

## MATERIALS FOR A STUDY OF TATU IN BORNEO.

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[WITH PLATES VI-XIII.]

THE great diversity of tribes in Borneo involves, in a study of their tatu and tatuing methods, a good deal of research and much travel if first hand information on the subject is to be obtained. Between us we have covered considerable area in Borneo and have closely cross-questioned members of nearly every tribe inhabiting Sarawak on their tatu, but we cannot claim to have exhausted the subject by any means; there are many tribes in the interior of Dutch Borneo and in British North Borneo whom we have not visited and concerning whom our knowledge is of the scantiest. Our object in preparing this paper has been to place on record all our own observations, the result of some years' work, and to summarise briefly all that has been written on the same subject by other authors. We must leave it to future workers to fill in the blanks still left in our knowledge and to produce a complete monograph of Bornean tatu, only pointing out that if the work is to be done " 'twere well it were done quickly."

As we shall have occasion to show later on, there are tribes now existing who have already given up the practice of tatu, there are others who are renouncing their old designs in favour of those formerly peculiar to the Kayans only; whilst finally, though the native tribes of Borneo run small risk of extermination at the hands of the European rulers of the island, there is no doubt but that the dominant and aggressive Sea Dayak is a ruthless destroyer of tribes, which, owing to an inherent and fatal weakness are already tottering to the verge of extinction. It is at least unfortunate that under the ægis of European protection such weakly tribes soon lose all originality in their art and are fain to copy the art and culture of tribes that they cannot fail to regard as more successful in the struggle for life than themselves. At the end of the paper we give a bibliography of Bornean tatu and would draw special attention to the works of Dr. A. W. Nieuwenhuis, since we have found his accounts of tatu most accurate and helpful. It is, however, a pity that Dutch authors still persist in misusing the term Dayak; Dr. Nieuwenhuis is far too competent an ethnologist to think of confusing such different tribes as the Sea Dayaks (or Iban of Dr. Haddon) with Kenyahs or Kayans, yet even he writes of the "Baritu Dayaks," the "Ulu Ajar Dayaks" of the Mandai River, and occasionally of "Kayan Dayaks."

It is perhaps advisable to give at the outset of this paper the briefest possible sketch of our theory of classification of the Borneans. The people whom we regard as the first immigrants to Borneo we term Kalamantan, typically a dolichocephalic

race of Indonesians ; at present they form a number of tribes and we suppose that they slowly filtered into Borneo in the remote past from various sources, but principally from the continent of Asia. When the country was occupied by the Kalamantan, there followed an immigration of Kenyahs, who mixed to a large extent with their Indonesian predecessors, so that at the present day it is a matter of the greatest difficulty to determine whether certain tribes are Kalamantan or Kenyah ; to obviate the difficulty we term such tribes Kenyah-Kalamantan. It is not probable that the Kenyahs arrived all at once but rather it is likely that their immigration was spread over a considerable period of years, the main lines of invasion running up the principal rivers of eastern and south-eastern Borneo.

At some period—say one hundred years—after the last of the Kenyah immigrations, there followed up the same rivers the Kayan race, who are characterised by a low brachycephaly. By this time the Kalamantan tribes, which had not amalgamated with the Kenyahs, had been driven towards the head waters of the main rivers and the new pressure from without forced them still further inland. The Kenyah fared better at the hands of the new arrivals and inter-marriage doubtless frequently occurred, with the result that many Kenyah tribes of to-day are, superficially at any rate, extremely like the Kayans. These Kenyahs and the Kayans we bracket together under a third heading—Kenyah-Kayan. The wave of immigration still continuing to flow in from the east, the Kenyahs and Kayans swept over the great watershed of Borneo between Sarawak and Dutch Borneo and down the Rejang and Baram Rivers of Sarawak. Last of all came the Sea Dayak, a brachycephalic Malayan ; advancing up the Kapuas from the south-west he drove all before him and overflowed into the Batang Lupar and adjacent rivers of Sarawak, where to this day he remains in great force. Within quite recent years the Sea Dayaks have migrated also from the Batang Lupar *up* the Rejang and the Baram Rivers driving back the Kenyahs and Kayans who had moved *down* into those districts from the interior. At the present day the following features in the distribution of the tribes are salient :—In British North Borneo and in the extreme west of Sarawak the tribes are without exception Kalamantan ; in these two parts of the island there are no great rivers, and this geographical feature seems to have afforded shelter to the present inhabitants of these areas, for the great waves of immigration must have flowed up the great rivers of Borneo, not up the small ones. The other Kalamantan tribes are scattered throughout the rest of Borneo, but for the most part are situated in the interior highlands watered by the upper tributaries of the large rivers ; the Kalamantans nearer the coast and on the coast, such as the Milanos, are, to use a geological term, outliers that still stand up clear from the surrounding strata of a later age. Such are the Sru, the only Kalamantans in the Sea Dayak headquarters, the Tanjong of the Rejang river, the Narom and Miri from near the mouth of the Baram river, and many others which could be cited.<sup>1</sup>

<sup>1</sup> No doubt some of these tribes have been driven over the watershed of Borneo and down the Sarawak rivers by the Kenyah-Kayan advance.

Between the interior highlands occupied by the Kalamantans and the sea, lie the Kenyah and the Kayan tribes, the former as a rule nearer the head waters than the latter, but these tribes in turn have been pushed up-country in the Baram and Rejang Rivers and to a certain extent in the Kapuas river by the Sea Dayak. It is not so long ago that there were no Sea Dayaks in the Rejang and Baram, but now in the former river there are none but Sea Dayaks for 150 miles and more from the river mouth, whilst in the latter the Sea Dayak is encroaching more and more upon the Kayan-Kenyah domains.

The following table expresses our ideas of classification more succinctly :—

I. Kalamantan ...	Typically dolichocephalic Indonesians.	N.E. Borneo, W. Borneo, interior highlands, "outliers."
II. Kenyah-Kalamantan	Dolichocephalic and low brachycephalic.	Interior highlands of Central Borneo.
III. Kenyahs and Kayans	Low brachycephalic ...	Mid regions between coast and highlands, secondarily driven back in Rejang and Baram rivers towards highlands.
IV. Sea Dayaks ...	Brachycephalic Proto-Malays	Batang Lupar, Saribas etc., Rejang, Baram, Kapuas (lower reaches and near Sarawak frontier).
V. Malays ...	Brachycephalic ...	Coasts and towns.

Other systems of classification have been published by Dr. A. C. Haddon<sup>1</sup> and by Dr. J. H. F. Kohlbrügge and Dr. A. Nieuwenhuis.<sup>2</sup> Dr. Nieuwenhuis has also communicated to us by letter his later views on the subject. It is of interest to find that the systems coincide to a great extent, such differences as occur being differences of minor importance. The following table illustrates this :—

Hose and Shelford.	Haddon.	Kohlbrügge.	Nieuwenhuis (1903).	Nieuwenhuis (1905).
	Punan ...	—	Punan, Bekatan ...	—
Kalamantan ...	Kalamantan	Ot Danum, Ulu Ajar.	Ot Danum, Ulu Ajar.	Ot Danum, Ulu Ajar, etc.
Kenyah-Kalamantan	—	—	—	—
Kenyah and Kayan ...	Kenyah Kayan.	Kayan and Punan.	Bahau-Kayan ...	Bahau-Kayan.
Sea Dayak ...	Sea Dayak (Iban.)	—	—	Sarawak Dayaks of Batang Lupar and other rivers.
Malay ...	Malay ...	Malay ...	Malay ...	Malay.

<sup>1</sup> *Arch. per l'Anthropol. l'Etnol.*, vol. xxxi, 1901.

<sup>2</sup> *Mitt. Nederl. Reichsmus. f. Völkerkunde*, Ser. 2, No. 5, 1903.

The Punan we consider to be Kalamantans in spite of a low brachycephalic element amongst them; after all, only thirty-five individuals have been measured and it is quite likely that further measurements would show a much more pronounced dolichocephalic element. Dr. Kohlbrügge compares the Punan and Kayans to the Javanese, the Ulu Ajar to the dolichocephalic Indonesians of the mountain regions of Java (Tenggerese); whilst Dr. Nieuwenhuis places the former in a class distinct from the Kayans on ethnographical grounds. The Ot Danum and Ulu Ajar are merely Kalamantans of a certain area. As no Sea Dayaks were measured by Dr. Nieuwenhuis during the course of his travels, they do not enter into his scheme of classification of 1903, nor into that of Dr. Kohlbrügge, who studied only the actual measurements taken by the Dutch savant. In brief, all the five schemes recognise a dolichocephalic race of Indonesians, a brachycephalic race of Malayans or Proto-Malays, and intermediate tribes, over whose exact position we must continue to argue until further material for study is to hand.

The practice of tatu is so widely spread throughout Borneo that it seems simpler to give a list of the tribes that do not tatu, than of those who do. We can divide such a list into two sections; the first including those tribes that originally did not tatu, though nowadays many individuals are met with whose bodies are decorated with designs copied from neighbouring tribes; the second including the tribes that have given up the practice of tatu owing to contact with Muhammadan and other influences.

- A. 1. Punan.
- 2. Maloh.
- 3. Land Dayak.
- B. 4. Milano (Muhammadans).
- 5. Miri.
- 6. Dali.
- 7. Narom.
- 8. Sigalang } (down-river tribes of Ukit stock).
- 9. Siduan }
- 10. Tutong.
- 11. Balait.
- 12. Bekiau (traces of a former practice of tatu occasionally found).
- 13. Bisaya.
- 14. Kadayans (Muhammadans).

The patterns once employed by the tribes included in the second section of this list are lost beyond recall, and most of the tribes have adopted Malay dress and to some extent Malay customs. The Land Dayaks display absolute ignorance of tatu, and aver that they never indulged in the practice; Maloh and Punan men ornamented with Kayan tatu designs we have often encountered, but they have

no designs of their own and attach no special significance to their borrowed designs.<sup>1</sup>

We may note here that the ornamentation of the body by means of raised scars and keloids is not known in Borneo. Both men and women of several tribes will test their bravery and indifference to pain by setting fire to a row of small pieces of tinder placed along the forearm, and the scars caused by these burns are often permanent, but should not be mistaken for decorative designs. Carl Bock (2, Plate 16)<sup>2</sup> figures some Punan women with rows of keloids on the forearms, but states (p. 71) that these are due to a form of vaccination practised by these people.

The Kayans are, with one or two exceptions, the most tatued race in Borneo, and perhaps the best tatued from an artistic point of view; the designs used in the tatu of the men have been widely imitated and much ceremonial is connected with the tatu of the women, an account of which we give below. Generally speaking, the true Kalamantan designs are quite simple, and it is noteworthy that although the Kenyah tribes most nearly akin to Kayan tribes have borrowed the Kayan tatu patterns, the majority of Kenyah-Kalamantan tribes employ quite simple designs, whilst the primitive Kenyahs of the Batang Kayan River hardly tatu at all. A remarkable exception to the general simplicity of the Kalamantan patterns is furnished by the Ukits, Bakatan, and Biadjau, who tatu very extensively in the most complex designs; the Long Utan, an extinct tribe, probably of Kalamantan stock, also used highly decorative and complex designs. Since so many tribes owe much of their knowledge of tatu and the majority of their designs to the Kayans, it will be well to commence with an account of the art of tatu as practised by these people.

#### i. *Kayan tatu.*

Dr. Nieuwenhuis [9, p. 450] agrees with us in stating that amongst these people, the men tatu chiefly for ornament, and that no special significance is attached to the majority of designs employed; nor is there any particular ceremonial or tatu connected with the process of tatuing the male sex. There is no fixed time of life at which a man can be tatued, but in most cases the practice is begun early in boyhood. Nieuwenhuis [9, p. 456] remarks that the chiefs of the Mendalam Kayans scarcely tatu at all.

Amongst the Sarawak Kayans, if a man has taken the head of an enemy he can have the backs of his hands and fingers covered with tatu (Plate XI, Fig. 1), but if he has only had a share in the slaughter, one finger only, and that generally the thumb, can be tatued. On the Mendalam River, the Kayan braves are tatued on the left thumb only, not on the carpals and backs of the fingers, and the thigh pattern is also reserved for head-taking heroes [9, p. 456].

<sup>1</sup> Nieuwenhuis also notes (9, p. 451) that men in the course of their travels amongst other tribes permit themselves to be tatued with the patterns in vogue with their hosts.

<sup>2</sup> These figures refer to the bibliography given on p. 88.

Of the origin of tatu the Kayans relate the following story:—Long ago when the plumage of birds was dull and sober, the coucal (*Centropus sinensis*) and the argus pheasant (*Argusianus grayi*) agreed to tatu each other; the coucal began on the pheasant first, and succeeded admirably as the plumage of the pheasant bears witness at the present day; the pheasant then tried his hand on the coucal, but being a stupid bird he was soon in difficulties, and, observing that he would fail miserably to complete the task, he took the black dye and, having smeared it all over his friend, told him to sit in a bowl of *samak* tan, and, when the coucal did as he was told, flew off remarking that the country was full of enemies, and, therefore, he could not stop; and that is why the coucal to this day has a black head and neck with a tan-coloured body. Nieuwenhuis [9, p. 456] relates substantially the same story, the crow (*Corone macrorhynchus*), however, being substituted for the coucal and the incident of the bowl of *samak* tan omitted.

Kayan men have isolated designs tatued on the following parts of the body:—The outside of the wrist, the flexor surface of the forearm, high up on the outside of the thigh, on the breasts and on the points of the shoulders, and, as already stated, in the case of warriors on the backs of the hands and fingers. It is not an invariable rule, however, that a man should be tatued on all these parts of the body. The design tatued on the wrists (Plate IX, Figs. 8–10) is termed *lukut*, i.e., an antique bead much valued by Kayans, and the significance of the designs is of some interest. When a man is ill, it is supposed that his soul has escaped from his body, and when he recovers it is supposed that his soul has returned to him; to prevent its departure on some future occasion the man will “tie it in” by fastening round his wrist a piece of string on which is threaded a *lukut*<sup>1</sup> or antique bead, some magic apparently being considered to reside in the bead. However, the string can get broken and the bead lost, wherefore it seems safer to tatu a representation of the bead on the part of the wrists which it would cover if actually worn. It is of interest also to note that the *lukut* from having been a charm to prevent the second escape of the soul has come to be regarded as a charm to ward off all disease, and the same applies to its tatued representation.

A design just below the biceps of a Punan tatued in the Kayan manner is shown on Plate XII, Fig. 10, and I was informed by the Punan that this also was a *lukut*, an excellent example of the indifference paid to the significance of design by people with whom such design is not indigenous.

On the forearm and thigh the *udoh asu* or dog pattern is tatued, and four typical examples are shown on Plate X, Figs. 1, 2, 5, 6. Nieuwenhuis has figured a series of these designs [9, Plate 82]<sup>2</sup> showing a transition from a very elongate animal form to a rosette form; we have never met with the first amongst Sarawak

<sup>1</sup> The Sea Dayaks often employ for the same reason a carpal bone of the mouse-deer (*Tragulus*).

<sup>2</sup> See also Haddon (4, Fig. 2), and Nieuwenhuis (8, Plates XXV and XXVI); the designs figured in the latter work are not very easy to interpret, the lower of the two rosette figures looks as if it was derived from four heads of dogs fused together. See also Ling Roth (7, p. 85).

Kayans, but it is a characteristic thigh design amongst the Mendalam Kayans; the forms numbered *b* and *c* are unusual in Sarawak. Of the four examples here given—and it may be noted that these met with the high approval of expert tatu artists—Figs. 1, 2 and 5, may be considered as intermediate between Nieuwenhuis' very elongate example *f* and the truncated form *e* which is supposed to represent the head only of a dog. Fig. 2 is characteristic of the Uma Balubo Kayans, and is remarkable in that teeth are shown in both jaws; whilst, both in this example and in Fig. 5, the eye is represented as a disc, in Figs. 1 and 6 the eye is assuming a rosette-like appearance, which rosette, as Nieuwenhuis' series shows, is destined in some cases to increase in size until it swallows up the rest of the design. Fig. 6 may be compared with Nieuwenhuis, Fig. *e*, as it evidently represents little more than the head of a dog. Although a single figure of the dog is the most usual form of tatu, we have met with an example of a double figure; it is shown in



FIG. 1.

Fig. 7; it will be observed that one of the dogs is reversed and the tails of the two figures interlock. Fig. 8 represents a dog with pups, *tuang nganak*; A is supposed to be the young one.

The dog design figures very prominently in Kayan art, and the fact that the dog is regarded by these people and also by the Kenyahs with a certain degree of veneration may account for its general representation. The design has been copied by a whole host of tribes, with accompanying degradation and change of name.

On the deltoid region of the shoulders and on the breasts, a rosette or a star design is found (text, Figs. 1 and 2). As already stated, it seems in the highest degree probable that the rosette is derived from the eye in the dog pattern, and it is consequently of some interest to find that the name now given to the rosette pattern is that of the fruit of a



FIG. 2.

plant, which was introduced into Borneo certainly within the last fifty or sixty years. The plant is *Plukenetia corniculata*, one of the Euphorbiaceae, and it is cultivated as a vegetable; its Kayan name is *jalaut*. We have here a good example of the gradual degradation of a design leading to a loss of its original significance and even of its name, another name, which originated probably from some fancied resemblance between pattern and object, being applied at a subsequent date. *Ipa*

*olim*, i.e., open fruit of a species of *Mangifera*, is another name occasionally applied to the rosette pattern, but *jalaut* is in more general use (cf. Plate X, Fig. 4, Plate XI, Fig. 7 and Plate XII, Fig. 9).

On Plate XI, Fig. 1, is shown the hand of a Skapan tatued in the Kayan

<sup>1</sup> Cf. Hose and McDougall, *Journ. Anth. Inst.*, vol. xxxi, 1901, p. 187.

manner by a Kayan; the figures on the phalanges are known as *tegulun*,<sup>1</sup> representations of human figures or as *silong*, faces, and they are evidently anthropomorphic derivatives. The triangles on the carpal knuckles are termed *song irang*, shoots of bamboo, and the zig-zag lines are *ikor*, lines.

Kayan women are tatued in complicated serial<sup>2</sup> designs over the whole forearm, the backs of the hands, over the whole of the thighs and to below the knees, and on the metatarsal surfaces of the feet. The tatuing of a Kayan girl is a serious operation, not only because of the considerable amount of pain caused, but also on account of the elaborate ceremonial attached to this form of body ornamentation. The process is a long one, lasting sometimes as much as four years, since only a small piece can be done at a sitting and several long intervals elapse between the various stages of the work. A girl when about ten years old will probably have had her fingers and the upper part of her feet tatued, and about a year later her forearms should have been completed; the thighs are partially tatued during the next year, and in the third or fourth year from the commencement the whole operation should have been accomplished.

A woman endeavours to have her tatu finished before she becomes pregnant, as it is considered immodest to be tatued after she has become a mother. If a woman has a severe illness after any portion of her body has been tatued, the work is not continued for some little time; moreover, according to Nieuwenhuis (9, p. 453), a woman cannot be tatued during seed time nor if a dead person is lying unburied in the house, since it is *pemali* to let blood during these occasions; bad dreams, such as a dream of floods, foretelling much blood letting, will also interrupt the work. A tatued woman may not eat the flesh of the monitor lizard or *kavok* (*Varanus spp.*) nor the scaly manis or *ān* (*Manis javanica*), and if she happens to have a husband he also is included in the tabu until the pair have a male and a female child. If they have a daughter only they may not eat the flesh of the monitor until their child has been tatued; if they have a son only they cannot eat the monitor until they become grandparents. Should a girl have brothers, but no sisters, some of her tatu lines must not be joined together, but if she has brothers and sisters, or sisters only, all the lines can be joined.

Tatu amongst Kayan women is universal, they believe that the designs act as torches in the next world, and that without these to light them they would remain for ever in total darkness; one woman told Dr. Nieuwenhuis that after death she would be recognised by the impregnation of her bones with the tatu pigment; as

<sup>1</sup> In ancient days when a great Kayan or Kalamantan chief built a new house, the first post of it was driven through the body of a slave; this sacrifice to a tutelary deity is no longer offered, but a human figure is frequently carved on the post of a house and may be a relic of the old custom; the figure is called *tegulun*. Sea Dayak anthropomorphs are termed *engkramba* and appear in cloths and bead-work designs, also in carvings on boundary marks, witch doctor's baskets, etc.

<sup>2</sup> We apply the term *serial* to those designs in which the units of the pattern are repeated, or in which the units follow each other in serial order; the *udoh asu* on a Kayan man's thigh is an *isolated* design, but the design on his hands is a *serial* design.



amongst the Kayans the bones of a deceased person are placed some time after death in a grave, Dr. Nieuwenhuis' informant evidently imagined that her tatu would obviate all risk of the confusion of her remains with another's. The operation of tatuing is performed by women, never by men, and it is always the women who are the experts on the significance and quality of tatu designs, though the men actually carve the designs on the tatu blocks. Nieuwenhuis states (9, p. 452) that the office of tater is to a certain extent hereditary and that the artists, like smiths and carvers, are under the protection of a tutelary spirit, who must be propitiated with sacrifices before each operation. As long as the children of the artist are of tender age, she is debarred from the practice of her profession. The greater the number of sacrifices offered, or in other words the greater the experience of the artist, the higher is the fee demanded. She is also debarred from eating certain food. It is supposed that if an artist disregard the prohibitions imposed upon her profession, the designs that she tatus will not appear clearly, and she herself may sicken and die. Sometimes women become tatu artists in order to get cured of a sickness; the priestess, who in Kayan houses is a healer of the sick, as a last resort may advise her patient to place herself under the care of Apu Lagan, the tutelary spirit of tatu artists, by actually becoming a tatu artist.

The tools used by a tatu artist are simple,<sup>1</sup> consisting of two or three prickers, *ulang* or *ulang brang*, and an iron striker, *tukun* or *pepak*, which are kept in a wooden case, *bungan*. The prickers are wooden rods with a short pointed head projecting at right angles at one end; to the point of the head is attached a lump of resin in which are embedded three or four short needles, their points alone projecting from the resinous mass. The striker is merely a short iron rod, half of which is covered with a string lashing. The pigment is a mixture of soot, water, and sugar-cane juice, and it is kept in a double shallow cup of wood, *uit ulang*; it is supposed that the best soot is obtained from the bottom of a metal cooking pot, but that derived from burning resin or dammar is also used. The tatu designs are carved in high relief on blocks of wood, *kelingé*,<sup>2</sup> which are smeared with the ink and then pressed on the part to be tatued, leaving an impression of the designs. As will be seen later the designs tatued on women are in longitudinal rows or transverse bands, and the divisions between the rows or bands are marked by one or more zigzag lines termed *ikor*.

The subject who is to be tatued lies on the floor, the artist and an assistant squatting on either side of her<sup>3</sup>; the artist first dips a piece of fibre from the sugar palm (*Arenga saccharifera*) into the pigment and, pressing this on to the limb to be tatued, plots out the arrangement of the rows or bands of the design; along these straight lines the artist tatus the rows of *ikor*, then taking a tatu block carved with the required design, she smears it with pigment and presses it on to the limb

<sup>1</sup> Cf. Ling Roth (7, p. 34) and Nieuwenhuis (9, Plate 32).

<sup>2</sup> The Sea Dayak word *telingai* or *kelingai* has the same meaning.

<sup>3</sup> Furness (3, Plate, p. 152), Nieuwenhuis (9, Plate 77).

between two rows of *ikor*. The tatuer or her assistant stretches with her feet the skin of the part to be tatued, and, dipping a pricker into the pigment, taps its handle with the striker as she works along a line, driving the needle points into the skin. The operation is painful, and the subject can rarely restrain her cries of anguish, but the artist is always quite unmoved by such demonstrations of woe, and proceeds methodically with her task. As no antiseptic precautions are ever taken, a newly tatued part often ulcerates, much to the detriment of the tatu, but taking all things into consideration it is wonderful how seldom one meets with a tatu pattern spoilt by scar tissue.

It is considered bad luck to draw the blood of a friend (*pesu daha*) and therefore, when first blood is drawn in tatuing, it is customary to give a small present to the artist; the present takes the form of four antique beads or some object worth about one dollar and is termed *lasat mata*, for it is supposed that if it were omitted the artist would go blind and some misfortune would happen to the parents and relations of the girl undergoing the operation of tatu.

When the half of one *ikor* has been completed the tatuer stops and asks for *selivit*; this is a present of a few beads, well-to-do people paying eight yellow beads of the variety known as *lavang*, valued at one dollar apiece, whilst poor people give two beads. It is supposed that if *selivit* was not paid the artist would be worried by the dogs and fowls that always roam about a Kayan house, so that the work would not be satisfactorily done; however, to make assurance doubly sure, a curtain is hung round the operator and her subject to keep off unwelcome intruders. After *selivit* has been paid a cigarette is smoked, and then work recommences in earnest, there being no further interruptions for the rest of the day except for the purpose of taking food. The food of the artist must be cooked and brought to her, as she must not stop to do other work than tatuing, and her tools are only laid aside for a few minutes whilst she consumes a hurried meal. Fowls and pigs are killed for the artist by the parents of the girl who is being tatued. The fees paid to the artist are more or less fixed; for the forearms a gong, *tawak*, worth from eight to twenty dollars, according to the workmanship required, is paid; for the thighs a large *tawak* is paid, worth as much as sixty dollars if the very best workmanship is demanded, from six to twenty dollars if only inferior workmanship is required.<sup>1</sup> For tatuing the fingers the operator receives a *parang* or short sword, known as *kam hing*. Nieuwenhuis (8, p. 236) states that it is supposed that the artist will die within a year if her charges are excessive, but we have not met with this belief amongst the Kayans of the Rejang and Baram Rivers.

The knee-cap is the last part to be tatued, and before this is touched the artist must be paid; as this part of the design is the keystone, as it were, of the whole, the required fee is always forthcoming. A narrow strip down the back of

<sup>1</sup> The prices in the Baram River are much higher than in the Mendalam, where a gong can only be demanded by an artist of twenty years' experience; less experienced artists have to be content with beads and cloth (9, p. 452).

the thigh is always left untatued; it is supposed that mortification of the legs would ensue if this strip was not left open.

The time at which to begin tatuating a girl is about the ninth day after new moon, this lunar phase being known as *butit halap*, the belly of the *halap* fish (*Barbus bramoides*); as the skin of the girl being tatued quickly becomes very tender, it is often necessary to stop work for a few days, but it is a matter of indifference at what lunar phase work recommences, so long as it was originally begun at *butit halap*.

A Kayan chief of the Mendalam River informed Dr. Nieuwenhuis [9, p. 455] that in his youth only the wives and daughters of chiefs were permitted the thigh tatu, women of lower rank had to be content with tatu of the lower part of the shin, the ankles and feet. The designs were in the form of quadrangular blotches divided by narrow untatued lines, and were known as *tedak danau*, lake tatu. The quadrangles were twelve in number, divided from each other by four longitudinal and two transverse untatued lines, 6 millimetres broad, two of the longitudinal lines running down each side of the front of the leg, and two down each side of the calf, approximately equidistant; the forearm was tatued in the same style. This manner of tatu is obsolete now, and Dr. Nieuwenhuis was fortunate in finding one very old woman so tatued.

Nowadays the class restrictions as regards tatu are not so closely observed, but it is still possible to distinguish between the designs of a chief's daughter, an ordinary free-woman and a slave, by the number of lines composing the figures of the designs, the fewer these lines, the lower being the rank of the woman. Moreover the designs of the lower-class women are not nearly so complex as those of the higher-class, and they are generally tatued free-hand.

A very typical design for the forearm of a woman of high rank is shown on Plate X, Fig. 3; it is taken from a Kayan of the Uma Pliau sub-tribe dwelling on the Baram River, and may be compared with the somewhat similar designs of the Mendalam River Kayans figured by Nieuwenhuis [9, Plate 85] one of which is a design for a chief's daughter, the other for a slave. The zigzag lines bounding the pattern on both surfaces of the forearm are the *ikor*, i.e., lines, and these, as already stated, are marked out with a piece of fibre dipped in the tatu ink before the rest of the pattern is impressed by a wood-block or *klingé*. Taking the flexor surface of the forearm first, the units of the design are:—three bands of concentric circles (A A A) termed *beliling bulan* or full moons; a triangle (B), each limb formed by several parallel lines, *dulang harok*, the bows of a boat; spirals (C C) *ulu tinggang*, the head of the hornbill. On the supinator surface *beliling bulan* and *ulu tinggang* occur again, but instead of *dulang harok*, there are two other elements, a bold transverse zigzag known as *dawn wi* (D) bamboo leaves, and at the proximal end of the pattern an interlacing design, *tushun tuva* (E) bundles of tuba root (*Derris elliptica*). The juice obtained by pounding up with water the tuba root is used for stupefying fish, which are then speared; tuba-fishing is a popular sport amongst all Borneans, and bundles of the dried root are to be found in most houses, kept in readiness for the next occasion. Furness

[3, p. 150] suggests that as tuba-fishing is a feminine sport, this may account for the tuba-root design in female tatu, but the suggestion is too wild for serious consideration; we give reasons for another origin of the design below (p. 75). The fingers are very simply tatued with a zigzag on the carpal knuckles and transverse lines across the joints; the thumb is decorated in a slightly different way. In Dr. Nieuwenhuis' designs cited above, we find much the same elements; in one of them the *beliling bulan* are more numerous and more closely set together, so that the concentric circles of one set have run into those of the next adjoining, the *tushun tuva* pattern is termed *poesoeng*, evidently the same as *tushun*, the spirals are much degraded in one example and are called *krowit*, or hooks, whilst in the more elaborate example they are known as *manok wak*, or eyes of the *Scops* owl; the *pedjako* pattern is an addition, but the meaning of the word is not known; the pattern on the fingers is much more complex than in the Uma Pliau example, and is perhaps a degraded hornbill design. Furness [3, Plate, pp. 148 and 150] figures the arms of Kenyah women of the Baram River; the tatu designs are practically the same as with the Uma Pliau, and are evidently direct copies.

Nieuwenhuis [8, Plate XXIV] figures the hand of a low-class woman tatued with triangular and quadrangular blotches, and with some rude designs that appear to have been worked in free-hand.

On Plate X, Fig. 1, is shown the design on the forearm of a high-class woman of the Uma Lekan Kayans of the Batang Kayan River, Dutch Borneo; in our opinion these elegant designs are quite in the front rank of the tatu designs of the world. In spite of the elaboration, it is quite possible to distinguish in these, the same elements as in the Uma Pliau specimen, viz.: *beliling bulan*, *ulu tinggang*, *dawn wi* and *tushun tuva*, but the *dulang harok* is absent.

Nieuwenhuis [9, Plate 93, b] figures the arm-tatu (supinator surface only) of a Kayan woman of the Blu-u River, a tributary of the Upper Mahakkam; the main design is evidently a hornbill derivative, the knuckles are tatued with quadrangular and rectangular blotches. The hornbill plays an important part in the decorative art of the Long Glat, a Kenyah-Kelamantan tribe of the Mahakkam River, and we suspect that, if these Blu-u Kayans are of true Kayan stock, they have borrowed the hornbill design from their neighbours.

With regard to the thigh patterns, it is usual to find the back of the thigh occupied with two strips of an intersecting line design, or some modification thereof; the simplest form is shown on Plate VIII, Fig 1; it is known as *ida telo*, the three-line pattern, and is used by slaves; a more elaborate example from the Rejang River is shown in Fig. 3, and is used both by slaves and free-women. Plate VIII, Fig. 2, and Plate IX, Fig. 6, are termed *ida pat*, the four-line pattern and are for free-women, not for slaves. The latter figure is a combination of *ida pat* and *ida telo*. The wives and daughters of chiefs would employ similar designs with the addition of another line, when they are termed *ida lima*, the five-line pattern, or else a design known as *ida tuang*, the underside pattern, two examples

of which are given on Plate IX, Figs. 1 and 2. If these two latter designs are compared with the hornhill design of the Long Glat, a figure of which, taken from Nieuwenhuis [9, Plate 86] is given (Plate IX, Fig. 3) a certain similarity in the *motif* of the designs can be recognised. It must be remembered that the Long Glat design is tatued in rows down the front and sides of the thigh, whilst these Kayan designs have been modified to form more or less of a sinuous line design for the back of the thigh; or, in other words, the hornbill elements in the Long Glat design, though they are serially repeated, are quite separate and distinct one from the other, whilst in the Kayan designs the hornbill elements are fused and modified to produce the sinuous line pattern that in one form or another is generally employed for the decoration of the back of the thigh. In this connection Plate IX, Fig. 5, is instructive; it is taken from a tatu-block which, together with those from which Figs. 1 and 2 are taken, was collected many years ago by Mr. Brooke Low, amongst the Kayans of the Upper Rejang; it also appears to be a hornbill derivative, and no doubt was used for the tatu of the front of a woman's thigh,<sup>1</sup> being serially repeated in three or four rows as with the Long Glat. Yet it was unknown as a tatu design to some Kayans of the Baram River to whom it was shown recently; they informed us that the name of the design was *tuang buvong asu*, pattern of dog without tail, and they stated that a somewhat similar design was engraved by them on sword blades. Plate IX, Fig. 4, is taken from a tatu-block of uncertain origin, and the same name was also applied to this by the Baram Kayans, though with some hesitation and uncertainty; the hornbill *motif* is here quite obvious.

Though apparently obsolete in Sarawak, the hornbill design is still to be found amongst the Uma Lekan<sup>2</sup> of the Batang Kayan. Nieuwenhuis [9, Plate 96] figures a fine example of thigh tatu from these people, in which the front of the thigh is covered with four rows of a figure almost the same as Fig. 5, and the back of the thigh is covered not with a line design, but with another modification of the hornbill design. Nieuwenhuis considers this to be a dog *motif*, but, whilst we would not be positive about the figures on the back of the thigh, we feel sure that those on the front are modified hornbill *motifs*. We have here, perhaps, an example of an animal *motif* being modified into another animal form, with a consequent change of name.

Dr. Nieuwenhuis is very positive that the hornbill element is a characteristic

<sup>1</sup> The wooden block is carefully cut square and the design occupies the whole of one surface; this is characteristic of the blocks of female designs, whereas designs for male tatu are carved on very roughly shaped blocks and do not always occupy the whole of one surface. Since the female designs have to be serially repeated it is important that the blocks should be of the exact required size, otherwise the projecting parts of the uncarved wood would render the exact juxtaposition of the serially repeated impressions very difficult, whilst the isolated male designs can be impressed on the skin in a more or less haphazard way.

<sup>2</sup> Nieuwenhuis regards these people as Kenyahs; one of us, as a result of a long acquaintance with the tribe, is positive that they are Kayans. The method of the thigh tatu is quite diagnostic, no Kenyah tribes tatu in this manner on the thighs. Uma Lekan women like all other Kayans must have their tatu completed before marriage.

feature of Long Glat decorative art, and equally positive that the Kayans have borrowed some of their designs from the Long Glat<sup>1</sup>; it seems then likely that the Kayans whilst owing some of their tatu designs to the Long Glat, have not merely slavishly copied them, but have modified them; thus the Long Glat hornbill *motif* has been changed by the Kayans into a semblance of the most important *motif* in Kayan art, the dog, and with the change in form, has gone a change in name, so that to-day the Baram and Uma Lekan Kayans term a design springing from a hornbill *motif*, *buvong asu*, or tailless dog. On Plate 97 of the above cited work is figured another form of thigh tatu, the front of the thigh being covered with a scroll design, the back of the thigh with a form of *ida tuang*, in which it is just possible to distinguish the hornbill heads, that have here become separated from the lines, lying in the spaces formed by the diverging of the lines; the modification is an interesting one, and we reproduce part of Nieuwenhuis' figure to illustrate it (Plate IX, Fig. 11). These two thigh patterns are peculiar in that on the outside they extend right up on to the buttock; the different bands of the pattern are separated by rows of *ikor*, as is almost universal in Kayan tatu; the knee-cap pattern is very remarkable and quite different from the Mendalam Kayan type.

We have stated that an interlacing line design is generally employed for the back of the thigh; we figure, however, a remarkable exception from the Baloi River (Plate X, Fig. 5); this is known as *kalong kowit*, hook pattern; A is a representation of an antique bead, *balalat lukut*, B is known as *kowit*, hooks.

Between the two strips of line design at the back of the thigh runs a narrow line of untatued skin, the supposed object of which has been described above.

The front and sides of the thigh in high-class women will be covered with three or more strips of pattern such as are shown on Plate VIII, Figs. 4 and 5; in the latter *tushun tuva*, *dulang harok*, *ulu tinggang* and *beliling bulan* can again be recognised; the *ulu tinggang* in this example are less conventionalised than in the spirals of the forearm pattern, and a spiral form of *tushun tuva* is shown in addition to the angular form. The other example exhibits *ida lima*, *tushun tuva jalaut*, *kowit* (the interlocking spirals) and *ulu tinggang*. All these strips of pattern are separated by the *ikor*. The knee-cap is the last part of the leg to be tatued and the design covering it is called the *kalong nang*, the important pattern, a good example of which is shown in text, Fig. 4; Fig. 6 represents the design on the front and sides of the thigh of an Uma Semuka Kayan of the slave class, which also is termed *tushun tuva*.

The admirable Uma Lekan patterns (Plate X, Fig. 2) represent on the back of the thigh (AA) *beliling bulan*, on the front and sides (BB) *silong*, faces or *silong lejanu*, tigers' faces; the latter is evidently an anthropomorph; the knee-cap design is

<sup>1</sup> He states (9, p. 462) that the Kayan women borrow tatu-blocks (*klingé tedak*) from the Long Glat, although the men of their own tribe can carve admirably; and again (p. 460), a chief's daughter wishing to have her legs tatued with a hornbill design, induced her father to fetch a tatu-block from the Long Glat.

particularly worthy of notice.<sup>1</sup> Nieuwenhuis [9, Plate 83, and 8, Plate XXVII] figures the thigh tatu of a Mendalam woman of the *panjin* or free-woman class; the back of the thigh is occupied by two strips of the four-line pattern, here termed *ketong pat*, and a somewhat crude anthropomorphic design, known as *kohong kelunan*, human head, covers the front and sides of the thigh (text, Fig. 3); the centre of the knee-cap is occupied by a very similar anthropomorph, known however as

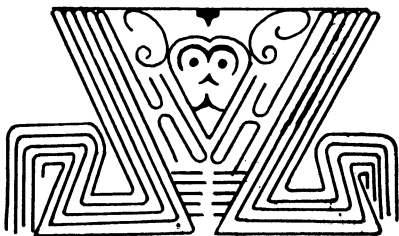


FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.

*nang klinge*, the important design, and extending in a semicircle round the upper part of it is a design made up of intersecting zigzags and known as *kalong nyipa*,

<sup>1</sup> The drawing is taken from a rubbing of a model carved by an Uma Lekan; this will account for the asymmetry noticeable every here and there throughout the design. A print from an actual tatu-block is shown in Plate IX, Fig. 7; this would be repeated serially in rows down the front, and sides of the thigh, so that absolute uniformity would be attained; the carver of the model, which was about one-sixth life size, has not been able to keep the elements of his design quite uniform.

the snake design; below the knee-cap is a transverse band of hour-glass shaped figures termed *pedjako*. Nieuwenhuis also figures [9, Plate 84] the thigh pattern of a chief's daughter from the same river; this only differs from the preceding example in the greater elaboration of the *kohong kelunan*; the back of the thigh is covered by a form of the *ida pat* pattern not by the *ida lima* pattern. Some of the tatu-blocks employed by the Mendalam Kayan women are figured in the same works [9, Plate 82, and 8, Plate XXVIII].

A comparison of the text figures here given lends strong support to the supposition that the tuba-root pattern is merely a degraded anthropomorph. Fig. 3 is a recognisable anthropomorph such as is tatued in rows on the thigh, and some such name as *tegulun*, *sihong* or *kohong* is applied to it. Fig. 4 is a knee-cap design, evidently anthropomorphic in nature, but termed *nang klinge*, the important design, since it is the last part of all to be tatued. Fig. 5 is termed *tushun tuva*, but a distinct face is visible in the centre of the pattern; the general similarity between this last design and the examples of *tushun tuva* shown in the designs on Plate VIII, Figs. 4 and 5, is quite obvious; the lower of the two *tushun tuva* designs in Fig. 5, Plate VIII, is composed of angular lines, thus reverting to the angularity of the lines in text, Fig. 3; at E, Fig. 3, Plate X, the lines are partly angular, partly curved and the bilateral symmetry is entirely lost; finally in text, Fig. 6, the relationship of the *tushun tuva* design to an anthropomorph is entirely lost.

A typical form of tatu on the foot of a low-class woman is shown on Plate VIII, Fig. 6; a chief's daughter would have some modification of the principal element of the thigh design tatued on this part.

The pattern shown on the thigh of a Kayan woman in the frontispiece of Dr. Furness's work [3] is unknown to us; the picture is suspiciously like a reproduction of a "touched-up" photo.

## ii. *Kenyah tatu.*

The majority of the Sarawak Kenyahs are closely allied to the Kayans and their tatu may be considered separately from that of the Kenyah-Kalamantan tribes whose tatu is much more original in design.

The men of such Kenyah tribes as the Leppu Jengan, Leppu Tau, Leppu Apong, etc., are tatued in the Kayan manner, that is, with some form of dog design on the forearms and thighs and with rosettes or stars on the shoulders and breasts. The dog design is usually known as *usang urang*, the prawn pattern; the teeth of the dog are held to represent the notched border of the prominent rostrum characteristic of the prawns of the genus *Palæmon*, that occur so plentifully in the fresh-water streams of Borneo. An extreme modification of the dog design to form a prawn is shown in Plate VII, Fig. 9; Plate VI, Fig. 4, is a dog design and is so termed. Plate VI, Fig. 10, is known as *toyu*, a crab; A is the mouth, *ba*; B the claw, *katip*; C the back, *likut*; D the tail, *ikong*. Plate VI, Fig. 9, is termed *iipan katip*, claws of the centipede (?). Text, Fig. 7, is *kowit*, hook pattern. All these are tatued on the flexor surface of the



forearm or on the outside of the thigh.<sup>1</sup> An example of a star design termed *usong dian*, durian pattern is shown in Plate XI, Fig. 7. The women of these tribes tatu in the same way and employ the same designs as the Kayans except that they never tatu on the thighs (*cf.* Furness [3 p. 150 Plate]). Amongst the Baram Kenyahs there appears to be no ceremonial connected with the process of tatuing.



FIG. 7.

### iii. *Kenyah Kalamantan tatu.*

Amongst this rather heterogeneous assemblage of tribes considerable diversity of tatu design is found. As a general rule the men are scarcely ever tatued, but when they are it is in the Kayan manner. The Peng or Pnihing once had an elaborate system of male tatu, but it is almost obsolete now, and the only example that we have met is shown on Plate XI, Fig. 2. This represents the arm of a Peng man, a drawing of which was made by Dr. H. Hiller, of Philadelphia; unfortunately we have no information as to the significance of the design. The only other Peng design that we are acquainted with is a large disc tatued on the calf of the leg. Dr. Nieuwenhuis states that Peng women are tatued with isolated dog designs on the arms and legs like the men of Kayan tribes [9, p. 461].

The women of the Leppu Lutong, a nearly extinct tribe of the Pata River, Baram district, exhibit a very primitive style of tatu on the arms and hands (Plate XI, Fig. 4); a broad band encircles the middle of the forearm and a narrow band an inch or so distant of this also surrounds the arm; from this narrow band there run over the metacarpals to the base of the fingers eight narrow lines, the outermost on the radial side bifurcating; the design is known as *betik allè* or line pattern. No other part of the body is tatued.

Nieuwenhuis figures [9, Plate 95] a somewhat similar design employed by the Uma Tow women of the Batang Kayan; but in this case, instead of eight longitudinal lines stopping short at the knuckles, there are five broad bands running to the finger nails, interrupted at the knuckles by a 2 cm.-broad strip of untatued skin. Moreover with these people the front and sides of the thigh and the shin are tatued with primitive looking designs made up of series of short transverse lines, curved lines, and broad bands; the names of the designs are not given; these designs are said to be characteristic of the slave-class, the higher-class women copying the more elaborate designs of the Uma Lekan.

Amongst the Batang Kayan Kenyahs tatuing can not be executed in the communal house, but only in a hut built for the purpose. The males of the family, to

<sup>1</sup> For other examples of modified *asu* designs employed by Kenyah tribes, see E. B. Haddon (4, pp. 117, 118).

which the girl undergoing the operation belongs, must dress in bark-cloth and are confined to the house until the tatu is completed; should any of the male members be travelling in other parts of the island, tatu cannot be commenced until they return. Amongst the Uma Tow the daughter of a chief must be tatued before any of the other females of the house; should the chief's daughter (or daughters) die before she has been tatued all the other women of the house are debarred from this embellishment. (Nieuwenhuis [9, pp. 453, 454].)

Nieuwenhuis in his great work on Borneo, which we have cited so often, gives a good account of the tatu of the Long Glat. According to this authority, girls when only eight years old have the backs of the fingers tatued, at the commencement of menstruation the tatu of the fingers is completed, and in the course of the following year the tatu is carried over the backs of the hand to the wrist; the feet are tatued synchronously with the hands. At the age of eighteen to twenty the front of the thigh is tatued and later on in life the back of the thigh; unlike the Kayans it is not necessary that the tatu of the thighs should be finished before child-bearing. A Long Glat woman on each day that she is tatued must kill a black fowl as food for the artist. They believe that after death the completely tatued women will be allowed to bathe in the mythical river Telang Julian and that consequently they will be able to pick up the pearls that are found in its bed; incompletely tatued women can only stand on the river-bank, whilst the untatued will not be allowed to approach its shores at all. This belief appears to be universal amongst the Kenyah Kalamantan of the Upper Mahakkam and Batang Kayan. On Plate 86 of Nieuwenhuis' book [9] is figured the thigh tatu of a Long Glat woman; the front of the thigh is occupied with two rows of the hornbill *motif* to which reference has already been made. The sides of the thigh are tatued with a beautiful design of circles and scrolls termed *kërip kwe*, flight feathers of the Argus pheasant, and on the back of the thigh is a scroll design borrowed from the decoration of a grave and known as *kalong song sepit*.<sup>1</sup> The knee is left untatued. Some other examples of the *kërip kwe* design are given on Plate 90, and of the *song sepit* on Plate 91; some of the *song sepit* designs recall the *kalong kowit* designs of the Baloi Kayans. Instead of a hornbill *motif*, a dog's head *motif* is sometimes tatued on the thigh, an example of which is figured on Plate 87, Fig. *a*; it appears to be a composition of four heads and in appearance is not unlike Uma Lekan *silong lejau*, figured by us. In the Long Glat thigh-tatu the bands of pattern are not separated by lines of *ikor*, as with the Kayans. Round the ankles the Long Glat tatu sixteen lines, 3 mm. broad, known as *tedak aking*; the foot is tatued much after the manner shown in our Fig. 6, Plate XIII. The supinator surface of the forearm and the backs of the hands are also tatued but the design does not extend so far up the arm as with the Kayans [9, Plate 92]; the forearm design is made up of a hornbill *motif*, but that shown in Fig. *a* of the plate is termed *betik kule*, leopard pattern, and is supposed to be a representation of the spots on the leopard's skin; it is stated to be taken from a

<sup>1</sup> The names of the designs are given in Kayan.

Long Tepai tatu-block; the knuckles are tatued with a double row of wedges, the finger joints with quadrangles.

The Uma Luhut seem to have borrowed their tatu and designs very largely if not entirely from the Long Glat; with them the back of the thigh is tatued before the front, which is exceptional. Half of the knee is tatued. Their designs are modifications of the hornbill and dog's head designs of the Long Glat. Nieuwenhuis figures several examples [9, Plate 87, Fig. *b*, Plate 88, Plate 89, Plate 93, Fig. *a*, Plate 94], which should be consulted as they are of the greatest interest.

The Long Wai seem to tatu in much the same way as the Uma Luhut [2, Plate, p. 189 and 7, p. 91].

#### iv. *Kalamantan tatu.*

A number of tribes have adopted more or less the tatu of the Kayans. Thus the men of the following Sarawak tribes, Sibops, Lirongs, Tanjongs, Long Kiputs, Barawans, and Kanowits are often, though not universally, tatued like Kayans. The shoulder pattern of the Barawans is distinctive, in that the rosette nearly always bears a scroll attached to it, a relic of the dog *motif*, from which the design is derived (Plate VIII, Fig. 6.) E. B. Haddon [4, Fig. 17] figures another form of the dog *motif*, which is tatued on the thigh or forearm, and Ling Roth [7, p. 86] figures three rosette designs for the breast; we figure two modifications of the dog design on Plate VII, Figs. 7 and 8. The women of these tribes very rarely tatu; we have seen a Tanjong woman with a circle of star-shaped figures round her wrist and one on the thumb. The Tring women of Dutch Borneo are tatued on the hands and thighs like Kayans; Carl Bock [2, Plate, p. 187] gives some poor figures of them. In our opinion all of these tribes owe their tatu entirely to foreign influences; for we have failed to find a single example of an original design; the practice is by no means universal, and great catholicity of taste is shown by those who do tatu. The men, moreover, do not tatu as a sign of bravery in battle or adventure, but merely from a desire to copy the more warlike Kayan.

We shall now treat of those tribes that have a distinctive and original tatu, but it is well to bear in mind, that amongst many of these people also the Kayan designs are coming into vogue more and more, ousting the old designs. No tatu-blocks are employed for the indigenous patterns, all the work being done free-hand.

(a) *Uma Long*.—The Uma Long women of the Batang Kayan exhibit the most primitive form of tatu known in Borneo. It differs from every other form in that the tatued surface of the skin is not covered uniformly with the ink, but the design, such as it is, is merely stippled into the skin, producing an appearance of close-set irregular dots. Two aspects of the forearm of an Uma Long woman are shown on Plate XII, Fig. 5. No other part of the body is tatued, and the practice is confined to the female sex.

(b) *Dusun*.—The men only tatu. The design is simple, consisting of a band, two inches broad, curving from each shoulder and meeting its fellow on the stomach

thence each band diverges to the hip and there ends; from the shoulder each band runs down the upper arm on its exterior aspect; the flexor surface of the forearm is decorated with short transverse stripes, and, according to one authority, each stripe marks an enemy slain [7, p. 90]. This form of tatu is found chiefly amongst the Idaan group of Dusuns; according to Whitehead [11, p. 106] the Dusuns living on the slopes of Mount Kina Balu tatu no more than the parallel transverse stripes on the forearm, but in this case no reference is made to the significance of the stripes as a head-tally. The Dusun women apparently do not tatu.

(c) *Murut*.—The Muruts of the Trusan River, North Sarawak, tatu very little; the men occasionally have a small scroll design just above the knee-cap and a simple circle on the breast; the women have fine lines tatued from the knuckles to the elbows [7, p. 93]. The Muruts of British North Borneo appear to be more generally tatued; the men are tatued like Dusuns, though, according to Hatton, they have three parallel stripes running from the shoulders to the wrists and no transverse lines on the forearm.<sup>1</sup> Whitehead [11, p. 76] figures a Murut woman of the Lawas river tatued on the arms from the biceps to the knuckles with numerous fine longitudinal lines; a band of zigzag design encircles the arm just above the commencement of the longitudinal lines. The design on a man of the same tribe is given on page 73 [11], it resembles "a three-legged dog with a crocodile's head, one leg being turned over the back as if the animal was going to scratch its ear." The part of the body on which the design was tatued is not specified and the sketch is rather inadequate, so that it is impossible to tell for certain whether the design was tatued in outline only or whether the outline was filled in uniformly; our impression is that the outline only was tatued on this individual and that it was employed either as an experiment or from idle amusement. Zoomorphs are conspicuous by their absence from all forms of decorative art amongst the Lawas Muruts, and the particular zoomorph noted here gives every evidence of an unpractised hand.

St. John states [7, p. 92] that the Muruts of the Adang River, a tributary of the Limbang, are tatued about the arms and legs, but he gives no details.

(d) *Kalabit*.—This tribe dwelling in the watershed of the Limbang and Baram Rivers are closely akin to Muruts, but their tatu is very different. The men tatu but rarely, and then with stripes down the arms. The women, however, are decorated with most striking geometrical designs, shown on Plate XII, Figs. 1–4. On the forearm are tatued eight bold zigzag bands, one-eighth of an inch broad, which do not completely encircle the arm, but stop short of joining at points on the ulnar side of the middle line on the flexor surface. The series of lines is known as *betik tisû*, the hand pattern. In some cases two short transverse lines, called *tipalang*, cross-lines, spring from the most distal zigzag at the point where it touches the back of the wrist on the radial side; in other cases these lines are tatued across the

<sup>1</sup> The same author states that "a sometime headman of Senendan had two square tattoo marks on his back. This was because he ran away in a fight, and showed his back to the enemy." The reason here given for the tatu marks is beyond belief.

middle of the back of the wrist and two lozenges are tatued on the metacarpals; these are known as *teparat itu* (Plate XII, Fig. 1). The legs are tatued on the back of the thigh, on the shin, and sometimes on the knee-cap. The designs can best be explained by a reference to Plate XII, Figs. 2 to 4; the part of the design marked A is termed *betik buah*, fruit pattern; B, *betik lawa*, trunk pattern; and C, *betik lulud*, shin pattern. In Fig. 4, A and C are as before; D is *betik karawin*; E, *ujat batu*, hill-tops; F, *betik kalang* (Fig. 3).

Kalabit women are tatued when they are sixteen years old, whether they are married or unmarried, and the operation does not extend over a number of years as with the Long Glat and Kayans, nor is any elaborate ceremonial connected with the process.

(e) *Long Utan*.—An extinct tribe, once dwelling on the Tinjar River, an affluent of the Baram. We owe our knowledge of their tatu to an aged Kalamantan, who was well acquainted with the tribe before their disappearance; at our behest he carved on some wooden models of arms and legs the tatu designs of these people, but he was unable to supply any information of the names or significance of the designs. The men of the tribe apparently did not tatu, so that the designs reproduced on Plate XI, Figs. 5, 6, are those of the women. The essential features of the designs are spirals and portions of intersecting circles; the intersecting circles are frequently to be met with in the decorative art of Kenyahs, *e.g.*, on the back of sword-handles, round the top of posts, on carved bamboos, etc., and in these cases the design is supposed to be a representation of the open fruit of a species of mango, *Mangifera sp.* It is not improbable that the design had the same significance amongst the Long Utan, for we have met with one or two representations of the same fruit amongst other Kalamantan tribes.

(f) *Biajau*.—The Dutch author C. den Hamer [5, p. 451] includes under this heading the tribes living in the districts watered by the rivers Murung, Kahayan, Katingan and Mentaja of South-west Borneo. Under this very elastic heading he would include the Ot Danum, Siang, and Ulu Ajar of Nieuwenhuis, but we treat of these in the next section. The ethnology of the Barito, Kahayan and Katingan river-basins sadly needs further investigation; nothing of importance has been published on this region since the appearance of Schwaner's book on Borneo more than fifty years ago. We know really very little of the distribution or constitution of the tribes dwelling in these districts and Schwaner's account of their tatu is very meagre. Such as it is, it is given here, extracted from Ling Roth's *Translation of Schwaner's Ethnographical Notes* [7, pp. cxciv. cxciv.]. The men of Pulu Petak, the right-hand lower branch of the Barito or Banjermassin River, tatu the upper part of the body, the arms and calves of legs with elegant interlacing designs and scrolls. The people of the Murung River are said to be most beautifully tatued, both men and women; this river is really the upper part of the Barito, and according to Hamer is inhabited by the Biajau (*vide postea*), who appear to be distinct from the Ngaju of Schwaner, inhabiting the lower courses of the Barito and Kapuas Rivers. The men of the lower left-hand branch of the

Barito and of the mid-course of that river are often not tatued at all, but such tatu as was extant in 1850 was highly significant according to Schwaner's account; thus, a figure composed of two spiral lines interlacing each other and with stars at the extremities tatued on the shoulder signified that the man had taken several heads; two lines meeting each other at an acute angle behind the finger nails signified dexterity in wood-carving; a star on the temple was a sign of happiness in love. We have no reason to consider this information inaccurate, but we do consider it lamentable that more details concerning the most interesting forms of tatu in Borneo were not obtained, for it is only too probable that such information cannot be acquired now. The women of this tribe do not tatu. In the upper Teweh River, an upper tributary of the Barito, the men are tatued a good deal, especially on parts of the face, such as the forehead, the cheeks, the upper lip. The only figures that Schwaner gives are reproduced by Ling Roth [7, p. 93], they represent two Ngajus; the tatu designs are drawn on too small a scale to be of much interest and in any case we have no information concerning them. The two figures of 'Tatued Dyaks' (? Kyans) (after Professor Veth)," on p. 95 of the above-cited work cannot be referred to any tribe known to us.

Hamer in his paper [5] gives a detailed account of Biajau tatu, but unfortunately without any illustrations; as abstracts of the paper have already been given by Ling Roth [7, pp. 93, 94] and by Hein [6, pp. 143-147], we will pass on to the next section.

(g) *Ot-Danum, Ulu Ajar and Siang* (Kapuas River tributaries).—Concerning these tribes Nieuwenhuis says but little [9, p. 452], merely noting that the men are first tatued with discs on the calf and in the hollow of the knee and later over the arms, torso and throat, whilst the women tatu the hands, knees and shins. Two colours, red and blue, are used, and the designs are tatued free-hand, the instrument employed being a piece of copper or brass about four inches long and half-an-inch broad, with one end bent down at a right-angle and sharpened to a point; sometimes thread is wound round the end of the instrument just above the point, to regulate the depth of its penetration; two specimens in the Leyden Museum are figured by Ling Roth [7, p. 85]. Hamer [5] says that the Ot-Danum women are tatued down the shin to the tarsus with two parallel lines, joined by numerous cross-lines, a modification of the Uma Tow design for the same part of the limb. On the thigh is tatued a design termed *soewroe*, said to resemble a neck ornament. A disc tatued on the calf of the leg is termed *boentoer*, and from it to the heel runs a barbed line called *ikoeh bajan*, tail of the monitor lizard; curiously enough, though this is the general name of the design, it is on the right leg also termed *bararek*, on the left *dandoe tjatjah*. Warriors are tatued on the elbow-joint with a *dandoe tjatjah* and a cross called *sara pang mata andau*.

A Maloh who had lived for many years amongst these people gave us the following information about their tatu. There is with these people a great difference between the tatu of the high class and that of the low class individuals:

amongst the former the designs are both extensive and complicated, too complicated for our informant to describe with any degree of accuracy, but they seem to be much the same as those described by Hamer. The low-class people have to be content with simpler designs; the men are tatued on the breast and stomach with two curved lines ending in curls, and on the outside of each arm with two lines also ending in curls (Plate XII, Fig. 6); on the outside of the thigh a rather remarkable design, shown on Plate XII, Fig. 7, is tatued; it is termed *linsat*, the flying squirrel, *Pteromys nitidus*, and on the back of the calf is tatued a disc termed *kalong baboi*, the pig pattern. The women are tatued as described by Hamer down the front of the shin with two parallel lines connected by transverse cross-bars; according to our informant the design was supposed to represent a flat fish, such as a sole. (Plate XII, Fig. 8.)

Of these people, as of so many others, the melancholy tale of disappearance of tatu amongst the present generation and replacement of indigenous by Kayan designs was told, and it seems only too likely that within the next decade or two none will be left to illustrate a once flourishing and beautiful art.

Schwaner can add nothing to the facts that we have collected, except the statement that "the *bilians* (priestesses) have brought the art of tatuing to the present degree of perfection through learning the description of the pretty tatued bodies of the [mythical] Sangsangs."

(h) *Kahayan*.—Our figure (Plate XI, Fig. 3), and Plate 81 of Dr. Nieuwenhuis' book [9], is the extent of our knowledge of the tatu of the inhabitants of the Kahayan River. The latter illustration shows a man tatued with a characteristic check pattern over the torso, stomach and arms, but there is no reference to the plate in the text. Our figure is copied from a drawing by Dr. H. Hiller, of Philadelphia.

(i) *Bakatan and Ukit*.—As Nieuwenhuis has pointed out [9, p. 451], the tatu of these tribes is distinctive, inasmuch as most of the designs are left in the natural colour of the skin against a background of tatu; that is to say in the phraseology of the photographer, whilst the tatu designs of Kayans, Kenyahs, etc., are *positives*, those of the Bakatans are *negatives*. The men were formerly most extensively tatued, and we figure the principal designs (Plate XIII), most of which were drawn from a Bakatan of the Rejang River. The chest is covered with a bold scroll design known as *gěrowit*, hooks (Kayan, *kowit*) (Figs. 1, 2); across the back and shoulder blades stretches a double row of circles, *kanak*, with small hooks interposed (Fig. 9); on the side of the shoulder a pattern known as *akih*, the lizard, *Ptychozoon homalocephalum* (Fam. Geckonidæ), is tatued (Figs. 3, 4); this lizard is used as a haruspex by the Bakatan. Circles are tatued on the biceps, on the back of the thigh and on the calf of the leg; a modification of the scroll design of the chest occurs on the flexor surface of the forearm. Another form of pattern for the calf of the leg is shown in text Fig. 9, it is termed *selong bowang*, the horse-mango, *Mangifera* sp., the same fruit as that termed by Kayans *ipa olim* and

of which a representation forms the chief element in the Long Utan tatu. A series of short lines is tatued on the jaw and is termed *ja*, lines, or *kilang*, sword-pattern, and a *gerowit* design occurs under the jaw; the pattern on the throat is known also as *gerowit* (Fig. 10). On the forehead is sometimes tatued a star or rosette pattern called *lukut*, antique bead, and it appears that this is of the nature of a recognition mark. In jungle warfare, where a stealthy descent on an unprepared enemy constitutes the main principle of tactics, it not unfrequently happens that one body of the attacking force unwittingly stalks another, and the results might be disastrous if there was not some means of distinguishing friend from foe when at close quarters.<sup>1</sup> Kenyahs when on the warpath frequently tie a

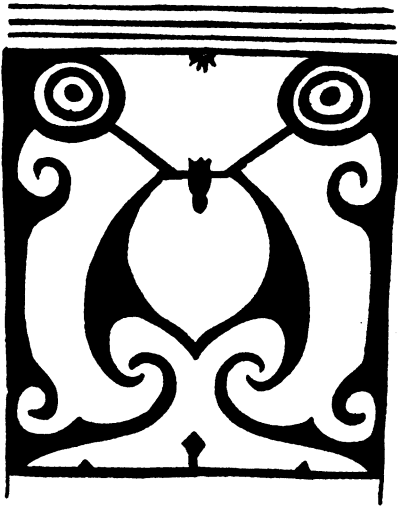


FIG. 8.

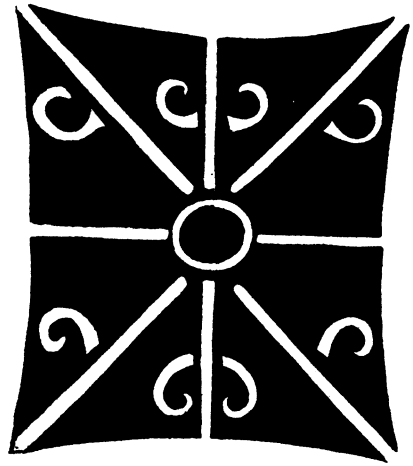


FIG. 9.

band of plaited palm fibre round the wrist for the same object. The tatu of the backs of the hands is avowedly copied from the Kayans, but has a different name applied to it—*kukum*. The metatarsus is tatued with broad bars, *iwa*, very like the foot tatu of Kayan women of the slave or of the middle class; lines known as *jango* encircle the ankle.

Tatuing is forbidden in the house; it can only be performed on the warpath, and consequently men only are the tatu artists. The covering of the body with

<sup>1</sup> As an instance of a quite opposite effect produced by a mark on the forehead, we may note here, that some Madang, who had crossed over from the Baram to the Rejang on a visit, appeared each with a cross marked in charcoal on his forehead; they supposed that by this means they were disguised beyond all recognition by evil spirits. The belief that such a trivial alteration of appearance is sufficient disguise is probably held by most tribes; Tama Bulan, a Kenyah chief when on a visit to Kuching, discarded the leopard's teeth, which when at home he wore through the upper part of his ears, and the reason that he alleged was the same as that given by the Madang. These people believe not only that evil spirits may do them harm whilst they are on their travels, but also that, being encountered far from their homes, the spirits will take advantage of their absence to work some harm to their wives children, or property.



designs is a gradual process, and it is only the most seasoned and experienced warriors who exhibit on their persons all the different designs that we have just detailed; the tatu of the legs and feet is the last to be completed, and the lines round the ankles are denied to all but the bravest veterans.

All that has been written above applies equally well to the Ukits, or at least once did apply, for now the Ukits have to a great extent adopted the tatu of the Kayan, and it is only occasionally that an old man tatued in the original Ukit manner is met. We give a figure of a design on the back of the thigh of such a relic of better days. (Plate XIII, Fig. 5.)

The Bakatan and Ukit women tatu very little, only the forearm, on the metacarpals and on the back of the wrist; characteristic designs for these parts are shown in text Fig. 8, and Plate XIII, Figs. 7, 8; the central part of the forearm design is an anthropomorphic derivative, judging by the name *tegulun*; the lines are termed *kilang*, and *kanak* and *gerowit* are also conspicuous; *gerowit* is also the name of the design for the metacarpals; the two stars joined by a line on the wrist are termed *lukut*, and it is possible that their significance is the same as that of the Kayan *lukut* tatued in the same place by men, but we have no evidence that this is the case.

Nieuwenhuis figures [9, Plate 80] a Bakatan tatued on the chest in the typical manner.

The only other designs, apparently of Kalamantan origin, are those figured by Ling Roth [7, p. 87]. Three of these are after drawings by Rev. W. Crossland, and are labelled "tatu marks on arm of Kapuas Kayan captive woman." The designs are certainly not of Kayan origin, nor are there any Kayans resident in the Kapuas River; the woman had in all probability been brought captive to Sarawak, where Mr. Crossland saw her, either by Kayans or Sea Dayaks, and it is certainly unfortunate that exact information concerning the tribe to which she belonged was not obtained; the designs, if accurately copied, are so extremely unlike all that are known to us that we are not able to hazard even a guess at their provenance or meaning. The other design figured on the same page is copied from Carl Bock; it occurred on the shoulder of a Punan and is said by Mr. Crossland to be commonly used by the Sea Dayaks of the Undup. We met with a similar example of it (Plate VIII, Fig. 7) on an Ukit tatued in the Kayan manner, but could get no information concerning it, and suppose that it is not an Ukit design. Hein [6, Fig. 90] figures the same design, and Nieuwenhuis [8, p. 240] alludes to a similar. We may note here that the designs figured on page 89 of Ling Roth's book [7] as tatu designs are in our opinion most certainly not tatu designs. They were collected by Dr. Wienecke in Dutch Borneo, and appear to be nothing but drawings by a native artist of such objects in daily use as hats, seat-mats, baby-slings, and so on. We communicated with Dr. J. D. E. Schmeltz of the Leyden Museum, where these "tatu" marks are deposited, and learnt from him that they are indeed actual drawings on paper; there are ninety-two of them, apparently all are different isolated designs, and they are evidently the work of one artist. There is

not a tribe in Borneo which can show such a variety of tatu design, and indeed we doubt if ninety-two distinct isolated tatu designs could be found throughout all the length and breadth of the island. Moreover, as can be seen by reference to the cited work, the designs are of a most complicated nature, not figures with the outlines merely filled in, as in all tatu designs known to us, but with the details drawn in fine lines and cross-hatching, which in tatu would be utterly lost unless executed on a very large scale.<sup>1</sup>

#### v. *Sea Dayak tatu.*

The Sea Dayaks at the present day are, as far as the men are concerned, the most extensively tatued tribe in Borneo, with the exception of the Bakatans, Ukits, Kahayans and Biajau; nevertheless, from a long-continued and close study of their tatu, we are forced to the conclusion that the practice and the designs have been entirely borrowed from other tribes, but chiefly from the Kayans. For some time we believed that there were two characteristically Sea Dayak designs, namely, that which is tatued on the throat (text, Figs. 11–13) and that on the wrist (Plate XIII, Fig. 7), but when later we studied Bakatan tatu we met with the former in the *gerowit* pattern on the throat of men and the latter in the *lukut* design on the wrist of the women. A Sea Dayak youth will simply plaster himself, so to speak, with numerous isolated designs; we have counted as many as five of the *asu* design on one thigh alone; the same design appears two or three times on the arms, and even on the breast, though this part of the body as well as the shoulders is more usually decorated with several stars and rosettes. The backs of the hands are tatued, quite irrespective of bravery or experience in warfare, in fact we have frequently had occasion to note that a man with tatued hands is a wastrel or a conceited braggart, of no account with Europeans or with his own people. This wild and irresponsible system of tatu has been accompanied by an inevitable degradation of the designs. There is a considerable body of evidence to show that the Sea Dayaks have borrowed much in their arts and crafts from tribes more early established in Borneo, but it must be confessed that in their decorative art they have as a rule improved upon their models; their bamboo carvings and their woven cloth are indeed “things of beauty,” and if there is not much true originality in their work, it can still be said that they are the most artistic people in Borneo. An exception, however, must be made in the case of their tatu, for here we see, not an intelligent elaboration of the model, but a simplification and degradation or at best an elaboration without significance. Figs. 1–6, Plate VII, are examples of the Sea Dayaks *tuang asu* or dog design. With the exception of text, Fig. 10, which is a good copy of a Kayan model, the figures show the dog design run mad, and it is idle to attempt to interpret

<sup>1</sup> Dr. Schmeltz has kindly furnished us with an advance sheet of his forthcoming catalogue of the Borneo collection in the Leyden Museum; he catalogues these drawings as tatu marks, but in a footnote records our opinion of them made by letter. Dr. Nieuwenhuis apparently adheres to the belief that they really are tatu marks.

them, since in every case the artists have given their individual fancies free play. When the profession of the tatu-artist is hereditary and when the practice has for its object the embellishment of definite parts of the body for definite reasons, we naturally find a constancy of design, or, if there are varieties, there is a purpose in



FIG. 10.

them, in the sense that the variations can be traced to pre-existing forms and do not depart from the original so widely that their significance is altogether lost. With the borrowing of exogenous designs arises such an alteration in their form, that the original names and significance are lost; the Kayan modification of the hornbill design of the Long Glat to a dog design is a case in point. But when the very practice of tatu has no special meaning, when the tatu artist may be any member of the tribe, and where no original tatu design is to be found in the tribe, then the borrowed practice and the borrowed designs, unbound by any sort of tradition, run complete riot and any sort of fanciful name is applied to the degraded designs. Amongst the Kenyah tribes the modification and degradation of the dog design has not proceeded so far as amongst the Sea Dayaks, and this may be explained for by their more restrained practice of tatu and by the constant intercourse between them and the Kayans, so that they always have good models before them. Plate VI, Fig. 3, illustrates the extreme limit of degradation of the dog design amongst Sea Dayaks; it is termed *kala*, scorpion,<sup>1</sup> and it is noteworthy that the representation of the chelæ and anterior end of the scorpion (A) was originally the posterior end of the dog, and the hooked ends of the posterior processes of this scorpion design (B) instead of facing one another as they did when they represented the open jaws of the dog now look the same way; the rosette-like eye of the dog still persists, but of course it has no significance in the scorpion. A curious modification of this eye is seen in another Sea Dayak scorpion design figured by E. B. Haddon [4, Fig. 19]. Furness [3, p. 142] figures a couple of scorpion designs, but neither are quite as debased as that which we figure here. Furness also figures a scroll design, not unlike a Bakatan

<sup>1</sup> Mr. E. B. Haddon (4, p. 124) writes: "The tattoo design used by the Kayans and Kenyahs . . . has been copied and adopted by the Ibans in the same way as the Kalamantans have done, the main difference being, that the Ibans call the design a scorpion. *For this reason the pattern tends to become more and more like the scorpion . . .*" The italics are ours. Is not this "putting the cart before the horse?" It is only when the design resembles a scorpion that the term *scorpion* is applied to it; all other modifications, even though tending towards the scorpion, are called *dog*.

design, tatued on the forearm, and termed *taia gasieng*, the thread of the spinning wheel; a similar one figured by Ling Roth [7, p. 88] is termed *trong*, the egg plant. On the breast and shoulders some form of rosette or star design is tatued in considerable profusion; the designs are known variously as *bunga trong*, the egg plant flower, *tandan buah*, bunches of fruit, *lukut*, an antique bead, *ringgit salilang*. A four-pointed star, such as that shown in text, Fig. 1, is termed *buah andu*, fruit of *Plukenetia corniculata*; since this fruit is quadrate in shape with pointed angles it is evident that the name has been applied to the pattern because of its resemblance to the fruit. Furness figures examples of these designs and also Ling Roth [7, p. 88]. We figure (text, Figs. 11–13) three designs for the throat known sometimes as *katak*, frogs, sometimes as *tali gasieng*, thread of the spinning wheel, and no doubt other meaningless names are applied to them. Two of the figures (Figs. 11, 12) are evidently modifications of the Bakatan *gerowit*



FIGS. 11, 12, 13.

design, but here they are represented with the tatu pigment, whilst with the Bakatans the design is in the natural colour of the skin against a background of pigment, *i.e.*, the Dayak design is the positive of the Bakatan negative. Furness figures two examples of the throat design, one with a transverse row of stars cutting across it; the same authority also figures a design for the ribs known as *tali sabit*, waist chains, consisting of two stars joined by a double zigzag line. The same design is sometimes tatued on the wrist when it is known as *lukut*, antique bead; it is also tatued on the throat [7, p. 88] and attention has already been drawn to the probable derivations of this design also from a Bakatan model.

It is only very seldom that Sea Dayak women tatu and then only in small circles on the breasts [7, p. 83] and on the calves of the legs.

As a conclusion to the foregoing account of Bornean tatu we add a table which summarises in the briefest possible manner all our information; its chief use

perhaps will lie in showing in a graphic manner the blanks in our knowledge that still remain.

From a study of their tatu Dr. Nieuwenhuis [9, p. 451] divides the people of Borneo into three main groups :—

1. Group of Bahau, Kenyah and Punan.
2. Groups of Bukat and Bakatan.
3. Group of Barito and Melawi tribes, and Ulu Ajar of the Mandai River.

From what we have written it will be understood on what principles this classification is based and, as far as it goes, it is correct enough, except for the inclusion of the Punan in the first group, but it is not sufficiently comprehensive in the light of the further information that we have unearthed. We do not consider that tatu can ever be of much value in clearing up racial problems, seeing how much evidence there is of interchange of designs and rejection of indigenous designs in favour of something newer; consequently we refrain from drawing up another scheme of classification of tatu in Borneo; at best it would be little more than a re-enumeration of the forms that we have already described in more or less detail.

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Brief references to tatu will also be found in the writings of Burns, Brooke Low, MacDougall, De Crespigny, Hatton, St. John, Witt and others, but notices of all these will be found in Mr. Ling Roth's volumes.

#### *Explanation of Plates.*

##### PLATE VI.

Fig. 1.—Kayan dog design (*udoh asu*) for thighs of men. From a tatu-block in the Sarawak Museum. (No. 1054·104.)

Fig. 2.—Uma Balubo Kayan dog design. From a tatu-block in the Sarawak Museum. (No. 1054·90.)

Fig. 3.—Sea-Dayak scorpion design (*Kelingai Kala*) for thigh, arm, or breast of men. From a tatu-block in the Sarawak Museum. (No. 1054·99.)

- Fig. 4.—Kenyah dog design, copied from a Kayan model. From a tatu-block in the Sarawak Museum. (No. 1054.108.)
- Fig. 5.—Kayan dog design. From a tatu-block in the Sarawak Museum. (No. 1054.106.)
- Fig. 6.—Kayan dog design. From a tatu-block in the Sarawak Museum. (No. 1054.88.)
- Fig. 7.—Kayan double dog design for outside of thigh of man. From a tatu-block in the Sarawak Museum. (No. 1054.31.)
- Fig. 8.—Kayan designs of dog with pups (*tuang nganak*). A=pup. For thigh of man. From a tatu-block in Sarawak Museum. (No. 1054.57.)
- Fig. 9.—Kenyah claws of centipede (?) design (*lipan katip*), for breast or shoulder of man. From a tatu-block in the Sarawak Museum. (No. 1054.20.)
- Fig. 10.—Kenyah crab design (*toyu*), A=mouth (*ba*), B=claw (*katip*), C=back (*likut*), D=tail (*ikong*). From a tatu-block in the Sarawak Museum. (No. 1054.71.)

## PLATE VII.

- Fig. 1.—Sea-Dayak modification of the dog design. From a tatu-block in the Sarawak Museum. (No. 1054.102.)
- Fig. 2.—       "               "               "               From a tatu-block in the Sarawak Museum. (No. 1054.101.)
- Fig. 3.—       "               "               "               From a tatu-block in the Sarawak Museum. (No. 1054.67.)
- Fig. 4.—       "               "               "               From a tatu-block in the Sarawak Museum (No. 1054.109.)
- Fig. 5.—       "               "               "               From a tatu-block in the Sarawak Museum. (No. 1054.70.)
- Fig. 6.—       "               "               "               But known as "scorpion" (*kala*) pattern. From a tatu-block in the Sarawak Museum. (No. 1054.69.)
- Fig. 7.—Barawan and Kenyah modification of the dog design, known as "hook" (*kowit*) pattern. From a tatu-block in the Sarawak Museum. (No. 1054.63.)
- Fig. 8.—       "               "               "               From a tatu-block in the Sarawak Museum. (No. 1054.75.)
- Fig. 9.—Kenyah modification of the dog design, but known as the "prawn" (*wrang*) pattern. From a tatu-block in the Sarawak Museum. (No. 1054.89.)

## PLATE VIII.

- Fig. 1.—Kayan three-line pattern (*ida telo*) for back of thigh of woman of slave class. From a tatu-block in the Sarawak Museum. (No. 166a Brooke Low Coll.)
- Fig. 2.—Kayan four-line pattern (*ida pat*) for back of thigh of woman of middle class. From a tatu-block in the Sarawak Museum. (No. 1434.)
- Fig. 3.—Kayan (Rejang R.) three-line pattern (*ida telo*) for back of thigh of women of upper and middle classes. From a tatu-block in the Sarawak Museum. (No. 1054.2.)
- Fig. 4.—Kayan (Uma Pliau) design for front and sides of thigh of high class women. A = *tushun tura*, tuba root, B = *jalaat*, fruit of *Plukenetia corniculata*, D = *kowit*, interlocking hooks. From a tatu-block in coll. C. Hose.
- Fig. 5.—Kayan design for front of thigh of woman of high class. A = *tushun tura*, B = *dulang harok*, bows of a boat, C = *ulu tinggang*, hornbill's head, D = *beliling bulan*, full moons. From a tatu-block in the Sarawak Museum. (No. 1432.)
- Fig. 6.—Barawan design for the shoulder or breast of men. From a drawing.
- Fig. 7.—Design of uncertain origin, on the calf of the leg of an Ukit man.

## PLATE IX.

- Fig. 1.—Kayan (Rejang R.) design known as *ida tuang* or *ida lima* for back of thigh of women of high rank. Note the hornbill heads at the top of the design. From a tatu-block in the Sarawak Museum. (No. 166d Brooke Low coll.)

- Fig. 2.—Kayan (Rejang R.) design : compare with Figs. 5 and 11. From a tatu-block in the Sarawak Museum. (No. 166c Brooke Low coll.)
- Fig. 3.—Long Glat hornbill design (after Nieuwenhuis). This is tatued in rows down the front and sides of the thigh.
- Fig. 4.—Kayan (?) hornbill design, known, however, as the "dog without a tail" (*tuang buvong asu.*) From a tatu-block in the Sarawak Museum. (No. 10548.)
- Fig. 5.—Kayan (Rejang R.) tatu design known as "dog without a tail" (*tuang buvong asu*) pattern, for front and sides of thigh of women of high rank. From a tatu-block in the Sarawak Museum. (No. 166g Brooke Low coll.)
- Fig. 6.—Kayan three-line and four-line design (*ida telo* and *ida pat*) for back of thigh of women of low class. From a tatu-block in the Sarawak Museum. (No. 1435.)
- Fig. 7.—Uma Lekan Kayan anthropomorphic design (*sihong*), tatued in rows down front and sides of thigh.
- Fig. 8.—Kayan bead (*lukut*) design, tatued on the wrist of men.
- Fig. 9.—" " " "
- Fig. 10.—" " " " From a tatu-block in the Sarawak Museum. (No. 105462.)
- Fig. 11.—Portion of Uma Lekan Kayan design for back of thigh of women of high rank (after Nieuwenhuis).

## PLATE X.

- Fig. 1.—Tatu design on the forearm of an Uma Lekan Kayan woman of high rank. From a rubbing of a carved wooden model in the Sarawak Museum. (No. 1398.)
- Fig. 2.—Tatu-design on the thigh of an Uma Lekan Kayan woman of high rank. From a rubbing of a carved wooden model in the Sarawak Museum. (No. 1398.)
- Fig. 3.—Tatu design on the forearm of an Uma Pliau Kayan woman of high rank. A=*beliling bulan*, full moons ; B=*dulang harok*, bows of a boat ; C=*kowit*, hooks ; D=*dawn wi*, leaves of bamboo ; E=*tushun tuva*, bundles of tuba root. From a carved wooden model in the Sarawak Museum. (No. 1431.)
- Fig. 4.—Kenyah design, representing the open fruit of a species of mango (*ipa olim*) tatued on breasts or shoulders of men. From a tatu-block in the Sarawak Museum. (No. 105414.)
- Fig. 5.—Kayan (Baloi R.) *kalong kowit* or hook design for back of thigh of woman of high rank. From a tatu-block in the Sarawak Museum. (No. 105454.)

## PLATE XI.

- Fig. 1.—Design on the hand of a Skapan chief tatued in the Kayan manner. From a drawing.
- Fig. 2.—Design on the arm of a Peng man. From a drawing by Dr. H. Hiller of Philadelphia.
- Fig. 3.—Design on the arm of a Kahayan man. From a drawing by Dr. H. Hiller of Philadelphia.
- Fig. 4.—Design on the forearm of a Leppu Lutong woman. From a drawing.
- Fig. 5.—Design on the forearm of a Long Utan woman. From a rubbing of a carved model in the Sarawak Museum. (No. 1430.)
- Fig. 6.—Design on the thigh of a Long Utan woman. From a rubbing of a carved model in the Sarawak Museum. (No. 1426.)
- Fig. 7.—Kenyah design, representing the *durian* fruit (*usong dian*) tatued on the breasts or shoulders of men. From a tatu-block in the Sarawak Museum. (No. 105417.)

## PLATE XII.

- Fig. 1.—Tatu design on the forearm of a Kalabit woman. From a drawing.
- Fig. 2.—Tatu design on front of leg of a Kalabit woman, C=*betik lulud*, shin pattern. From a photograph.
- Fig. 3.—Tatu design on back of leg of a Kalabit woman, A=*betik buah*, fruit pattern ; B=*betik lawa*, trunk pattern. From a drawing.

		Character of designs.	Part of body tatued.	Ceremonial.	
Kayan .. ..	{	♂	Isolated designs, representing the dog, a bead, rosettes and stars. Serial designs on hands.	Inside of forearm, outside of thigh, breasts, wrist and points of shoulders. Back of hand sometimes.	None .. .. Sign for in
		♀	Serial designs of complex nature, geometrical, anthropo- and zoomorphic.	The whole forearm, back of hand, the whole thigh, the metatarsal surface of the foot.	Very elaborate.. Chief us of
Kenyah .. ..	{	♂	As amongst Kayans, with some degradation of design and alteration of name.	Same as with Kayans .. ..	None .. .. Sign ca Chic
		♀	As amongst Kayans .. ..	The whole forearm, back of hand, metatarsal surface of foot.	None .. .. Orn
Kenyah-Kalamantan.	{	♂	Geometrical serial designs, discs, ? isolated designs.	Arm from shoulder to wrist; calf of leg..	? .. .. ? Or
		♀	Designs employed by Kayan ♂ ♂ ..	Forearms and legs .. ..	? .. .. ? Or
	Leppu Lutong ..	♀	Simple geometrical design.. ..	Forearm and back of hand.. ..	? .. .. ?
	{	♂	? ? same as Kayan designs .. ..	? .. ..	? .. .. ?
		♀	Simple geometrical designs (low class ♀ ♀) anthropomorphic designs, copied from other tribes (high-class ♀ ♀).	Forearm and back of hand, front and sides of the thigh and the shin.	Some .. .. ?
	{	♂	? not at all .. ..	.. ..	.. .. ?
		♀	Complicated serial designs, chiefly of zoomorphic motif.	As with Kayan ♀ ♀, but also with lines round the ankles. Tatu of forearms not so extensive.	.. .. Chic u
	Uma Long ..	♀	Simple geometrical design ("stippled")..	Forearm and back of hand .. ..	? .. .. ?
	Dusun .. ..	♂	Lines.. ..	Stomach, breast, arm .. ..	None .. .. Part e
	{	♂	Scroll design and circles .. ..	Above the knee-cap; on the breast (Practice obsolescent).	None .. .. ?
♀		Parallel lines .. ..	Arm and back of hand .. ..	? None .. .. ? O	
Kalabit ..	{	♂	As with Dusuns .. ..	As with Dusuns .. ..	? .. .. ?
		♀	Zigzags and chevrons .. ..	Forearms, the lower part of the leg ..	Very little .. .. ?
Long Utan ..	♀	Complicated serial geometrical designs ..	As with Long Glat .. ..	? .. .. ?	
{	♂	Complicated serial geometrical designs, scrolls, zoomorphs, etc.	Almost the whole body including the face amongst some of the sub-tribes.	? .. .. Wi s a t	
	♀	? ? .. ..	? ? as with Long Glat .. ..	? .. .. ?	
Ot-Danum Ulu Ajar, etc.	{	♂	Curved lines, discs and simple geometrical designs.	On breast, stomach, outside of arms and thighs, calf of leg.	? None .. .. In b
		♀	Simple designs like those of the Uma Tow Kenyahs (low class ♀ ♀). High class ♀ ♀ like Long Glat?	Shin, thigh and calf of leg.. ..	? .. .. ?
Kahayan .. ..	♂	Chequer design .. ..	On breast, stomach, throat, arms ..	? .. .. ?	
{	♂	Chiefly scroll and circle designs. Nearly all represented in "negative."	Jaws, throat, breast, back, shoulders, forearms, thighs, calf of leg, ankles, feet and backs of hands.	Obsolete 32 .. Sig	
	♀	Anthropomorphic designs .. ..	Forearms, thighs, calf of leg, ankles, feet and backs of hands.	.. ..	



	Character of designs.	Part of body tatued.	Ceremonial.	Object of tatu.
♂	Isolated designs, representing the dog, a bead, rosettes and stars. Serial designs on hands.	Inside of forearm, outside of thigh, breasts, wrist and points of shoulders. Back of hand sometimes.	None .. ..	Sign of bravery in some forms, to ward off illness in others.
♀	Serial designs of complex nature, geometrical, anthropo- and zoomorphic.	The whole forearm, back of hand, the whole thigh, the metatarsal surface of the foot.	Very elaborate..	Chiefly for ornament, for use after death, for cure of illness.
♂	As amongst Kayans, with some degradation of design and alteration of name.	Same as with Kayans .. ..	None .. ..	Sign of bravery in some cases. Chiefly for ornament.
♀	As amongst Kayans .. ..	The whole forearm, back of hand, metatarsal surface of foot.	None .. ..	Ornament.
♂	Geometrical serial designs, discs, ? isolated designs.	Arm from shoulder to wrist; calf of leg..	? .. ..	? Ornament.
♀	Designs employed by Kayan ♂ ♂ ..	Forearms and legs .. ..	? .. ..	? Ornament.
♀	Simple geometrical design.. ..	Forearm and back of hand.. ..	? .. ..	? ..
♂	? ? same as Kayan designs .. ..	? .. ..	? .. ..	? ..
♀	Simple geometrical designs (low class ♀ ♀) anthropomorphic designs, copied from other tribes (high-class ♀ ♀).	Forearm and back of hand, front and sides of the thigh and the shin.	Some .. ..	? ..
♂	? not at all .. ..	.. ..	.. ..	? ..
♀	Complicated serial designs, chiefly of zoomorphic <i>motif</i> .	As with Kayan ♀ ♀, but also with lines round the ankles. Tatu of forearms not so extensive.	.. ..	Chiefly for ornament, for use in the next world.
♀	Simple geometrical design ("stippled")..	Forearm and back of hand .. ..	? .. ..	? ..
♂	Lines.. ..	Stomach, breast, arm .. ..	None .. ..	Partly as a tally of enemies slain.
♂	Scroll design and circles .. ..	Above the knee-cap; on the breast (Practice obsolescent).	None .. ..	? ..
♀	Parallel lines .. ..	Arm and back of hand .. ..	? None .. ..	? Ornament.
♂	As with Dusuns .. ..	As with Dusuns .. ..	? .. ..	? ..
♀	Zigzags and chevrons .. ..	Forearms, the lower part of the leg ..	Very little .. ..	? ..
♀	Complicated serial geometrical designs ..	As with Long Glat .. ..	? .. ..	? ..
♂	Complicated serial geometrical designs, scrolls, zoomorphs, etc.	Almost the whole body including the face amongst some of the sub-tribes.	? .. ..	With some sub-tribes to signify success in war and love, manual dexterity, etc.
♀	? ? .. ..	? ? as with Long Glat .. ..	? .. ..	? ..
♂	Curved lines, discs and simple geometrical designs.	On breast, stomach, outside of arms and thighs, calf of leg.	? None .. ..	In some cases a sign of bravery.
♀	Simple designs like those of the Uma Tow Kenyahs (low class ♀ ♀). High class ♀ ♀ like Long Glat?	Shin, thigh and calf of leg.. ..	? .. ..	? ..
♂	Chequer design .. ..	On breast, stomach, throat, arms ..	? .. ..	? ..
♂	Chiefly scroll and circle designs. Nearly all represented in "negative."	Jaws, throat, breast, back, shoulders, forearms, thighs, calf of leg, ankles, feet and backs of hands.	Obsolete .. ..	Sign of bravery and experience in war, symbol of maturity.

		♀	Serial designs of complex nature, geometrical, anthropo- and zoomorphic.	The whole forearm, back of hand, the whole thigh, the metatarsal surface of the foot.	Very elaborate..	Chie us of
Kenyah .. ..	{	♂	As amongst Kayans, with some degradation of design and alteration of name.	Same as with Kayans .. .. .	None .. ..	Sign ca Chic
		♀	As amongst Kayans .. .. .	The whole forearm, back of hand, metatarsal surface of foot.	None .. ..	Orn
Kenyah-Kalamantan.	{	♂	Geometrical serial designs, discs, ? isolated designs.	Arm from shoulder to wrist; calf of leg..	? .. ..	? Or
		♀	Designs employed by Kayan ♂ ♂ ..	Forearms and legs .. .. .	? .. ..	? Or
	Leppu Lutong ..	♀	Simple geometrical design.. .. .	Forearm and back of hand.. .. .	? .. ..	? ..
	{	♂	? ? same as Kayan designs .. .. .	? .. .. .	? .. ..	? ..
		♀	Simple geometrical designs (low class ♀ ♀) anthropomorphic designs, copied from other tribes (high-class ♀ ♀).	Forearm and back of hand, front and sides of the thigh and the shin.	Some .. ..	? ..
	{	♂	? not at all .. .. .	.. .. .	.. ..	? ..
		♀	Complicated serial designs, chiefly of zoomorphic motif.	As with Kayan ♀ ♀, but also with lines round the ankles. Tatu of forearms not so extensive.	.. ..	Chi u
	Uma Long .. ..	♀	Simple geometrical design ("stippled")..	Forearm and back of hand .. .. .	? .. ..	? ..
	Dusun .. ..	♂	Lines.. .. .	Stomach, breast, arm .. .. .	None .. ..	Par e
	{	♂	Scroll design and circles .. .. .	Above the knee-cap; on the breast (Practice obsolescent).	None .. ..	? ..
♀		Parallel lines .. .. .	Arm and back of hand .. .. .	? None .. ..	? O	
{	♂	As with Dusuns .. .. .	As with Dusuns .. .. .	? .. ..	? ..	
	♀	Zigzags and chevrons .. .. .	Forearms, the lower part of the leg ..	Very little .. ..	? ..	
Long Utan .. ..	♀	Complicated serial geometrical designs ..	As with Long Glat .. .. .	? .. ..	? ..	
{	♂	Complicated serial geometrical designs, scrolls, zoomorphs, etc.	Almost the whole body including the face amongst some of the sub-tribes.	? .. ..	Wi s a t	
	♀	? ? .. .. .	? ? as with Long Glat .. .. .	? .. ..	? ..	
{	♂	Curved lines, discs and simple geometrical designs.	On breast, stomach, outside of arms and thighs, calf of leg.	? None .. ..	In b	
	♀	Simple designs like those of the Uma Tow Kenyahs (low class ♀ ♀). High class ♀ ♀ like Long Glat?	Shin, thigh and calf of leg.. .. .	? .. ..	? ..	
Kahayan .. ..	♂	Chequer design .. .. .	On breast, stomach, throat, arms.. ..	? .. ..	? ..	
{	♂	Chiefly scroll and circle designs. Nearly all represented in "negative."	Jaws, throat, breast, back, shoulders, forearms, thighs, calf of leg, ankles, feet and backs of hands.	Obsolete .. ..	Sig P o	
	♀	Anthropomorphic, lines, representation of a bead.	Forearm, wrist, metacarpals .. .. .	None .. ..	Orn	
Sea-Dayak .. ..	{	♂	Degraded Kayan and Bakatan designs ..	Almost every part of the body, except the face.	None .. ..	Orn
		♀	Small circles .. .. .	Breasts and calves of legs .. .. .	None .. ..	Orn

34

♀	Serial designs of complex nature, geometrical, anthropo- and zoomorphic.	The whole forearm, back of hand, the whole thigh, the metatarsal surface of the foot.	Very elaborate.	Chiefly for ornament, for use after death, for cure of illness.
♂	As amongst Kayans, with some degradation of design and alteration of name.	Same as with Kayans	None	Sign of bravery in some cases. Chiefly for ornament.
♀	As amongst Kayans	The whole forearm, back of hand, metatarsal surface of foot.	None	Ornament.
♂	Geometrical serial designs, discs, ? isolated designs.	Arm from shoulder to wrist; calf of leg.	?	? Ornament.
♀	Designs employed by Kayan ♂ ♂	Forearms and legs	?	? Ornament.
♀	Simple geometrical design.	Forearm and back of hand.	?	?
♂	? ? same as Kayan designs	? .. .. .	?	?
♀	Simple geometrical designs (low class ♀ ♀) anthropomorphic designs, copied from other tribes (high-class ♀ ♀).	Forearm and back of hand, front and sides of the thigh and the shin.	Some	?
♂	? not at all	.. .. .	.. ..	?
♀	Complicated serial designs, chiefly of zoomorphic motif.	As with Kayan ♀ ♀, but also with lines round the ankles. Tatu of forearms not so extensive.	.. ..	Chiefly for ornament, for use in the next world.
♀	Simple geometrical design ("stippled").	Forearm and back of hand	?	?
♂	Lines.	Stomach, breast, arm	None	Partly as a tally of enemies slain.
♂	Scroll design and circles	Above the knee-cap; on the breast (Practice obsolescent).	None	?
♀	Parallel lines	Arm and back of hand	? None	? Ornament.
♂	As with Dusuns	As with Dusuns	?	?
♀	Zigzags and chevrons	Forearms, the lower part of the leg	Very little	?
♀	Complicated serial geometrical designs	As with Long Glat	?	?
♂	Complicated serial geometrical designs, scrolls, zoomorphs, etc.	Almost the whole body including the face amongst some of the sub-tribes.	?	With some sub-tribes to signify success in war and love, manual dexterity, etc.
♀	? ?	? ? as with Long Glat	?	?
♂	Curved lines, discs and simple geometrical designs.	On breast, stomach, outside of arms and thighs, calf of leg.	? None	In some cases a sign of bravery.
♀	Simple designs like those of the Uma Tow Kenyahs (low class ♀ ♀). High class ♀ ♀ like Long Glat?	Shin, thigh and calf of leg.	?	?
♂	Chequer design	On breast, stomach, throat, arms	?	?
♂	Chiefly scroll and circle designs. Nearly all represented in "negative."	Jaws, throat, breast, back, shoulders, forearms, thighs, calf of leg, ankles, feet and backs of hands.	Obsolete	Sign of bravery and experience in war, symbol of maturity.
♀	Anthropomorphic, lines, representation of a bead.	Forearm, wrist, metacarpals	None	Ornament.
♂	Degraded Kayan and Bakatan designs	Almost every part of the body, except the face.	None	Ornament.
♀	Small circles	Breasts and calves of legs	None	Ornament.

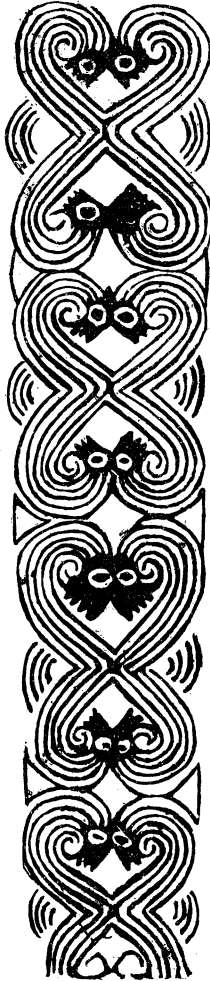








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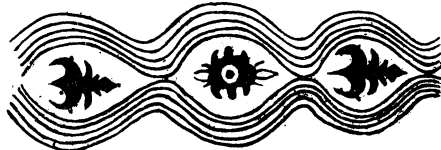
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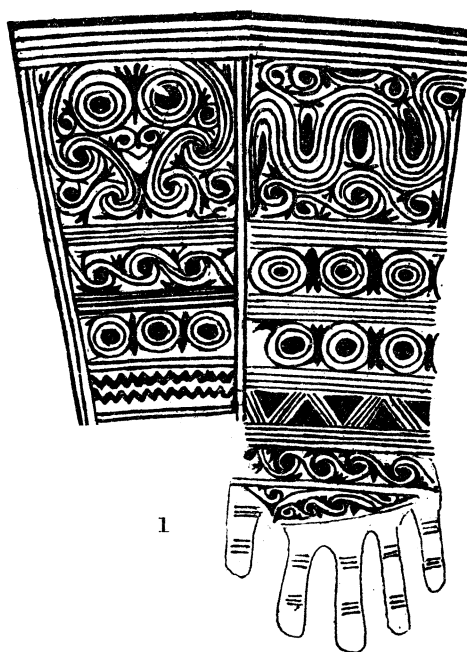
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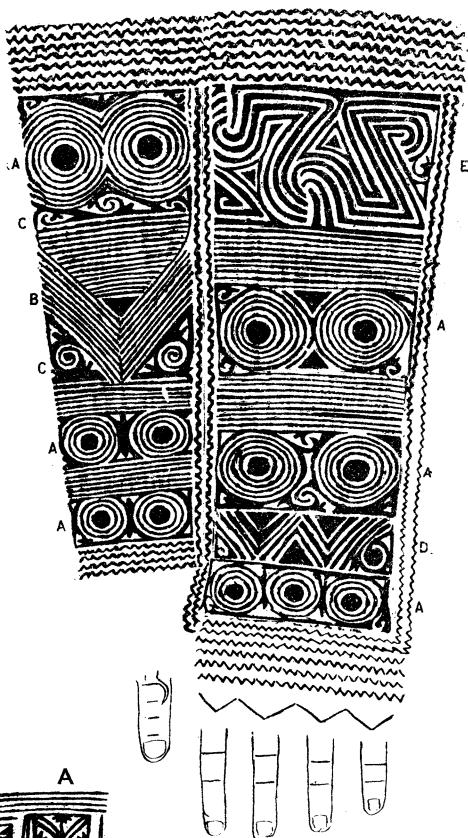
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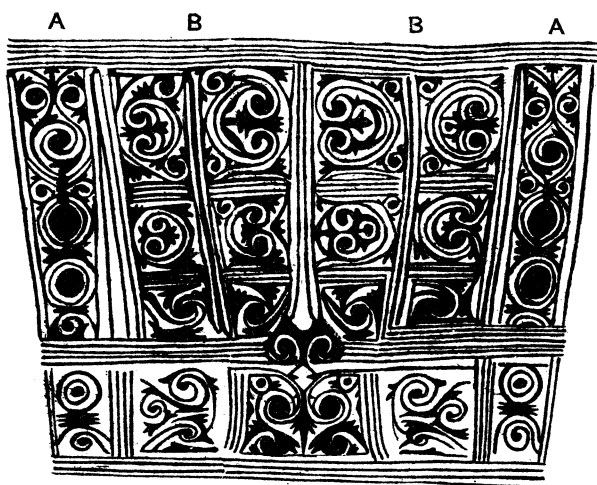
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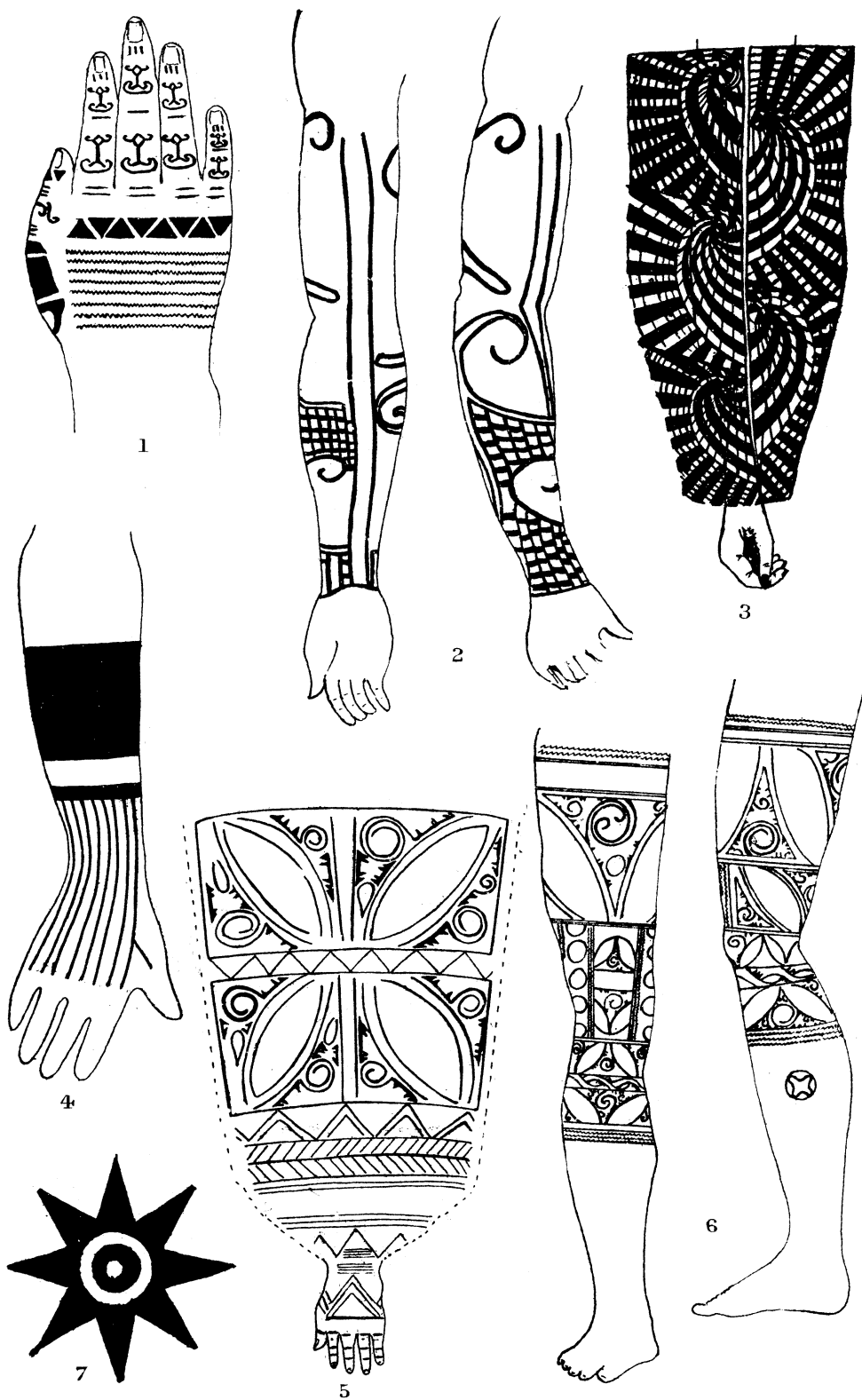


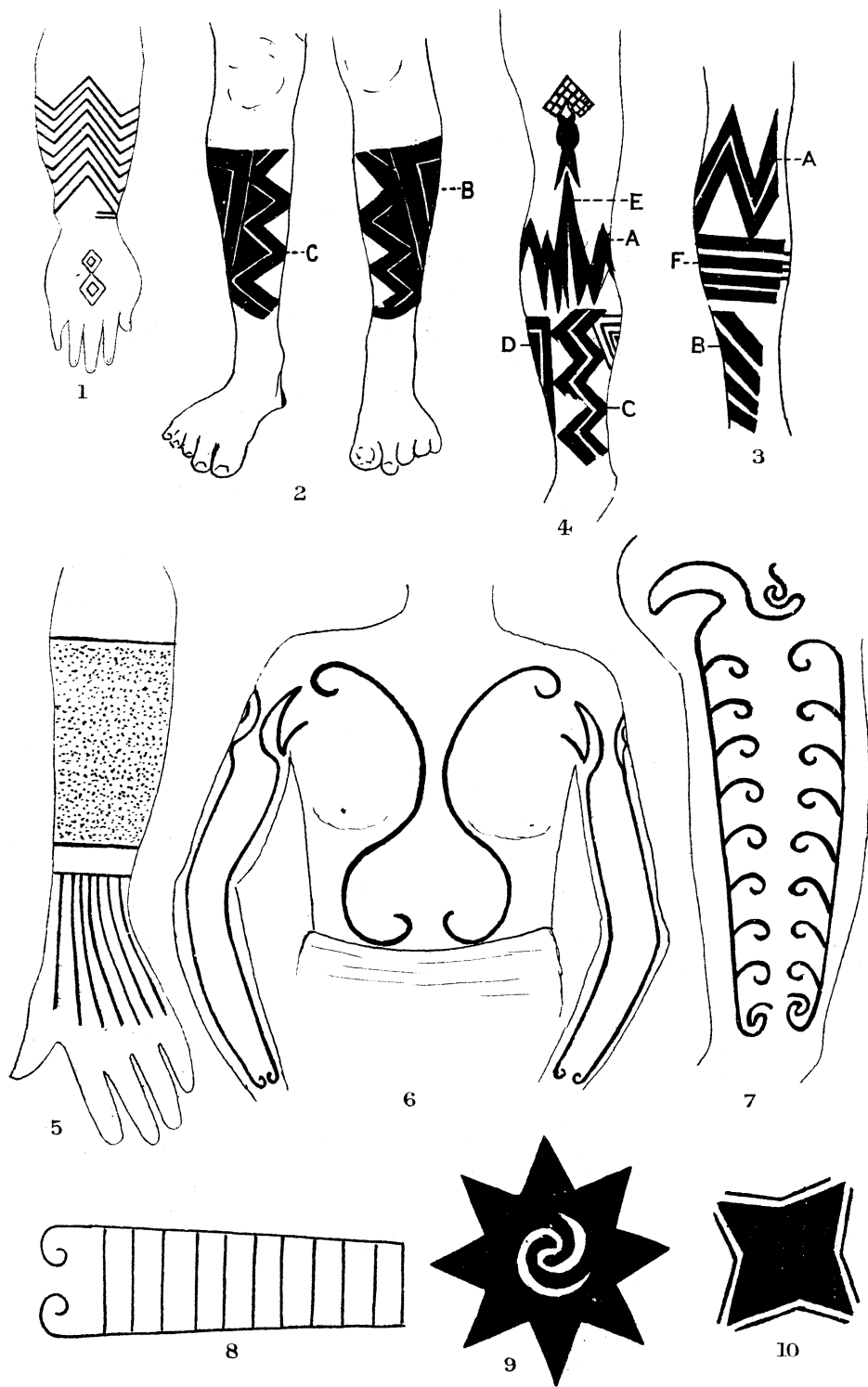
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5









- Fig. 4.—Tatu design on front of leg of the same Kalabit woman, D=*betik karawin*, E=*ujat batu*, hill-tops. From a drawing.
- Fig. 5.—Tatu design on the forearm of an Uma Long woman. From a drawing.
- Fig. 6.—Tatu design on arms and torso of a Biajan man of low class. From a drawing by a Maloh.
- Fig. 7.—Tatu design on leg of Biajan man of low class. From a drawing by a Maloh.
- Fig. 8.—Tatu design on shin of Biajan woman of low class. From a drawing by a Maloh.
- Fig. 9.—Kajaman (?) design representing the fruit of *Plukenetia corniculata* (*jalaüt*) tatued on the breasts or shoulders of men. From a tatu-block in the Sarawak Museum. (No. 1054·21.)
- Fig. 10.—Tatu design on the biceps of an Ukit man, said to represent a bead (*lukut*). From a drawing.

## PLATE XIII.

- Fig. 1.—Design (*gerowit*, hooks) tatued on the breast of a Bakatan man. From a tatu-block in the collection of H.H. the Rajah of Sarawak.
- Fig. 2.—" " " "
- Fig. 3.—Design (*akih*, tree gecko) tatued on the shoulder of a Bakatan man. From a drawing.
- Fig. 4.—" " " "
- Fig. 5.—Design tatued on the calf of the leg of an Ukit. From a photograph.
- Fig. 6.—Tatu design on the foot of a Kayan woman of low class. From a drawing.
- Fig. 7.—Design representing an antique bead (*lukut*) tatued on the wrist of a Bakatan girl. From a drawing.
- Fig. 8.—Design (*gerowit*) tatued on the metacarpals of a Bakatan girl. From a drawing.
- Fig. 9.—Design (*kanak*, circles) on the back of a Bakatan man. From a tatu-block.
- Fig. 10.—Design (*gerowit*) tatued on the throat of a Bakatan man. From a photograph.

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## ERRATUM.

Plates VI-XIII, for “Tutu” read “Tatu.”