



POLYCHROME IKAT FROM THE ISLAND OF SOEMBA. METROPOLITAN MUSEUM OF ART,  
NEW YORK.

# BULLETIN OF THE NEEDLE AND BOBBIN CLUB

## IKAT TECHNIQUE AND DUTCH EAST INDIAN IKATS

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**M**ANIFESTATIONS of the aesthetic feeling of primitive people and the artistic creations resulting therefrom have only recently aroused interest in our western art world. The interest however has been limited mostly to sculpture such as African Negro figures and masks. Textile art has been sorely neglected. Thus can it be explained that few people only are acquainted with Ikats, the type of weaving about to be discussed here. In the Malayan Archipelago where the Ikat technique still excels today both quantitatively and qualitatively, the word Ikat means winding around, tying, binding. The effect produced by this technique is that of a flame pattern and we find the term of flame weaving applied to it in Germany, Italy and Sweden. The French call it *flammé* and also *Chiné*. In Spain we find the term *tela de lenguas* (tongue of flame cloth). The earliest specimens preserved were found in Egyptian graves and were made by Arabs (Fatimides) around 1100 A.D. (Plate 1). We cannot tell how far back Ikats were first made in the Malayan Islands. While doubtless many weaves of this type were buried with the dead, the damp climate has prevented their preservation; so that now we have practically none more than a hundred years old, although the art has been practised for many centuries. Evidence of this is found in the Ajanta Frescoes of northwest British India (Plate 3) dating from about 600 A.D. in which the drapery of the figures,



PLATE 1

WARP IKAT. EGYPTO-ARABIC XI-XII  
CENTURY. METROPOLITAN MUSEUM OF  
ART. NEW YORK.

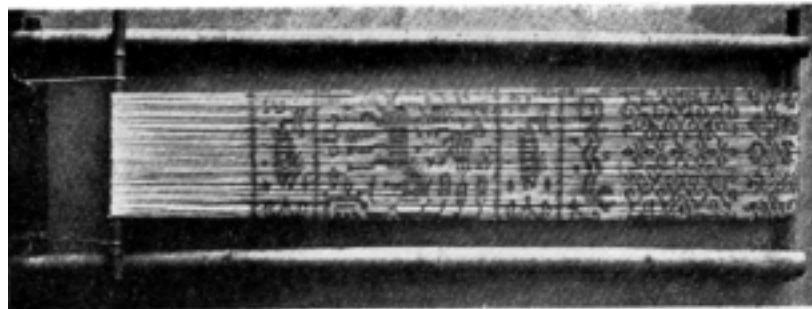


PLATE 2

IKAT LOOM FROM THE ISLAND OF SOEMBA MOUNTED WARP, AFTER THE BINDING  
HAS BEEN DONE, READY FOR DYEING.

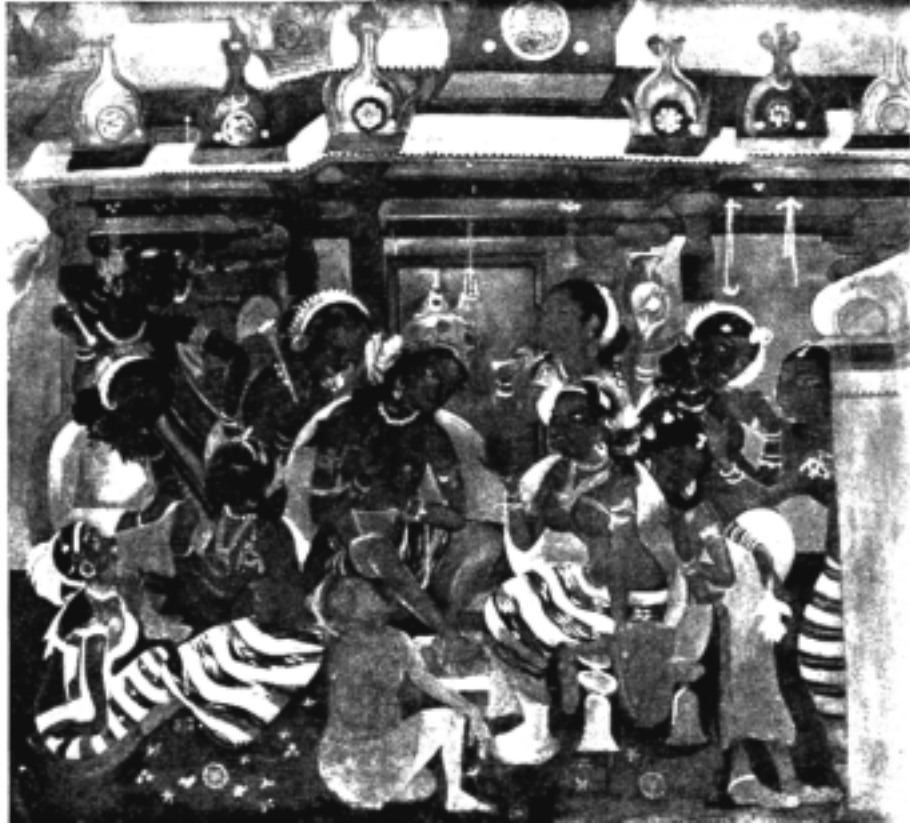


PLATE 3

AJANTA FRESCO (C. 600 A.D.) SHOWING COSTUMES OF IKAT WEAVES. PUBLISHED BY  
THE OXFORD UNIVERSITY PRESS, 1915.

patterned with a flame design, has been identified by A. K. Coomaraswamy of the Boston Museum of Fine Arts as unmistakably of Ikat weave.

The procedure of making Ikat is very different from the well known Batik process in which the coloring takes place after the weaving. Also, it must be distinguished from what is generally known as the "tie and dye" technique (*plangi*) where an already woven cloth is knotted or bound with thread or fibre in certain places and then dipped into a dye so that the body of the cloth takes the color and the knotted or tied parts do not. Both of these techniques are a process of applying design and color on a *woven* cloth. In Ikats the design and color are applied on the *unwoven* threads *before* weaving; not on woven cloth.

The process is as follows: the threads, mounted on a loom, are tied together in groups, and then, following a pre-arranged pattern, certain places in these threads are wound with a fibre called *agel*,<sup>1</sup> before they are dipped into the dye, with the result that the parts so protected with binding remain uncolored. After the threads are taken out of the dye this binding is removed and is again used to cover such parts of the threads as have been exposed to color in the first dyeing. This accomplished the threads are then dipped again, this time in a different shade so that when the *agel* binding is removed a second time the threads appear in two tones. This process is repeated for each additional color and of course becomes more complicated when polychrome Ikats are made.

We shall try to illustrate the process in a simple way: if the threads are to be dyed blue in the center and red at the ends, the *agel* fibre is wound at the ends as indicated in illustration A.



<sup>1</sup>This fibre, procured from palm leaves, is similar to the raffia used by gardeners for binding plants. The Araucanian Indians of Chile and Argentine, bearers of old Peruvian culture, when making Ikats, protect the parts of the warp threads that are not to take the dye by covering them first with mud (*molla*), then by winding wool threads tightly around these mud covered parts.

The shaded parts, as is apparent, are covered. Now the thread is passed through a blue dye, the fibre is then removed and the result shown in illustration B is obtained.



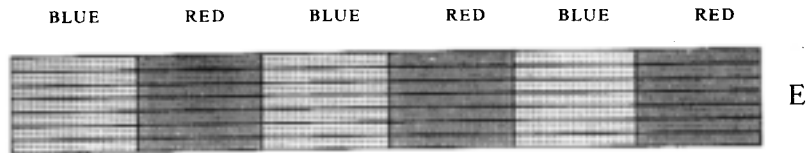
The center, blue, is next wound around as per illustration C.



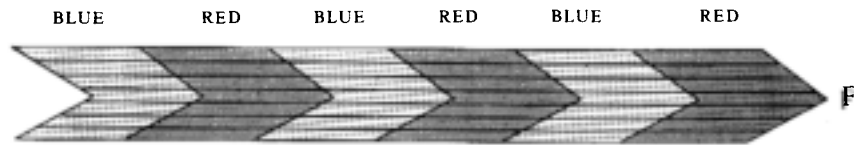
The shaded section represents the blue part, now covered with fibre. The white parts are not covered. The thread is now passed through a red dye after which the fibre is removed and the threads now present the following aspect. Illustration D.



The following simple method sometimes used in Ikating gives a very interesting result. Seven warp threads are bundled and tied together and Ikated red and blue.



Afterwards the threads of the center are pulled forward and the following design appears.



The pattern thus obtained is found quite frequently in northwestern Sumatra under the name of "arrow design" and may possibly have been created in this manner.

The actual weaving begins only after all the dyeing has been done and after the pattern has been thus created. The Ikat process appears to be a very simple affair. The more one investigates it, however, the more one realizes how much artistic feeling, precise workmanship and untold patience are required. The making of an Ikat often takes a year or more.

Most of the time is taken up by the process of winding, dyeing and unwrapping. It is interesting to know that the average Flores or Soemba cloth contains more than three or four thousand warp threads. Such laborious work could only have been invented and practised in a country where food was cheap and consequently human labor not valued in terms of money.

There are three kinds of Ikat:

- (1) The warp Ikat, where the warp threads are Ikated (most frequent).
- (2) The weft Ikat, where the weft threads are Ikated.
- (3) The double Ikat, where both warp and weft are Ikated (very rare).

After realizing the difficulties of making warp or weft Ikats, the reader may be surprised that a creation such as a double Ikat is possible. The French Abbé Jaubert in Diderot & D' Alembert's "Dictionnaire Raisonné Universel des Arts et Manufactures 1753"<sup>2</sup> devotes a long article to *Chinés* (Ikats). He calls this process "One of the most delicate and intricate ever invented in arts and crafts" and when he wrote this the existence of double Ikats was not known.

The colorful weavings thus created are characterized by their beautiful designs which are not sharply outlined but flow gently into one another. The clarity of the design depends upon the binding. If the binding is

<sup>2</sup>Vol. III, page 339.

tightly done the design is distinct and if loosely done the pattern becomes hazy. The art of Ikating is practised all over the Dutch East Indian Archipelago from Sumatra in the northwest, to the southeastern Tanimbar Islands, a distance of three thousand miles. The technique is the same everywhere but the designs vary so greatly on every island that their origin is easily established. If two identical Ikats occur they have been made reluctantly by special request. C. M. Pleyte in "Indonesian Art" says, "While conventionality naturally plays its part in the Archipelago, still two articles of the same kind are never alike. They always show certain individual qualities far different from the monotonous products of our western world."

For detailed information regarding the intricate process of Ikating in Dutch East India we refer the reader to Jasper and Mas Pirngadie's book. Briefly stated these are the essential points:

- (1) Threads are prepared and mounted as warp on the loom, the threads tied together in bundles of five.
- (2) The entire warp thus prepared is transferred to another loom, called an Ikat loom. Here the actual process of winding and binding takes place.

When the entire pattern has been tied the loom looks like Plate 2.

- (3) The dyeing takes place.
- (4) The dyed warp is now unwrapped (Plate 4) and mounted on the weaving loom and the actual weaving begins.

It should be mentioned that if the warp threads only are Ikated, the weft, not having been treated, will impair, because of its single colour, the clarity and effect of the design.

To obviate this the threads carrying the pattern are always thicker than the others; therefore, if the warp threads are patterned, such threads will be thicker than those of the unpatterned weft and vice-versa.

The looms, without exception primitive, are different on every island, but why the width should vary in every region is not known. In order to obtain wide cloths the weavings are often sewn together.

A few general remarks regarding the materials used in the weaving of Ikats in the Dutch East Indies may be of further interest; silk, used in



Sumatra, Bali and Banka, comes mostly from China and Japan. Palm leaf fibre (*agel*) is grown on the Islands and, as in northwest Sumatra is sometimes used for coarse weaving as well as binding. Cotton or *kappa* has been grown in the Archipelago since ancient times. Since local cotton culture has diminished greatly in recent years, this is now imported from Europe.

Unfortunately, the dyes used today are imported aniline dyes. Formerly the beautiful natural dyes required were made on the Islands. Reds are obtained from roots (*menkoedoe* or *koedoe*). The roots are crushed and boiled and then prepared with cocoanut oil. For blues, indigo is used. Yellow is obtained by boiling tegaran wood, sometimes also by mud-baths. Thousands of methods for dyeing exist many of which are kept secret.<sup>3</sup>

The beautiful old vegetable dye process now exists only in a few localities. Many modern Ikats, made with aniline dyes for the Tourist trade, are decidedly ugly. They no longer have the charm that characterized the old Ikats made of natural dyes with their dark soft tones.

While Ikats, Batiks and Plangis are each made in an entirely different manner, they have in common however a method of dyeing known as the resist process. In this process the design is applied to the woven cloth (as in Batiks and Plangis) or on the threads before weaving (as in Ikats) with a substance that is afterwards removed, this substance resisting the dye when the piece is placed in the vat.

A very strange resist method is used in New Zealand in the making of so-called "Grass Skirts." The fibre used is the leaf of the New Zealand flax (*Phormium Tenax*). From this the skin or fibrous part of the plant is partially scraped off. When afterwards the flax is put into a solution of bark, the exposed fibre takes on a deep brown color that contrasts pleasantly with the silvery lustre of the remaining epidermis which is not affected by the dye. The grass skirt (Plate 5) consists entirely of such strips of fibre which look like white beads of different length, strung on a

<sup>3</sup>For more information consult Jasper and Mas Pirngadie's work on India.

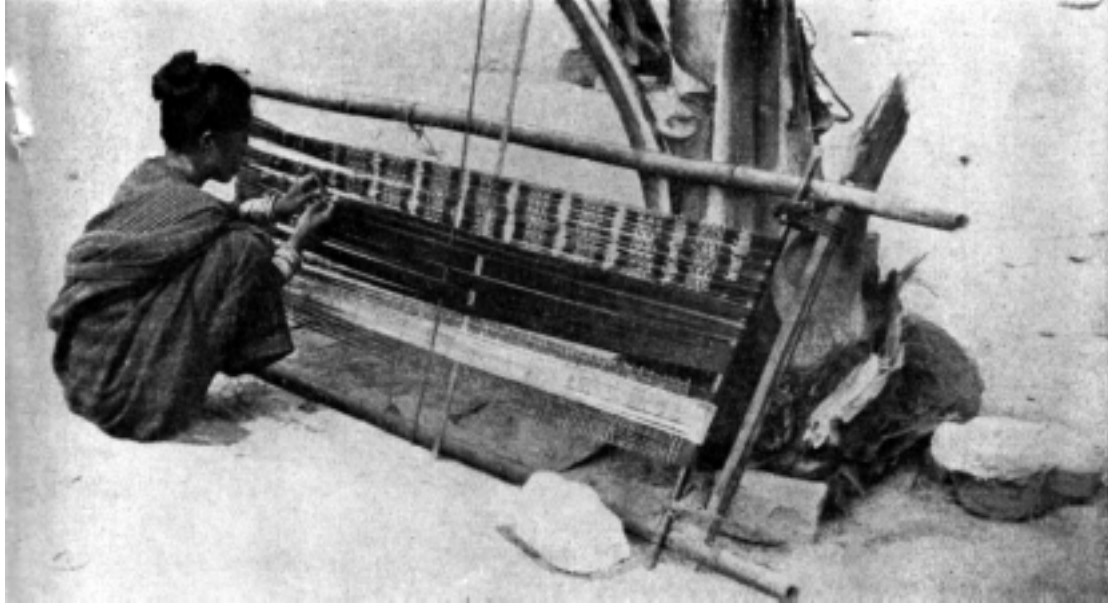


PLATE 4

STRETCHED WARP AFTER THE DYEING. THE WOMAN IS UNTYING AND REMOVING THE BINDING.

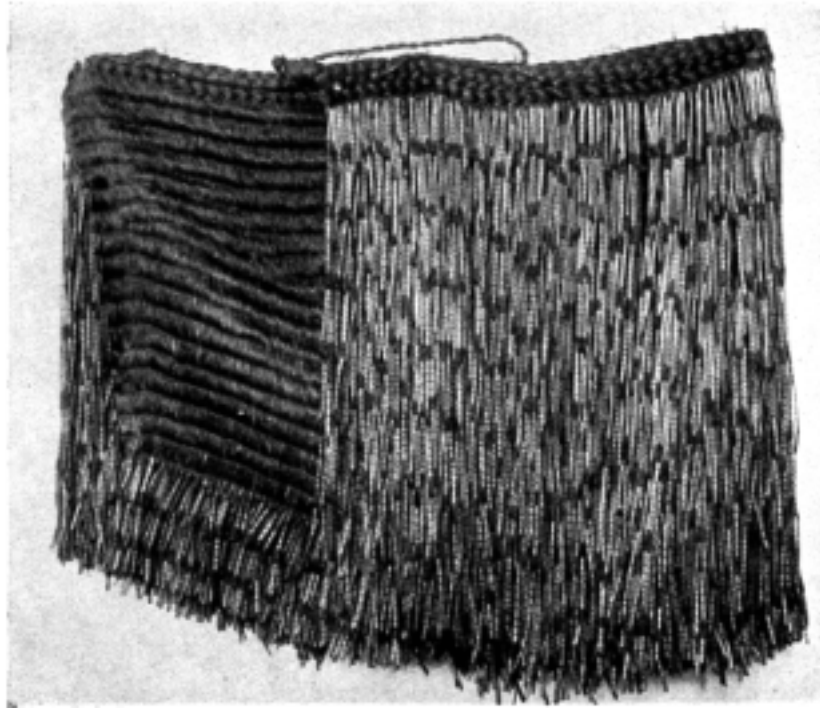


PLATE 5

GRASS SKIRT FROM NEW ZEALAND MUSEUM VOOR LAND EN VOLKENKUNDE,  
ROTTERDAM.

deep brown cord. In these New Zealand grass skirts we have a resist process where no substance is applied, but where substance is removed; a type described by Prof. J. W. van Nouhuys of the Colonial Museum in Rotterdam,—to whom we are greatly indebted for this interesting information,—as the “Negative” of Ikat.<sup>4</sup>

At an exhibition of Dutch East Indian Art, held in Holland in the autumn of 1901, Ikats first attracted the attention of the public. J. P. Rouffaer,<sup>5</sup> in a lecture given at Amsterdam on October 31st of that year, showed the importance of these newly discovered works of art, not only from the artistic but from the technical and ethnographical point of view.

The traveler who visits the Dutch East Indies will be surprised at the great variety of scenery, races, languages and customs encountered there. These differences are not only striking in the various islands of the Archipelago but often occur on one and the same Island; as for instance in Sumatra where several tribes co-exist or in Java where three different languages are spoken. The Hindu religion is practised in Bali, Mohammedanism prevails in Sumatra and Java. The so called Malayān race forms the population of the western Islands while the Melanesian Negroids inhabit those of the East. He who expects to encounter a tropical climate is surprised that a two hours automobile drive over excellent roads will take him from the tropical coast to mountain resorts where heavy woolen clothes are needed. This welter of conditions explains the great varieties of textiles produced in the Archipelago.

The following Islands are famous for their Ikat production:

### SOEMBA

Soemba Ikats are probably the best known and according to Jasper,<sup>6</sup> Ikating here has reached absolute perfection.

<sup>4</sup>This subject has been fully dealt with by Professor van Nouhuys in the periodical “Nederlandsch Indie Oud en Nieuw” (1920-21).

<sup>5</sup>Cf. bibliography, p. 59, No. 32.

<sup>6</sup>The polychrome Soemba Ikats are all made in Waingapoe, a small town of 1800 inhabitants on the North coast of the Island.



PLATE 6

POLYCHROME WARP IKAT WITH DESIGN OF SKULL  
TREES. ISLAND OF SOEMBA.



PLATE 7

POLYCHROME WARP IKAT. ISLAND OF SOEMBA.

In his study on Ikats, Mr. Fritz Iklé, speaking of Soemba says: "The extraordinary works of art made there must be mentioned in a class by themselves. Soembas impress us by beautiful ornamental and fantastic designs of birds, animals, skull trees,<sup>7</sup> seamonsters, geometrical figures colored in reds and blues, with here and there a touch of ochre, the whole well distributed on a generally dark warm background. The Ikats of West Soemba are not so well known. They are made in an entirely different color scheme, usually lovely blues, light brown and greys. Many of these specimens have only a short existence. When a prominent person passes away it is the custom for relatives and friends to come from far and wide to the tribal village, where the farewell ceremony takes place. They bring Ikats which are piled up and buried with the deceased so that he may enter the world beyond in a manner befitting his rank. Up to the beginning of this century it was also customary on this occasion to sacrifice ten slaves. Now that the souls of the departed have to be appeased without human sacrifice, Ikats are offered in ever increasing number. Some chieftains are buried with as many as 120 to 200 Ikats. In some mountainous islands, horses are so highly esteemed that their corpses are also wrapped in Ikats.

It may be interesting to mention here that Ikat weaving was indirectly the cause of the permanent Dutch occupation of Soemba in 1901. A dispute had arisen between one of the princes and the Dutch Captain Dyk, stationed on the Island, over the return of some slaves. The latter while weaving an Ikat, had torn some of the threads and damaged the cloth. They knew that for lesser offences slaves had been killed, so they fled and appealed to Captain Dyk for protection. When the Prince demanded their return, Captain Dyk refused. The dispute led to military action and as a consequence the Dutch took absolute possession of the island putting an end to unrest, insecurity and slave killing.

While it seems futile to try to determine the origin of this *toempal* motif used so frequently in Ikat patterns, it is nevertheless interesting to recall the fact that these deep points are the same as those associated with the ancient game of Backgammon which is said to have originated in India (cf. Plate 26), and which, according to Thomas Francis Carter

<sup>7</sup>A dead tree on the village square on which the Headhunters placed the skull of their victims.

(“The Invention of Printing in China,” p. 139), entered China together with other Indian influences either during the T’ang Dynasty (618-907) or a little earlier.

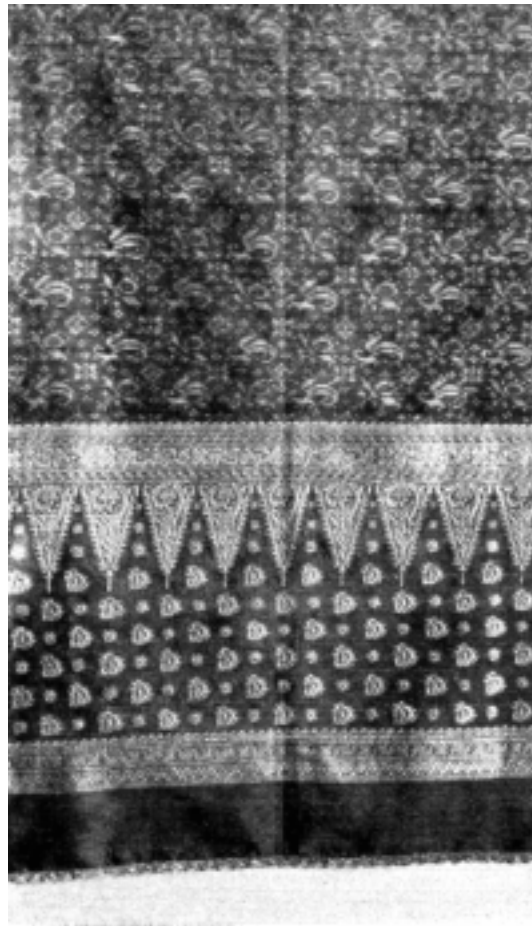


PLATE 8

WEFT IKAT IN POLYCHROME SILK WITH BORDER OF POINTED *toempal* MOTIF IN RED SILK INTERWOVEN WITH GOLD. FROM PALEMBANG, SUMATRA.



## SUMATRA

The Ikats of Sumatra vary greatly in the different parts of the island. Those woven today in the northwest by the wild Atjeh tribes are coarse warp Ikats. Some old silk specimens made about a hundred years ago are very beautiful and soft in coloring. Ikats are also made in the region of Toba and Bengkoelen and one finds here both weft and warp Ikats. The regions of Palembang, Djambi and Banka produce magnificent silk weft Ikats; Plate 8 shows a *slendang* from Palembang. This *slendang* consists of two distinct ornamentations. At the ends there is a gold brocade border with *toempal* design on a dark red background, while the entire center is finely patterned first in indigo blue, then in yellow and finally in red. These colors appear either singly or superimposed. The effect is superb and these Ikats are doubtless the finest and costliest produced in the Archipelago or anywhere. The Museum in Weltevreden (Java) has a magnificent collection.

## JAVA

The Ikats made to-day in Java are of little interest and Batik is the island's main industry. In Grissek a few simple Ikats are woven, mainly in silk and metal but of no great artistic value, compared with what was done there formerly.

## BALI

This island known for its beauty and the high cultural standard of its Hindu population, produces Ikats of great interest. They are made in two centers. The northern Village of Boeboenan produces silk weft Ikats in bright joyous colors. The southeastern mountain village of Tenganan makes a very rare double Ikat of cotton.

Speaking of the weft Ikats of northern Bali, Dr. Nieuwenkamp<sup>8</sup> states that in Boeboenan the women work with a neutral toned single warp thread and a previously patterned weft thread. In this remarkable process

<sup>8</sup>Cf. Bibliography, p. 58, No. 26.



PLATE 9  
WEFT IKAT IN SILK. SUMATRA.



PLATE 10

WEFT IKAT IN SILK WITH "EGYPTIAN CASTLE" PATTERN.  
FROM BOEBOENAN, ISLAND OF BALI.

the dyeing of the weft is so deftly managed that in weaving, the simple passage of the patterned weft thread back and forth over alternate warp threads, produces as if by magic, a perfectly accurate design in the finished cloth. As Loeber states,<sup>9</sup>—writing in 1902 when only single weft or single warp ikats had been found in the Dutch East Indies,—“What is comparatively easy in warp decoration becomes more and more complicated in decorating the loose weft threads.”

Tenganan double Ikats were first discovered early in this century by Dr. Nieuwenkamp on his travels through Bali.<sup>10</sup> The main colors of these Tenganan Ikats are a very rich brown and ochre with touches of dark red. One finds among these weaves two designs, one a geometrical checkered flower pattern (Plate 11), the other (Plates 10, 12), a bolder pattern of large squares, “Egyptian castle” combined with Wajang figures. This latter design is similar to one made in Boeboenan.

These double Ikats from Tenganan are far more difficult to make than weft Ikats for both warp and weft have to be patterned. In the process of weaving these the warp is first patterned and the threads placed on a frame; on another frame the weft is prepared. When the weft is removed to be woven into the warp, the design on the weft thread has to fit exactly into the threads of the warp,—an intricate problem. For that purpose fine white lines are traced at equal distances both on the warp and weft (Plates 13–14) to help guide the weaver to fit the design.

As Dr. Nieuwenkamp states, Tenganan Ikats are very rare; first on account of their technique, and second because so many are destroyed when cremations of princes and high officials take place. Dr. Goesling of the Amsterdam Colonial Museum, states however, that Tenganan Ikats are not used to wrap up the body of the deceased, as the dead in Bali are only temporarily buried to be cremated at a later date. Ikats from Tenganan are supposedly endowed with magical powers and therefore play an important rôle at ritual festivities.

<sup>9</sup>Cf. Bibliography, p. 58, No. 20.

<sup>10</sup>Cf. Bibliography, p. 58, No. 26.



PLATE II

DOUBLE IKAT IN COTTON; BOTH WARP AND WEFT PAT-  
TERNEED. FROM TENGANAN, ISLAND OF BALI.



PLATE 12

DOUBLE IKAT WITH "EGYPTIAN CASTLE" PATTERN.  
FROM TENGANAN, ISLAND OF BALI.

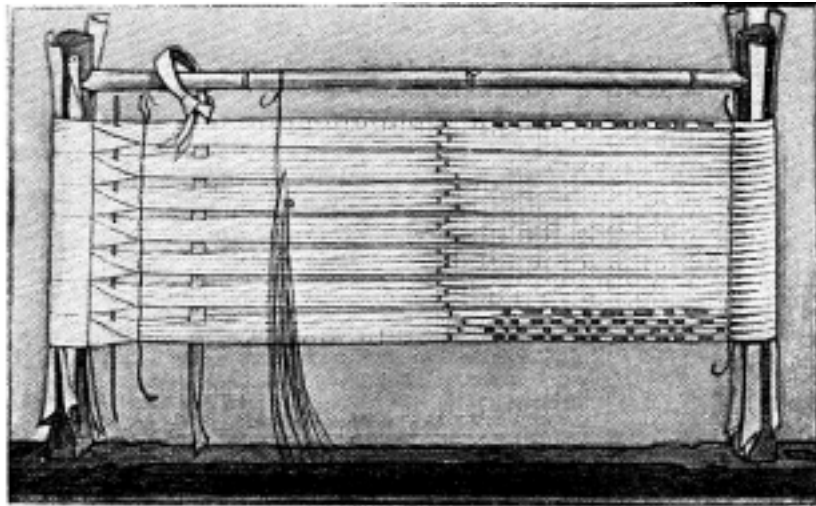


PLATE 13

MOUNTED WARP. THE WARP IS MOUNTED AND THE THREADS WOUND AROUND FOR A DOUBLE IKAT. (NOTE THE TRACING LINES.) FROM NIEUWENKAMP'S "BALI EN LOMBOK."

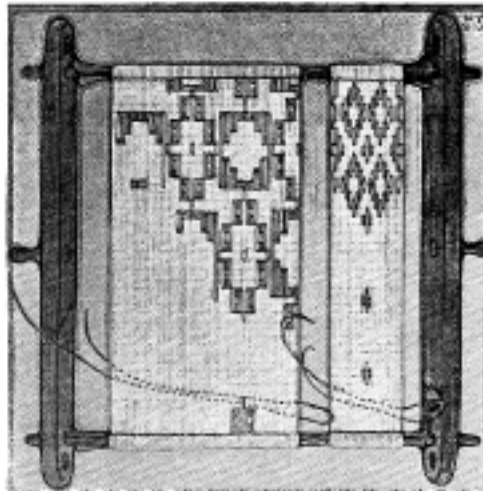


PLATE 14

MOUNTED WEFT. THE PATTERNED WEFT WOUND ON A SEPARATE FRAME FOR WEAVING A DOUBLE IKAT. FROM NIEUWENKAMP'S "BALI EN LOMBOK."

Nieuwenkamp's account of his discovery of double Ikats is worth relating: "One day in Tabanan (Central Bali) at an auction sale of articles belonging to some chieftain, I bought for the Ethnographical Museum of Leyden a box containing various textiles. Upon examining my purchase I found to my great surprise beside many worthless cotton prints, two weavings of severe ornament and rich dark color. They turned out to be a remarkable find for I noticed that both their warp and weft were Ikated. At that time the existence of double Ikats in our Colonies was unknown. The heavy cotton thread and the dark antique looking colors were also quite different from the bright silk I had so far found in Bali. The next day I inquired if such textiles were really made in Bali. A native chief told me that they were cloths often used for the cremation of Princes or high dignitaries and that they were made somewhere in Karangasam (southwest Bali) but where, he could not say. He added that these pieces were often burned with the dead and therefore very rare. In Karangasam my host identified these cloths as made in Tenganan, a small village, lost in the mountains of the southwest a few hours away and inhabited by the oldest tribe of Bali, the Bali Aga. It is the only village in Bali where double Ikats are woven.

"Accompanied by a few natives I started early the next morning. Our fiery little horses took us over steep rocky mountain trails and when after several hours of rough riding, we reached the highest point, I saw before me down in the valley, the small village, where we arrived after a short descent. At my request several women, known as the best weavers were assembled in the house of the village chieftain. They brought their loom along and soon the courtyard was ringing with the sound of their little bells and the click-clack of their shuttles. It is strange that while all the women of Tenganan understand how to make double Ikats, the art should be unknown outside of this village. A ten year old girl who is not capable of it is fined two thousand kepongs (about one dollar) and has to learn it at once. The loom in use is not essentially different from others used in Bali. On the round bamboo sticks that separate the even warp threads little bells are attached and they ring with the introduction of every weft thread thus announcing to the neighbors or to the passerby the weaver's diligence."



Outside of Tenganan double Ikats are made in British India by the people of Gujarat near Baroda about 250 miles north of Bombay. They are known as *patola* silks or as *barodas* "and in Dutch India under the name of *tjindé*"<sup>11</sup> (Plate 15).

A lively trade in *tjindés* between British India and Java and Sumatra existed as far back as the 16th century. Apparently *tjindés* were specially made for export to these Islands and were shipped from Cambay. Sir George Watt<sup>12</sup> in his book "Indian art at Delhi" writes as follows: "It appears that these silks have for centuries found their way to Java and are there just as in Gujarat used as special bridal garments. Due to the fact that they are expensive and difficult to procure these textiles are handed down from mother to daughter and are never worn except on the wedding day. This very curious transportation of an artistic fabric, and its association from one country to another, is doubtless a consequence of the former close association of Java with the west coast of India and also goes to confirm the impression already conveyed of the antiquity of the art of Patola dyeing and weaving (double Ikat)."

Outside of the Orient double Ikats were made in Europe in the form of beautifully coloured shawls (Plate 16). Zurich in Switzerland and Elberfeld in Germany were the two centers for that industry. An old weaver in Elberfeld is the only surviving artisan who understands this intricate art and with his death, double Ikating will no longer be practised in Europe.

<sup>11</sup>The word "*Tjindé*" is very likely derived from "Chundeyree" an old British Indian settlement since ancient times celebrated for its beautiful fabrics. (See J. Forbes Watson: Bibliography, p. 59, No. 36.)

<sup>12</sup> Cf. Bibliography, p. 59, No. 35. p. 259.



PLATE 15

DOUBLE IKAT IN SILK FROM BRITISH INDIA WHERE IT IS TERMED *baroda*, *patola*, OR *tjindé*.

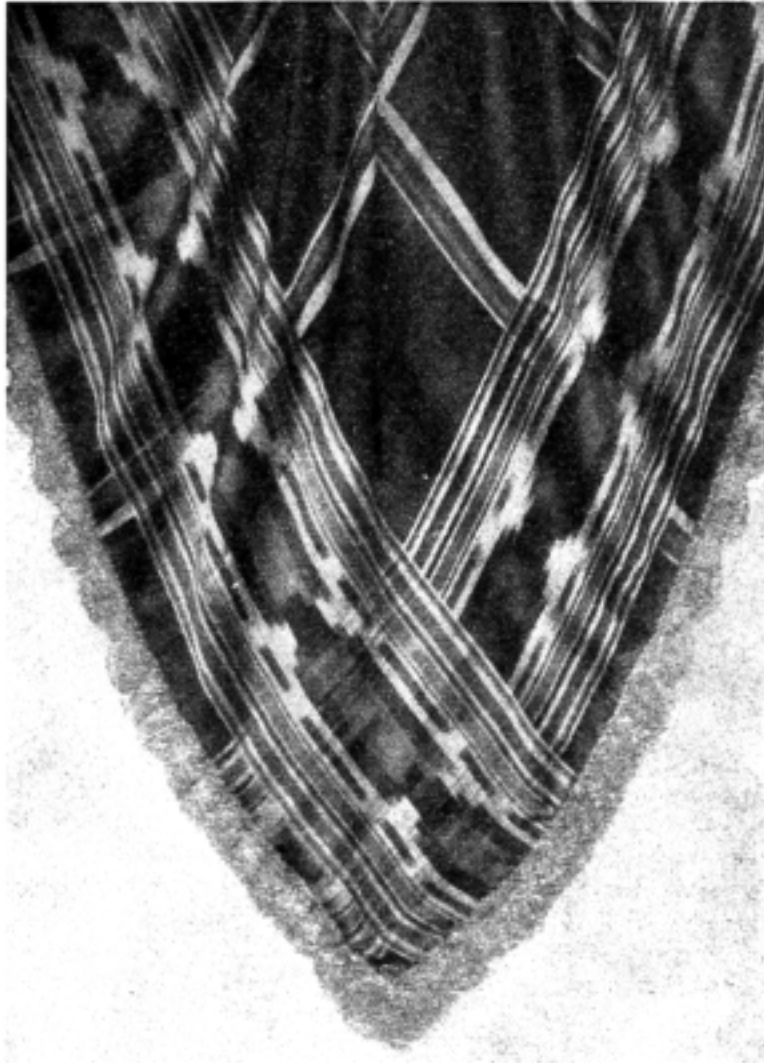


PLATE 16

SHAWL WOVEN IN POLYCHROME SILK DOUBLE IKAT; GERMAN OR SWISS  
WORK. COLLECTION OF FRITZ IKLÉ, SAINT GALL, SWITZERLAND.

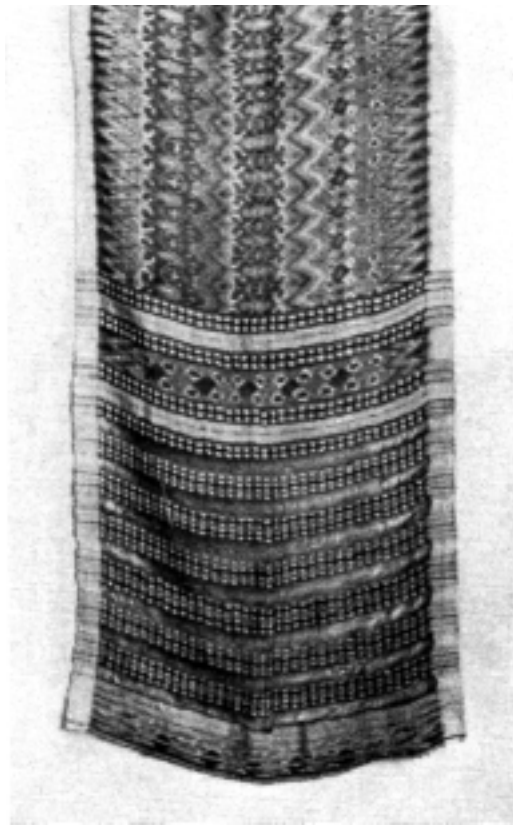


PLATE 17

WEFT IKAT IN POLYCHROME COTTON. FROM THE  
ISLAND OF BALI. FROM THE COLLECTION OF MISS  
FRANCES MORRIS, NEW YORK.

## BORNEO

The most important Ikats in Central Borneo are made by the Dyaks. It appears that the Dyaks' character is made up of extremes. As we see them in their homes they are mild, gentle and given to hospitality, but when they exchange their domestic habits for those of the warrior their greatest delight seems to be to revel in human blood and their greatest honor to decorate their dwellings with human heads. They have been known as skull hunters but this custom has been pretty well abolished by the Dutch.

The artistic sense of the male Dyaks expresses itself in woodcarving, beadwork etc.—while the women weave cotton warp Ikats. The patterns are abstract, very distinct in line and have a strong primitive character; geometrical arabesques in their triangular shapes of arrowpoints probably of symbolic meaning (Plate 19). The designs are animal derivatives, but the artists themselves are seldom aware of the derivation, even when the pattern bears the name of its animal origin. The frog, the young bird, the human figure and the lizard are the originals most frequently claimed.<sup>13</sup> The colors that predominate are reds and browns and ochre. These weavings are unmistakable as to their origin and deserve high ranking among the Ikats. In his book on Borneo A. R. Hein,<sup>14</sup> speaking of the Dyaks, remarks: "What a contrast with our western women of whom so very few are able to create an original design or to select their own colors. When in leisure hours they weave or embroider, monstrosities are generally the result. One only needs compare their products with the harmonious and noble Ikats from Soemba, Borneo or Bali."

In Koetai (East Borneo) very beautiful Ikats are made with a warp of fibre. Considering the degree of civilization of these people or of the Bataks of Sumatra and the Alfoeroes of Celebes and Timor, one marvels at the splendor and the refined taste that their Ikats reveal. The style

<sup>13</sup>Cf. Bibliography, p. 57, No. 14.

<sup>14</sup>Idem., No. 15.



PLATE 18

BORNEO DYAK WOMEN WEARING IKAT WEAVES. (CF. PLATE 19.)

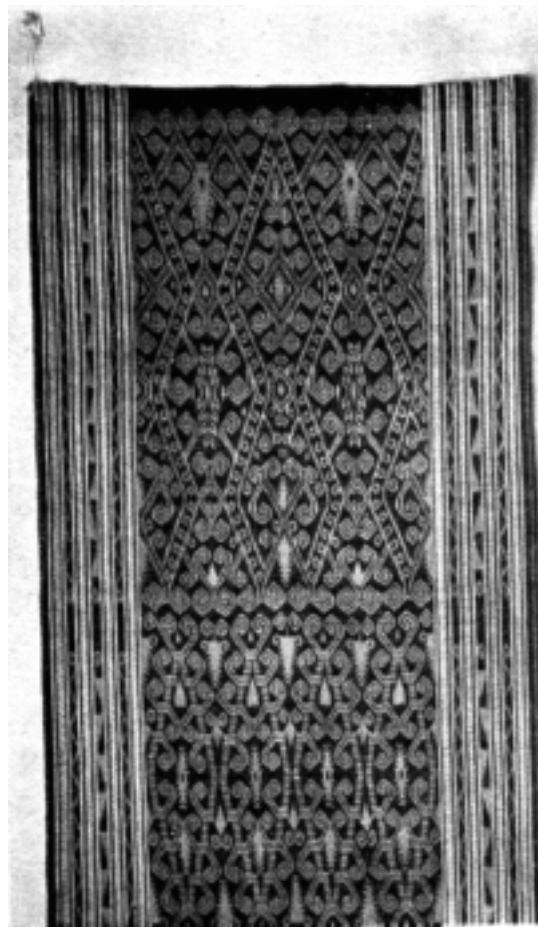


PLATE 19

WARP IKAT IN COTTON. BORNEO. WORN BY THE  
DYAK WOMEN AS A SHORT PETTICOAT (*bidang*)  
REACHING FROM THE WAIST TO THE KNEE. MADE  
BY THE SEA DYAKS (IBANS).

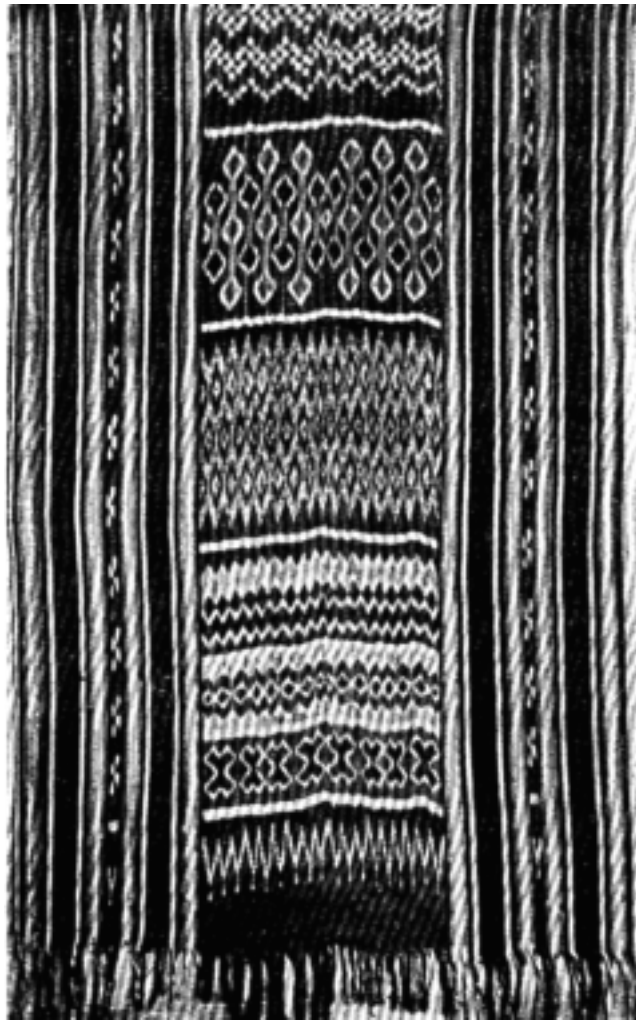


PLATE 20

WARP IKAT FROM GELOEMBANG, CELEBES. COLLECTION  
F. ENSERINCK, AMSTERDAM.



of ornamentation is also extraordinary and deserves a special study. One encounters no harsh, but sombre strong harmonious colours, at least prior to the introduction of our gaudy aniline dyes. (Plate 18)

The cotton warp Ikats of British North Borneo (Sarawak) resemble in color those of Central Borneo. The designs however are much smaller, they are striped, have ornamental figures and the blue and black spots are painted in by hand.

### CELEBES

The best known Ikats from Celebes are the Rong-Kong, Geloembang and Masamba Ikats. They are mostly huge in size often sixteen feet long and are used for funerals. They have red and blue stripes on the sides and in the center a large panel of geometrical design. They are made by a tribe called "Toradjas." Loeber<sup>15</sup> in his work on Batiks says: "While we were formerly convinced that the Toradjas were so primitive that they even had no notion of plain weaving, we have now gradually discovered the existence there of most interesting cotton warp Ikats and Plangis, first class specimens."

### TIMOR GROUP

The Timor group<sup>16</sup> consist of several islands:

TIMOR, FLORES, ROTI, SAVOE, ALOR, SOLOR, KISAR

All these islands produce Ikats, differing widely in design from those found elsewhere. There is however a certain similarity among them as a group. The following islands produce the most typical weavings.

TIMOR: Striped designs of various blues with a little red and yellow,

<sup>15</sup>Cf. Bibliography, p. 58, No. 20.

<sup>16</sup>A footnote on page 4, in Jasper and Mas Pirngadie's work quotes Loeber as saying: "The presence of Ikat in virginal Melanesia proves that the Timor group is decidedly the center of the art of Ikat weaving, which overthrows the old belief that we owe its development to the Hindus."



PLATE 21

WARP IKAT IN COTTON. FROM THE ISLAND OF  
ROTI, TIMOR GROUP. (COMPARE THE FRINGES  
WITH THE NEW ZEALAND SKIRT, PLATE 5).

often having a human figure as a design.<sup>17</sup> Daniel Réal<sup>18</sup> in "Tissus des Indes Neerlandaises" says: "The Timor designs with the human figures remind one strongly of those of ancient Peru and of those used by contemporary Indians of Chile in weaving belts."

ROTI: These Ikats are woven in the form of a shawl, the center covered with a floral pattern, the outside pattern in the form of a frame. Roti Ikats contain a pronounced triangular design called *toempal*, of symbolic meaning. (Plate 21.)

SAVOE: The designs here are mostly striped, the colours are rich reds and blues, with ornamental flower patterns. (Plates 22, 23.)

KISAR: The character of the Kisar weaves is individual: a white pattern of squares and circles, spread in checkered form on plain dark brown ground with a *toempal* design at the ends. (Plate 24.)

It is astonishing how much has been written about the triangular *toempal* motif, how various investigators have tried to ascertain its origin and its dissemination as well as its symbolic meaning. These attempts seem futile in the case of a design simple enough to have been invented quite naturally and independently in many countries and in a remote prehistoric past. This opinion is shared by Dr. T. Adam of the Brooklyn Museum. The word *toempal* means tower, peak or point. In Malayan it is called "*putjuk rebung*" or bamboo shoot. It may represent the sprouting power of the bamboo tree or may be as in China a symbol of strength and fertility. In Malayan legends the bamboo is a holy tree with golden leaves and silver rods of indestructible power.

According to Loeber,<sup>19</sup> this motif, which he identifies as Indonesian, has probably existed on the Archipelago for centuries, long before Hindus came from the mainland to conquer the Rice Island, Java. A copper plate etching from Holland, dated 1605, after a sketch made in Ceylon a few years earlier, shows the King of Kandy wearing a Java Batik with

<sup>17</sup>Although Mohammedanism forbids the representation of human or animal figures, we find such ornaments here and in Soemba. On all other Islands Moslem influence is apparent in symbolic or geometrical designs. Influences from South and Central America, carried across the Pacific by Spaniards may account for the Soemba and Timor styles.

<sup>18</sup>Cf. Bibliography, p. 58, No. 30.

<sup>19</sup>Idem., p. 58, No. 22.



PLATE 22

WARP IKAT IN COTTON, DARK INDIGO AND BRICK RED. FROM THE ISLAND OF SAVOE, TIMOR GROUP.



PLATE 23

WARP IKAT FROM THE ISLAND OF SAVOE.

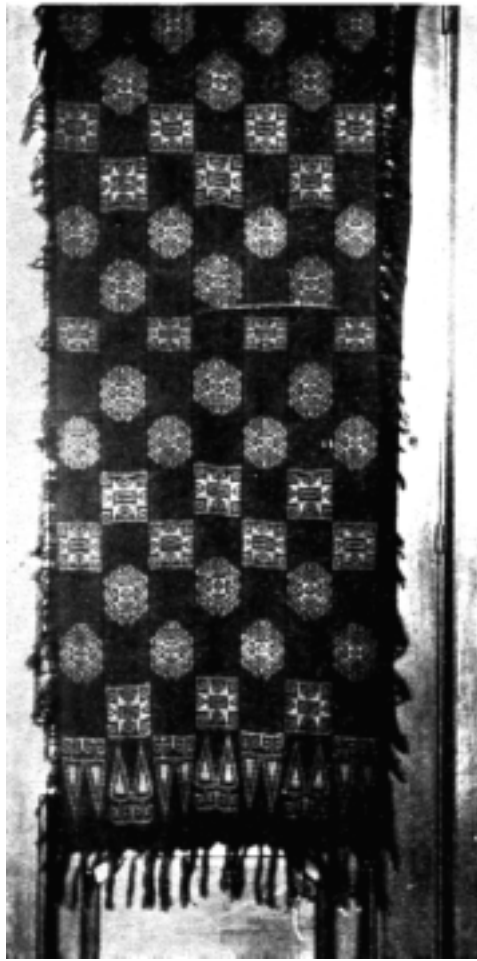


PLATE 24

WARP IKAT IN COTTON WITH POINTED *toempal*  
MOTIF IN BORDER. FROM THE ISLAND OF  
KISAR, TIMOR GROUP.



PLATE 25

WARP IKAT IN COTTON. FROM THE ISLAND OF TIMOR.

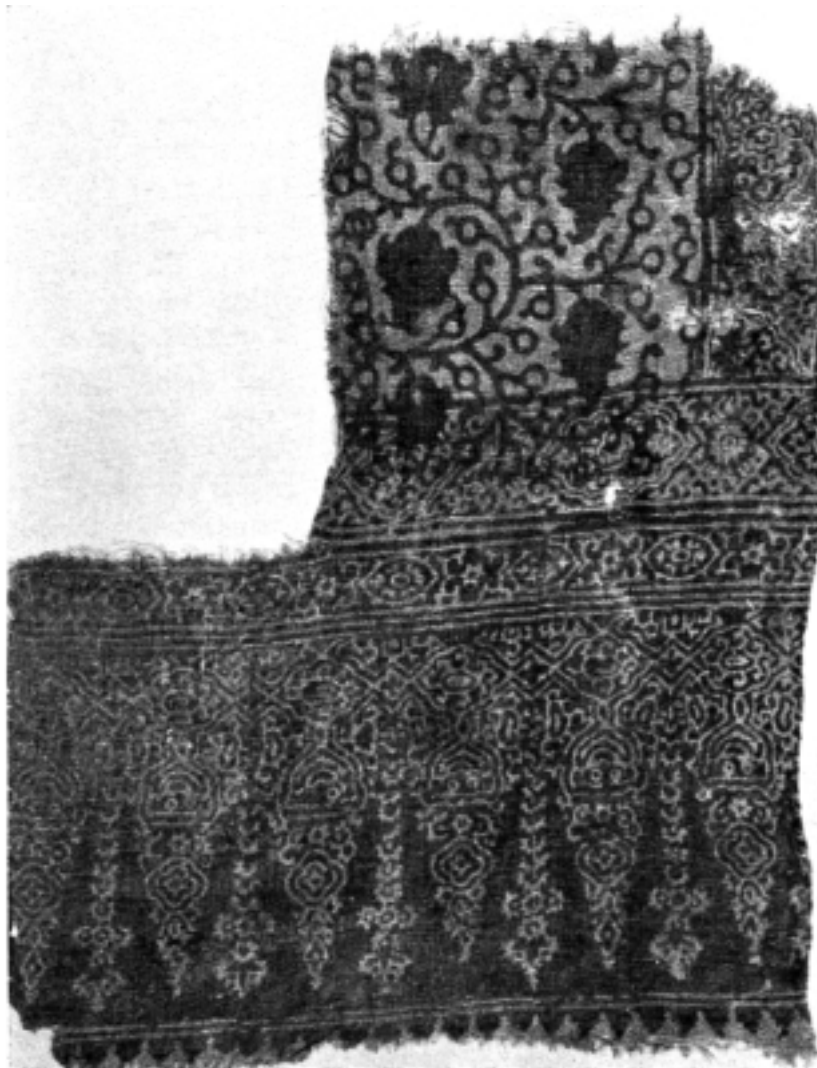


PLATE 26

PRINTED COTTON FROM INDIA WITH *toempal* DESIGN, XIII-XVI CENTURY.  
METROPOLITAN MUSEUM OF ART, NEW YORK.



*toempals*.<sup>20</sup> The Metropolitan Museum of Art owns such a specimen, found in an Egyptian tomb (Plate 26). It is a cotton print of Indian origin, showing the *toempal* motif in the border.<sup>21</sup> Recent excavations in Egypt have brought to light many such textiles of the Mameluk Period (13th to 16th centuries) dyed by mordant or resist methods.

Eastward, the *toempal* pattern is found all over Polynesia as far as Easter Island. This island<sup>22</sup> is the most eastern and most isolated outpost of the Polynesian race, situated about 1500 miles off the coast of Chile. Notwithstanding their proximity to South America, the Easter Islanders are racially and linguistically predominantly Polynesian. With the aid of equatorial winds and currents these people also reached Madagascar<sup>23</sup> off the coast of southwest Africa, where they form the majority of the population.

D'Alviella in his interesting work "La Migration des Symboles" speaks of a group<sup>24</sup> of very old triangular motifs resembling the *toempal*. According to this author, the famous Egyptian *ankh* pattern belongs to this group. That both *toempal* design and Batik technique are of Indonesian and not of Hindu origin is further supported by the fact that neither is found in Bali, the last Hindu settlement in the Archipelago. Loeber,<sup>25</sup> referring to the Hindu tradition, says: "On Bali we find the continuation of the Hindu tradition. When the Mohammedans conquered Java and destroyed the great Hindu Empire of Madjapahit the fervent adherers of Hindúism fled to Bali where they exist today as Wong Madja Pahit (People of Madjapahit) preserving their old Hindu customs."

If during the Hindu period of Java the art of Batik had been practised

<sup>20</sup>Cf. Rouffaer and Juynboll (Bibliography, No. 32, Plate 47). These two authors consider this motif as of Malayan Polynesian origin; they are also of the opinion that it spread to the Indian coast of Koromandel and was accepted there by the cotton and silk industries.

<sup>21</sup>Kindly brought to the attention of the writer by Mr. J. Phillips of the Museum Staff.

<sup>22</sup>The first Europeans landed there under the Dutch Admiral Roggeveen on Easter Sunday, 1722.

<sup>23</sup>Gabriel Farrand in "Les Voyages des Javanais a Madagaskar" gives the second to fourth century of our Era as the date of the Indonesian migration to Madagascar.

<sup>24</sup>Cf. Bibliography, p. 57, No. 9.

<sup>25</sup>Idem., No. 21.



PLATE 27

PAPUAN GRASS SHOWING THE BINDING OF THE IKAT PROCESS. COLLECTION FRITZ IKLÉ, SAINT GALL, SWITZERLAND.

there we should find it preserved today in Bali or find at least some trace of it. But this is not the case. So far no Batiks have been found on Bali. The pronounced Indonesian *toempal* pattern is also not typical of Bali. Loeber considers it strange that until now, so little attention has been paid to this fact.

### NEW GUINEA

In New Guinea, the extreme East of the Dutch East Indies, a most primitive form of Ikat is found among the Papuas. Roughly patterned articles such as belts of palm-leaf and fibre, show the technique before dyeing in the most primitive state. According to Dr. Steinman of Buitenzorg (Batavia, Java) this may lead to the conclusion that Ikat is a technique of Melanesia having its origin there, whence it spread from the East over the whole Archipelago. J. A. Loeber, writing in "Kunst and Kunsthandwerk"<sup>26</sup> comes to a similar conclusion regarding Batiks. He found in New Guinea and nearby islands, very primitive forms of Batiks applied to strips of straw used in the making of hats. He is of the opinion that Batiks and Ikats both originated in this region, that they are in essence closely related, evolving, however, quite differently.

Another possibility would be that Ikats were introduced to the Malayan Archipelago by early migrations from Asia and Africa.

The Chinese reached Borneo, early in the fifth century, (c. 400 A.D.) Hindus were in Java about the same period, and in the eighth century the Arabs appeared in India and the Malayan Islands. Let us recall also that Ikats were made in Egypt in the eleventh century. Had this technique originated in Egypt, we should certainly find specimens of it among Coptic textiles, but such is not the case.

Loeber<sup>26</sup> says: "It may seem far fetched to look to New Guinea and to the Papuas for the origin of any craft. But who can prove that the Papuas were centuries ago the uncultivated Papuas of today? Anyone who studies Papuan art is amazed at the high development shown in the construction of their homes. The Papuas are not at all a primitive people, but are a degenerated one, who long ago enjoyed a high culture. When dealing with such people one is always apt to judge by appearances and

<sup>26</sup>Vienna, 1914.

<sup>28</sup>Cf. Bibliography.



PLATE 28

RADJA OF TIMOE WITH FAMILY CLAD IN IKAT WEAVES. ISLAND OF SAVOE.

of course the Papua of to-day makes a rather unfavorable impression."

But existing proofs are not sufficient to make Steinman and Loeber's theory unreservedly acceptable; for one must always consider the possibility that arts and crafts developed in various parts of the world independently and at different periods of history.

### DISSEMINATION OF IKAT TECHNIQUE

In his study on flame weaving, Mr. Fritz Iklé makes a survey of the various parts of the world where Ikating is or has been practised. He has collected specimens from all parts of the world and has ascertained that outside of British and Dutch East India, Ikating is or has been practised in the following countries: Indo China, Philippines, Japan, Turkestan, Persia, Asia Minor, Egypt, Nigeria, Balkans, Majorca, France, Italy, Switzerland, Germany, Sweden, Finland, Guatemala, and Ecuador. (Map No. 2.) It is certainly remarkable how this technique has spread unless one assumes that in spite of being so very complicated it originated independently in so many countries. Taking all points into consideration it is impossible to affirm with certitude where Ikating originated and how it spread.<sup>27</sup> We have strong reason to believe that it owes its origin to very ancient and primitive methods and which may well have been Indo Malayan Melanesian. It seems fairly certain that the art moved from the East to Europe.

Majorca (Balearic Islands) is a center where the Ikat technique was known very early and from where it may have spread further into Europe. The blue and white Majorca Ikats bear a strong resemblance to those of the eleventh century found in Egypt. Mildred Stapley Byne, in her book

<sup>27</sup>A. J. D. Campbell of the Victoria and Albert Museum, London, in his introduction to "Mudras" by Tyra de Kleen, gives a historical survey of the early Hindu migrations to the Indonesian Archipelago. The Turki Saka race invaded the Graeco Bactrian Kingdom of Gandhara, about 140 to 130 B.C. Early in the Christian Era a descendant of that race, Prince Agi Saka of Gujarat (where the famous Patola double Ikats are made) led the first immigration to Java. Another much larger expedition of Saka immigrants sailed for Java around the year 603 A.D. To this Hindu civilization we owe among others, the marvelous Borobudur Temple built in Central Java around 850 A.D. In 1478 the great Hindu Javanese Dynasty of Majapahit was overthrown by the Mohammedans and the higher castes fled to Bali where their descendants live to this day. According to Campbell these Saka tribes give the key to the great similarity existing between the monuments of the Graeco Buddhist country of Kashmir and those of Java. Could not these Saka tribes have carried the Ikat technique into the Malayan Archipelago?

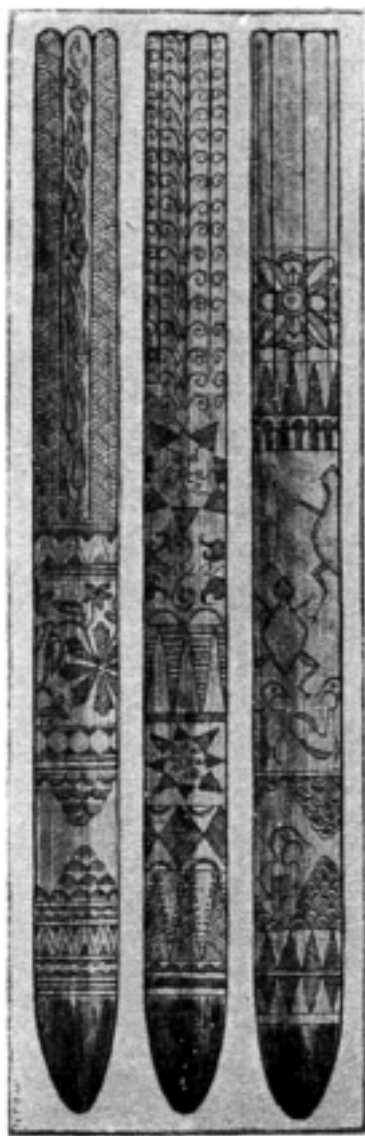


PLATE 29  
DECORATED BAMBOO SPOOLS FROM BALI. NIEUWENKAMP'S "BALI EN LOMBOK."

on Spanish weaves and embroideries, says: "As would be natural in a country (Majorca) where an Asiatic civilization maintained itself for eight centuries and where even after the Europeans triumphed in 1229, the artisans were drawn from the Moorish left-overs, there is much Oriental influence in both weaving and embroideries. An outstanding Oriental example is the Majorcan *tela de lenguas* (Ikat) made there since the days when the Island was a separate Moorish Kingdom."<sup>28</sup>

Blue and white linen Ikats made in Auvergne (Central France) and known as "*etoffes de Riom*" bear a strong resemblance to the Majorcan *tela de lenguas*. Referring to these weaves, this author further states: "The making of these Ikats in Auvergne (France) may be explained by the fact that Majorca has had an age old traffic with the Provence and the Rhone valley. Every time we go to Clermont and surrounding country we find Majorcan tradesmen who tell us that their grandfathers established the business."

As mentioned before the Arabs were in the Malayan Islands in the 9th Century. We possess Arabian Ikats from Egypt, of the 11th Century and find them in Majorca around the 12th to 13th Century. It seems not far fetched to assume that from Majorca, the Ikat process reached France; for according to Algoud's "La Soierie de Lyon," 1921, this art was known in Lyons around 1600. Francisque Michel in his book on Silks (Vol. II, page 239), quotes a French author writing in 1616 who mentions "*Satin à la Chiné*." Michel<sup>29</sup> remarks that possibly a Chinese silk was meant similar to those that came from the Celestial Empire. Unfortunately we have so far found no Celestial Empire Ikats to support this theory; possibly he meant hand painted silks, imported from China.

According to Rouffaer,<sup>30</sup> Ikats were introduced in France when am-

<sup>28</sup>Cf. Bibliography, p. 57, No. 4.

<sup>29</sup>Cf. Bibliography, p. 58, No. 24.

<sup>30</sup>Idem., No. 32.



PLATE 30

NATIVE WOMAN. ISLAND OF BALI.



bassadors from Siam visited the Court of Louis XIV in 1684. The silk garments worn by them created a sensation among the French silk manufacturers. They called these materials "*siamoises*." We find in the French Encyclopedia (Littré 1873) the following definitions: "*siamoise*: a material of silk and cotton mixture, which was an imitation of the silks worn by the Siamese Ambassadors sent to the Court of Louis XIV." *Siamoise flamée*: (flamed Siamese) name given to *chiné* materials which were a perfect imitation of *siamoise*." The French *chinés* were first made by winding parchment around the warp; later paper was used for that purpose. The term "Chiner" may have arisen from the strong Chinese influence prevailing in Western Europe, so that anything coming from the Far East was readily classified as Chinese. Long before we find the word "Chiner" in France there existed in Italy the expression "*Far i drappi a la Cinese*" to make cloth in the Chinese manner. The interest shown for *siamoises* in 1684 may well have caused Lyons to produce the magnificent and famous *chiné* of the second half of the 18th Century. The first year of the Restoration in France saw the decline of the art of making *chiné*. It was replaced by printing the weft, to imitate Ikat, a very much simpler process. Soon the tradition of a most intricate art was nothing more than a memory.

### NATIVE CUSTOMS

In the Dutch East Indies the operations of spinning and weaving are confined exclusively to women and all of them, young and old, rich and poor, understand this art.<sup>31</sup> They work quite independently creating the pattern from memory with no design before them, conforming to a certain style typical of each island. Within this prescribed style their imagination has free swing and it is, as mentioned before, extremely rare to find two identical weavings. An explanation for the conventionality of designs found in all Dutch East Indian textiles is given in D'Abadie's book "*Les Races du Haut Tonkin*"<sup>32</sup> where he writes: "The design and technique

<sup>31</sup>For the meaning of "art" in India compared to "art" in the modern world see: "Introduction to Indian Art," by A. K. Coomaraswamy. Bibliography, p. 57, No. 7.

<sup>32</sup>Paris, 1924, page 176.

of funeral cloths are traditional, for otherwise the souls of the departed would have difficulty in recognizing their kin when they arrive and join them in the world beyond.”

Both men and women, young and old, understand the art of dyeing. This art is kept secret and when performed no stranger is allowed to be present. The rule extends even to members of the home and village (*kampong*) who are not directly concerned with the dyeing. The exact time that the dyeing will begin is announced beforehand. The place where the dye is boiled is screened off with cloths so as to shut out curious onlookers. Should a stranger by accident witness the performance he is compelled as a punishment to dip his finger into the dye and to taste it, whereupon he is expelled. Unless he is thus punished, the natives believe that the dye will be spoiled. Those employed in dyeing must never mention death, the name of dead people or animals. Pregnant or sick women are not allowed to look on or assist in any way; should this happen they are punished in the same way as strangers.

Only on the remote islands of the Archipelago, not so easily reached by foreigners, do arts and crafts preserve their ancient beauty with all the rites, offerings and prayers deemed essential for their successful execution. Old legends, strange and symbolic customs and superstitions are linked with weaving and make us realize the native's respect and admiration for these arts. By incantations the women hope to assure good results for their work. When spinning and pulling the threads they burn incense and bring offerings to the Patron Goddess “Seri.” They believe that certain prayers will give the threads an especially fine quality. The mounting of the threads on the loom is done on a day when there is a full moon and a high tide. It should never be done at low tide or when the moon is seen in the morning (which means several days after full moon) for it will cause the threads to break. If death is announced in the village, weaving must stop at once or the threads will lose all their strength and the spirit of the departed will take vengeance on the weaver and bring sickness upon her.

In Bali the natives are not satisfied simply to create beautiful textiles. The tools they use express to a degree their artistic nature; thus we find that their looms, shuttles, etc., are usually decorated with carved or burnt in designs. They are often the gifts of young men to their sweethearts.

As Mr. C. M. Pleyte says: "An undecorated object even if destined for the most simple use offends the eye of the native and as everybody can and does make for himself many of the things he daily needs, so every native is his own artist. It is therefore clear that in the ornamentation of articles of daily life much can be learned from the natives of the Dutch East Indies, whose spontaneous inspiration compels general admiration."<sup>33</sup>

Every tool receives a special dedication, is caressed and given pet names as if it were a living creature under divine protection. The night preceding the weaving is spent in celebrations of all kinds, with music, incense burning, sacrifices and praying. A rich folklore reveals itself in this connection. Mr. P. Enserinck<sup>34</sup> in his study on Ikats and Batiks mentions a few of these prayers.

"My beloved little yarn  
 Mayest thou never be lacking  
 May some of thee ever remain  
 That thou shalt be like the sea  
 Which never becomes dry;  
 Like a plain unbounded  
 So that thou ever wilt be of use to me."

Addressing the yarn;

Flower of Watang  
 They call thee in Heaven  
 But descended on Earth  
 Thy name is Yarn.

While reciting these prayers the spools are "put to sleep" on mats. The weaver sprinkles sand on the spools and spreads her hands over them. The belief exists that men must not weave, not even touch a loom or hold a spool. It might bring them bad luck and impair their manhood. When, quite recently, the Dutch introduced modern weaving schools, as

<sup>33</sup>Cf. Bibliography, p. 58, No. 28.

<sup>34</sup>Cf. Bibliography, p. 57, No. 11.

for instance "The Textiel Inrichting" in Bandoeng (Java) they found it very difficult on account of this superstition to induce men to work at the looms.

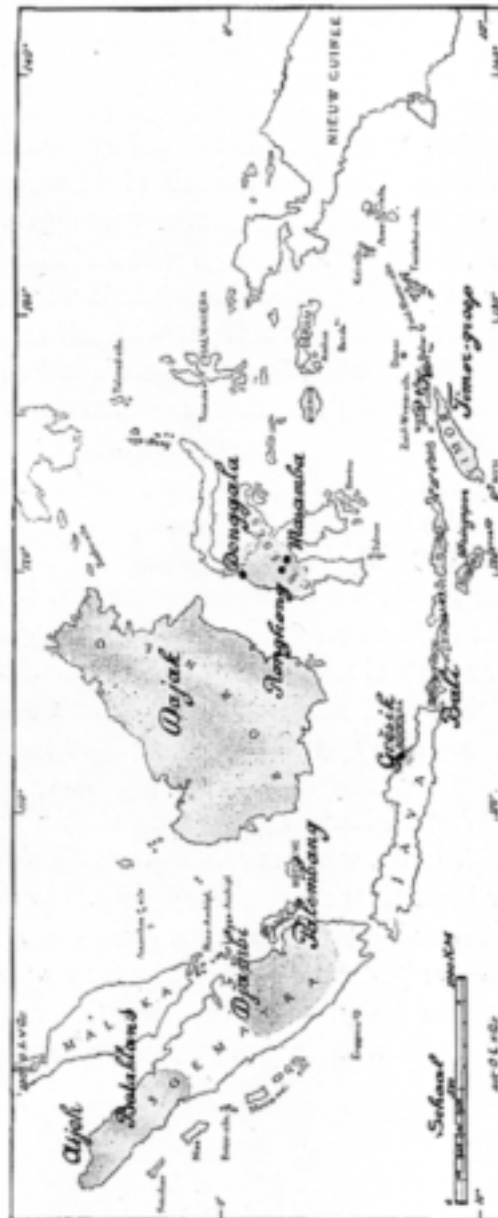
Mr. J. C. Lambster<sup>35</sup> gives a vivid and touching description of the love and devotion with which these Ikats are created by frail little women, an almost religious performance and how the soul of these people is mirrored in their work. He writes; "We feel how these weavings were created by industrious small hands out of plain rough material and turned as if by magic into works of art. Watch these slender little women sit, modestly and calmly unemotional and serious and yet with self assurance, bent on their work, their frail fast moving fingers in perpetual motion. They sit there constantly with the same devotion for weeks and weeks patiently doing all this work necessary for setting up an Ikat loom. Quiet and absorbed seriously applied to their task, now and then breaking the silence by some remark or a playful answer and when finally slowly, very slowly that stately restful distinguished pattern appears on the loom, one quite naturally asks oneself, is there not some mysterious power here at work? Have not these quiet little women the secret of pouring some fluid from their souls into these beautiful textiles? Are not their restful self assurance, their slender lines, their well balanced placidity and primitive nobility which we gradually begin to appreciate, mirrored in the design of these colorful weavings?"

In contrast with Western ideas, the Oriental races believe that unrest is a disease. In British India, weavers of shawls meditate on their design before putting their hand to the loom. They sit still in meditation for a few minutes before beginning their work. On questioning them regarding it, they invariably reply: "Without being silent for a while, it is not wise to start one's work. The design will elude one's fingers if one's mind is tinged with unrest. Concentration is not possible if one's soul is tormented."<sup>36</sup>

<sup>35</sup>Cf. Bibliography, p. 58, No. 19.

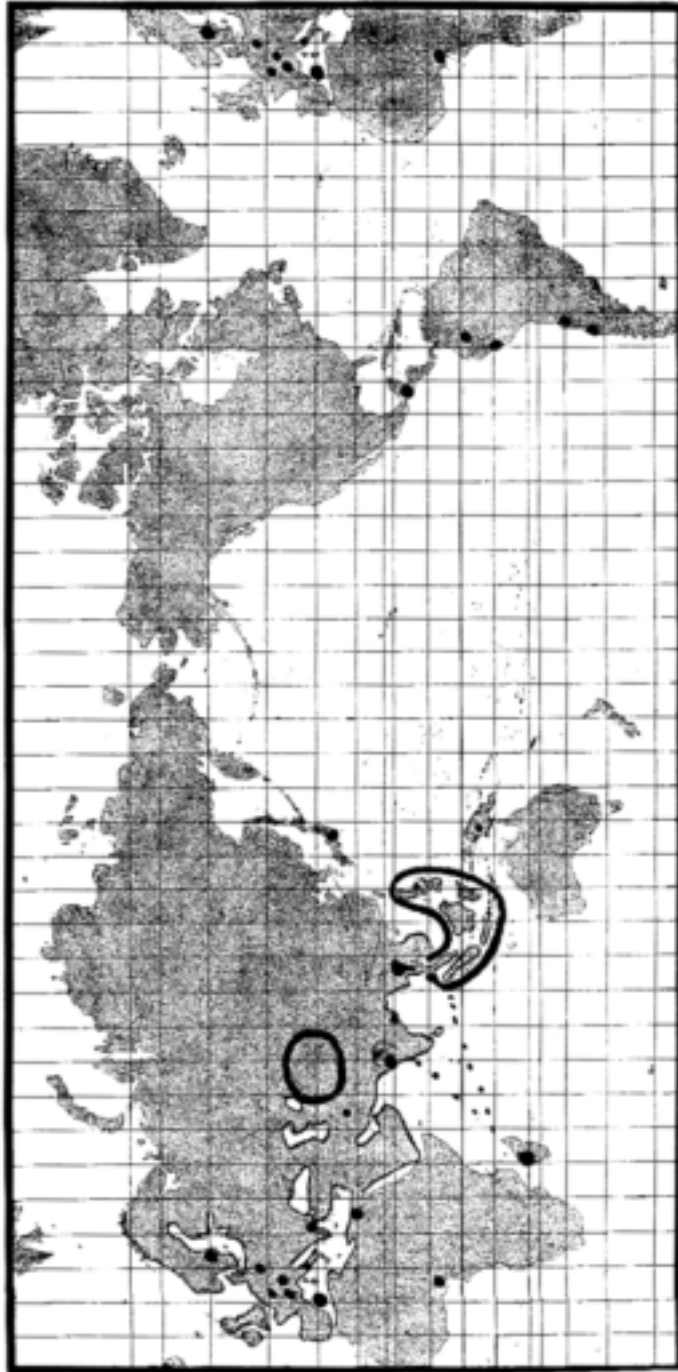
<sup>36</sup>From "Daily Meditation," Dhan Gopal Mukerji.

MAP NO. 1



CENTERS OF IKAT WEAVING IN THE DUTCH EAST INDIES.  
FROM J. C. LAMBSTER'S ARTICLE IN 'ONZE ARDLE,' APRIL, 1930.

MAP NO. 2



DISSEMINATION OF THE IKAT TECHNIQUE.  
FROM FRITZ IKLÉ'S "UEBER FLAMMENTUCHER," 1939.

It is a question whether the beautiful art of Ikat weaving can long survive in the Dutch East Indies. Like many other crafts it does not find sufficient appreciation in the Western World, this same world which is so ready to flood the remainder of our globe with inferior mass products thus destroying among native peoples the concepts of quality and beauty, together with the joy of creation.

CHARLES F. IKLÉ.

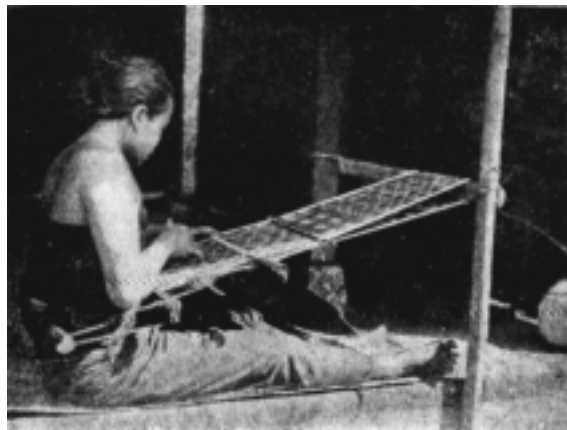


PLATE 31

BALINESE WOMAN WEAVING A DOUBLE IKAT.

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FIG. I

CHILD'S DRESS, SILK BROCADE IN APRICOT, WHITE AND SILVER,  
SPANISH, EARLY XVIII CENTURY. FROM THE COLLECTION OF  
MRS. DE WITT CLINTON COHEN.