. Colors are indigo, tange and broken-gourd yellow (Nielsen).

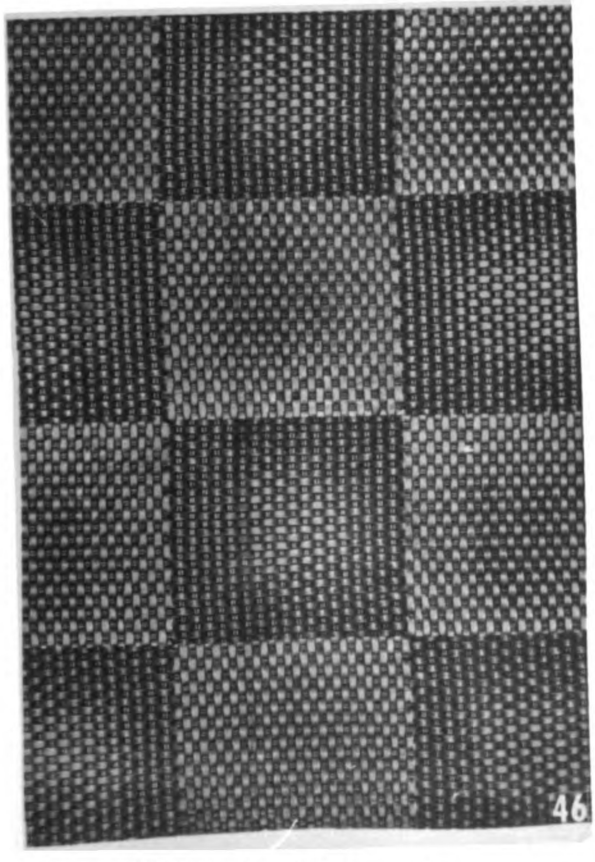
II-Na-89 Name Unknown. This is an example of a rather unusual design, arranged as patchwork. Parallel pairs of what appear as ornamental trimmings show on veined background cover the width of the field. The "trimmings" contain stylized leaves, geometric shapes, and non-objective forms. On the "trimmings" are placed rectangular shapes, diamond shapes, and "seal" shapes at intervals. Colors are indigo, broken-gourd yellow and virus brown (Nielsen).

II-Ga-92 African Mat. African Mat has been named by consumers in Ghana "Show your love." Apparently the motif is borrowed from the typical African mat which in the African way of life serves many purposes, including the symbol of hospitality. All-over is the form of arrangement. The motif consists of squares of a basket weave design arranged in alternating warp and weft direction, covering the entire field. The colors are indigo and broken-gourd yellow (Nielsen).

II-A-m-97 Name Unknown. This is an example of a traceable inspirational source. It was designed for Nigeria in 1930 but is now sold in Ivory Coast and Záire as well. All-over is the form of arrangement. The field is patterned by rows of red, running horses on a "Y" patterned buttercup yellow background. Colors are indigo, red and buttercup yellow (Eicher).

II-A-b-88 Name Unknown

II-Na-89 Name Unknown



II-Ga-92 African Mat

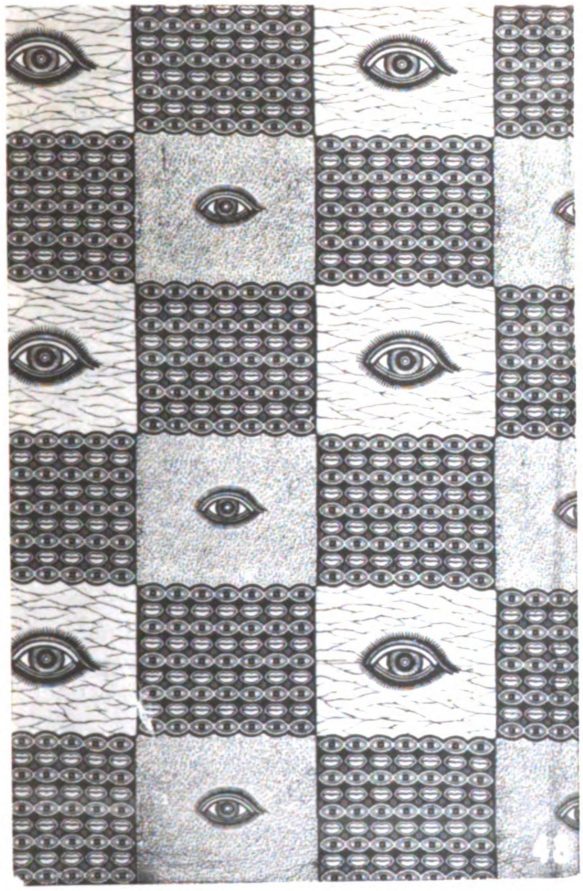
II-A-m-97 Name Unkown

II-M-e-98 Name Unknown. This design is another variation of the eye motif. Arrangement is patchwork. Indigo colored eyes of various sizes are arranged in 9" x 7½" rectangles. A dominant indigo colored eye on a wavy, gourd-yellow background alternate with rectangles filled with rows of small open and closed eyes. Colors are indigo and broken-gourd yellow (Eicher).

II-Ca-101 Name Unknown. This design is a combination of two famous motifs: the "broken pots" and the "back of the tortoise." Arrangement is patchwork, and the center of the field has a 9½" x 9½" square depicting the "broken pot" motif, flanked on each side by a "back of the tortoise" motif. Along the selvedge is a row of 7" x 7" squares, joined at the corners, with the "broken pot" motif. The colors are indigo and broken-gourd yellow on white (Nielsen).

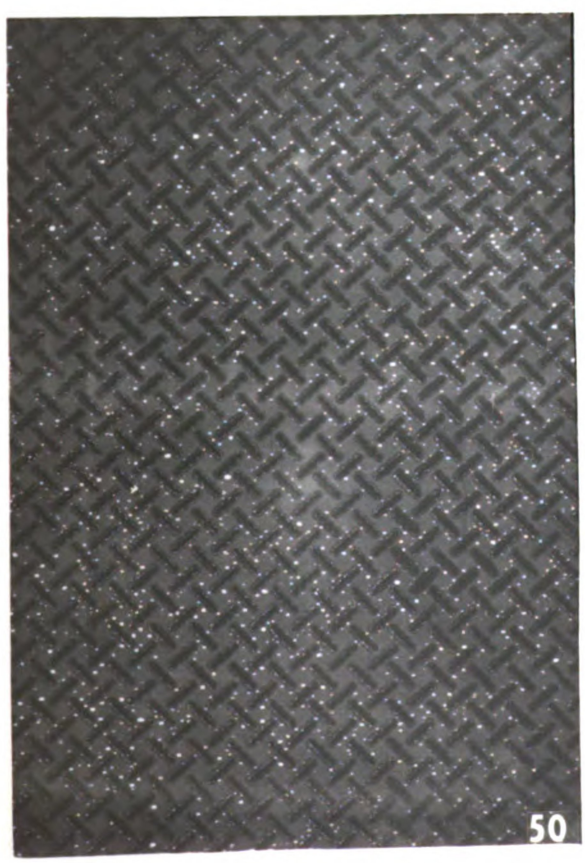
II-P-fa-104 Groundnuts. The inspirational source of Groundnuts obviously was groundnuts (peanuts). All-over is the arrangement, and the motif is composed of diagonal rows of unshelled groundnuts (peanuts) on a brown background. Colors are brown, red and gourd-yellow "lights" (Eicher).

II-Na-106 Name Unknown. The uniqueness of this design strikes us with its motif and unusual background color. Arrangement is centerpiece. Two large indigo and deep tange concentric rings with free flowing ends make up the entire pattern on a tabac background (21½" in diameter). Colors are indigo, deep tange and tabac (Nielsen).



II-M-e-98 Name Unknown

II-Ca-101 Name Unknown



II-P-fa-104 Groundnuts

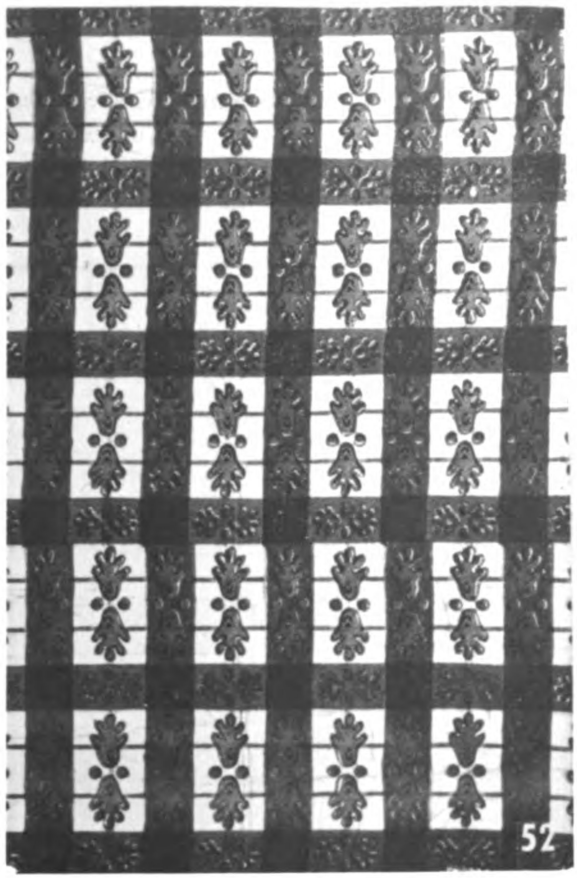
II-Na-106 Name Unknown

II-Na-107 Name Unknown. This is an interesting and unusual design, arranged in patchwork. The field is composed of five panels with stylized dual "gecko feet", separated by panels with the same motif in smaller size. The colors are indigo, broken buttercup yellow and deep tange on white (Nielsen).

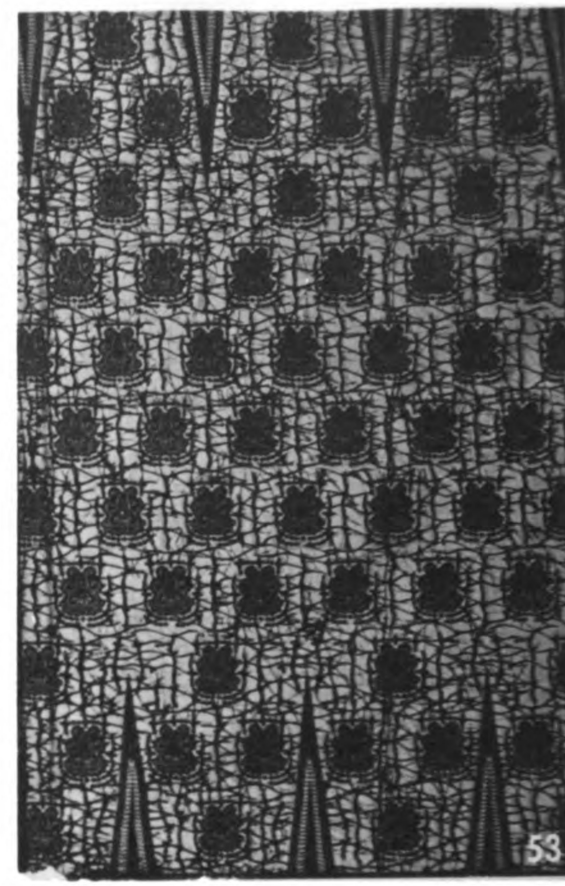
II-Ca-109 Name Unknown. This print reveals, as an example, how Texoprint used old designs in new ways (1967). The arrangement is all-over, and the field is covered with 2" x 2½" "back of tortoise" designs on a background of cream with indigo and tange undulating lines. Penetrating into the field from the selvedge are narrow wedges at 6½" intervals. Colors are indigo, broken-gourd yellow and rust (Nielsen).

II-C-112 Name Unknown. This is another example of a traceable inspirational source. Arrangement is patchwork, and the motif is three rows of square calenders, repeated on a background of tendrils. The following inscriptions are placed parallel to selvedge: (1) "guaranteed Dutch Wax" and (2) "Veritable wax Hollandais." Colors are indigo, green and old gold on cream (Nielsen)

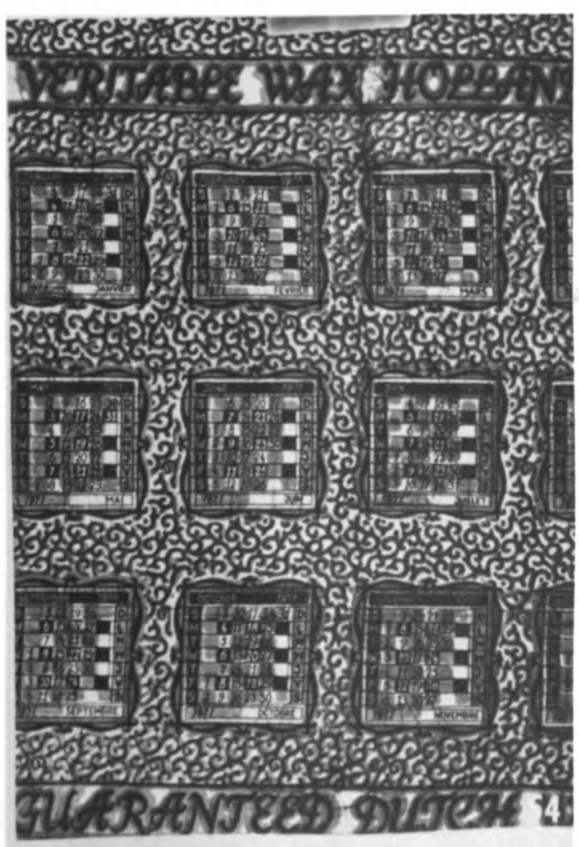
II-A-s-113 Name Unknown. The inspirational source of this print is evident, and the arrangement is four corner. The field is composed of 18" squares patterned with seashells (cowries) on a marbled background, alternating with 18" grid. Colors are indigo, light pink and yellow (Nielsen).



II-Na-107 Name Unknown



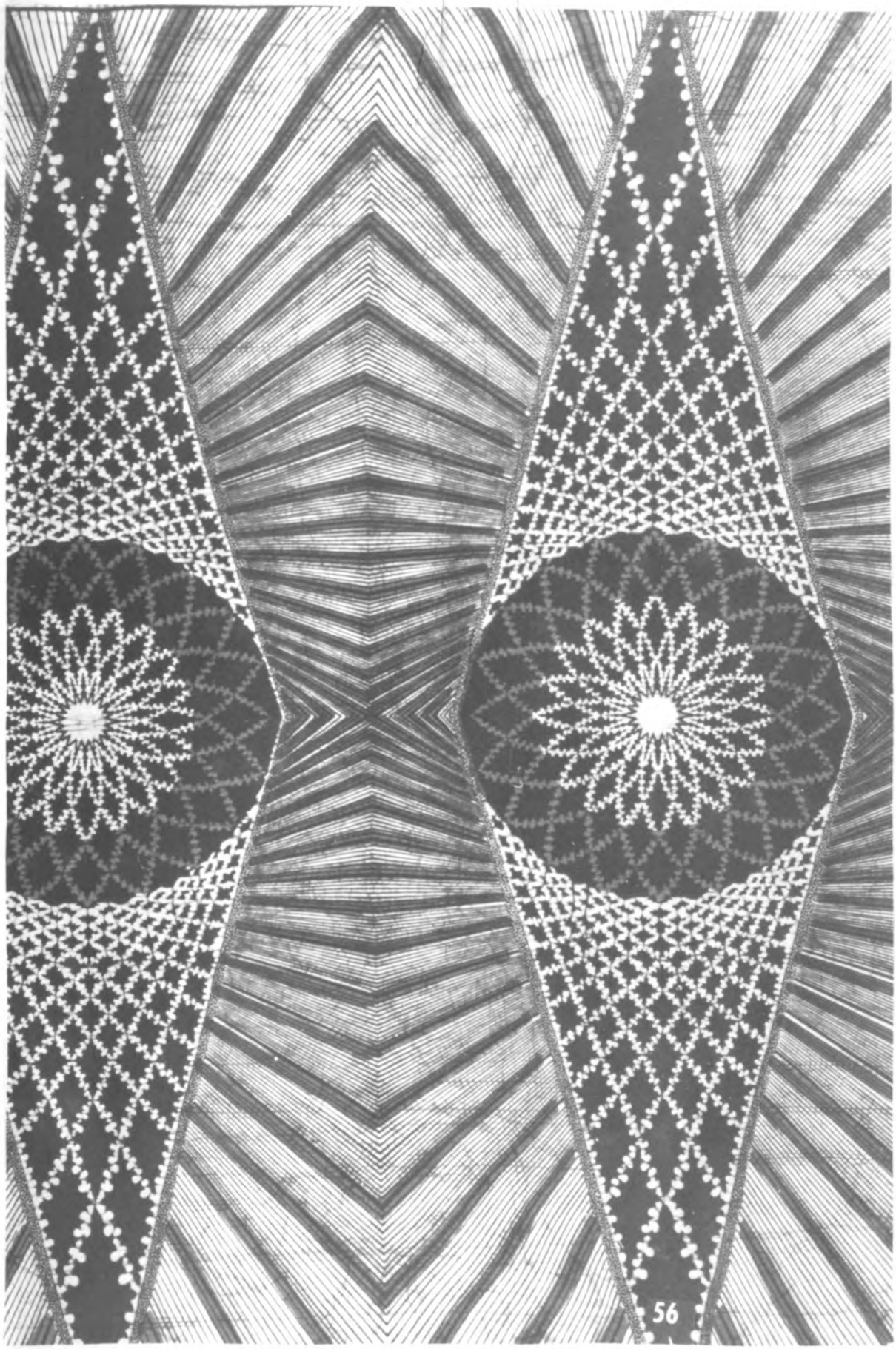
II-Ca-109 Name Unknown



II-C-112 Name Unknown

II-A-s-113 Name Unknown

II-Ga-111 Name Unknown. This is a new design produced in 1969 for Ivory Coast and Nigeria. The arrangement is centerpiece. The pattern is a 45" long indigo colored diamond shape with a 12" center circle and "net" background. The circle appears in red, yellow and pale blue consecutive rings. The diamond shape is viewed on a background of red, yellow and pale blue stripes, radiating from the center and giving the illusion of rays streaming from the diamond shape. Colors are indigo, red and yellow on white (Nielsen).



II-Ga-111 Name Unknown

PLATE V

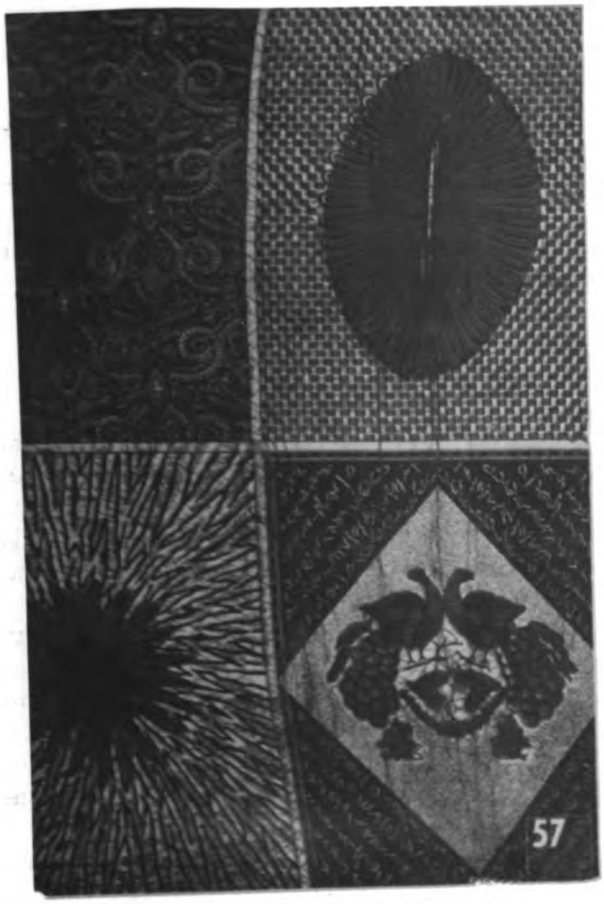
Description of Selected Swiss Samples

III-Ca-114 Four Fields. Four Fields is an example of how old favorite designs can be combined and used in new ways. Arrangement is four corners. The field is made up of four 23" x 17" rectangles, each with a different motif: (1) a centered star with rays of light; (2) two stylized peacocks enclosed in a diamond shape on a background of simulated script; (3) a stylized motif depicting an ostrich feather on "dice" background; (4) stylized plant motifs. Colors are (a) indigo and gourd-yellow (Eicher), and (b) indigo, claret red and buttercup yellow (Nielsen).

III-Ca-115 Linoleum. Another example of combination of motifs is the Linoleum. The arrangement is four corner. The field is divided into four 10½" squares, separated by 4" panels of leaves. A different motif is placed in each of the four squares: (1) two peacocks, (2) a turtle, (3) a "shell", (4) a "record" (Phonograph). The center panels contain three upturned squares with motifs borrowed from the "broken pots." The entire field is surrounded by two borders: (1) the inside border is borrowed from "broken pots" border, and (2) the outside border is made of parallel stripes. The colors are the new mixture of brown and indigo (Eicher).

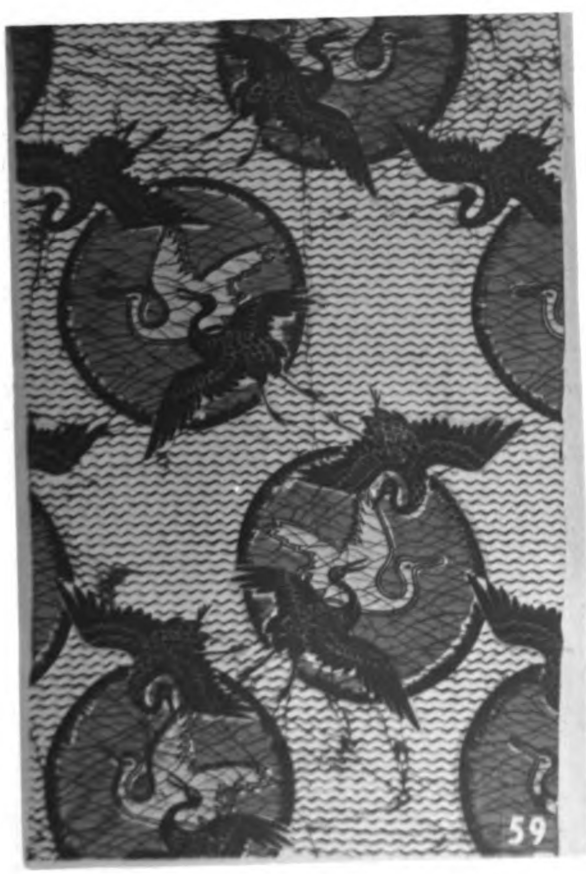
III-A-b-118 Heron. Heron is a design typical for Nigeria which became popular again after the Biafran conflict. Arrangement is patchwork. It depicts three flying herons in 12½" scarlet circles. The circles are arranged as alternating pairs on a wavy background. Colors are scarlet, indigo and yellow (Nielsen).

III-Ca-124 Tarquajoh. Tarquajoh serves as an example of how one particular design may be accepted in one part of Africa and rejected in another. In 1970 this cloth was a best seller in Zaire, selling in the brilliant colors of the sample. However, when the cloth was previously introduced into Ghana in the traditional colors (indigo, gold and dark green), it was not acceptable and did not sell. Arrangement is patchwork. The design shows an interesting arrangement of panels, geometric motifs, and stylized natural shapes. The panels alternate in width of 5½" and 11". The 5½" panels are patterned with leaves and six-pointed stars. The 11" panels are patterned with 9½" squares with stylized birds surrounding a six-pointed star. Alternating with the squares are two elongated diamond shapes, the interval being patterned with leaves. The two sides are bordered with small geometric designs. Colors are brown, purple and yellow (Nielsen).



III-Ca-114 Four Fields

III-Ca-115 Linoleum



III-A-b-118 Heron

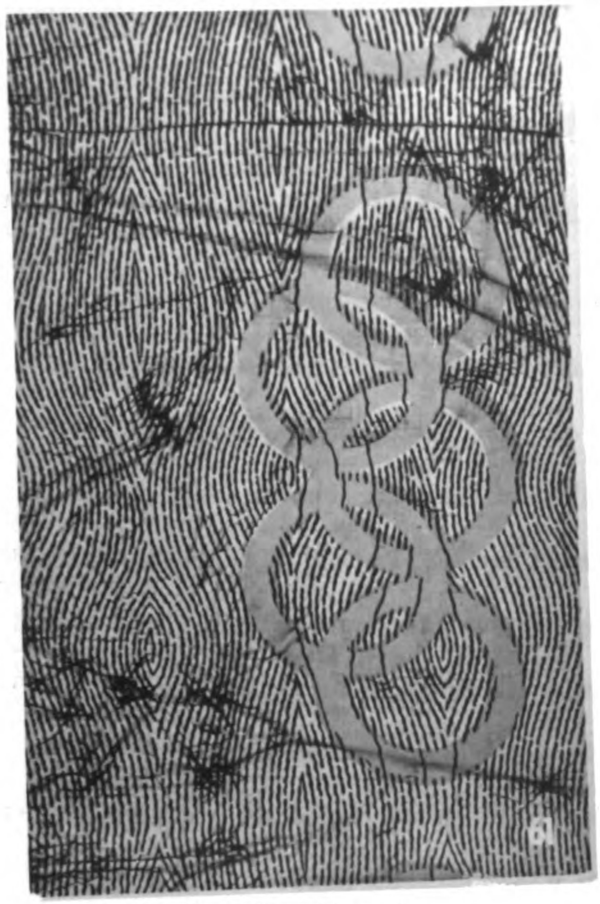
III-Ca-124 Tarquajoh

III-Ca-128 Olympia. Olympia illustrates acceptance of a new design. Arrangement is all-over. Five olympic rings are repeated on a "veined" background. It was designed in 1945 and millions of yards were sold the following seven years, not because the people of Ghana desired to honor the Olympic games, but because the rings, to them, symbolized a very popular song at the time which in part read: "Don't be too unhappy because I am in prison and walk with my hands tied." The people of Ghana saw in the rings the chains that tied the prisoner's hands. It appeared to the writer that they chose to wear this particular cloth for similar reasons to those that caused many Americans to wear POW bracelets during the Viet Nam conflict. The colors are brown and buttercup yellow (Eicher and Nielsen).

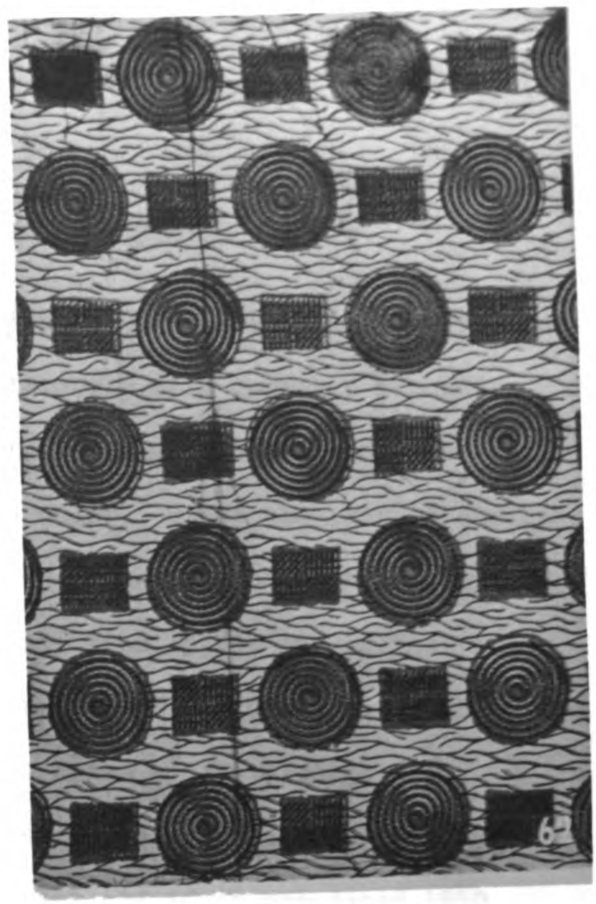
III-A-r-131 Snake. Snake is a striking cloth in a hot pink color used exclusively in Zäire. Arrangement is patchwork. The motif consists of 10¼" wide circles, alternating in indigo and tabac colors, simulating coiled snakes, and 5" x 6" rectangles patterned in a striped arrangement. The motifs alternate in rows on a "veined" background. Colors are pink, indigo and tabac (Nielsen).

III-A-r-132 Small Snake. Small snake is similar to III-A-r-131 but with smaller motifs and different colors. The colors are brown and light green (Eicher).

III-A-i-133 Eye of Insect. Eye of insect is a hundred percent Hohlenstein design, and it is only produced in the colors of the sample. All-over is the arrangement. The design is composed of 4" wide circles depicting the compound eye of an insect (omnitidia), repeated on a light brown "honeycomb" background. Colors are brown and pink (Eicher and Nielsen).

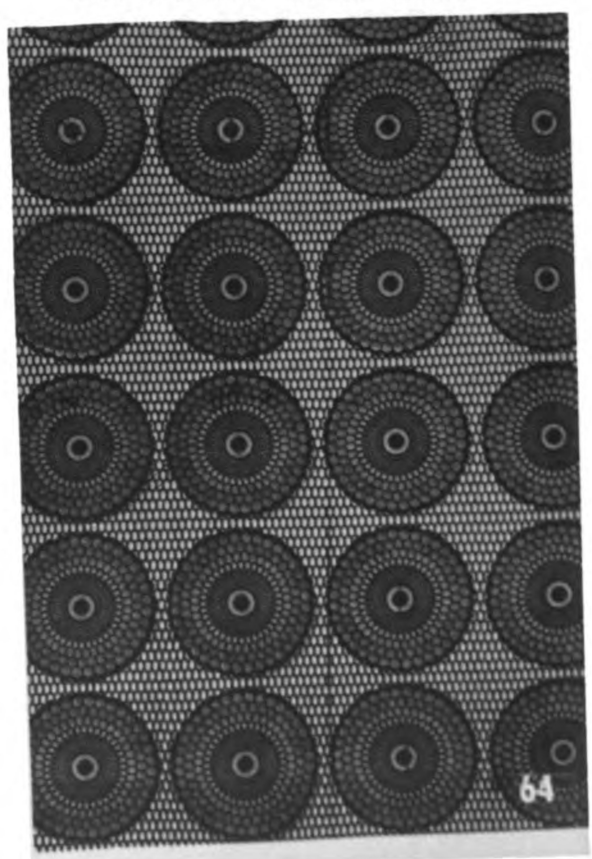


III-Ca-128 Olympia



III-A-r-132 Small Snake

III-A-r-131 Snake



III-A-i-133 Eye of Insect

PLATE VI

Comparison of Selected Samples

Selected samples of African wax-prints with similar motifs produced by Brunnschweiler, Texoprint, and Hohlenstein were compared according to name, date, arrangement of the overall design and individual motifs, border, background, size of motifs and color. Often the year of design was unavailable but old Brown Flemming designs were considered pre-1920, and the old Grafton designs were probably from 1920's and 1930's. F. W. Grafton was the first to make a record of the designs. Most of the Texoprint samples received were already dated by the manufacturer. Information on other dates were obtained during personal visits to showrooms. Hohlenstein considered a wax-print old if it pre-dated 1950. Obviously producers borrowed from each other but no attempt was made to discover who originated a design. Sometimes the identical motif was used, at other times the same motif was used with modifications, by the three manufacturers. Most of the time a manufacturer produced the wax-prints in more than one color combination.

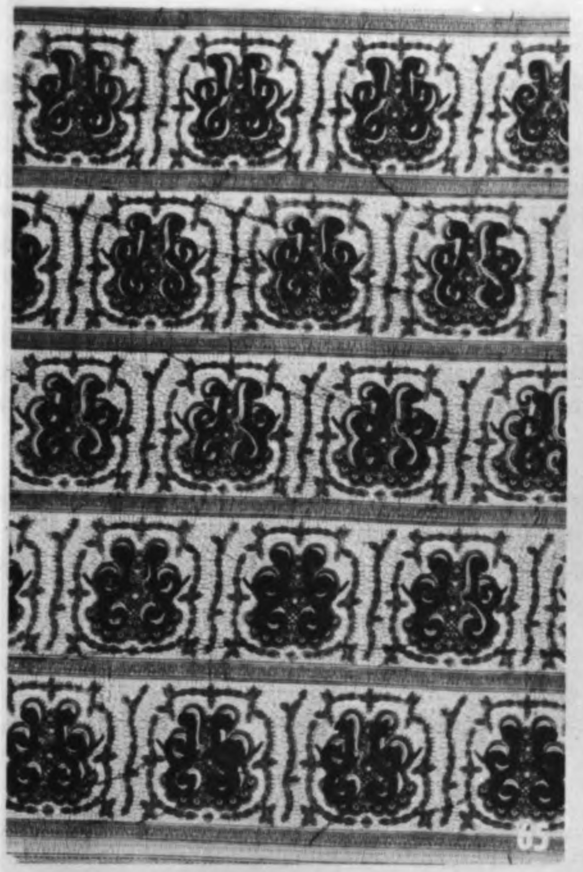
A comparison of the same motif produced by three manufacturers.

I-Na-45 The Mask--Brunnschweiler old design. Arrangement is patchwork. Design is composed of five 7½" panels with abstract mask motifs, surrounded by what appears as stylized "sea-weed" or "chains," separated by borders. Background is a "hook"-like pattern. Colors are red and tabac on cream.

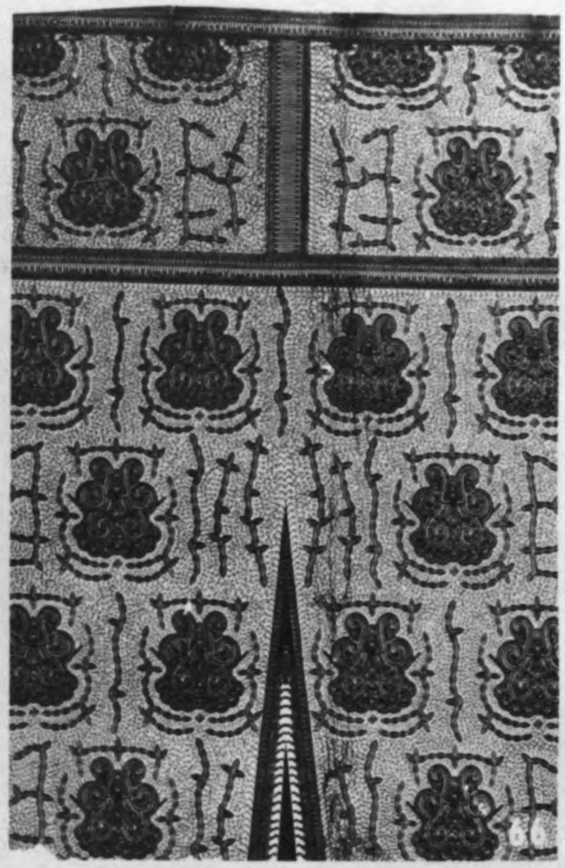
II-Na-79 The Back of Tortoise--Texoprint 1936. Arrangement is patchwork. One difference from the Brunnschweiler sample is that the design is made of a field covered by motifs similar to the Mask, but intermingled with stylized "sea-weeds" or "chains" on a background of "hooks." Another difference is that one side of the field is divided into two rectangles, and a wedge pierces half-way through the field from the opposite side. Border is of geometric designs. Colors are indigo and yellow.

Texoprint also produced a Tortoise Back with an all-over pattern of 11 rows of smaller tortoise motifs with wedges penetrating from each side, 6½" apart. Background is wavy-line. Colors are indigo, tange and yellow.

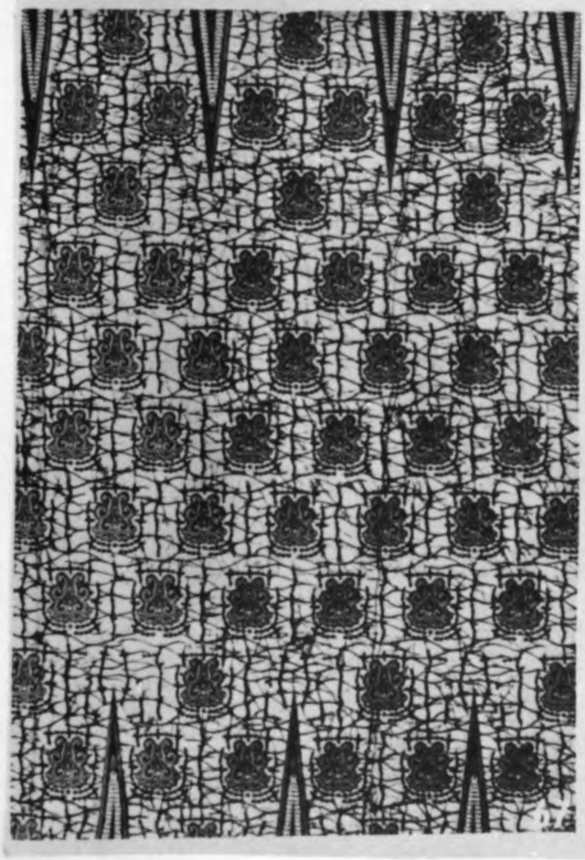
III-Na-119 The Scale--Hohlenstein pre-1950. Arrangement is patchwork. Same general idea as Texoprint sample but with different details. In this design the rectangles are separated by a wedge and the field is composed of 12 motifs ("scales"). The "sea-weed" or "chains" are more elaborate, and the oval shaped links alternate with round ones. Colors are brown and red on light brown.



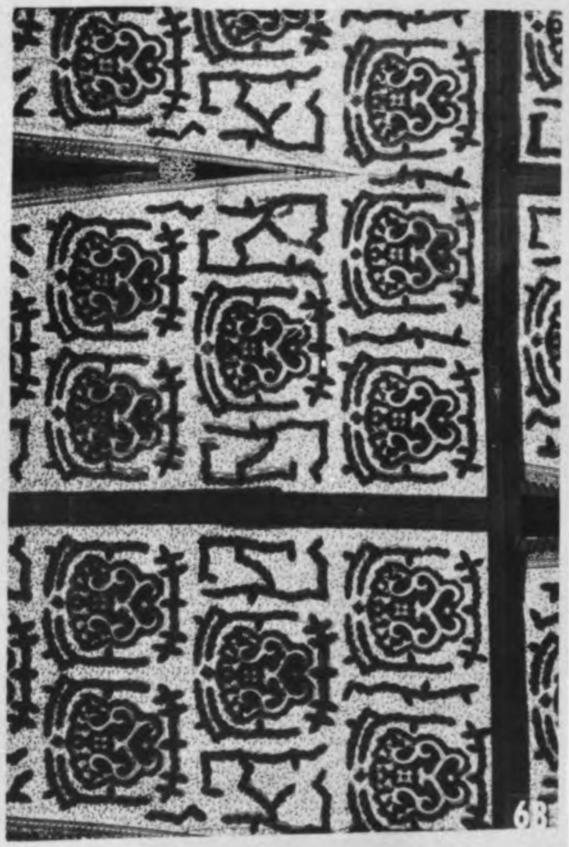
I-Na-45 The Mask



II-Na-79 The Back of Tortoise



Tortoise Back



III-Na-119 The Scale

I-Ca-18 Night and Day--Brunnschweiler old Brown Flemming. Arrangement is patchwork. The field is divided into two triangles, surrounded by an all-around border. The design is depicting night and day, illustrated by dark and light color backgrounds. The "day-triangle" is covered with stylized flowers and flying birds. Three larger flower motifs catch the eye. The "night-triangle" is covered with a variety of symbols. Colors are indigo and yellow.

II-Ca-80 Night and Day--Texoprint 1936. Arrangement is patchwork. Design is similar to the sample from Brunnschweiler, except that the "day-triangle" has only one eye catching motif. Colors are indigo, brick-red and gourd-yellow.

III-Ca-122 Night and Day--Hohlenstein pre-1950. Arrangement is patchwork. Design idea is similar to the two other samples, but the individual motifs are slightly different. The border is also different. Colors are indigo, tange and gourd-yellow.

I-Ca-18 Night and Day

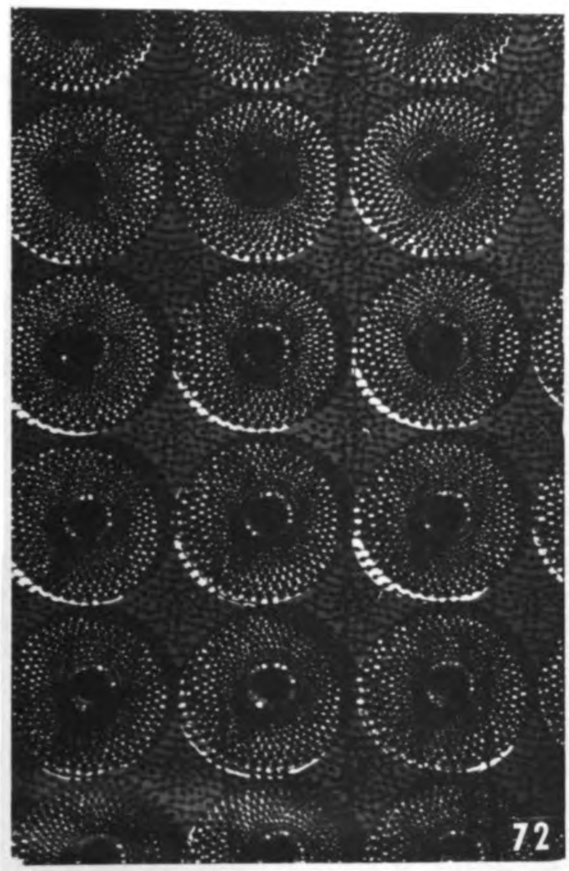
II-Ca-80 Night and Day

III-Ca-122 Night and Day

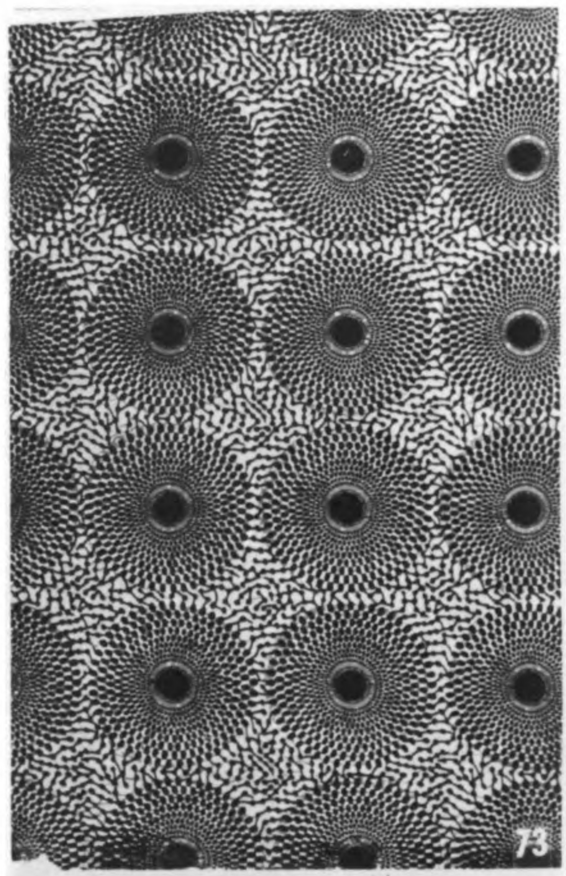
I-Ga-8 Target--Brunnschweiler unknown (old). Arrangement is all-over. The field is composed of rows of targets. The motif is made of 8¼" circular targets with an eye. Background is composed of dots interconnected with lines. Colors are indigo, olive-drab and red.

II-Ga-81 Target--Texoprint 1936. Arrangement is all-over. This design is similar to the Brunnschweiler sample. Colors are indigo, gold and yellow.

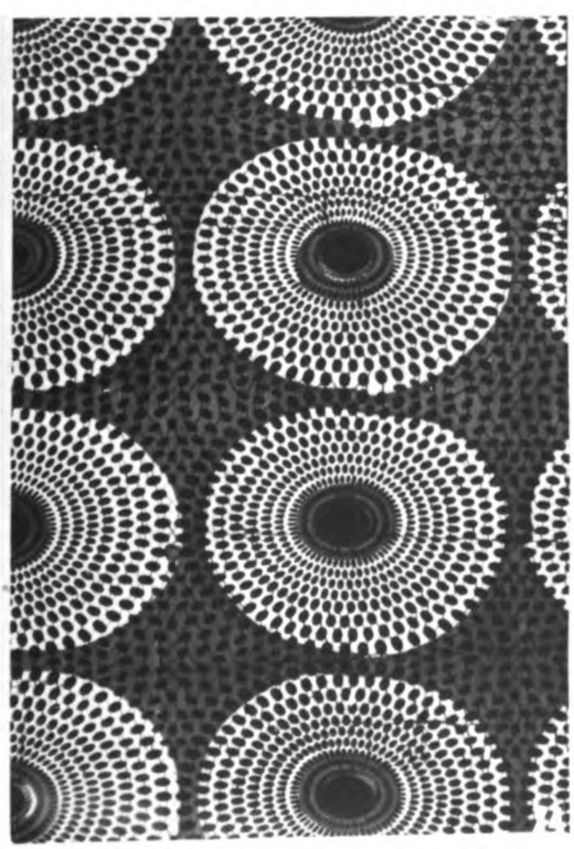
III-Ga-117 Sunbeam--Hohlenstein pre-1950. Arrangement is all-over. The motif idea is similar to the two other samples, but the targets are shaped oval rather than circular. Background is also similar but the interconnecting lines are finer. Colors are indigo and blue.



I-Ga-8 Target



II-Ga-81 Target

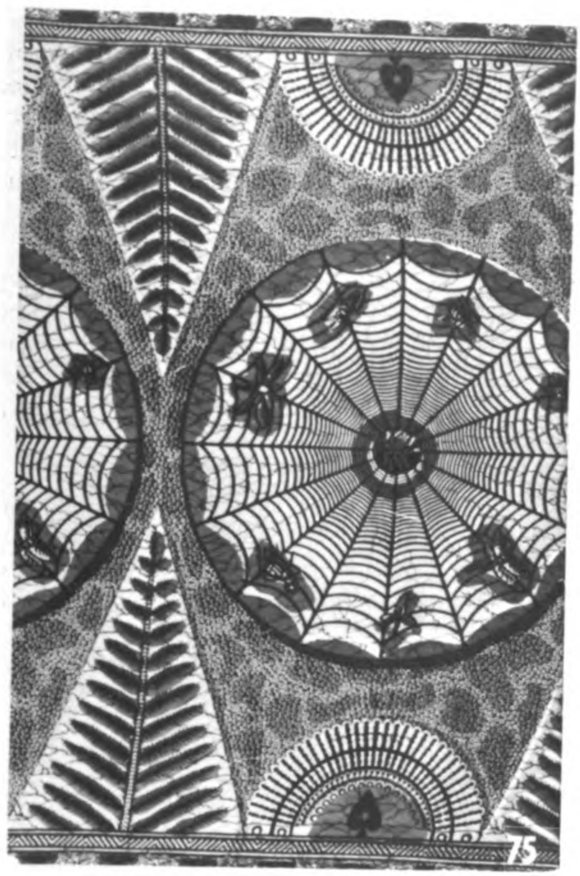


III-Ga-117 Sunbeam

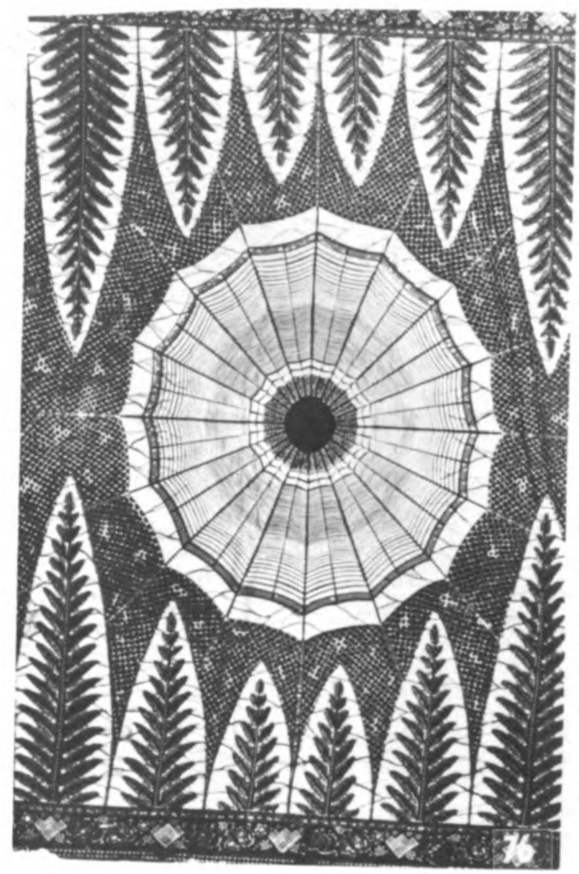
I-A-sa-2 Spider's Web--Brunnschweiler early 1900's. Arrangement is centerpiece. The motif is a 21 3/4" spider web placed in the center of the field. Seven insects are caught in the web by the spider. Wedges flank the field on each side. Background pattern is small circles. Border of leaf design at each selvedge. Colors are indigo, light mustard and brick-red.

II-A-sa-73 Spider's Web--Texoprint 1932. Arrangement is centerpiece. A design similar to the Brunnschweiler sample, but the web has no spider and insects. The web is seen against a "scaly" background pattern. Enclosing the web is a row of wedges (on two sides) in graduated sizes. Border of mixed design at each selvedge. Colors are indigo, ABC brown and broken-gourd yellow.

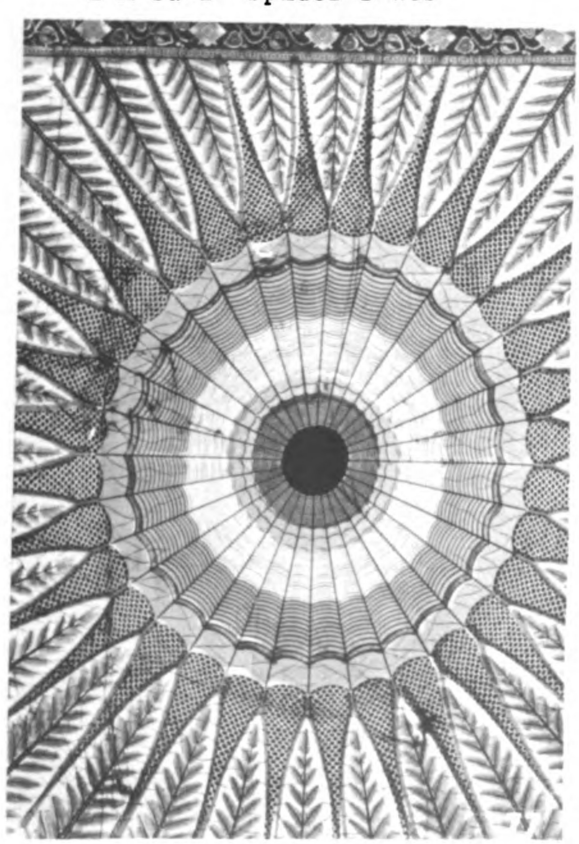
III-Ca-113 Spinning Wheel--Hohlenstein pre-1950. Arrangement is centerpiece. The spinning wheel looks like the Spider's Web from Texoprint, but it is completely surrounded by a ring of 32 wedges. Background is scaly, and a border with leaves runs parallel to selvedge. Colors are brown, light purple, light green on light brown.



I-A-sa-2 Spider's Web



II-A-sa-73 Spider's Web



III-Ca-113 Spinning Wheel

I-Na-19 Shell--Brunnschweiler old Brown Flemming. Arrangement is all-over. Design is composed of rows of 9" x 7" stylized sea-shells facing each other on a yellow background of all-over squares. These squares appear as crosses or viewed from another angle as "cuneiform glyphs". Colors are indigo, red and broken-gourd yellow.

II-Na-82 Bunch of Banana--Texoprint 1936. Arrangement is all-over. Design is identical to Shell. Colors are indigo, gold and lime-yellow.

Hohlenstein--No sample.

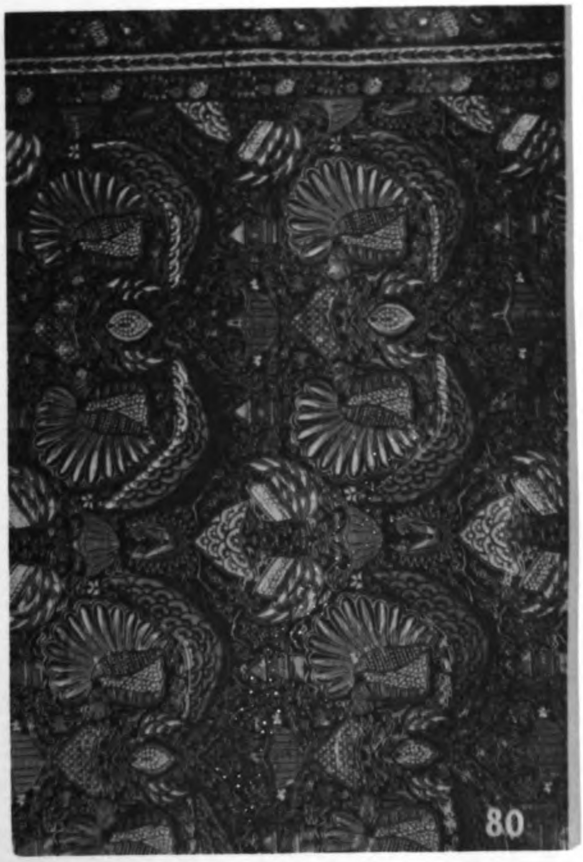
I-Ca-20 The Banana--Brunnschweiler old Brown Flemming. Arrangement is patchwork. The field is patterned with banana-like shapes, stylized "seashells," wing designs and foliage. A wide border along one selvedge is filled with flowers and leaves. Colors are indigo, olive-drab and red.

Texoprint--No sample.

III-Ca-116 The Banana--Hohlenstein pre-1950. Arrangement is patchwork. The design of Hohlenstein's sample of The Banana is almost identical (with only minor differences) to the Brunnschweiler sample. Minute differences appear in size and shape of some motifs. Colors are indigo, tange and broken-gourd yellow.

I-Na-19 Shell

II-Na-82 Bunch of Banana



I-Ca-20 The Banana

III-Ca-116 The Banana

I-P-t-29 Tree of Life--Brunnschweiler 1963 reprint of old design. Arrangement is patchwork. Design is presented as a tree trunk with serpentine branches, and bearing foliage, flowers and fruits of a mixed botanical association. Colors are indigo, brick-red and white.

II-P-t-75 Good Jewels Make No Noise--Texoprint 1933. Arrangement is patchwork. Design of Good Jewels Make No Noise is similar to Tree of Life but with an increased number of motifs as well as variations of them. Branches appear to originate from a tree-trunk in the Brunnschweiler sample, but not in the sample from Texoprint. Colors are indigo, virus-brown and white.

Hohlenstein--No sample.

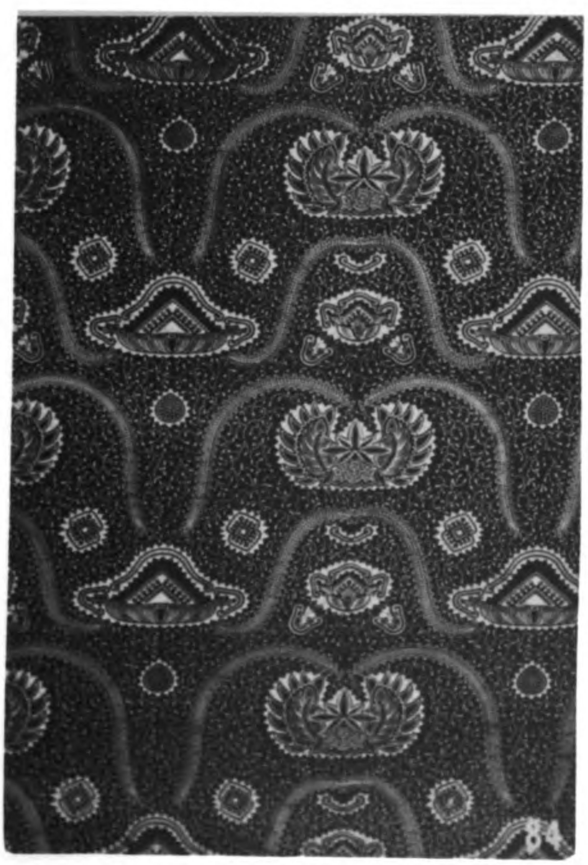
I-Ca-21 Yaw Donkor--Brunnschweiler old Grafton. Arrangement is patchwork. Design is made of wing motifs which are tied together by garlands, and which appears as a "covered dish" or an unidentified African object. Non-objective forms are scattered on the background. Colors are indigo and broken-gourd yellow.

II-Ca-72 Yaw Donkor--Texoprint 1930. Arrangement is patchwork. Design of the Texoprint sample resembles the Brunnschweiler design, but with distinct variations. The "covered dish" is lacking, garlands are differently arranged, and stylized leaves and flowers take the place of the non-objective forms scattered in the Brunnschweiler sample. Colors are indigo, brick-red and buttercup yellow.

Hohlenstein--No sample.

I-P-t-29 Tree of Life

II-P-t-75 Good Jewels Make No Noise



I-Ca-21 Yaw Donkor

II-Ca-72 Yaw Donkor

I-A-f-17 Sea Bed--Brunnschweiler old Grafton design. Arrangement is patchwork. The field is patterned with a school of fish and large stylized "seaweeds." Background is patterned all-over with undulating lines (waves). Borders parallel to each selvedge are patterned with a row of "fishhooks" on the one side and simulated "fishbones" on the other side. Colors are indigo, tange and cream.

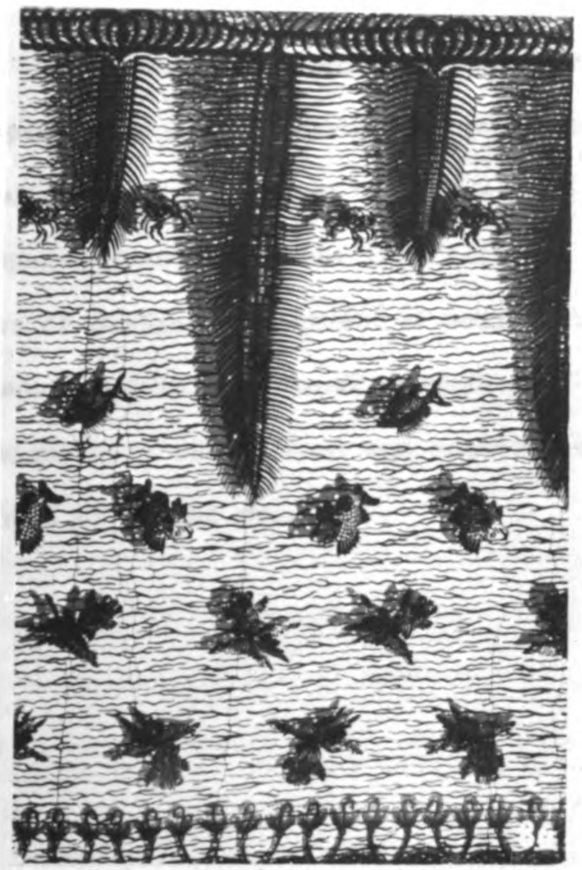
II-A-f-83 Women are Fond of Fish--Texoprint 1939. Arrangement is patchwork. Design of Women are fond of Fish is very similar to the design of Sea Bed, but in the Texoprint sample the "seaweeds" are smaller and are arranged along both selvedges while in the Brunnschweiler sample the "seaweeds" flows out from only one selvedge. Colors are indigo, brick-red and yellow.

Hohlenstein--No sample.

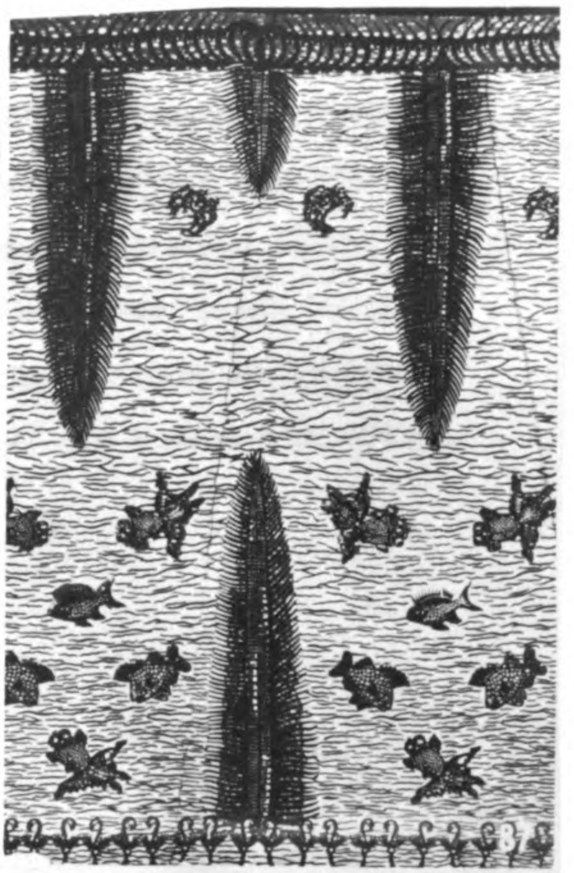
Brunnschweiler--No sample.

II-Ca-78 Broken Pots--Texoprint 1934. Arrangement is patchwork. The field is covered all-over by squares, arranged in diagonal rows, separated by rectangular and square dividers. The squares are of two kinds, (1) squares combining 8 triangles resembling pieces of a broken pot, and (2) squares filled with stylized foliage. Colors are indigo, red, light mustard and cream.

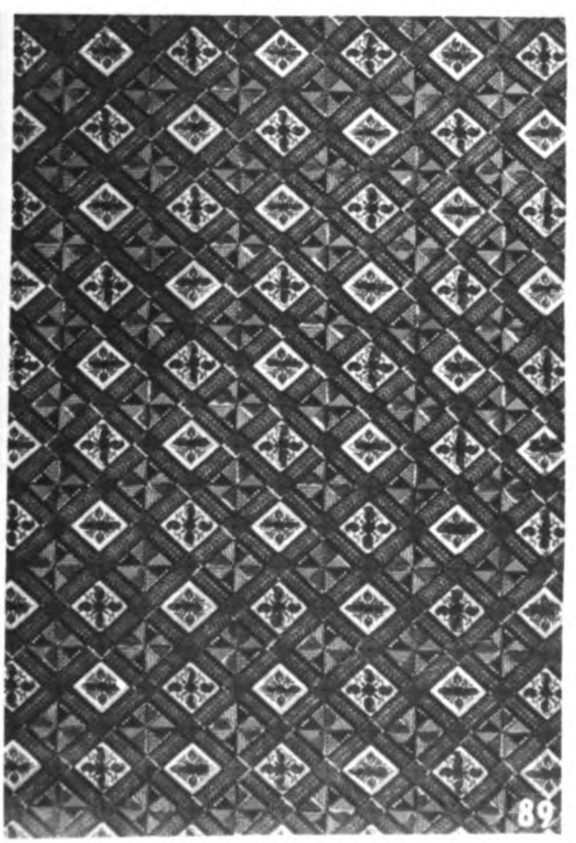
III-Ca-120 Turtle--Hohlenstein pre-1950. Arrangement is patchwork. The field in this sample is divided into three panels, separated by borders. The design is identical to the Broken Pots, but the four adjoining motifs from that design (squares) were enlarged to form 14" x 14" squares arranged as centerpiece in the panels on a background of cuneiform glyphs. Colors are indigo, yellow and red.



I-A-f-17 Sea Bed



II-A-f-83 Women are Fond of Fish



III-Ca-120 Turtle

II-Ca-78 Broken Pots

In summary, two sample collections of African wax-prints (225 samples with 135 different designs) were obtained from three European manufacturers. The motifs of the designs were analyzed, described and compared considering the inspirational sources, historical background, year of design, arrangement of motifs, size of motifs, border, background, and color. Great diversity of design and color was observed. Designs were traditional and non-traditional, and some were of old and others of recent origin.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Summary

This study attempted to trace the history and development of wax-printed textiles in West Africa from the early trade patterns of the cloth commerce to the eighteenth century introduction of wax-prints. The major concern was to investigate the contemporary production and use of such textiles which are produced in Europe for export primarily to West Africa and Záire, and to classify and analyze the designs of a sample collection obtained from three European manufacturers in England, Holland, and Switzerland.

The premise of this investigation was that the African wax-prints are not just ordinary printed fabrics, but contain expressions of West African tradition and culture, and therefore have acquired significant social prestige. The wax-prints are designed especially for the people of West Africa and Záire, and it is assumed that these prints will continue to be in demand for special occasions as long as they retain traditional designs and reflect the West African culture.

A review of the literature revealed that decorated cloth was in use in the early West African empires, that textiles were among the chief imports in the thirteenth century, and that wax-printed textiles probably were introduced in the nineteenth century. Fabric decoration

dates back to the ancient civilizations, and the methods employed were passed on with few changes until the nineteenth century. The origins of batik are obscure, but batik cloth reached its highest accomplishments in Java, and from Java it was introduced to Holland in the seventeenth century. However, Java batik did not become popular and spread to other parts of Europe until the eighteenth century, and only in the nineteenth century did Europe attempt to produce imitations of the Java batiks. Such imitations, made especially for West Africa, became part of the Manchester textile trade and have been exported to Africa since the late nineteenth century.

In 1971 wax-printed textiles were produced for West Africa and Zaire by three European manufacturers as well as by an increasing number of mills operated in various West African countries. The technique employed by the three factories was basically similar to the one practiced in the eighteenth and nineteenth centuries except that the technology was ingeniously mechanized. The design was printed with hot resin (wax) on both sides of high quality cotton fabric of plain weave; it was dyed indigo, and the resin was washed out, leaving a blue pattern on a white background. Additional coloring was done by successive repeated procedures, hand-blocking or printing. Throughout the process attempts were made to attain the appearance produced by the old hand method.

The wax-prints were used almost exclusively in West Africa. They are worn by men as well as women and children. By some of the people it was used as their best cloth, by others it was in use only on special occasions; such as, ceremonial dances, local and state functions,

weddings, funerals, and as burial cloth. Color and design preferences varied from country to country, as well as between town and country. In general, the West African consumer had a highly developed sense of design, color, and quality. Therefore, he was not prepared to buy second quality goods but was discriminating in his choices. The wax-prints were adopted as national costume, acquired the significance of status symbol, indicating wealth and social prestige, and some of the people transferred much of their wealth into cloth.

The beautiful and carefully designed African wax-prints are not known by many people outside of West Africa. The designs are either traditional or untraditional. A design became traditional when it was sold regularly over a period of years, when it was given a name, and when it was valued and kept for the future. The consumers often named the wax-prints according to what the motifs conveyed to them, or according to an experience connected with the purchase or wearing of the cloth. An examination of the collections in the producers' showrooms indicated great diversity in color combination, style, design, and source of inspiration. Apparently many were inspired by printed Indian cottons, Javanese batiks, European prints, African indigenous cloth, traditional African objects and symbols, consumer contacts, historical events, religion, mythology, proverbs, utilitarian objects, natural forms, and geometrical designs.

From the three European manufacturers, two almost identical wax-print collections were obtained: The Eicher collection, presently available at Michigan State University (108 samples); and the Nielsen collection, presently available at Andrews University, Michigan (117 samples).

The combined collections totalled 225 samples of which 135 were of different design. It was proposed that a simple classification system be used to arrange the collections into categories according to the dominant motif of the design. The wax-print designs were described according to inspirational source, historical background, arrangement of motif, and description and color of design. A comparison was made of ten similar designs produced by the various manufacturers.

Conclusions

African wax-printed textiles provide an example of how cultural ideas are expressed and objectified in the designs. Great diversity in color and design reflect the varied acceptance of the many African countries. The search for the symbolic meaning of the wax-print designs is complicated by the fact that African consumers often perceive the motif differently from what was intended by the producers, and that the consumers often name the design according to certain circumstances in connection with the purchase or use of the cloth. Great changes take place in modern West Africa, but while the Africans are perfectly willing to innovate and modernize their society in many respects, it appears evident that the traditional wax-printed textiles will continue to be used and valued for a long time to come.

Recommendations

During this investigation the following possibilities for further research emerged and are suggested.

African motivation for choice of design. A study conducted in West Africa to interview consumers in an attempt to discover their motivation for preferences of certain designs.

Naming of African wax-prints. A study among West African consumers to attempt to discover how they perceive various designs and reasons for consequent naming.

Artistic expression of African wax-prints. A study of African wax-prints from the point of view of elements and guidelines of design.

Catalog of wax-prints. A catalog of interesting African wax-prints held in private and public collections.

Comparative study of African and European produced wax-prints. A comparative study of African wax-prints produced in Europe and Africa.

Trade in African wax-prints. A comparison and analysis of the past 75 years of trade in wax-printed textiles to West Africa.

Study of Java's, Khanga's, and Madras'. A study of Java, Khanga, and Madras fabrics exported to Africa.

Japanese production of wax-prints for Africa. A study of Japanese wax-prints exported primarily to East Africa.

Investigation of African non-wax-prints. An investigation of the socio-economic importance of non-wax-prints in various parts of Africa.

APPENDICES

APPENDIX A

LIST OF QUESTIONS

APPENDIX A

A list of questions of interest to the investigator, sent to each manufacturer before interviews in summer of 1971.

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1. Production or design number of fabric.
2. Name of designer.
3. Year of design, number of years of production.
4. Manufacturer, country of.
5. Type of cloth.
6. Type of print.
7. Price of wax-prints.
8. Type and form of design.
9. Color combinations.
10. Arrangement of motifs.
11. Source of motifs.
12. Possible symbolic meaning of designs.
13. Quantity of production and sale of selected prints.
14. Countries importing African-wax-prints.
15. Available historical information about origin and development of African Wax-prints.
16. "Bestsellers". Why?
17. Opportunity to photograph production and sample cloths.
18. Availability of design books, graphs, and drawings.
19. Information about acceptance and use of prints by Africans.
20. Possibility of obtaining a sample collection of African wax-prints.

APPENDIX B

CATALOG OF AFRICAN WAX-PRINTS

APPENDIX B

CATALOG OF AFRICAN WAX-PRINTS HELD IN EICHER AND NIELSEN COLLECTIONS

Production number: manufacturers provided the production numbers.

Accession number: samples were assigned numbers in sequence of acquisition, and the accession number appears last in the catalog number.

Catalog number: each sample in the collection was assigned a number in the catalog. A Roman numeral refers to the producer.

I assigned to A. Brunnschweiler, Ltd.
II assigned to Vlisco, Texoprint, n.v.
III assigned to Hohlenstein, Ltd.

Motif category was designated by letters according to subject matter as listed in key to classification system (Table 6.1).

Year & name: year of design and name of print were listed when possible.

Arrangement: arrangement of design was according to one of four categories: "Centerpiece", "Four Corners", "Patchwork", and "All-Over".

Motif Category: designs were grouped according to subject matter of the dominant motif.

Color: colors were as far as possible determined according to Wax Prints--Standard Shades by the Calico Printers Association Limited. The shade numbers used by the Standard Shades were retained (00-91) and additional numbers added for unlisted shades.

Key to Standard Shades:

3	pad blue	18	tawny	35	tange
5	dyed yellow	19	olive drab	37	flame
11	yellow	20	light mustard	39	deep tange
12	broken gourd yellow	21	olive green	43	oxblood
13	buttercup yellow	24	gold	46	dolphin brown
16	dark mustard	26	sienna	49	pink
17	mustard	27	tabac	52	abc brown

Key to Standard Shades (cont'd):

54	virus brown	71	scarlet
55	dark brown	72	claret
56	brown	73	brick red
61	green	77	special blue
62	congo green	88	violet
70	red	91	lime yellow

Additional Shades:

93	cream	97	dark violet
94	indigo	98	light violet
95	indigo & brown		
96	special brown		

Collection: Eicher collection was designated (E)
Nielsen collection was designated (N)

Original design collections: Brown Flemming (B.F.)
F. W. Grafton (F.G.)
Elson and Neal (Elson)

Size: size of the repeat was measured to the nearest inch and listed as width x length.

Market: the intended markets were listed according to the following numbers:

1. Ghana
2. Nigeria
3. Záire
4. Sierra Leone
5. Ivory Coast
6. Liberia
7. Togo
8. Dahomey
9. Senegal
10. Mali
11. Guinea
12. Brazzaville
13. Central African Republic
14. Chad
15. Niger

APPENDIX B

CATALOG OF AFRICAN WAX-PRINTS

(Eicher and Nielsen Collections)

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color and collection	Size of repeat (inches)	Market	Original design collections
G 113	I-A-b-1	1890s	The Flying Duck	patchwork	birds	94,91(E&N)	31x16	1,2,4,5,7, 9,11,12	B.F.
G 308	I-A-sa-2	early 1900	Spider's Web	centerpiece	spiders	94,20,73 (E&N)	46x23	1,2,5,7,9, 11,12	F.G.
G 326	I-Ca-3	early 1900	The Batik	patchwork	combina-tion	94,39(E&N)	16x16	1,2,3,4,5, 7,13	F.G.
G 346	I-Ca-4		unknown	patchwork	combina-tion	94,12,39 (E&N)	11x6		
G 369	I-Na-5	1955	Plate	patchwork	non-obj.	94,17,54(E) 94,12,54(N)	22x24	1,2,7,13	
G 401	I-Ca-6	pre-1956	Java Lion	patchwork	combina-tion	94,91 (E) 94,73 (N)	10x18	1,2,3,4,5, 7,9,11,12	F.G.
G 402	I-Ca-7	pre-1937	Seaweed/Star	patchwork	combina-tion	94,12 (E&N)	46x31	1,2,3,4,7	F.G.
G 403	I-Ga-8	pre-1956	Target	all-over	geometric	94,11,46(E) 94,19,70(N)	8x8	1,2,3,4,5, 7,9,11,12	F.G.
G 413	I-Ca-9	pre-1956	Old Java	patchwork	combina-tion	94,52 (E) 94,3,21(N)	12x17	1,2,3,4,5 7,9,11,12 13	F.G.
G 414	I-A-f-10	pre-1937	Mabundu	patchwork	fish	94,11,52(E) 94,39,63(N)	46x16	1,2,3,5,7 8,12,13	F.G.

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color and collection	Size of repeat (inches)	Market	Original design collections
G 416	I-Ca-11	pre-1956	Staircase	centerpiece	combination	94,11,35 (E&N)	46x36	1,2,3,4,5, 7,9,11	B.F.
G 429	I-Ca-12	pre-1956	Capelle Hindu	patchwork	combination	94,26(E&N)	46x38	1,2,3,4,5, 7,9,11	F.G.
G 469	I-Ca-13	pre-1920	Lamp Pattern	centerpiece	combination	94,35 (E&N)	46x24	1,2,4,5,7,	B.F.
G 551	I-A-w-14	pre-1920	Wax-Line Ground	patchwork	wings	94,17,56 (E&N)	21x17	1,2,4,5,7, 9,11	B.F.
G 595	I-G-15	pre-1920	Dice-Check	patchwork	games	94.70,12 (E&N)	9x9	1,2,3,4,5, 7,9,11,12	B.F.
G 600	I-I-16	pre-1920	Staff of Kingship	centerpiece	insignia	94,55(E&N)	34x11	1,2,3,4,5, 7,9,11	B.F.
G-602	I-A-f-17	pre-1957	Seabed	patchwork	fish	94,35,93 (E&N)	46x16	1,2,4,5,7, 9,11,13	F.G.
G-607	I-Ca-18	pre-1920	Day and Night	patchwork	combination	94,91(E&N)	46x35	1,2,3,4,5, 7,11,12	B.F.
G-611	I-Na-19	pre-1920	The Shell	patchwork	non-obj.	94,12,70 (E&N)	12x23	1,2,3,4,5, 7,9,11,12, 13	B.F.
G-619	I-Ca-20	pre-1920	The Banana	patchwork	combination	94,72,26 (E&N)	18x11	1,2,3,4,5, 7,9,12	B.F.
G 623	I-Ca-21	pre-1937	Yaw Donkor Little Trailground	patchwork	combination	94,11 (N)	13x18	1	F.G.

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
G 630	I-Na-22	pre-1920	Good Husband	centerpiece	non-obj.	94,24(E&N)	46x34	1,2,4,5,7, 11,12	B.F.
G 705	I-Ga-23	pre-1920	All Over Records	all-over	geometric	94,24(E&N)	7x7	1,2,3,4,5, 7,8,12,13	F.G.
G 807	I-A-f-24	pre-1958	Fishbone	patchwork	fish	94,27,93(E) 94,46(N)	46x15	1,2,3,4,5, 6,7,9,11, 12	F.G.
G 1222	I-E-25	pre-1920	Alphabet	centerpiece	education	94,72,12 (E&N)	46x23	1,2,3,4,5, 6,7,9,11, 12,13	F.G.
G 1306	I-G-26	pre-1920	Hearts, Diamonds, Spade	patchwork	games	94,24(E) 94,20(N)	24x15	2,5	F.G.
G-1438	I-Ga-27	1961	Broad Herringbone Stripe	patchwork	geometric	94,3,27(E) 94,11,73(N)	12x½	1,2,4,5	
G 1552	I-Ca-28	pre-1920	Tie Up and Fishbone	centerpiece	combination	94,37(E) 94,13(N)	46x29	1,2,4,5,7	B.F.
G 1697	I-P-t-29	repr. 1963	Tree of Life	patchwork	trees	94,43(E&N)	46x23	1,2,3,4,5, 7,9,11,12	
G 1705	I-Ga-30	1963	Polo Mint	all-over	geometric	94,17(E&N)	46x1	2,4,7	
G 1707	I-G-31	1963	Okwe Board	centerpiece	games	94,13,39 (E&N)	46x24	2,3,4,5,7, 9	
G 1757	I-Ga-32	1963	Malay	all-over	geometric	94,5(E) 94,13(N)	1x1	2,3,5,7	
G 1764	I-A-b-33	1963	Fishbone Pidgeon	centerpiece	bird	94,91,39 (E&N)	46x24	2,5,7	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
G 1786	I-P-f-34		Panel Trail	centerpiece	plants	94,26(E) 94,13 (N)	46x24		
G 1846	I-Na-35	1964	Skin	all-over	non-obj.	94,18,11(E) 94,52,11(N)	6x3	1,3,5,6,7, 9,11,12	Also exported to USA
G 1887	I-Ca-36	1968	Arab Horseman	centerpiece	combination	94,24 (E&N)	46x23	1,5,6,7,9	
G 2063	I-Ca-37	1965	The Good Book	patchwork	combination	94,24 (E) 94,18 (N)	21x18	2,4,5,9	
G 2188	I-Ca-38	1966	Java Diagonal	patchwork	combination	94,35,11 (E&N)	14x16	5,7,12	
G 2220	I-Na-39	1966	Good Husband Panel	all-over	non-obj.	94,24 (E) 94,27 (N)	46x35	2,5,7,9	
G 2226	I-Ca-40	1966	Diamonds-Star-Stripe	patchwork	combination	94,39(E&N)	13x24	2,5,7,9	
G 2229	I-Na-41	1966	Two husbands	four corner	non-obj.	94,26(E&N)	21x12	2,3,5,6, 7,12	
G 2231	I-Ca-42	1966	Wavy Java	patchwork	combination	94,24,70 (E&N)	23x24	2,5,7,12	
G 2254	I-Ca-43		unknown	patchwork	combination	94,39(E&N)	15x16		
G 2255	I-A-b-44	1967	Birds in Maize	centerpiece	birds	94,35(E&N)	46x16	2.3,5,7,8	
G 2267	I-Ma-45	repr. 1967	The Mask	all-over	masks	94,54,91(E) 94,70,27(N)	8x8	1,2,3,4,5, 7,12	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
G 2318	I-Ca-46	1967	Diamond-Record-Shell	centerpiece	combination	94,72,21(E) 94,39(N)	46x23	2,3,5,6,7	
G 2327	I-A-b-47	1967	Migration	all-over	birds	94,37,93(E) 94,70,21(N)	5x5	1,5,6,7,12	
G 2384	I-A-r-48	1968	Skinwave	all-over	reptiles	94,43,27 (E&N)	15x24	1,3,7,8,12	Also exported to USA
G 2362	I-Ca-49	1968	Triangular Patchwork	patchwork	combination	94,62,26(E) 94,91,55(N)	15x15	2,3,6,7,8	
G 2336	I-Ga-50	1967	Record Forty	all-over	non-obj.	94,16,70 (E&N)	9x9	1,3,7,12	
G 2438	I-Ca-51	1968	Classic Panels	patchwork	combination	94,16,70(E) 94,11,39(N)	13x35	7	
G 2606	I-A-f-52	1969	Fish in Check	patchwork	fish	94,11,16 (E&N)	22x23	3	
A 11671	I-Ca-53	1965	Pine Plaid	patchwork	combina-	94,13,37(E) 94,27,43(N)	16x17	3	Elson
A 6756	I-Ca-54	1958	Plume Diagonal	patchwork	combina-	94,24,70(E) 94,91(N)	17x24	3	Elson
A 4418	I-A-i-55	1954	Papillon	patchwork	insects	94,61 (E) 94,70,12,96 (N)	23x23	3,5,12,14, 15	Elson
A 14073	I-Ga-56	1970	Eye Target	all-over	geometric	94,39,11 (E&N)	12x16	3,5,14	Elson

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
A 12717	I-A-b-57	1967	Chick	all-over	birds	94,27 (E&N)	5x5	1,3,5,6,7, 8,12,14	Elson
A 14052	I-Na-58	1970	Tie Plate	centerpiece	non-obj.	94,24,96 (E&N)	46x16	3,14	Elson
A 13916	I-Ca-59	1969	Net Web	patchwork	combina-	94,91(E&N)	18,16	3,7,8,14	Elson
A 13246	I-A-b-60	1968	Guinea Fowl	patchwork	birds	94,27(E&N)	16x16	2,3,7,8,14	Elson
A 13272	I-A-i-61	1968	Fancy Moths	patchwork	insects	94,13,93 (E&N)	15x15	3,5,7	Elson
A 13914	I-N-62	1969	Congo Independence	patchwork	national- ism	94,24,72 (E&N)	16x16	3	Elson
A 14341	I-U-63	1971	Umbrella	patchwork	umbrellas	94,16,70(N)	46x23	2,3,6	Elson
A 14395	I-U-64	1971	Umbrella Stripe	patchwork	umbrellas	94,35(E)	10x23	3,7	Elson
	I-Na-65		Damask	centerpiece	non-obj.	94,18 (N)	22x34		
	I-N-66	1960	Uhuru	centerpiece	national- ism	94,13 (N)	46x23	3	
	I-N-67	1964	4th Anniversaire De L' Independence	centerpiece	national-	94,43,13 (E)	46x36	3	
A 11083	I-N-68	1964	Kennedy	centerpiece	national- ism	94,24 (N)	46x23	all	
14/44050	II-Ga-69	1930	A Red Eye Cannot Turn Into Flames of Fire	patchwork	geometric	94,16,70(N)	3x3	1,2,3,5	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
14/69650	II-A-sa-70	1930	Snail	patchwork	snails	94,11,16(E)	13x11	3,5,7	
14/2316	II-Ga-71	1930	unknown	patchwork	geometric	94,27,49(E)	1x1	1,3,5,7	
14/0501	II-Ca-72	1930	Yaw Donkor	patchwork	combinations	94,52,24(E)	18x19	3,5,7	
14/0549	II-A-sb-73	1932	Spider's Web	centerpiece	spiders	94,11,35(N)	46x35	3,5,7	
14/0575	II-Ga-74	1933	Dice	all-over	geometric	94,55 (E&N)	1x3/4	3,5,7,8	
14/0564	II-P-t-75	1933	Good Jewels Make No Noise	patchwork	plants	94,54 (E)	17x17	1,2,5,7	
14/79500	II-A-i-76	1933	Butterfly	patchwork	insects	94,13,70(N)	30x12	3,5,7	
14/0562	II-P-t-77	1933	Unity Is Strength	centerpiece	trees	94,35,13(N)	46x35	3,5,6	
14/80013	II-Ca-78	1934	Broken Pots	patchwork	combinations	94,70,17,93 (N)	8x9	3,5,7,8	
14/0631	II-Na-79	1936	Back of a Tortoise	patchwork	non-obj.	94,12 (N)	46x35	1,3,5,7	
14/0630	II-Ca-80	1936	Day and Night	patchwork	combinations	94,73,11(E)	46x35	1,3,5	
14/0633	II-Ga-81	1936	Target	all-over	geometric	94,24,11(E)	9x9	1,3,7,8	
14/0634	II-Na-82	1936	Bunch of Banana	all-over	non-obj.	94,24,5(N)	21x18	3,5	
14/0635	II-A-f-83	1939	Women Are Fond of Fish	patchwork	fish	94,11,73(N)	46x18	3	
14/0690	II-P-v-84	1940	Yam Leaves	patchwork	plants	94,61,35,93 (E)	14x9	5,7	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
14/0736	II-A-b-85	1945	Guinea Fowls	all-over	birds	94,73(E&N)	2x1	2,3,5,8	
14/0760	II-M-e-86	1947	The Eye	patchwork	eyes	94,35(N)	15x14	3,6,7	
H 466	II-Ca-87	1948	unknown	patchwork	combinations	94,70,35(N)	46x24	1,3,5,7,15	
H 563	II-A-b-88	1951	unknown	patchwork	birds	94,24,12(N)	13x17	1,2,3,5,7	
H 599	II-Na-89	1951	unknown	patchwork	non-obj.	94,12,54(N)	8x818	1,5,6	
H 600	II-A-f-90	1951	unknown	patchwork	fish	94,12 (E)	10x12	1,2,3,5,8	
14/0985	II-Na-91	1953	Nigeria Design	all-over	non-obj.	94,71,61 (E&N)	6x½	1,3,5	
14/1044	II-Ga-92	1954	African Mat	all-over	geometric	94,12 (N)	1x1	1,2,3,5	
14/1092	II-P-93	1955	unknown	patchwork	plants	61,27,43(E) 71,11,55(N)	15x18	1,3,5	
H 1167	II-Na-94	1956	unknown	all-over	non-obj.	94,54,93 (E&N)	8x6	1,2,3,5	
H 876	II-Na-95	1956	unknown	all-over	non-obj.	94,12(E&N)	1x9	1,2,3,5	
H 905	II-Ca-96	1956	unknown	patchwork	combinations	94,12 (E)	14x18	1,2,5,7	
14/53500	II-A-m-97	1956	unknown	all-over	mammals	94,13,70(E)	8x13	2,3,5	
H 949	II-M-e-98	1957	unknown	patchwork	eyes	94,12 (E)	15x18	3,5	
H 1012	II-A-b-99	1957	unknown	all-over	birds	94,12 (E)	15x11	3,5,15	
H 1003	II-Ca-100	1957	unknown	patchwork	combinations	94,12 (E)	11x10	1,2,3,7	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
H 1170	II-Ca-101	1958	unknown	patchwork	combinations	94,12(N)	46x17	1,3,5	
H 1169	II-Ga-102	1958	unknown	patchwork	geometric	94,11,55 (E&N)	11x12	3,5	
H 1128	II-Na-103	1958	unknown	all-over	non-obj.	94,55,(E&N)	1x2	1,2,3,5,7	
14/0959	II-P-fa-104	1959	Groundnuts	all-over	nuts	94,12,70(E)	2x2	1,2,3,5	
14/1756	II-A-ma-105	1965	unknown	all-over	millipedes	94,12,77,61 (E)	4x2	1,3,5	
14/2031	II-Na-106	1966	unknown	centerpiece	non-obj.	94,39,27 (N)	46x35	5	
14/2074	II-Na-107	1966	unknown	patchwork	non-obj.	94,52,12(N)	9x6	1,3,5	
14/78400	II-P-s-108	1966	unknown	all-over	plants	94,5,88(E)	23x11	1,5	
14/2460	II-Ca-109	1967	unknown	all-over	combinations	94,39,12(N)	46x9	3,5,7	
14/2344	II-P-f-110	1969	unknown	centerpiece	plants	94,55,27(E)	46x35	5	
14/2494	II-Ga-111	1969	unknown	centerpiece	geometric	94,70,12(N)	46x18	2,5	
14/2391	II-C-112	1970	unknown	patchwork	calenders	94,24,61,93 (N)	11x9	5	
14/2483	II-A-s-113	1970	unknown	four-corners	shells	94,11,49(N)	46x35	3	
	III-Ca-114	pre-1950	Four Fields	four-corners	combinations	94,11(E) 94,11,70(N)	46x31	3	
	III-Ca-115	pre-1950	Linoleum	four-corners	combinations	94,95(E)	46x34	3	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
	III-Ca-116	pre-1950	Banana	patchwork	combinations	94,35,12(N)	46x12	all	
	III-Ga-117	pre-1950	Sunbeam	all-over	geometric	94(E&N) 94,77(E&N)	10x8	1,3	
	III-A-b-118	pre-1950	Heron	patchwork	birds	94,71,12(N)	26x20	2	
	III-Na-119	pre-1950	The Scale	patchwork	non-obj.	94,13 (E) 96,70(N)	31x34	1,3	
	III-Ca-120	pre-1950	Turtle	patchwork	combinations	96,61(E) 94,11,70(N)	21x20	1,3	
	III-A-i-121	pre-1950	Insect	patchwork	insects	96,43,11(E) 96,61(N)	46x20	3	
	III-Ca-122	pre-1950	Day and Night	patchwork	combinations	96,88 (E) 94,12,37(N)	46x31	1,3	
	III-A-f-123	pre-1950	Fishes	patchwork	fish	96,70 (E) 94,52 (N)	22x11	1,3	
	III-Ca-124	pre-1950	Tarquajoh	patchwork	combinations	96,5,88(N)	46x25	1,3	
	III-Ga-125	1955	Eclipse	all-over	geometric	96,61(E&N) 94,13(E&N)	1x5	1,3	
	III-P-fa-126	1955	Cone	all-over	cones	94,13(E&N) 96,61(E&N)	1x1	1,3	
	III-Ga-127	1963	Propeller	all-over	geometric	94,5(E&N)	14x11	1	
	III-Ga-128	1955	Olympia	centerpiece	geometric	96,13 (E&N)	30x20	1,3	

continued

APPENDIX B--Continued

Production number	Catalog number	Year	Name	Arrangement	Motif category	Color	Size of repeat (inches)	Market	Original design collection
	III-Ca-129		Ostrich Feather	patchwork	combinations	95 (E&N)	46x20	3	
	III-A-f-130	1965	Crayfish	patchwork	fish	95(E) 96,70,12(N)	46x25	3	
	III-A-r-131	1965	Snake	patchwork	reptiles	94,49,27(N)	21x24	3	
	III-A-r-132	1965	Small Snake	patchwork	reptiles	96,61(E)	4x4	3	
	III-A-i-133	1971	Insect Eye	all-over	insects	96,49(E&N)	4x4	3	
	III-A-b-134	1955	Pidgeon	patchwork	birds	96,61 (N)	21x20	3	
	III-Ca-135	pre-?	Spinning Wheel	centerpiece	combinations	96,97(E) 96,98,61(N)	46x31	3	

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