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PLATE I. YOUNG KAYAN CHIEF WITH MIDDLE-CLASS COMPANION.

THE PAGAN TRIBES OF BORNEO

A DESCRIPTION OF THEIR PHYSICAL
MORAL AND INTELLECTUAL CONDITION
WITH SOME DISCUSSION OF THEIR
ETHNIC RELATIONS

BY

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WITH AN APPENDIX ON THE PHYSICAL CHARACTERS
OF THE RACES OF BORNEO

BY

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IN TWO VOLUMES

VOL. I

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PREFACE

IN writing this book we have aimed at presenting a clear picture of the pagan tribes of Borneo as they existed at the close of the nineteenth century. We have not attempted to embody in it the observations recorded by other writers, although we have profited by them and have been guided and aided by them in making our own observations. We have rather been content to put on record as much information as we have been able to obtain at first hand, both by direct observation of the people and of their possessions, customs, and manners, and by means of innumerable conversations with men and women of many tribes.

The reader has a right to be informed as to the nature of the opportunities we have enjoyed for collecting our material, and we therefore make the following personal statement. One of us (C. H.) has spent twenty-four years as a Civil Officer in the service of the Rajah of Sarawak; and of this time twenty-one years were spent actually in Sarawak, while periods of some months were spent from time to time in visiting neighbouring lands—Celebes, Sulu Islands, Ternate, Malay Peninsula, British North Borneo, and Dutch Borneo. Of the twenty-one years spent in Sarawak, about eighteen were passed in the Baram district, and the remainder mostly in the Rejang district. In both these districts, but especially in the Baram, settlements and representatives of nearly all the principal

peoples are to be found; and the nature of his duties as Resident Magistrate necessitated a constant and intimate intercourse with all the tribes of the districts, and many long and leisurely journeys into the far interior, often into regions which had not previously been explored. Such journeys, during which the tribesmen are the magistrate's only companions for many weeks or months, and during which his nights and many of his days are spent in the houses of the people, afford unequalled opportunities for obtaining intimate knowledge of them and their ways. These opportunities have not been neglected; notes have been written, special questions followed up, photographs taken, and sketches made, throughout all this period.

In the years 1898-9 the second collaborator (W. McD.) spent the greater part of a year in the Baram district as a member of the Cambridge Anthropological Expedition, which, under the leadership of Dr. A. C. Haddon, went out to the Torres Straits in the year 1897. During this visit we co-operated in collecting material for a joint-paper on the animal cults of Sarawak;¹ and this co-operation, having proved itself profitable, suggested to us an extension of our joint program to the form of a book embodying all the information already to hand and whatever additional information might be obtainable during the years that one of us was still to spend in Borneo. The book therefore may be said to have been begun in the year 1898 and to have been in progress since that time; but it has been put into shape only during the last few years, when we have been able to come together for the actual writing of it.

During the year 1899 Dr. A. C. Haddon spent some months in the Baram district, together with other members of the Cambridge Expedition (Drs.

¹ Published in the *Journal of the Anthropological Institute*, vol. xxxi.

C. G. Seligmann, C. S. Myers, and Mr. S. Ray); and we wish to express our obligation to him for the friendly encouragement in, and stimulating example of, anthropological field work which he afforded us during that time, as well as for later encouragement and help which he has given us, especially in reading the proofs of the book and in making many helpful suggestions. We are indebted to him also for the Appendix to this book, in which he has stated and discussed the results of the extensive series of physical measurements of the natives that he made, with our assistance, during his visit to Sarawak.

We have pleasure in expressing here our thanks to several other gentlemen to whom we are indebted for help of various kinds—for permission to reproduce several photographs, to Dr. A. W. Nieuwenhuis, the intrepid explorer of the interior of Dutch Borneo, who in his two fine volumes (*Quer durch Borneo*) has embodied the observations recorded during two long journeys in the interior; to Mr. H. Ling Roth for the gift of the blocks used in the preparation of his well-known work, *The Natives of Sarawak and British North Borneo*, many of which we have made use of; to Dr. W. H. Furness, author of *The Home Life of Borneo Head-Hunters* (1902), for several photographic plates made by him during his visits to the Baram in the years 1897 and 1898; to Drs. C. G. Seligmann and C. S. Myers for permission to reproduce several photographs; to Mr. R. Shelford, formerly Curator of the Sarawak Museum, for his permission to incorporate a large part of a paper published jointly with one of us (C. H.) on tatu in Borneo, and for measurements of Land Dayaks made by him; to Mr. R. S. Douglas, formerly Assistant Officer in the Baram district and now Resident of the Fourth Division of Sarawak, for practical help genially afforded on many occasions.

Finally, it is our agreeable duty to acknowledge

our obligation to H.H. the Rajah of Sarawak, who welcomed to his country the members of the Cambridge Anthropological Expedition, and without whose enlightened encouragement of scientific work on the part of his officers this book would never have been written.

C. H.

W. McD.

July 1912.

SUPPLEMENTARY PREFACE BY ONE OF THE AUTHORS

I FEEL that it is necessary to supplement our joint-preface with some few words of apology for, and explanation of, the appearance of my name on the title-page of this book. For the book is essentially an attempt to set forth in condensed form the mass of knowledge of the tribes of Borneo acquired by Dr. Hose in the course of a quarter of a century's intimate study of, and sympathetic companionship with, the people of the interior. My own part in its production has been merely that of a midwife, though I may perhaps claim to have helped in the washing and dressing of the infant as well as in its delivery, and even to have offered some useful advice during the long years of pregnancy. And, since it is more difficult to present a brief and popular account of any complex subject the more intimate is one's knowledge of it, I may fairly hope that my superficial acquaintance with the pagan tribes of Borneo has been a useful ally to Dr. Hose's profound and extensive knowledge of them; I have therefore gladly accepted my friend's generous invitation to place my name beside his as joint-author of this work.

W. McD.

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The Eastern Archipelago.

Borneo.

Sketch Map of the Baram District, Sarawak.

Sketch Map of Sarawak.

CHAPTER I

GEOGRAPHY OF BORNEO

BORNEO is one of the largest islands of the world. Its area is roughly 290,000 square miles, or about five times that of England and Wales. Its greatest length from north-east to south-west is 830 miles, and its greatest breadth is about 600 miles. It is crossed by the equator a little below its centre, so that about two-thirds of its area lie in the northern and one-third lies in the southern hemisphere. Although surrounded on all sides by islands of volcanic origin, Borneo differs from them in presenting but small traces of volcanic activity, and in consisting of ancient masses of igneous rock and of sedimentary strata.

The highest mountain is Kinabalu, an isolated mass of granite in the extreme north, nearly 14,000 feet in height. With this exception the principal mountains are grouped in several massive chains, which rise here and there to peaks about 10,000 feet above the sea. The principal of these chains, the Tibang-Iran range, runs south-westward through the midst of the northern half of the island and is prolonged south of the equator by the Schwaner chain. This median south-westerly trending range forms the backbone of the island. A second much-broken chain runs across the island from east to west about 1° north of the equator. Besides these

two principal mountain chains which determine the main features of the river-system, there are several isolated peaks of considerable height, and a minor ridge of hills runs from the centre towards the south-east corner. With the exception of the northern extremity, which geographically as well as politically stands apart from the rest of the island, the whole of Borneo may be described as divided by the two principal mountain chains into four large watersheds. Of these, the north-western basin, the territory of Sarawak, is drained by the Rejang and Baram, as well as by numerous smaller rivers. Of the other three, which constitute Dutch Borneo, the north-eastern is drained by the Batang Kayan or Balungan river; the south-eastern by the Kotei and Banjermasin rivers; and the south-western by the Kapuas, the largest of all the rivers, whose course from the centre of the island to its south-west corner is estimated at 700 miles. Although the point of intersection of the two principal mountain chains lies almost exactly midway between the northern and southern and the eastern and western extremities of the island, the greater width of the southern half of the island gives a longer course to the rivers of that part, in spite of the fact that all the six principal rivers mentioned above have their sources not far from this central point. The principal rivers thus radiate from a common centre, the Batang Kayan flowing east-north-east, the Kotei south-east by east, the Banjermasin south, the Kapuas a little south of west, the Rejang west, and the Baram north-west. This radiation of the rivers from a common centre is a fact of great importance for the understanding of the ethnography of the island, since the rivers are the great highways which movements of the population chiefly follow.

In almost all parts of the island, the land adjoining the coast is a low-lying swampy belt consisting



PLATE 2. BRUNI, THE PILE-BUILT CAPITAL OF THE SULTANS OF BRUNI.

of the alluvium brought down by the many rivers from the central highlands. This belt of alluvium extends inland in many parts for fifty miles or more, and is especially extensive in the south and south-east of the island.

Between the swampy coast belt and the mountains intervenes a zone of very irregular hill country, of which the average height above the sea-level is about one thousand feet, with occasional peaks rising to five or six thousand feet or more.

There seems good reason to believe that at a comparatively recent date Borneo was continuous with the mainland of Asia, forming its south-eastern extremity. Together with Sumatra and Java it stands upon a submarine bank, which is nowhere more than one hundred fathoms below the surface, but which plunges down to a much greater depth along a line a little east of Borneo (Wallace's line). The abundance of volcanic activity in the archipelago marks it as a part of the earth's crust liable to changes of elevation, and the accumulation of volcanic matter would tend to make it an area of subsidence; while the north-east monsoon, which blows with considerable violence down the China Sea for about four months of each year, may have hastened the separation of Borneo from the mainland. That this separation was effected in a very recent geological period is shown by the presence in Borneo of many species of Asiatic mammals both large and small, notably the rhinoceros (*R. borneiensis*, closely allied to *R. sumatranus*); the elephant (*E. indicus*, which, however, may have been imported by man); the wild cattle (*Bos sondiacus*, which occurs also in Sumatra); several species of deer and pig (some of which are found in Sumatra and the mainland); several species of the cat tribe, of which the tiger-cat (*Felis nebulosa*) is the largest; the civet-cat (*Viverra*) and its congeners *Hemigale*, *Paradoxurus*, and *Arctogale*; the

small black bear (*Ursus malayanus*); the clawless otter (*Lutra cinerea*); the bear-cat (*Arctictis binturong*); the scaly ant-eater (*Manis javanicus*); the lemurs (*Tarsius spectrum* and *Nycticebus tardigradus*); the flying lemur (*Galeopithecus volans*); the porcupine (*Hystrix crassispinis*); numerous bats, squirrels, rats and mice; the big shrew (*Gymnura*); several species of monkeys, and two of the anthropoid apes. The last are of peculiar significance, since they are incapable of crossing even narrow channels of water, and must be regarded as products of a very late stage of biological evolution. Of these two anthropoid species, the gibbon (*Hylobates Mülleri*) is closely allied to species found in the mainland and in Sumatra, while the *maias* or orangutan (*Simia satyrus*) is found also in Sumatra and, though not now surviving on the continent, must be regarded as related to anthropoids whose fossil remains have been discovered there.¹

The zoological evidence thus indicates a recent separation of Borneo and Sumatra from the continent, and a still more recent separation between the two islands.

The climate of the whole island is warm and moist and very equable. The rainfall is copious at all times of the year, but is rather heavier during the prevalence of the north-east monsoon in the months from October to February, and least during the months of April and May. At Kuching, during the last thirty years, the average yearly rainfall has been 160 inches, the maximum 225, and the minimum 102 inches; the maximum monthly fall recorded was 69 inches, and the minimum '66, and the greatest rainfall recorded in one day was 15 inches. The temperature hardly, if ever, reaches 100° F.; it ranges normally between 70° and 90° F.; the

¹ Within Borneo the distribution of the *maias* seems to be largely determined by his incapacity to cross a river, there being several instances in which he occurs on the one but not on the other bank of a river.



PLATE 3. A JUNGLE PATH NEAR MARUDI, BARAM DISTRICT.

highest reading of one year (1906) at Kuching was 94° , the lowest 69° . Snow and frost are unknown, except occasionally on the summits of the highest mountains. Thunder-storms are frequent and severe, but wind-storms are not commonly of any great violence.

The abundant rainfall maintains a copious flow of water down the many rivers at all times of the year; but the rivers are liable to rise rapidly many feet above their normal level during days of exceptionally heavy rain. In their lower reaches, where they traverse the alluvial plains and swamps, the rivers wind slowly to the sea with many great bends, and all the larger ones are navigable by small steamers for many miles above their mouths: thus a large steam launch can ascend the Rejang for 160 miles, the Baram for 120, and some of the rivers on the Dutch side for still greater distances. The limit of such navigation is set by beds of rock over which the rivers run shallow, and which mark the beginnings of the middle reaches. In these middle reaches, where the rivers wind between the feet of the hills, long stretches of deep smooth water alternate with others in which the water runs with greater violence between confining walls of rock, or spreads out in wide rapids over stony bottoms. The upper reaches of the rivers, where they descend rapidly from the slopes of the mountains, are composed of long series of shallow rapids and low waterfalls, alternating at short intervals with still pools and calm shallows, bounded by rock walls and great beds of water-worn stones, which during the frequent freshets are submerged by a boiling flood. The whole river in these upper reaches is for the most part roofed in by the overarching forest.

Practically the whole of Borneo, from the sea-coast to the summits of the highest mountains, is

covered with a dense forest. On the summits this consists of comparatively stunted trees, of which every part is thickly coated with moss. In all other parts the forest consists of great trees rising to a height of 150 feet, and even 200 feet, and of a dense undergrowth of younger and smaller trees, and of a great variety of creepers, palms, and ferns. Trees of many species (nearly 500) yield excellent timber, ranging from the hardest iron-wood or *bilian*, and other hard woods (many of them so close-grained that they will not float in water), to soft, easily worked kinds. A considerable number bear edible fruits, notably the mango (from which the island derives its Malay name, *Pulu Klemantan*), the durian, mangosteen, rambutan, jack fruit, trap, lansat, banana of many varieties, both wild and cultivated, and numerous sour less nutritious kinds. Wild sago is abundant in some localities. Various palms supply in their unfolding leaves a cabbage-like edible. Among edible roots the caladium is the chief. Rubber is obtained as the sap of a wild creeper; gutta-percha from trees of several varieties; camphor from pockets in the stem of the camphor tree (*Dryobalanops aromatica*). But of all the jungle plants those which play the most important parts in the life of the people are the many species of the rattan and the bamboo; without them more than half the crafts and most of the more important material possessions of the natives would be impossible, and their lives would perhaps nearly conform to the conventional notion of savage existence as something 'nasty, dull, and brutish.' The jungle of Borneo is, of course, famous for its wealth of orchids, and can claim the distinction of producing the largest flower of the world (*Rafflesia*), and many beautiful varieties of the pitcher plant.

The forests of Borneo harbour more than 450



PLATE 4. A LIMESTONE HILL AT PANGA IN UPPER SARAWAK.

species of birds, many of them being of gorgeous colouring or strange and beautiful forms ; especially noteworthy are many hawks, owls, and eagles, fly-catchers, spider-hunters, sun-birds, broad-bills, night-jars, orioles, miners, pigeons, kingfishers, hornbills, trojans, magpies, jays, crows, partridges, pheasants, herons, bitterns, snipes, plovers, curlews, and sand-pipers. Amongst these are many species peculiar to Borneo ; while on the mountains above the 4000-foot level are found several species which outside Borneo are known only in the Himalayas.

Besides the mammals mentioned above, Borneo claims several species of mammal peculiar to itself, notably the long-nosed monkey (*Nasalis larvatus*) ; two species of ape (*Semnopithecus Hosei* and *S. cruciger*) ; many shrews and squirrels, including several flying species ; a civet-cat (*Hemigale Hosei*) ; a deer (*Cervus Brookii*) ; the bearded pig (*Sus barbatus*) ; the curious feather-tailed shrew (*Ptylocercus Lowii*).

Reptiles are well represented by the crocodile, which abounds in all the rivers, a long-snouted gavial, numerous tortoises and lizards with several flying species, and more than seventy species of snakes, of which some are poisonous, while the biggest, the python, attains a length of thirty feet. The rivers abound in edible fish of many species ; insects are of course numerous and varied, and, aided by the multitude of frogs, they fill the island each evening at sunset with one vast chorus of sound.

CHAPTER II

HISTORY OF BORNEO

THE Pagan tribes of Borneo have no written records of their history and only very vague traditions concerning events in the lives of their ancestors of more than five or six generations ago. But the written records of more cultured peoples of the Far East contain references to Borneo which throw some small rays of light upon the past history and present condition of its population. It has seemed to us worth while to bring together in these pages these few historical notes. The later history of Borneo, which is in the main the story of its occupation by and division between the Dutch and English, and especially the romantic history of the acquisition of the raj of Sarawak by its first English rajah, Sir James Brooke, has often been told,¹ and for this reason may be dismissed by us in a very few words.

The coasts of Borneo have long been occupied by a Mohammedan population of Malay culture; this population is partly descended from Malay and Arab immigrants, and partly from indigenous individuals and communities that have adopted the Malay faith and culture in recent centuries. When Europeans first visited the island, this population, dwelling for the most part, as it still does, in villages and small towns upon the coast and in or near the

¹ See especially the recently published *History of Sarawak under its Two White Rajahs*, by S. Baring-Gould and C. A. Bampfylde, London, 1910.



PLATE 5. MOUNT DULIT FROM THE TINJAR RIVER.

mouths of the rivers, owed allegiance to several Malay sultans and a number of subordinate rulers, the local rajahs and pangirans. The principal sultans had as their capitals, from which they took their titles, Bruni on the north-west, Sambas in the west, Pontianak at the mouth of the Kapuas river, Banjarmasin in the south at the mouth of the river of the same name, Pasir at the south-east corner, Kotei and Balungan on the east at the mouths of the rivers of those names; while the Sultan of Jolo, the capital of the Sulu islands, which lie off the north coast, claimed sovereignty over the northern end of Borneo. But these Malay sultans were not the first representatives in the island of culture and of civilised or semi-civilised rule; for history preserves some faint records of still earlier times, of which some slight confirmation is afforded by surviving traces of the culture then introduced.

In spite of all the work done on the history of the East Indies, most of what occurred before and much that followed the arrival of Europeans remains obscure. There are several Asiatic nations whose records might be expected to contain valuable information, but all are disappointing. The Klings, still the principal Hindu traders in the Far East, visited the Malay Archipelago in the first or at any rate the second century after Christ,¹ and introduced their writing² and chronology. But their early histories are meagre and unsatisfactory in the extreme. The Arab culture of the Malays, which took root in Sumatra in the twelfth century, is of course of no assistance in regard to events of earlier date, and does not give trustworthy and detailed

¹ Crawford, *Descriptive Dictionary*, p. 140.

² Despite Crawford's opinion this is now an accepted fact. Raffles's *History of Java* contains much interesting information on the point, and there is a remarkable statement which has not obtained the attention that it deserves, showing that the Chinese recognised the similarity between the Java and Soli (Nagpur) alphabets.—Groeneveldt, *Notes on Malay Archipelago and Malacca*; Trübner's *Essays Relating to Indo-China*, vol. i. p. 166.

accounts until the fifteenth century. The Chinese, on the other hand, always a literary people, carefully preserved in their archives all that could be gathered with regard to the "southern seas." But China was far away, and many local events would possess no interest for her subjects. Under the circumstances, the official historians deserve our gratitude for their geographical descriptions and for the particulars of tribute-bearing missions to the Son of Heaven, though they have little else to tell.

The first account we have been able to find referring to Borneo is a description of the kingdom of Poli from the Chinese annals of the sixth century. Poli was said to be on an island in the sea south-east of Camboja, and two months south-east of Canton. The journey thither was made by way of the Malay Peninsula, a devious route still followed by Chinese junks. Envoys were sent to the Imperial court in A.D. 518, 523, and 616. "The people of this country," our authority says, "are skilled in throwing a discus-knife, and the edge is like a saw; when they throw it at a man, they never fail to hit him. Their other arms are about the same as in China. Their customs resemble those of Camboja, and the productions of the country are the same as of Siam. When one commits a murder or theft they cut off his hands,¹ and when adultery has been committed, the culprit has his legs chained for the period of a year. For their sacrifice they choose the time when there is no moon; they fill a bowl with wine and eatables and let it float away on the surface of the water; in the eleventh month they have a great sacrifice. They get corals from the sea, and they have a bird called s'ari, which can talk." A later reference to the same place says: "They carry the teeth of wild beasts in their ears, and

¹ There is a Bruni still alive whose hands have been cut off for theft.



KELTIE FALLS, MOUNT DULIT, SARAWAK.



PLATE 6. KENVAHS STOPPING TO CAMP FOR THE NIGHT
ON THE BARAM RIVER.

wrap a piece of cotton round their loins; cotton is a plant of which they collect the flowers to make cloth of them; the coarser kind is called *kupa*, and the finer cloth *t'ieh*. They hold their markets at night, and cover their faces. . . . At the east of this country is situated the land of the Rakshas, which has the same customs as Poli.”¹

This is an interesting account in many ways, and tallies very closely with what other evidence would lead one to suspect. For there is reason to think that Bruni, before it became Mohammedan, was a Bisaya kingdom under Buddhist sovereigns and Hindu influence; and nearly all the particulars given with regard to the people of Borneo are true of one or other of the races allied to Bisayas and living near Bruni to-day. The discus-knife, a wooden weapon, is not now in use, but is known to have been used formerly. The wild Kadayans sacrifice after every new moon, and are forbidden to eat a number of things until they have done so. The Malanaus set laden rafts afloat on the rivers to propitiate the spirits of the sea. The very names of the two kinds of cotton, then evidently a novelty to the Chinese, are found in Borneo: *kapok* is a well-known Malay word; but *taya* is the common

¹ This account is taken from Groeneveldt (*loc. cit.*) who, however, supposes Poli to be on the north coast of Sumatra. In this he follows “all Chinese geographers,” adding “that its neighbourhood to the Nicobar Islands is a sufficient proof that they are right.” But Rakshas, which may have been “for a long time the name of the Nicobar Islands, probably on account of the wildness and bad reputation of their inhabitants,” is merely Rakshasa, a term applied by the Hindu colonists in Java and the Malay Peninsula to any wild people, so that the statement that to the east of Poli is situated the land of the Rakshas is hardly sufficient support for even “all Chinese geographers.” Trusting to “modern Chinese geographers,” Groeneveldt makes Kaling, where an eight-foot gnomon casts a shadow of 2.4 feet at noon on the summer solstice, to be Java, that is to say, to be nearly 5° south of the equator. Having unwittingly demonstrated how untrustworthy are the modern geographers, he must excuse others if they prefer the original authority, who states that Poli is south-east of Camboja, the land of the Rakshas east of Poli, to “all” geographers who state on the contrary that Poli is south-west of Camboja, the Rakshas’ country west of Poli. The name Poli appears to be a more accurate form of Polo, the name by which Bruni is said to have been known to the Chinese in early times.

name for cotton among the Sea Dayaks, though it is doubtful whether it is found in Sumatra at all, and is not given in Marsden's great Dictionary. The use of teeth as ear-ornaments may refer to Kenyahs. If these identities are sufficient to show that Poli was old Bruni, we have an almost unique illustration here of the antiquity of savage customs. That an experience of fourteen hundred years should have failed to convince people of the futility of feeding salt waves is a striking demonstration of the widespread fallacy, that what is old must needs be good.

Poli had already attained a certain measure of civilisation, and even of luxury. The kingly dignity was hereditary, and the Buddhist monarch was served with much ceremony. He was clad in flowered silk or cotton, adorned with pearls, and sat on a golden throne attended by servants with white dusters and fans of peacock feathers. When he went out of his palace, his chariot, canopied with feathers and embroidered curtains, was drawn by elephants, whilst gongs, drums, and conches made inspiring music. As Hindu ornaments have been found at Santubong together with Chinese coins of great antiquity, as the names of many offices of state in Bruni are derived from Sanskrit, and the people of Sarawak have only lately ceased to speak of "the days of the Hindus,"¹ there is nothing startling in the statement that the kings of Poli were Buddhist.

Whatever Poli may or may not have been, there is little question that Puni, 45 days from Java, 40 from Palembang, 30 from Champa, in each case taking the wind to be fair, was Bruni. The Chinese, who have neither *b* nor double consonants in their impoverished language, still call the Bornean capital Puni. Groeneveldt says that the Chinese

¹ Rajah Charles Brooke, *Ten Years in Sarawak*, quoted in Ling Roth's valuable work, *The Natives of Sarawak and British North Borneo*, vol. ii. p. 279.



PLATE 7. THE REJANG RIVER EMERGING FROM THE CENTRAL MOUNTAIN REGION.

consider Puni to have been on the west coast of Borneo. This state is mentioned several times in the annals of the Sung dynasty, which, though only ruling over Southern China, had a complete monopoly¹ of the ocean trade for three centuries (960 to 1279 A.D.). Puni was at that time a town of some 10,000 inhabitants, protected by a stockade of timber. The king's palace, like the houses of modern Bruni, was thatched with palm leaves, the cottages of the people with grass. Warriors carried spears and protected themselves with copper armour. When any native died, his corpse was exposed in the jungle, and once a year for seven years sacrifices were made to the departed spirit. Bamboos and palm leaves, thrown away after every meal, sufficed for crockery. The products of the country, or at least such as were sent as tribute, were camphor, tortoiseshell, and ivory.²

In the year 977, we are told, Hianzta, king of Puni, sent envoys to China, who presented tribute with the following words: "May the emperor live thousands and tens of thousands of years, and may he not disapprove of the poor civilities of my little country." The envoys presented a letter from the king. This was written on what looked like the very thin bark of a tree; it was glossy, slightly green, several feet long, and somewhat broader than one inch; the characters in which it was written were small, and had to be read horizontally. In all these particulars the letter resembled the books of magic which are still written by the Battas of inland Sumatra.³ The message ran: "The king of Puni, called Hianzta, prostrates himself before the most august emperor, and hopes that the emperor may live ten thousands of years. I have now sent envoys to carry tribute; I knew before that there

¹ E. H. Parker, *China*, p. 33.

² Groeneveldt, *loc. cit.*

³ Marsden, *History of Sumatra*, p. 383.

was an emperor, but I had no means of communication. Recently there was a merchant called Pu Lu, whose ship arrived at the mouth of my river; I sent a man to invite him to my place, and he told me that he came from China. The people of my country were much delighted at this, and preparing a ship, asked this stranger to guide them to the court. The envoys I have sent only wish to see Your Majesty in peace, and I intend to send people with tribute every year. But when I do so I fear that my ships may occasionally be blown to Champa, and I therefore hope Your Majesty will send an edict to that country with orders that, if a ship of Hianzta arrives there, it must not be detained. My country has no other articles,¹ and I pray Your Majesty not to be angry with me." The envoys were entertained and sent home with presents. In 1082 A.D., a hundred years later, Sri Maja, king of Puni, sent tribute again, but the promise of yearly homage was not kept. Gradually the Sung dynasty declined in power, and East Indian potentates became less humble.

In the thirteenth and the early part of the fourteenth centuries Bruni owed allegiance alternately to two powers much younger than herself, Majapahit in Java, and Malacca on the west coast of the Malay Peninsula. Both these states were founded in the thirteenth century.² Majapahit, originally only one of several Javan kingdoms, rapidly acquired strength and subjugated her neighbours and the nearest portions of the islands around. Malacca, formed when the Malay colony of Singapore was overwhelmed by Javanese, became the great commercial depot of the Straits and the chief centre of Mohammedanism in the Archipelago. The two powers therefore stood for two faiths and two

¹ Than camphor, tortoiseshell, ivory, and sandal woods.

² There is some doubt as to the date of the foundation of Majapahit.



PLATE 8. GORGE IN THE REJANG RIVER ABOVE THE ENTRANCE OF BALOI PEH.



cultures: Majapahit for Brahminism and Hindu influence, Malacca for Islam and the more practical civilisation of Arabia.

In the earliest years of the fourteenth century Bruni was a dependency of Majapahit, but seems to have recovered its independence during the minority of the Javan king. It is to this time that the tradition of the Kapuas Malays ascribes the arrival of the Kayans in Borneo.¹ Then Angka Wijaya extended the power of Majapahit over Palembang in Sumatra, Timor, Ternate, Luzon, and the coasts of Borneo. Over Banjarmasin he set his natural son. In 1368 Javanese soldiers drove from

¹ According to a Malay manuscript of some antiquity lent to us by the late Tuanku Mudah, one of the kings (*batara*) of Majapahit had a beautiful daughter, Radin Galo Chindra Kirana. This lady was much admired by Laiang Sitir and Laiang Kemitir, the two sons of one Pati Legindir. On the death of the king, Pati Legindir ruled the land and the beautiful princess became his ward. He, to satisfy the rival claims of his two sons, promised that whoever should kill the raja of Balambangan (an island off the north coast of Borneo), known by the nickname of Manok Jingga, should marry the princess. Now at the court there happened to be Damar Olan, one of the sons of Raja Matarem, who had disguised his high descent and induced Pati Legindir to adopt him as his son. This young man found favour in the princess's eyes, and she tried to persuade her guardian to let her marry him. Pati Legindir, however, declared that he would keep to his arrangement, and roughly told the lover to bring Manok Jingga's head before thinking of marrying the princess. So Damar Olan set out with two followers on the dangerous mission, which he carried out with complete success. On his return he met his two rivals, who induced him to part with the head of the royal victim, and then buried him alive in a deep trap previously prepared. Pati Legindir, suspecting nothing, ordered his ward to marry Laiang Sitir, who brought the trophy to the palace; but the princess had learned of the treachery from one of the spectators, and asked for a week's delay. Before it was too late, Damar Olan, who had managed to find a way out of what nearly proved a grave, reached the court and told his tale, now no longer concealing his rank. He married the princess and afterwards was entrusted by Pati Legindir with all the affairs of state. Having obtained supreme power, Damar Olan sent his treacherous rivals to southern Borneo, with a retinue of criminals mutilated in their ear-lobes and elsewhere as a penalty for incest. These transported convicts, the ancestors of the Kayans, landed near Sikudana and spread into the country between the Kapuas and Banjarmasin. It is interesting to see how this tale agrees with other traditions. The Kayans state that they came across the sea at no distant date. Javan history relates that Majapahit was ruled during the minority of Angka Wijaya by his elder sister, the princess Babu Kanya Kanchana Wungu. A neighbouring prince, known as Manok Jengga, took advantage of this arrangement by seizing large portions of the young king's domains. One, Daram Wulan, however, son of a Buddhist devotee, overthrew him and was rewarded by the hand of the princess regent. When Angka Wijaya came of age he entrusted the care of a large part of his kingdom to his sister and brother-in-law.

Bruni the Sulu marauders who had sacked the town. A few years later the ungrateful king transferred his allegiance to China, and not long afterwards, with calculating humility, paid tribute¹ to Mansur Shah, who had succeeded to the throne of Malacca in 1374 A.D.

An extraordinary incident occurred at the beginning of the fifteenth century, which again—and for the last time—draws our attention to the Chinese court. The great Mongol conquerors, Genghis and Kublai Khan, had little to do with the Malay Archipelago, though the latter sent an unsuccessful expedition against Java in 1292. But the Ming emperors, who were of Chinese blood, came to power in 1368 and soon developed the maritime influence of the empire. For a few years there was a continual stream of East Indian embassies. During the last twenty years of the century, however, these became more rare, and in 1405 the Chinese emperor found it necessary to send a trusted eunuch, by name Cheng Ho, to visit the vassal states in the south. This man made several journeys, travelling as far as the shores of Africa, and his mission bore immediate fruit. Among others, Maraja Kali, king of Puni, although Cheng Ho does not appear to have called on him in person, sent tribute in 1405; and so pleased was he with the embroidered silk presented to him and his wife in return, that he visited the Son of Heaven three years later. Landing in Fukien, he was escorted by a eunuch to the Chinese capital amid scenes of great rejoicing. The emperor received him in audience, allowing him the honours of a noble of the first rank, and loaded him with gifts. The same year, having accomplished his one great ambition of “seeing the face of the Son of Heaven,” this humbled monarch died in the imperial city, leaving

¹ *Sejarah Malaya*, edited by Shellabear, Singapore, 1896, p. 106.



PLATE 9. THE REJANG RIVER WINDING THROUGH THE HILL COUNTRY.



PLATE 10. THE REJANG RIVER ABOUT 300 MILES ABOVE ITS MOUTH.

his son Hiawang to succeed to the throne of Puni. Having induced the emperor to stop the yearly tribute of forty katties of camphor paid by Puni to Java, and having agreed to send tribute to China every three years, Hiawang returned home to take up the reins of government. Between 1410 and 1425 he paid tribute six times, besides revisiting the Chinese Court; but afterwards little Puni seems to have again ignored her powerful suzerain.

It is probable that the Chinese colony in North Borneo which gave its name to the lofty mountain Kina Balu (Chinese widow) and to the Kina Batangan, the chief river which flows from it, was founded about this time. Several old writers seem to refer to this event, and local traditions of the settlement still survive. The Brunis and Idaans (a people in the north not unlike the Bisayas) have legends differing in detail to the effect that the Chinese came to seize the great jewel of the Kina Balu dragon, but afterwards quarrelled about the booty and separated, some remaining behind. The Idaans consider themselves the descendants of these settlers, but that can only be true in a very limited sense. Both country and people, however, show traces of Chinese influence.

There is good evidence that the Chinese influence and immigration were not confined to Bruni and the northern end of the island. In south-west Borneo there are traces of very extensive washings of alluvial gravels for gold and diamonds. These operations were being conducted by Chinese when Europeans first came to the country; and the extent of the old workings implies that they had been continued through many centuries. Hindu-Javan influence also was not confined to the court of Bruni, for in many parts of the southern half of Borneo traces of it survive in the custom of burning the dead, in low relief carvings of bulls

on stone, and in various gold ornaments of Hindu character.

The faith of Islam and the arrival of Europeans have profoundly affected the manners and politics of the East Indies, and now it is difficult to picture the state of affairs when King Hiawang revisited China to pay homage to the Emperor. In 1521, within a hundred years of that event, Pigafetta, the chronicler of Magellan's great exploit, was calling on the "Moorish" king of Bruni, in the course of the first voyage round the world. The change had come. Of the two new influences, so potent for good and evil, Mohammedanism made its appearance first. The struggle for religious supremacy ended in the complete victory of the Prophet's followers in 1478, when Majapahit was utterly destroyed, thirty years before the capture of Malacca by the Portuguese.

How early the Arab doctrines were taught in Bruni it is impossible to state with any precision. Local tradition ascribes their introduction to the renowned Alak ber Tata, afterwards known as Sultan Mohammed. Like most of his subjects this warrior was a Bisaya, and in early life he was not a Mohammedan, not indeed a civilised potentate at all, to judge by conventional standards; for the chief mark of his royal dignity was an immense chawat, or loin-cloth, carried as he walked by eighty men, forty in front and forty behind. He is the earliest monarch of whom the present Brunis have any knowledge, a fact to be accounted for partly by the brilliance of his exploits, partly by the introduction about that time of Arabic writing. After much fighting he subdued the people of Igan,¹ Kalaka, Seribas, Sadong, Semarahan, and Sarawak,² and compelled them to pay tribute. He

¹ Whose descendants are the Malanaus.

² Cf. Low, *Journal Straits Branch Royal Asiatic Society*, vol. v. p. 1, from whose article we have obtained much interesting material.



PLATE II. JUNGLE ENVELOPED IN THICK MOSS ON SUMMIT OF MOUNT DULIT.

stopped the annual payment to Majapahit of one jar of pinang juice, a useless commodity though troublesome to collect. During his reign the Muruts were brought under Bruni rule by peaceful measures,¹ and the Chinese colony was kept in good humour by the marriage of the Bruni king's brother and successor to the daughter of one of the principal Chinamen.

Alak ber Tata is said to have gone to Johore,² where he was converted³ to Islam, given⁴ the daughter of Sultan Bakhei and the title of Sultan, and was confirmed in his claim to rule over Sarawak and his other conquests.⁵

Sultan Mohammed was succeeded by his brother Akhmad, son-in-law of the Chinese chief, and he was in turn succeeded by an Arab from Taif who had

¹ This is said to have been accomplished by Alak ber Tata's brother, Awang Jerambok, the story of whose dealings with the Muruts is well known both to Brunis and Muruts. He set out one day for the head of the river Manjilin, but lost his way after crossing the mountains. After wandering for three days he came upon a Murut village, whose inhabitants wished to kill him. He naturally told them not to do so, and they desisted. After some time, which he spent with these rude folk, then not so far advanced into the interior, he so far won their affections that they followed him to Bruni, where they were entertained by the sovereign and generously treated. These Muruts then induced their friends to submit.

² Founded after the capture of Malacca by the Portuguese, 1512 A.D. (Crawford, *Descriptive Dictionary*). Sultan Abdul Krahah, great-great-grandson of Sultan Mohammed's younger brother, died about 1575 A.D. From this fact and the statement that Mohammed stopped the Majapahit tribute, we may infer that the latter sat on the throne of Bruni in the middle of the fifteenth century; if this inference is correct, the story of his visit to Johore must be unfounded.

³ Some say he was never converted, others that he was summoned to Johore expressly to be initiated into Islam.

⁴ He is also alleged to have seized the lady in a drunken freak. It is stated that the Sultan was so much enraged at this that he proposed to make war on Bruni. His minister, however, suggested that enquiries should be made into the strength of that kingdom before commencing operations. He was accordingly sent to Bruni, where he was so well received that he married and remained there, with a number of followers. Word was sent to Johore that the princess was treated as queen and was quite happy with her husband. This appeased the Sultan's wrath. An old friend of ours belonging to the Burong Pingai section of Bruni, that is to say, the old commercial class, says that his people are all descended from this Pengiran Bandahara of Johore, and that the name Burong Pingai is derived from the circumstance that their ancestor had a pigeon of remarkable tameness.

⁵ Cf. with Dalrymple's account of the origin of the Sulu Sultanate, *Journal Indian Archipelago*, iii. 545 and 564. See also Lady Brassey's *Last Voyage*, p. 165.

married his daughter. Thus the present royal house of Bruni is derived from three sources—Arab, Bisaya, and Chinese. The coronation ceremony as still maintained affords an interesting confirmation of this account. On that occasion the principal minister wears a turban and Haji outfit, the two next in rank are dressed in Chinese and Hindu fashion, while the fourth wears a chawat over his trousers to represent the Bisayas; and each of these ministers declares the Sultan to be divinely appointed. Then after the demonstration of loyalty the two gongs—one from Menangkabau, the other from Johore—are beaten, and the Moslem high priest proclaims the Sultan and preaches a sermon, declaring him to be a descendant of Sri Turi Buana, the Palembang chief who founded the early kingdom of Singapore in 1160 A.D., who reigned in that island for forty-eight years, and whose descendants became the royal family of Malacca.

The Arab Sultan who succeeded Akhmed assumed the name Berkat and ruled the country with vigour. He built a mosque and converted many of his subjects, so that from his reign Bruni may be considered a Mohammedan town. To defend the capital he sank forty junks filled with stone in the river, and thus formed the breakwater which still bars the entrance to large ships. This work rose above the water level, and in former times bristled with cannon. Sultan Berkat was succeeded by his son Suleiman, whose reign was of little consequence.

Neglecting Suleiman, we come now to the most heroic figure in Bruni history, Sultan Bulkiah, better known by his earlier name, Nakoda Ragam. The prowess of this prince has been celebrated in prose and verse. He journeyed to distant lands, and conquered the Sulu islands and eastern Borneo. Over the throne of Sambas he set a weak-minded



PLATE 12. HEAD OF THE REJANG RIVER.

brother of his own. He even sent an expedition to Manila, and on the second attempt seized that place. Tribute poured into his coffers from all sides. His wife was a Javanese princess, who brought many people to Bruni. These intermarried with the Bisayas, and from them it is said are sprung the Kadayans, a quiet agricultural folk, skilled in various arts, but rendered timid by continual oppression. Some have settled recently in the British colony of Labuan, and others in Sarawak round the river Sibuti, where they have become loyal subjects of the Rajah of Sarawak.

Nakoda Ragam's capital at Buang Tawa was on dry land, but when he died, killed accidentally by his wife's bodkin, the nobles quarrelled among themselves, and some of them founded the present pile-built town of Bruni. It was to this Malay capital and court that Pigafetta paid his visit in 1521 with the surviving companions of Magellan. His is the first good account from European sources of the place which he called Bornei, and whose latitude he estimated with an error of less than ten miles.¹

It is easy to see from Pigafetta's narrative ² that at the date of his visit the effects of Nakoda Ragam's exploits had not evaporated. The splendour of the Court and the large population the city is said to have contained were presumably the result of the conquests he had made in neighbouring islands. The king, like the princes of Malacca before the conquest, had his elephants, and he and his courtiers were clothed in Chinese satins and Indian brocades. He was in possession of artillery, and the appearance and ceremonial of his court was imposing.

¹ He puts the longitude 30° too far east ; but in his day, of course, there were no chronometers.

² Cited in full by Crawford, *Descriptive Dictionary of the Indian Islands*. Article, "Brunai."

From this time onwards the power of Bruni has continuously declined. Recurrent civil wars invited the occasional interventions of the Portuguese and of the Spanish governors of the Philippines, which, although they did not result in the subjugation of the Malay power, nevertheless sapped its strength.

The interest of the later history of Borneo lies in the successive attempts,¹ many of them fruitless, made by Dutch and English to gain a footing on the island. The Dutch arrived off Bruni in the year 1600, and ten days afterwards were glad to leave with what pepper they had obtained in the interval, the commander judging the place nothing better than a nest of rogues. The Dutch did not press the acquaintance, but started factories at Sambas, where they monopolised the trade. In 1685 an English captain named Cowley arrived in Bruni; but the English showed as little inclination as the Dutch to take up the commerce which the Portuguese had abandoned.

At Banjarmasin, on the southern coast, more progress was made. The Dutch arrived there before their English rivals, but were soon compelled by intrigues to withdraw. In 1704² the English factors on the Chinese island of Chusan, expelled by the imperial authorities and subsequently driven from Pulo Condar off the Cochin China coast by a mutiny, arrived at Banjarmasin. They had every reason to be gratified with the prospects at that port; for they could sell the native pepper to the Chinese at three times the cost price. But their bitter experiences in the China seas had not taught them wisdom; they soon fell out with the Javanese Sultan, whose hospitality they were enjoying, and after some bloody struggles were obliged to withdraw from this part of the island.

¹ Much of the following information is extracted from an article by J. R. Logan on European intercourse with Borneo, *Journal Indian Archipelago*, vol. ii. p. 505.

² The article in the *Journal Indian Archipelago* says 1702.



PLATE 13. IN THE HEADWATERS OF THE BARAM RIVER.

In 1747 the Dutch East India Company, which in 1705 had obtained a firm footing in Java, and in 1745 had established its authority over all the north-eastern coast of that island, extorted a monopoly of trade at Banjermasin and set up a factory. Nearly forty years later¹ (1785), the reigning prince having rendered himself odious to his subjects, the country was invaded by 3000 natives of Celebes. These were expelled by the Dutch, who dethroned the Sultan, placing his younger brother on the throne; and he, in reward for their services, ceded to them his entire dominions, consenting to hold them as a vassal. This is the treaty under which the Dutch claim the sovereignty of Banjermasin and whatever was once dependent on it. In this way the Dutch got a hold on the country which they have never relaxed; and, after the interval during which their possessions in the East Indies were administered by England,² they strengthened that hold gradually, year by year, till now two-thirds or more of the island is under their flag and feels the benefits of their rule. If there are still any districts of this large area where Dutch influence has even now barely made itself felt, they will not long remain in their isolation; for the Controleurs are extending their influence even into the most remote corners of the territory.

To turn again to the north-western coast and the doings of Englishmen, in 1763 the Sultan of Sulu ceded to the East India Company the territory in Borneo which had been given him when he killed the usurper Abdul Mubin in Bruni. In 1773 a small settlement was formed on the island of Balambangan, north of Bruni; and in the following year the Sultan of Bruni agreed to give this settlement a monopoly of the pepper trade in return for protection from piracy. In the next

¹ Crawford, *Descriptive Dictionary*, p. 37.

² 1811 to 1815.

year, however, Balambangan was surprised and captured by the Sulus. It was reoccupied for a few months in 1803, and then finally forsaken.

Towards the end of the eighteenth century the Malays of Bruni, Sulu, and Mindanao, with native followers and allies, inspired we may suppose by the example of their European visitors, took to piracy—not that they had not engaged in such business before, but that they now prosecuted an old trade with renewed vigour. English traders still tried to pay occasional visits, but after the loss of the *May* in 1788, the *Susanna* in 1803, and the *Commerce* in 1806, with the murder of the crews, the Admiralty warned merchants that it was *certain destruction* to go up river to Bruni. For forty years this intimation was left on British charts, and British seamen followed the humiliating counsel. Not until the early forties was peace restored, after an event of the most romantic and improbable kind, the accession of an English gentleman to the throne of Sarawak.

Of this incident, so fateful for the future of the western side of Borneo, it must suffice to say here that James Brooke, a young Englishman, having resigned his commission in the army of the British East India Company, invested his fortune in a yacht of 140 tons, with which he set sail in 1838 for the eastern Archipelago. His bold but vague design was to establish peace, prosperity, and just government in some part of that troubled area, whose beauties he had admired and whose misfortunes he had deplored on the occasion of an earlier voyage to the China seas. When at Singapore, he heard that the Malays of Sarawak, a district forming the southern extremity of the Sultanate of Bruni, had rebelled against the Bruni nobles, and had in vain appealed to the Dutch Governor-general at Batavia for deliverance from



PLATE 14. LIOH MATU (THE PLACE OF A HUNDRED ISLANDS),
AT THE HEAD OF THE BARAM RIVER.

their oppressors. Under the nominal authority of the Sultan, these Bruni nobles, many of whom were of Arab descent, had brought all the north-western part of Borneo to a state of chronic rebellion. They had taught the Sea Dayaks of the Batang Lupar and neighbouring rivers to join them in their piratical excursions, and, being to some extent dependent upon their aid, were compelled to treat them with some consideration ; but all other communities were treated by them with a rapacity and cruelty which was causing a rapid depopulation and the return to jungle of much cultivated land.

Brooke sailed for Sarawak in August 1839, and found the country torn by internal conflicts. The Sultan had recently sent Muda Hasim, his uncle and heir-presumptive to the throne of Bruni, to restore order ; but this weak though amiable noble had found himself quite incapable of coping with the situation. Brooke spent some time surveying the coast and studying the people and country, and gained the confidence of Muda Hasim. After an excursion to Celebes, Brooke sailed for a second visit to Sarawak just a year after the first, and found the state of the country going from bad to worse. Muda Hasim besought him to take command of his forces and to suppress the rebellion. Brooke consented, and soon secured the submission of the rebel leaders on the condition that he (Brooke), and not any Bruni noble, should be the governor and Rajah of Sarawak. Muda Hasim had offered to secure his appointment to this office as an inducement to him to undertake the operations against the rebels ; Brooke therefore felt himself justified in granting these terms. And when later Muda Hasim, no longer threatened with disgrace and failure, showed himself disinclined to carry out this arrangement, Brooke, feeling himself bound by his agreement with the rebel leaders, whose lives he

had with difficulty preserved from the vengeance of the Bruni nobles, insisted upon it with some show of force; and on September 24, 1841, he was proclaimed Rajah and governor of Sarawak amid the rejoicings of the populace. Muda Hasim, as representative of the Sultan, signed the document which conferred this title and authority; but since he was not in any proper sense Rajah of Sarawak, which in fact was not a raj, but a district hitherto ruled or misruled by Bruni governors not bearing the title of Rajah, this transaction cannot properly be described as an abdication by Muda Hasim in favour of Brooke. Brooke accordingly felt that it was desirable to secure from the Sultan himself a formal recognition of his authority and title. To this end he visited the Sultan in the year 1842, and obtained from him the desired confirmation of the action of his agent Muda Hasim. The way in which the raj of Sarawak has since been extended, until it now comprises a territory of nearly 60,000 square miles (approximately equal to the area of England and Wales), will be briefly described in a later chapter (XXII.).

The northern end of Borneo had long been a hunting-ground for slaves for the nobles of Bruni and Sulu, whose Sultans claimed but did not exercise the right to rule over it. In 1877 Mr. Alfred Dent, a Shanghai merchant, induced the two Sultans to resign to him their sovereign rights over this territory in return for a money payment. The British North Borneo Company, which was formed for the commercial development of it, necessarily undertook the task of pacification and administration. In 1881 the company was granted a royal charter by the British Government; and it now administers with success and a fair prospect of continued commercial profit a territory which, with the exception of a small



PLATE 15. FANNY RAPID IN THE PATA RIVER, BARAM DISTRICT.

area about the town of Bruni, includes all of the island that had not been brought under the Dutch or Sarawak flag. In 1888 Sarawak and British North Borneo were formally brought under the protection of the British Government; but the territories remained under the rule of the Rajah and of the company respectively, except in regard to their foreign relations. In the year 1906 the Sultan of Bruni placed himself and his capital, together with the small territory over which he still retained undivided authority, under the protection of the British Government; and thus was completed the passing of the island of Borneo under European control.

CHAPTER III

GENERAL SKETCH OF THE PEOPLES OF BORNEO

It is not improbable that at one time Borneo was inhabited by people of the negrito race, small remnants of which race are still to be found in islands adjacent to all the coasts of Borneo as well as in the Malay Peninsula. No communities of this race exist in the island at the present time; but among the people of the northern districts individuals may be occasionally met with whose hair and facial characters strongly suggest an infusion of negrito or negroid blood.

It is probable that the mixed race of Hindu-Javanese invaders, who occupied the southern coasts of Borneo some centuries ago, became blended with the indigenous population, and that a considerable proportion of their blood still runs in the veins of some of the tribes of the southern districts (*e.g.* the Land Dayaks and Malohs).

There can be no doubt that of the Chinese traders who have been attracted to Borneo by its camphor, edible birds' nests, and spices, some have settled in the island and have become blended with and absorbed by the tribes of the north-west (*e.g.* the Dusuns); and it seems probable that some of the elements of their culture have spread widely and been adopted throughout a large part of Borneo. For several centuries also Chinese settlers have been attracted to the south-western district by the



PLATE 16. A SEA DAYAK OR IBAN.



PLATE 17. PROFILE OF SEA DAYAK OF PLATE 16.

gold which they found in the river gravel and alluvium. These also have intermarried with the people of the country ; but they have retained their national characteristics, and have been continually recruited by considerable numbers of their fellow-countrymen. Since the establishment of peace and order and security for life and property by the European administrations, and with the consequent development of trade during the last half-century, the influx of Chinese has been very rapid ; until at the present time they form large communities in and about all the chief centres of trade. A certain number of Chinese traders continue to penetrate far into the interior, and some of these take wives of the people of the country ; in many cases their children become members of their mothers' tribes and so are blended with the native stocks.

Among the Mohammedans, who are found in all the coast regions of Borneo, there is a considerable number of persons who claim Arab forefathers ; and there can be no doubt that the introduction of the Mohammedan religion was largely due to Arab traders, and that many Arabs and their half-bred descendants have held official positions under the Sultans of Bruni.

During the last half-century, natives of India, most of whom are Klings from Madras, have established themselves in the small trades of the towns ; and of others who came as coolies, some have settled in the towns with their wives and families. These people do not penetrate into the interior or intermarry with the natives.

With the exception of the above-mentioned immigrants and their descendants, the population of Borneo may be described as falling naturally into two great classes ; namely, on the one hand those who have accepted, nominally at least, the

Mohammedan religion and civilisation, and on the other hand the pagan peoples. In Bruni and in all the coast regions the majority of the people are Mohammedan, have no tribal organisation, and call themselves Malays (Orang Malayu). This name has usually been accorded them by European authors; but when so used the name denotes a social, political, and religious status rather than membership in an ethnic group. With the exception of these partially civilised "Malays" of the coast regions and the imported elements mentioned above, all the natives of Borneo live under tribal organisation, their cultures ranging from the extreme simplicity of the nomadic Punans to a moderately developed barbarism. All these pagan tribes have often been classed together indiscriminately under the name Dyaks or Dayaks, though many groups may be clearly distinguished from one another by differences of culture, belief, and custom, and peculiarities of their physical and mental constitutions.

The Mohammedan population, being of very heterogeneous ethnic composition, and having adopted a culture of foreign origin, which may be better studied in other regions of the earth where the Malay type and culture is more truly indigenous, seems to us to be of secondary interest to the anthropologist as compared with the less cultured pagan tribes. We shall therefore confine our attention to the less known pagan tribes of the interior; and when we speak of the people of Borneo in general terms it is to the latter only that we refer (except where the "Malays" are specifically mentioned). Of these we distinguish six principal groups: (1) Sea Dayaks or Ibans, (2) the Kayans, (3) Kenyahs, (4) Klemantans, (5) Muruts, (6) Punans.

A census of the population has been made in most of the principal districts of Sarawak and of Dutch Borneo; but as no census of the whole

country has hitherto been made, it is impossible to state with any pretence to accuracy the number of the inhabitants of the island. Basing our estimate on such partial and local enumerations as have been made, we believe the total population to be about 3,000,000. Of these the Chinese immigrants and their descendants, who are rapidly increasing in number, probably exceed 100,000. The Malays and the native converts to Islam, who constitute with the Chinese the population of the towns and settled villages of the coast districts, probably number between three and four hundred thousand; the Indian immigrants are probably not more than 10,000; the Europeans number perhaps 3000; the rest of the population is made up of the six groups of barbarians named in the foregoing paragraph.

Any estimate of the numbers of the people of each of these six divisions is necessarily a very rough one, but it is perhaps worth while to state our opinion on this question as follows: Klemantans, rather more than 1,000,000; Kenyahs, about 300,000; Muruts, 250,000; Sea Dayaks, 200,000; Kayans, 150,000; Punans and other peoples of similar nomadic habits, 100,000—*i.e.* a total of 2,000,000.

(1) Of all these six peoples the Sea Dayaks have become best known to Europeans, largely owing to their restless truculent disposition, and to the fact that they are more numerous in Sarawak than any of the others. They have spread northwards over Sarawak during the latter half of the last century, chiefly from the region of the Batang Lupar, where they are still numerous. They are still spreading northward, encroaching upon the more peaceful Klemantan tribes. They are most densely distributed in the lower reaches of the main rivers of Sarawak, especially the Batang Lupar and Saribas rivers, which are now exclusively

occupied by them; but they are found also in scattered communities throughout almost all parts of Sarawak, and even in British North Borneo, and they extend from their centre in Sarawak into the adjacent regions of Dutch Borneo, which are drained by the northern tributaries of the Great Kapuas River.

The Sea Dayak is of a well-marked and fairly uniform physical type. His skin is distinctly darker than that of the other peoples of the interior, though not quite so dark as that of most of the true Malays. The hair of his head is more abundant and longer than that of other peoples. His figure is well proportioned, neat, and generally somewhat boyish. His expression is bright and mobile, his lips and teeth are generally distorted and discoloured by the constant chewing of betel nut. They are a vain, dressy, boastful, excitable, not to say frivolous people—cheerful, talkative, sociable, fond of fun and jokes and lively stories; though given to exaggeration, their statements can generally be accepted as founded on fact; they are industrious and energetic, and are great wanderers; to the last peculiarity they owe the name of Iban, which has been given them by the Kayans, and which has now been generally adopted even by the Sea Dayaks themselves.

The good qualities enumerated above render the Iban an agreeable companion and a useful servant. But there is another side to the picture: they have little respect for their chiefs, a peculiarity which renders their social organisation very defective and chaotic; they are quarrelsome, treacherous, and litigious, and the most inveterate head-hunters of the country; unlike most of the other peoples, they will take heads for the sake of the glory the act brings them and for the enjoyment of the killing; in the pursuit of human victims they

become possessed by a furious excitement that drives them on to acts of the most heartless treachery and the most brutal ferocity.

All the Sea Dayaks speak one language, with but slight local diversities of dialect. It is extremely simple, being almost devoid of inflections, and of very simple grammatical structure, relying largely on intonation. It is closely allied to Malay.

(2) The Kayans are widely distributed throughout central Borneo, and are to be found in large villages situated on the middle reaches of all the principal rivers with the exception of those that run to the north coast. They occupy in the main a zone dividing the districts of the lower reaches of the rivers from the central highlands from which all the rivers flow.

They are a warlike people, but less truculent than the Sea Dayaks, more staid and conservative and religious, and less sociable. They do not wantonly enter into quarrels; they respect and obey their chiefs. They are equally industrious with the Sea Dayaks, and though somewhat slow and heavy in both mind and body, they are more skilled in the handicrafts than any of the other peoples. They also speak one language, which presents even less local diversity than the Sea Dayak language.

(3) The Kenyahs predominate greatly in the highlands a little north of the centre of Borneo where all the large rivers have their sources; but they are found also in widely scattered villages throughout the Kayan areas. In all respects they show closer affinities with the Kayans than with the Sea Dayaks; as regards custom and mode of life they closely resemble the Kayans, with whom they are generally on friendly terms; but they are easily distinguished from the Kayans by well-marked differences of bodily and mental characters, as well as by language. Physically they are without

question the finest people of the country. Their skin-colour is decidedly fairer than that of Sea Dayaks or Kayans. They are of medium stature, with long backs and short, muscular, well-rounded limbs; a little stumpy in build, but of graceful and vigorous bearing. They are perhaps the most courageous and intelligent of the peoples; pugnacious, but less quarrelsome than the Sea Dayak; more energetic and excitable than the Kayan; hospitable and somewhat improvident, sociable and of pleasant manners; less reserved and of more buoyant temperament than the Kayan; very loyal and obedient to their chiefs; more truthful and more to be depended upon under all circumstances than any of the other peoples, except possibly the Kayans.

The Kenyahs speak a number of dialects of the same language, and these differ so widely that Kenyahs of widely separated districts cannot converse freely with one another; but, as with all the peoples, except the Sea Dayaks, nearly every man has the command of several dialects as well as of the Kayan language.

(4) The Klemantans. Under this name we group together a number of tribes which, though in our opinion closely allied, are widely scattered in all parts of Borneo, and present considerable diversities of language and custom. In physical and mental characters they show affinities to the Kenyahs on the one hand and to the Muruts on the other. They are less bellicose than the peoples mentioned above, and have suffered much at their hands. They are careful, intelligent, and sociable, though somewhat timid, people; skilful in handicrafts, but less energetic than the Kayans and Kenyahs, and inferior to them in metal work and the making of swords and spears and boats. The blow-pipe is their characteristic weapon, and they are more



PLATE 21. BULING, THE SON OF A KENYAH CHIEF OF THE
BARAM DISTRICT.

devoted to hunting than any others, except the Punans.

Klemantans are to be found in every part of the island, but most of their villages are situated on the lower reaches of the rivers. They are most abundant in the south, constituting the greater part of the population of Dutch Borneo; in the north they are few, their place being filled by their near relatives, the Muruts. The latter constitute the principal part of the population of the northern end of the island, predominating over all the other peoples in British North Borneo, and in the northern extremities of Sarawak and of Dutch Borneo.

(5) The Muruts are confined to the northern part of Borneo. They resemble the Klemantans more closely than the other peoples. They are comparatively tall and slender, have less regular and pleasing features than the Klemantans, and their skin is generally darker and more ruddy in colour. Their agriculture is superior to that of the other peoples, but they are addicted to much drinking of rice-spirit. Their social organisation is very loose, their chiefs having but little authority. Besides those who call themselves Muruts, we class under the same general name several tribes which we regard as closely allied to them; namely, the Adangs in the head of the Limbang; the Kalabits about the head of the Baram; the Sabans and Kerayans at the head of the Kerayan river; the Libuns; the Lepu Asings at the head of the Bahau; Tagals and Dusuns in the most northerly part; the Trings of the Barau and Balungan rivers on the east.

(6) The Punans, among whom we include, beside the Punans proper, the Ukits and a few other closely allied but widely scattered small groups, are the only people who do not dwell in villages established on the banks of the rivers. They live

in small groups of twenty or thirty persons, which wander in the jungle. Each such group is generally made up of a chief and his descendants. The group will spend a few weeks or months at a time in one spot (to which generally they are attracted by the presence of wild sago), dwelling in rude shelters of sticks and leaves, and then moving on, but generally remaining within some one area, such as the basin of one of the upper tributaries of a large river. They are found throughout the interior of Borneo, but are difficult to meet with, as they remain hidden in the depths of the forests. Unlike all the other peoples, they cultivate no *padi* (rice), and they do not make boats or travel on the rivers. They support themselves by hunting with the blow-pipe, by gathering the wild jungle fruits, and by collecting the jungle products and bartering them with the more settled peoples. In physical characters they closely resemble the Kenyahs, being well-built and vigorous; their skin is of very light yellow colour, and their features are regular and well shaped. Mentally they are characterised by extreme shyness and timidity and reserve. They are quite inoffensive and never engage in open warfare; though they will avenge injuries by stealthy attacks on individuals with the blow-pipe and poisoned darts. Their only handicrafts are the making of baskets, mats, blow-pipes, and the implements used for working the wild sago; but in these and in the use of the blow-pipe they are very expert. All other manufactured articles used by them—cloths, swords, spears—are obtained by barter from the other peoples. Unlike all the other peoples, they have no form of sepulture, but simply leave the corpse of a comrade in the rude shelter in which he died. They sing and declaim rude melancholy songs or dirges with peculiar skill and striking effect. Their language is distinctive, but



PLATE 22. A CURLY-HAIRED KAYAN OF
THE BARAM.



ABAN TINGAN, A FAMOUS KENYAH WARRIOR,
YOUNGER BROTHER OF TAMA BULAN.

is apparently allied to the Kenyah and Klemantan tongues.

We propose to deal with the topics of each of our descriptive chapters by giving as full as possible an account of the Kayans, and adding to this some observations as to the principal diversities of custom and culture presented by the other peoples. For, if we should attempt to describe in detail each of these peoples with all their local diversities, this book would attain an inordinate length. The Kayans are in most respects the most homogeneous of these peoples, the most conservative and distinctive, and present perhaps the richest and most interesting body of belief and custom and art; while many of their customs and arts have been adopted by their neighbours, or are indigenous with them.

We may conclude this chapter by describing briefly in general terms the physical characters, and the habits and customs that are common to all or most of these pagan tribes.

These peoples present no very great differences of physical character. All are of medium height; their skin-colour ranges from a rich medium brown to a very pale *café-au-lait*, hardly deeper than the colour of cream. Their hair is nearly black or very dark brown, and generally quite lank, but in some cases wavy or even almost curly. Their faces show in nearly all cases, though in very diverse degrees, some of the well-known mongoloid characters, the wide cheek-bones, the small oblique eyes, the peculiar fold of the upper eyelid at its nasal end, and the scanty beard. In some individuals these traces are very slight and in fact not certainly perceptible. The nose varies greatly in shape, but is usually rather wide at the nostrils, and in very many cases the plane of the nostrils is tilted a little upwards and forwards. On the other hand some individuals, especially among the Kenyahs, have

distinctly aquiline and well-formed noses. Amongst all these peoples, especially the Kenyahs, Punans, and Klemantans, there are to be seen a few individuals of very regular well-shaped features of European type.

Although as regards physical characters all these peoples have much in common, yet each of them presents peculiarities which are obvious to the eye of an experienced observer, and enable him without hesitation to assign to their proper groups the majority of individuals; and such recognition on mere inspection is of course rendered easier by the relatively slight peculiarities of dress and ornament proper to each group.

The pure-bred Kenyah presents, perhaps, the most clearly marked as well as the finest physical type. His skin is the colour of rich cream with a very small dash of coffee. The hair of his head varies from slightly wavy to curly, and is never very abundant or long in the men. The rest of his body is almost free from hair, and what little grows upon the face is carefully plucked out (not leaving even the eyebrows and eyelashes). This practice is common to all the peoples of the interior except the Sea Dayaks. His stature is about 1600 mm.; his weight about 136 pounds. His limbs are distinctly short in proportion to his body; his trunk is well developed and square, and both limbs and trunk are well covered with rounded muscles. His movements are quick and vigorous, and he is hardy and capable of sustaining prolonged toil and hardship. His head is moderately round (Index 79), his face broad but well shaped. The expression of his face is bold and open.

The Kayan has a rather darker skin of a redder tone. His legs are not so disproportionately short, but in all other respects his body is less well proportioned, graceful, and active than the Kenyah's.



PLATE 23. KLEMANTANS OF THE TINJAR DISTRICT, AND ONE OLD KAYAN CHIEF OF BALOI,
LAKI BO, WEARING BLACK HEAD-DRESS (BACK ROW, SECOND FIGURE, LEFT).



PLATE 24. LONG POKUNS (KLEMANTANS) OF TINJAR RIVER.

His features are less regular and rather coarser and heavier; his expression is serious, reserved, and cautious.

The Murut is nearly as fair skinned as the Kenyah, perhaps a little ruddier in tone. His most characteristic feature is the length of his leg and lack of calf, in both of which respects he contrasts strongly with the Kenyah. The length of his leg raises his stature above the average. His intonation is characteristic, namely, somewhat whining; whereas the Kenyah's speech is crisp and staccato.

The Klemantans present a greater variety of physical types, being a less homogeneous group. Roughly they may be said to present all transitions from the Kenyah to the Murut type. In the main they are less muscular and active than the Kenyah. It is amongst them that the upward and forward direction of the plane of the nostrils is most marked.

The Punan presents, again, a well-marked type. His skin is even fairer than the Kenyah's, and is distinguished by a distinctly greenish tinge. He is well proportioned, graceful, and muscular, and his features are in many cases very regular and pleasing. His expression is habitually melancholy and strikingly wary and timid. In spite of his homeless nomadic life he generally appears well nourished and clean, and he seems less subject to sores and to the skin diseases which so often disfigure the other peoples, especially the Muruts, Kayans, and Sea Dayaks.¹

All these peoples, with the exception of the Punans and similar nomads, live in village communities situated with few exceptions on the banks of the rivers. The populations of these villages vary from 20 or 30 persons only in the smallest, to

¹ It seems not unreasonable to conjecture that the uniformly high physical standard of the Punans and their seemingly exceptional immunity from disease are due to their exposed mode of life, and to the consequently severe selection exercised upon them by their environment.

1500 or even more in a few of the largest; while the average village comprises about 30 families which, with a few slaves and dependants, make a community of some 200 to 300 persons. Each such community is presided over by a chief. A number of villages of one people are commonly grouped within easy reach of one another on the banks of a river. But no people exclusively occupies or claims exclusive possession of any one territory or waterway. With the exception of the Sea Dayaks, all these different peoples may here and there be found in closely adjoining villages; and in some rivers the villages of the different peoples are freely intermingled over considerable areas. The segregation of the Sea Dayak villages seems to be due to the truculent treacherous nature of the Sea Dayak, which renders him obnoxious as a neighbour to the other peoples, and leads him to feel the need of the support of his own people in large numbers. All find their principal support and occupation in the cultivation of *padi* (rice), and all supplement this with the breeding of a few pigs and fowls and, in the north of the island, buffalo, with hunting and fishing, and with the collection of jungle produce—gutta-percha, rubber, rattan canes, camphor, sago. These jungle products they barter or sell for cash to the Malay and Chinese traders.

They have no written records, and but vague traditions of their past history and migrations. There is no political organisation beyond a loose coherence and alliance for defence and offence of the village communities of any one people in neighbouring parts of the country—a coherence which at times is greatly strengthened by the personal ascendancy of the chief of some one village over neighbouring chiefs. One of the most notable examples of such personal ascendancy exercised in recent times was that of Tama Bulan (Pl. 27), a



PLATE 25. KALABIT (MURUT) CHIEF (IN CENTRE), WITH FOLLOWERS FROM THE SOURCE OF THE
BARAM RIVER.



PLATE 26. PUNANS OF TINJAR RIVER.

Kenyah chief whose village was situated on one of the tributaries of the Baram river, and who by his loyal co-operation with the government of the Rajah of Sarawak greatly facilitated the rapid establishment of law and order in this district.

Except for these informal alliances obtaining between neighbouring villages of the people of any one stock, each village forms an independent community, ruled by its chief, making war and peace and alliances, and selecting patches of land for cultivation at its own pleasure. No village community remains on the same spot for any long period; but after fifteen, ten, or even fewer years, a new site is sought, often at a considerable distance, and a new village is built. The principal reasons for this habit of frequent migration, which has produced the intimate mingling throughout large areas of the peoples of different stocks, are two: first, the necessity of finding virgin soil for cultivation; secondly, the occurrence of epidemics or other calamities; these lead them to believe that the place of their abode supplies in insufficient degree the favouring spiritual influences which they regard as essential to their welfare. For among all these peoples animistic beliefs abound; they hold themselves to be surrounded on every hand by spiritual forces both good and bad, some of which are embodied in the wild creatures, especially the birds, while some are manifested in such natural processes as the growth of the corn, the rising of the river in flood, the rolling of thunder, the incidence of disease. And they are constantly concerned to keep at a distance, by the observance of many rigidly prescribed customs, the evil influences, and, to a less degree, to secure by propitiatory acts the protection and the friendly warnings of the beneficent powers.

One of the most peculiar features of the people

of Borneo is the great diversity of language obtaining among them. The migratory habits of the people and the consequent mingling of communities of different stocks within the same areas, far from having resulted in the genesis by fusion of a common language, have resulted in the formation of a great number of very distinct dialects; so that in following the course of a river, one may sometimes find in a day's journey of a score of miles half a dozen or more villages, the people of each of which speak a dialect almost, or in some cases quite, unintelligible to their neighbours. A necessary consequence of this state of affairs is that, with the exception of the Sea Dayaks, almost all adults speak or at least understand two or more dialects or languages, while most of the chiefs and leading men speak several dialects fluently and partially understand a larger number. The language most widely understood by those to whom it is not native is the Kayan; but since the recent spread of trade through large areas under the protection of the European governments, a simplified form of the Malay language has been rapidly establishing itself as the *lingua franca* of the whole country. In Sarawak, where, during the last fifty years, the Sea Dayaks have spread from the Batang Lupar district and have established villages on all the principal rivers, their language, which seems to be a bastard and very simple branch of the Malay tongue, is very widely understood and is largely used as a common medium.

Note on the use of the term *Klemantan*. The Malay name for Borneo is Pulu Klemantan, and we have adopted this name to denote the large group of allied tribes which in our opinion have the best claim to be regarded as representing the indigenous population of the island.



PLATE 27. TAMA BULAN WANG, THE KENYAH PENGHULU OF
THE BARAM DISTRICT.

CHAPTER IV

MATERIAL CONDITIONS OF THE PAGAN TRIBES OF BORNEO

WITH few exceptions, the main features of the dress, adornment, and weapons of all the peoples are similar, showing only minor differences from tribe to tribe and from place to place. The essential and universal article of male attire is the waist-cloth, a strip of cloth about one yard wide and four to eight yards in length (see Frontispiece). Formerly this was made of bark-cloth; but now the cotton-cloth obtained from the Chinese and Malay traders has largely superseded the native bark-cloth, except in the remoter regions; and here and there a well-to-do man may be seen wearing a cloth of more expensive stuff, sometimes even of silk. One end of such a cloth is passed between the legs from behind forwards, about eighteen inches being left dependent; the rest of it is then passed several times round the waist, over the end brought up on to the belly, and the other end is tucked in at the back. The man wears in addition when out of doors a coat of bark-cloth or white cotton stuff,¹ and a wide sun-hat of palm leaves, in shape like a mushroom-top or an inverted and very shallow basin, which shelters him from both sun and rain; many wear also a small oblong mat plaited of rattan-strips

¹ The Sea Dayak is exceptional in this respect; he wears a coat of coloured cotton fibre woven in various patterns by the women.

hanging behind from a cord passed round the waist, and serving as a seat when the wearer sits down. At home the man wears nothing more than the waist-cloth, save some narrow plaited bands of palm fibre below the knee, and, in most cases, some adornment in the ears or about the neck and on the arms.¹ The man's hair is allowed to grow long

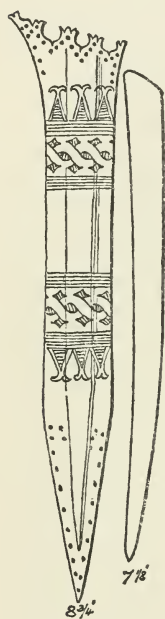


FIG. 1.

on the crown of the scalp, and to hang freely over the back of the neck, in some cases reaching as far as the middle of the back. This long hair is never plaited, but is sometimes screwed up in a knot on the top of the head and fastened with a skewer. The latter mode of wearing the hair is the rule among the Muruts, who use elaborately carved and decorated hairpins of bone (the shin bone of the deer, Fig. 1). That part of the hair of the crown which naturally falls forwards is cut to form a straight fringe across the forehead. All the rest of the head is kept shaven, except at times of mourning for the death of relatives.

When in the house the man commonly wears on his head a band of plaited rattan, which varies from a mere band around the brows to a completed skull-cap. The free ends of the rattan strips are generally allowed to project, forming a dependent tassel or fringe (Pl. 21). A well-to-do Kayan man usually wears a necklace consisting of a single string of beads, which in many cases are old and of considerable value (Pls. 19 and 28). [Every Kayan has the shell of the ear perforated, and when fully dressed wears, thrust forward through the hole

¹ See Chap. XII.



PLATE 29. YOUTHFUL SEA DAYAKS IN GALA DRESS.

in each shell, the big upper canine tooth of the tiger-cat; but he is not entitled to wear these until he has been on the warpath. Those who have taken a head or otherwise distinguished themselves in war may wear, instead of the teeth, pieces of similar shape carved from the solid beak of the helmeted hornbill. The youths who have not qualified themselves for these adornments, and warriors during mourning, usually wear a disc of wood or wax in their places (Pls. 19 and 21).]

The lobe of the ear is perforated and distended to a loop some two inches in length, in which a brass ring is worn. Just above this loop a small hole through the shell is usually made, and from this a small skein of beads depends. Similar ear ornaments are worn by Kenyahs and some of the Klemantans, but not by Muruts, and by few individuals only among Punans and Sea Dayaks. Many of the latter wear

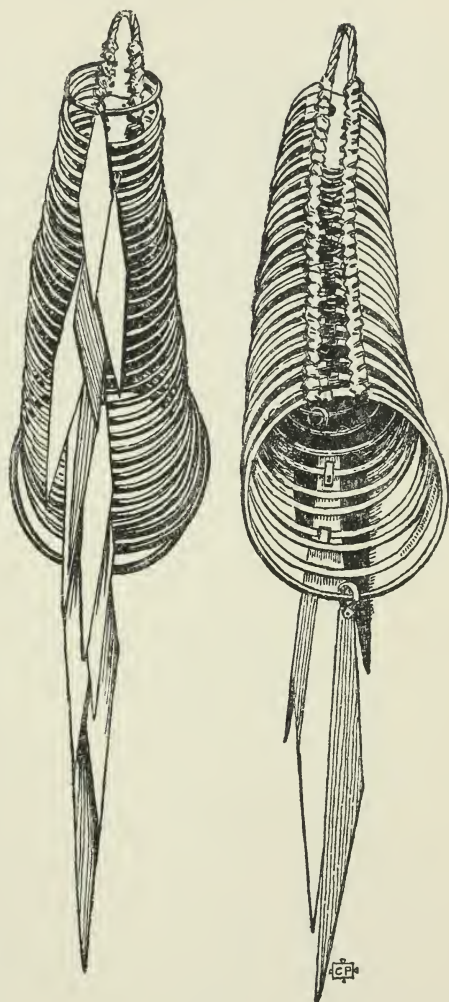


FIG. 2.

a row of small brass rings inserted round the margin of the shell of each ear (Fig. 2).

Many of the men wear also bracelets of shell or hard wood.

[Although the dress of the men is so uniform in essentials throughout the country, it gives considerable scope for the display of personal tastes, and the Sea Dayak especially delights in winding many yards of brilliantly coloured cloth about his waist, in brilliant coats and gorgeous turbans¹ and feathers, and other ornaments; by means of these he manages to make himself appear as a very dressy person in comparison with the sober Kayan and with most of the people of the remoter inland regions, who have little but scanty strips of bark-cloth about the loins.]

The universal weapons of the country are sword and spear, and no man travels far from home without these and his oblong wooden shield. Some of the peoples are expert in the use of the blowpipe and poisoned dart. The blow-pipe and the recently introduced firearms are the only missile weapons; the bow is unknown save as a plaything for children,² and possibly in a few localities in the extreme north.³

The dress of the women is less uniform than that of the men. The Sea Dayak woman (Pls. 29 and 30) wears a short skirt of cotton thread woven in curious patterns of several colours, reaching from the waist almost to the knee; a long-sleeved jacket of the same material, and a corset consisting of many rings of rattan built up one above another to enclose the body from breast to thigh. Each rattan ring is sheathed in small rings of beaten brass. The

¹ The turban is a head-dress which is copied from the Malays and is rapidly spreading inland.

² This toy cross-bow is found among Kayans. Both it and the arrow used are very crudely made.

³ The war dress and accoutrements will be more fully described in Chap. X.



PLATE 30. SEA-DAYAK WOMAN WEARING COAT AND PETTICOAT
ORNAMENTED WITH SHELLS.



PLATE 31. SULAU, THE WIFE OF A KAVAN CHIEF, DISPLAYING HER COLLECTION OF VALUABLE OLD BEADS.

corset is made to open partially or completely down the front, but is often worn continuously for long periods. She wears her hair tied in a knot at the back of her head.

The principal garment of the women of all the other peoples is a skirt of bark or cotton cloth, which is tied by a string a little below the level of the crest of the hip bone; it reaches almost to the ankle, but is open at the left side along its whole depth. It is thus a large apron rather than a skirt. When the woman is at work in the house or elsewhere, she tucks up the apron by drawing the front flap backwards between her legs, and tucking it tightly into the band behind, thus reducing it to the proportions and appearance of a small pair of bathing-drawers. Each woman possesses also a long-sleeved, long-bodied jacket of white cotton similar to that worn by the men; this coat is generally worn by both sexes when working in the fields or travelling in boats, chiefly as a protection against the rays of the sun. The women wear also a large mushroom-shaped hat similar to that worn by the men. With few exceptions all the women allow the hair to grow uncut and to fall naturally from the ridge of the cranium, confined only by a circular band of rattan or beadwork passing over the occiput and just above the eyebrows.

The principal ornaments of the women are necklaces and girdles of beads, earrings, and bracelets. A well-to-do Kayan woman may wear a large number of valuable beads (see Pls. 28 and 31). The bracelets are of ivory, and both forearms are sometimes completely sheathed in series of such bracelets. [The ear-rings are the most distinctive feature of the Kayan woman's adornment. The perforated lobes of the ears are gradually drawn down during childhood and youth, until each lobe forms a slender loop which reaches to the collar-bone, or lower. Each

loop bears several massive rings of copper (Pl. 20), whose combined weight is in some cases as much as two pounds.¹ Most of the Kenyah women also wear similar earrings, but these are usually lighter and more numerous, and the lobe is not so much distended. The women of many of the Klemantan tribes wear a large wooden disc in the distended lobe of each ear, and those of other Klemantan tribes wear a smaller wooden plug with a boss (Pl. 32). The children run naked up to the age of six or seven years, when they are dressed in the fashion of their parents.

On festive occasions both men and women put on as many of their ornaments as can be conveniently worn.

DEFORMATION OF THE HEAD

Some of the Malanaus, a partially Mohammedan tribe of Klemantans, seated about the mouths of the Muka, Oya, and Bintulu rivers of Sarawak, have the curious custom of flattening the heads of the infants, chiefly the females. The flattening is effected at an early age, the process beginning generally within the first month after birth. It consists in applying pressure to the head by means of a simple apparatus for some fifteen minutes, more or less, on successive days, or at rather longer intervals. The application of the pressure for this brief space of time, on some ten to twenty occasions, seems to suffice to bring about the desired effect. The pressure is applied while the child sleeps, and is at once relaxed if the child wakes or cries. The apparatus, known as *tadal* (see Fig. 3), consists of a stout flat bar of wood, some nine inches in length and three wide in its middle part. This

¹ Accidental tearing of the lobe inevitably occurs occasionally; and if this is attributed to the carelessness of any other person a brass *tawak* or gong must be paid in compensation. Repair of a torn lobe is sometimes effected by overlapping the raw ends and keeping them tied in this position for some weeks.



PLATE 33. MALANAU INFANT WEARING APPARATUS FOR MOULDING OF THE HEAD.

wider middle part bears on one surface a soft pad for application to the infant's forehead. A \perp strap of soft cloth is attached by its upper extremity to the middle of the upper edge of the wooden bar; and each end of its horizontal strip is continued by a pair of strings which pass through holes in the ends of the bar. The strings are brought together on the front of the bar at its middle and passed through the centre of a copper coin¹ or other hard

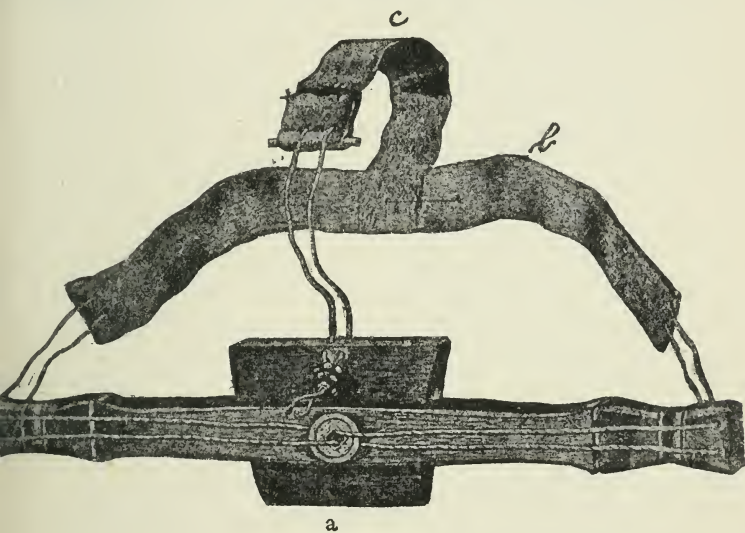


FIG. 3.

disc. The bar is applied transversely to the forehead of the infant; the vertical strap runs back over the sagittal suture; the transverse strap is drawn tightly across the occiput, and the required degree of pressure is gradually applied by twisting the coin round and round on the front of the bar, and so pulling upon the strings which connect the ends of the bar on the forehead with the ends of the strap across the occiput (Pl. 33).

¹ Some of the copper coins of Sarawak are perforated at the centre.

The effect produced is of course a flattening of brow and occiput and a broadening of the whole head. The motive seems to be the desire to enhance the beauty of the child by ensuring to it a moon-like face, which is the most admired form. The Malanaus seem to be by nature peculiarly round-headed; the question whether this is due to the effects of head-flattening practised for many generations, must be left to the investigations of the Neo-Lamarckians. They are also a peculiarly handsome people, and it seems more likely that, taking a pride in their good looks, they have, like so many other peoples, sought to enhance the beauty of their children by accentuating a racial peculiarity.

HOUSES

All the tribes except the Punans build houses of one type; but the size and proportions, the strength of the materials used, and the skill and care displayed in the work of construction, show wide differences. The houses of the Kayans are perhaps better and more solidly built than any others and may be taken as the type. Each house is built to accommodate many families; an average house may contain some forty to fifty, making up with children and slaves some two or three hundred persons; while some of the larger houses are built for as many as a hundred and twenty families, or some five to six hundred persons. The house is always close to a river, and it usually stands on the bank at a distance of 20 to 50 yards from the water, its length lying parallel to the course of the river. The plan of the house is a rectangle, of which the length generally much exceeds the width (Pl. 34).

Its roof is always a simple ridge extending the whole length of the house, and is made of shingles of *bilian* (ironwood) or other hard and durable kind



PLATE 34. A LONG HOUSE IN THE BARAM DISTRICT.

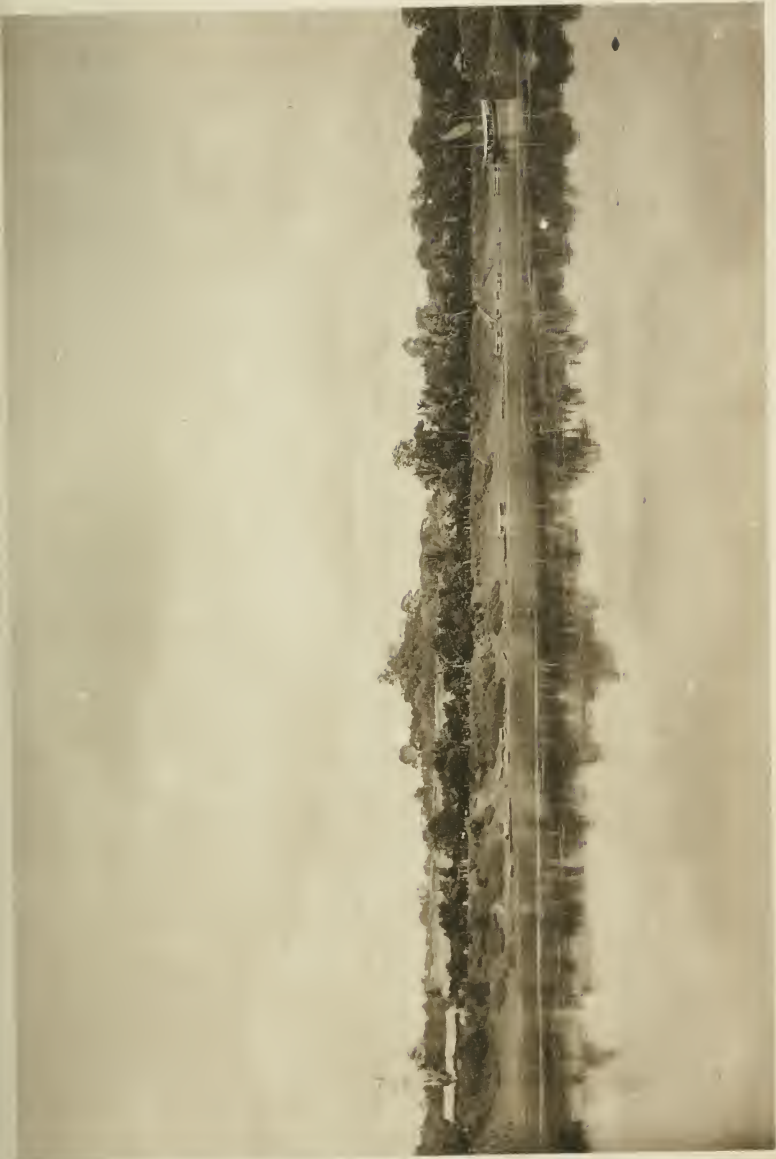


PLATE 35. MURIK VILLAGE OF LONG TAMALA, BARAMI DISTRICT.

of wood. The framework of the roof is supported at a height of some 25 to 30 feet from the ground on massive piles of ironwood, and the floor is supported by the same piles at a level some 7 or 8 feet below the cross-beams of the roof. The floor consists of cross-beams morticed to the piles, and of very large planks of hard wood laid upon them parallel to the length of the house. The projecting eaves of the roof come down to a level midway between that of the roof-beams and that of the floor, and the interval of some 4 to 5 feet between the eaves and the floor remains open along the whole length of the front of the house (*i.e.* the side facing the river), save for a low parapet which bounds the floor along its outer edge. This space serves to admit both light and air, and affords an easy view over the river to those sitting in the house. The length of the house is in some cases as much as 400 yards, but the average length is probably about 200 yards. The width of the floor varies from about 30 to 60 feet; the whole space between roof and floor is divided into two parts by a longitudinal wall of vertical planks, which runs the whole length of the house. This wall lies not quite in the middle line, but a little to the river side of it. Of the two longitudinal divisions of the house, that which adjoins the river is thus somewhat narrower than the other; it remains undivided in its whole length. The other and wider part is divided by transverse walls at intervals of some 25 or 30 feet, so as to form a single row of spacious chambers of approximately equal size. Each such chamber is the private apartment of one family; in it father, mother, daughters, young sons and female slaves, sleep and eat (Pl. 37). Within each chamber are usually several sleeping-places or alcoves more or less completely screened or walled off from the central space. The chamber contains a fireplace,

generally merely a slab of clay in a wooden framework placed near the centre. The outside wall of this side of the house is carried up to meet the roof. The entrance of light and air and the egress of smoke are provided for by the elevation on a prop of one corner of a square section of the roof, marked out by a right-angled cut, of which one limb runs parallel to the outer wall, the other upwards from one extremity of the former. This aperture can be easily closed, *e.g.* during heavy rain, by removing the prop and allowing the flap to fall into its original position.

The front part of the house, which remains undivided, forms a single long gallery serving as a common antechamber to all the private rooms, each of which opens to it by a wooden door (Pls. 36, 38). It is in a sense, though roofed and raised some 20 feet above the ground, the village street, as well as a common living and reception room. Along the outer border of the floor runs a low platform on which the inmates sit on mats. One part of this, usually that opposite the chief's apartment in the middle of the house, is formed of several large slabs of hardwood (*Tapang* or *Koompassia*), and is specially reserved for the reception of guests and for formal meetings. The platform is interrupted here and there by smaller platforms raised some 3 or 4 feet from the floor, which are the sleeping quarters assigned to the bachelors and male visitors. At intervals of some 30 or 40 feet throughout the gallery are fireplaces similar to those in the private chambers; on some of these fire constantly smoulders.

Over one of these fireplaces, generally one near the middle of the great gallery, is hung a row of human heads (Pl. 38), trophies obtained in war, together with a number of charms and objects used in various rites.¹

¹ By the Kayans the heads are suspended in a single long row from the



PLATE 36. GALLERY OF A KAVAN HOUSE AT LONG LAMA, BARAM DISTRICT.



PLATE 37. INTERIOR OF A KAYAN DWELLING-ROOM.



Alongside the inner wall of the gallery stand the large wooden mortars used by the women in husking the *padi*. Above these hang the winnowing trays and mats, and on this wall hang also various implements of common use—hats, paddles, fish-traps, and so forth.

The gallery is reached from the ground by several ladders, each of which consists of a notched beam sloping at an angle of about 45° , and furnished with a slender hand-rail. The more carefully made ladder is fashioned from a single log, but the wood is so cut as to leave a hand-rail projecting forwards a few inches on either side of the notched gully or trough in which the feet are placed. From the foot of each ladder a row of logs, notched and roughly squared, and laid end to end, forms a footway to the water's edge. In wet weather such a footway is a necessity, because pigs, fowls, and dogs, and in some cases goats, run freely beneath and around the house, and churn the surface of the ground into a thick layer of slippery mire.

Here and there along the front of the house are open platforms raised to the level of the floor, on which the *padi* is exposed to the sun to be dried before being husked.

Under the house, among the piles on which it is raised, such boats as are not in daily use are stored. Round about the house, and especially on the space between it and the brink of the river, are numerous *padi* barns (Pl. 40). Each of these, the storehouse of the grain harvested by one family, is a large wooden bin about 10 feet square, raised on piles some 7 feet from the ground. Each pile carries just below the level of the floor of the bin a large disc of wood horizontally disposed, and perforated at

lower edge of a long plank, each being attached by a rattan passed through a hole in the vertex. Many of the Klemantans hang them in a similar way to a circular framework, and the Sea Dayaks suspend them in a conical basket hung by its apex from the rafters.

its centre by the pile ; this serves to prevent rats and mice gaining access to the bin. The shingle roof of the bin is like that of the house, but the two ends are filled by sloping surfaces running up under the gables. There are generally also a few fruit trees and tobacco plants in the space cleared round about the house ; and in the space between it and the river are usually some rudely carved wooden figures, around which rites and ceremonies are performed from time to time.

Kayan villages generally consist of several, in some cases as many as seven or eight, such houses of various lengths, grouped closely together. The favourite situation for such a village is a peninsula formed by a sharp bend of the river.

Of the houses built by the other peoples, those of the Kenyahs very closely resemble those of the Kayans. The Kenyah village frequently consists of a single long house (and with the Sea Dayaks this is invariably the case), and it is in many cases perched on a high steep bank immediately above the river. Some of the Klemantans also build houses little if at all inferior to those of the Kayans, and very similar to them in general plan. But in this as in all other respects the Klemantans exhibit great diversities, some of their houses being built in a comparatively flimsy manner, light timber and even bamboos being used, and the roof being made of leaves. The houses of the Muruts are small and low, and of poor construction.

The Sea Dayak's house differs from that of the Kayan more than any of the others. The general plan is the same ; but the place of the few massive piles is taken by a much larger number of slender piles, which pass up to the roof through the gallery and chambers. Of the gallery only a narrow passageway alongside the main partition-wall is kept clear of piles and other obstructions. The floor is of



PLATE 38. HEADS HANGING IN THE GALLERY OF A KAVAN HOUSE.



PLATE 39. BENEATH A KAVAN HOUSE,

To the left the altar-posts for offerings can be seen.

split bamboo covered with coarse mats. An open platform at the level of the floor runs along the whole length of the open side of the house. There are no *padi* barns about the house, the *padi* being kept in bins in the roofs. The roof itself is low, giving little head space. The gallery of the house makes an impression of lack of space, very different to that made by the long wide gallery of a Kayan or Kenyah house.

Although the more solidly built houses, such as those of the Kayans, would be habitable for many generations, few of them are inhabited for more than fifteen or twenty years, and some are used for much shorter periods only. For one reason or another the village community decides to build itself a new house on a different and sometimes distant site, though the new site is usually in the same tributary river, or, if on the main river, within a few miles of the old one. The most frequent causes of removal are, first, using up of the soil in the immediate neighbourhood of the village, for they do not cultivate the same patch more than three or four times at intervals of several years; secondly, the occurrence of a fatal epidemic; thirdly, any run of bad luck or succession of evil omens; fourthly, the burning of the house, whether accidentally or in the course of an attack by enemies.

On removing to a new site the planks and the best of the timber of a well-built house are usually towed along the river to the spot chosen, and used in the construction of the new house.

After the houses the most important of the material possessions of the people are their boats. Each family possesses at least one small boat capable of carrying seven or eight persons, and used chiefly for going to and from the *padi* fields, but also for fishing and short journeys of all kinds. In addition to these the community possesses several

larger boats used for longer journeys, and generally at least one long war-boat, capable of carrying 50 to 100 men. Each boat, even one of the largest size, is hollowed from a single log, the freeboard being raised by lashing narrow planks to the edge of the hollowed log. In the middle of a large boat is a section, the freeboard of which is raised still higher, and which is covered by an arched roof of palm leaves. The boat is crossed at intervals of some three feet by seats formed of short planks, each supported at both ends by projections of the main timber, to which they are lashed with rattan. In travelling on the lower reaches of the rivers, the rowers sit two on each bench, side by side and facing the bow. On the upper reaches, where rapids abound, a deck is made by laying split bamboos along the length of the boat upon the benches, and the crew sits upon this deck in paddling, or stands upon it when poling the boat over rapids.

In addition to the clothes, houses, and boats, and the domestic animals mentioned above, and to the personal ornaments and weapons to be described in later chapters, the material possessions of the Kayans consist chiefly of baskets and mats.

The baskets are of various shapes and sizes, adapted to a variety of uses. The largest size holds about two bushels of *padi*, and is chiefly used for transporting grain from the fields to the house (Fig. 4). It is almost cylindrical in shape, but rather wider at the upper end. Four strips of wood running down from near the upper edge project slightly below, forming short legs on which the basket stands. The upper end is closed by a detachable cap, which fits inside the upper lip of the basket. It is provided with a pair of shoulder straps, and a strap which is passed over the crown of the head. These straps are made of a single strip of tough beaten bark. One end of it is attached to the foot of

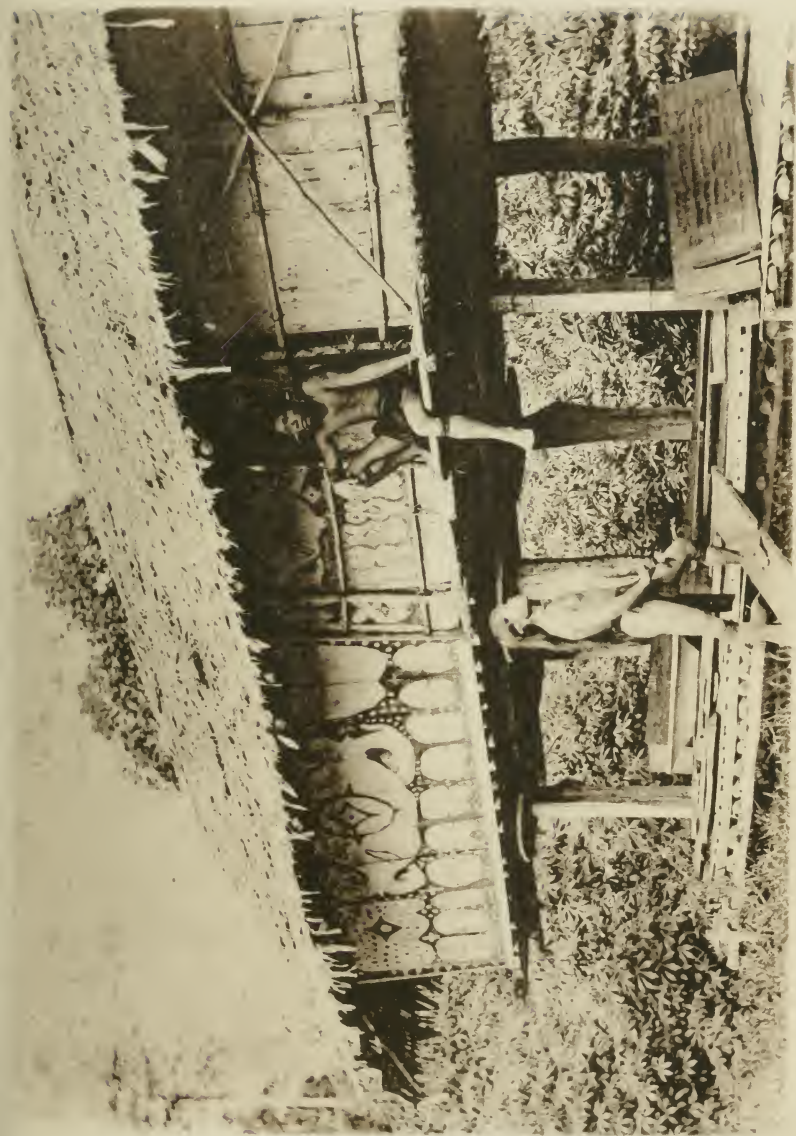


PLATE 40. LARGE BARN IN WHICH *PADJ* IS STORED.



PLATE 41. IBAN HOUSE.



PLATE 42. GALLERY OF IBAN HOUSE.

the basket; a second attachment is made at the middle of the height, forming a loop for the one shoulder; the strip is then looped over to the

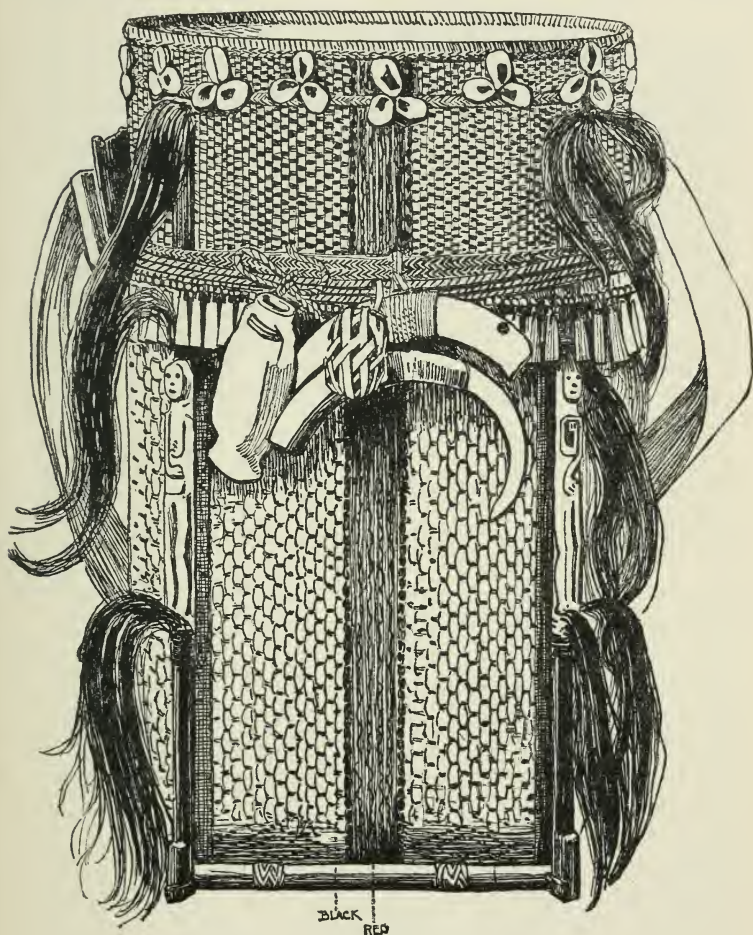


FIG. 4.—*Padi* basket with charms.

corresponding point on the other side, forming the loop for the head, and then carried down to the foot of the basket on that side to form the loop for the other shoulder.

A smaller cylindrical basket, very neatly plaited of thin and very pliable strips of rattan, is used for carrying the few articles which a man takes

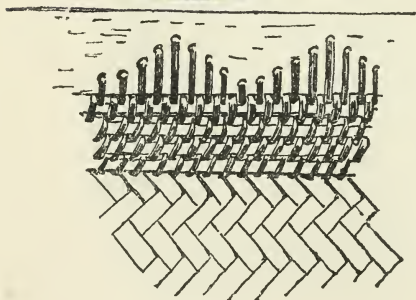
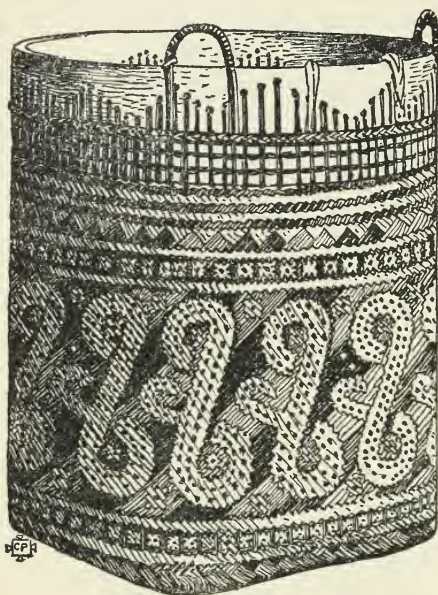


FIG. 5.

with him in travelling — a little rice and tobacco, a spare waist cloth, a sleeping mat, perhaps a second mat of palm leaves used as a protection against rain, a roll of dried banana leaves for making cigarettes, perhaps a cap for wear in the house, and, not infrequently nowadays, a bright coloured handkerchief of Chinese silk. The lip of the basket is surrounded by a close set row of eyes through which a cord is passed. To this cord a net is attached, and is drawn together in the centre of the opening of the basket by a second cord, in order to

confine its contents. This basket is provided with shoulder straps only.

In addition to these two principal baskets, each family has a number of smaller baskets of various shapes for storing their personal belongings,



IBAN SEAT-MATS.



PLATE 43. IBAN SEED-BASKETS.



PLATE 44.

- | | | |
|--------------------------|--------------------------|--|
| <i>b.</i> Tobacco boxes. | <i>p.</i> Tobacco pipes. | <i>c.</i> Wooden plate for rolling cigarettes. |
| <i>fp.</i> Fire piston. | <i>f.</i> Nose flute. | <i>g.</i> Gourd for pith-heads of darts. |

and for containing food in course of preparation (Fig. 5).

The mats are of many shapes and sizes. The largest are spread on the raised part of the floor, both of the gallery and of the private chambers, when a party sits down to eat or converse. Each individual has his own sleeping mat, and each family has a number of mats used for drying, husking, winnowing, and sieving the *padi*.

The bamboo water-vessel consists of a section of the stem of the bamboo, closed at the lower end by the natural septum, the upper end having a lip

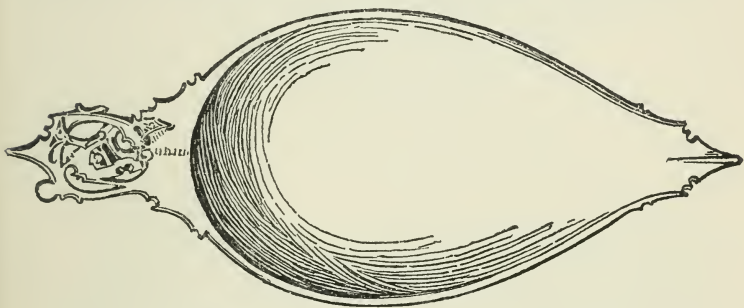


FIG. 6.

or spout formed at the level of the succeeding septum. A short length of a branch remains projecting downwards to form a handle, by means of which the vessel can be conveniently suspended. These vessels are used also for carrying rice-spirit or *borak*; but this is stored in large jars of earthenware or china. The native jar of earthenware is ovoid in shape and holds about one gallon, but these are now largely superseded by jars made by the Chinese.

Each family possesses some dishes and platters of hardwood (Figs. 6 and 7), and generally a few china plates bought from traders; but a large leaf is the plate most commonly used.

Rice, the principal food, which forms the bulk of every meal, is boiled in an iron or brass pot with lip, handle, and lid, not unlike the old English cauldron; it has no legs, and is placed on a tripod of stones or suspended over the fire. This metal pot, which is obtained from the Chinese traders, has superseded the home-made pot of clay (Fig. 8) and the bamboo vessels in which the rice was cooked in former times. A larger wide

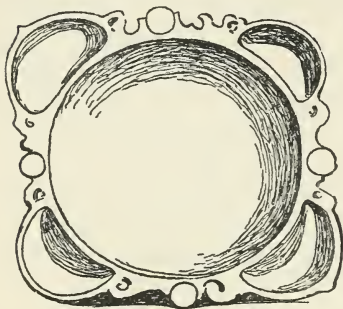


FIG. 7.

stewpan is also used for cooking pork, vegetables, and fish. The Kayans smoke tobacco, which they cultivate in small quantities. It is generally smoked in the form of large cigarettes, the finely cut leaf being rolled in sheets of dried banana leaf. But it is also smoked in pipes, which are made in a variety of shapes, the bowl of hardwood, the stem of slender bamboo (Fig. 9). Sea Dayaks chew tobacco, but smoke little, being devoted to the chewing of betel nut.

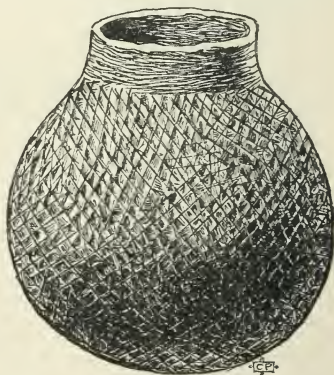


FIG. 8.

In every house is a number of large brass gongs (*tawak*), which are used in various ceremonies and for signalling, and constitute also one of the best recognised standards of value and the most important form of currency. Besides these largest gongs, smaller ones of various shapes and sizes are kept and used on festive



KENYAH WOMAN'S HAT.



PLATE 45. KAVAN TAWAK AND GONGS.



PLATE 46. NINGKA, A VALUABLE OLD SEA-DAYAK JAR.



occasions (Pl. 45). All these gongs are obtained through traders from Bruni, China, and Java.

Beside the gongs a Kayan house generally contains, as the common property of the whole household, several long narrow drums (Fig. 10). Each is a hollow cylinder of wood, constricted about its middle, open at one end, and closed at the other with a sheet of deer-skin. This is stretched by means of slips of rattan attached to its edges, and carried back to a stout rattan ring woven about the constricted middle of the drum; the skin is tightened by inserting wedges under this ring.

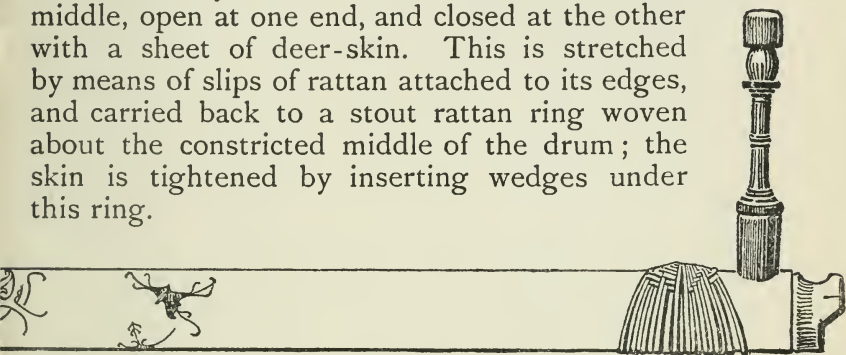


FIG. 9.

In most houses two or three small brass swivel guns may be seen in the gallery, and a small stock of powder for their service is usually kept by the chief. They are sometimes discharged to salute a distinguished visitor, and formerly played some

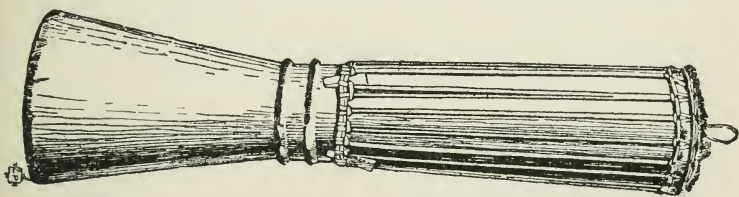


FIG. 10.

small part in repelling attacks. The domestic animals of the Kayans are fowls, goats, pigs, and dogs. The latter live in the house, the others run free beneath and around the house.

The material possessions of the other peoples differ little from those of the Kayans. Almost

every Sea Dayak possesses, and keeps stored at the back of his private chamber, one or more large vases. These were formerly imported from China, but are now made by the Chinese of the towns in Borneo. The commonest of the highly prized jars are of plain brown brightly glazed earthenware, standing about three feet in height on a flat bottom (Pl. 48); each is ornamented with a Chinese dragon moulded in relief (*benaga*), or some scroll designs which, though very varied, go by the name of *rusa* (= deer) and *ningka*. A Dayak will give from 200 to 400 dollars for such a jar. Rarer and still more highly prized is a jar similar to these, but wider, very highly glazed, and bare of all ornament save some obscure markings. Eight perforated "ears" project just below the lip, and serve for the attachment of a wooden or cloth cover. This jar occurs in two varieties, a dark green and a very dark brown, which are known respectively as *gusi* and *bergiau*, the latter being the more valuable. Other smaller and less valued jars are the *pantar* and the *alas*. The jars of the kinds mentioned above are valued largely on account of their age; probably all of them were imported from China and Siam, some of them no doubt centuries ago. Besides these old jars there are now to be found in most of the Sea Dayak houses many jars of modern Chinese manufacture, some of which are very skilful imitations of the old types; and though the Dayak is a connoisseur in these matters, and can usually distinguish the new from the old, he purchases willingly the cheap modern imitations of the old, because they are readily mistaken by the casual observer for the more valuable varieties (Pl. 47).

A few large vases of Chinese porcelain, usually covered with elaborate designs in colour, are to be found in most of the houses of the other peoples (Pl. 47).



PLATE 47. OLD EARTHENWARE VESSELS MUCH PRIZED BY ALL THE TRIBES.



PLATE 48. IBANS BARGAINING OVER OLD JARS.

CHAPTER V

THE SOCIAL SYSTEM

THE Kayans constitute a well-defined and homogeneous tribe or people. Although their villages are scattered over a wide area, the Kayan people everywhere speak the same language and follow the same customs, have the same traditions, beliefs, rites, and ceremonies. Such small differences as they present from place to place are hardly greater than those obtaining between the villagers of adjoining English counties. Although communication between the widely separated branches of the people is very slight and infrequent, yet all are bound together by a common sentiment for the tribal name, reputation, tradition, and customs. The chiefs keep in mind and hand down from generation to generation the history of the migrations of the principal branches of the tribe, the names and genealogies of the principal chiefs, and important incidents affecting any one branch. At least fifteen sub-tribes of Kayans, each bearing a distinctive name, are recognised.¹ The word *Uma*, which appears in the names of each group, means village or settlement, and it seems probable that

¹ The sub-tribes are the following:—Uma Pliau, Uma Poh, Uma Semuka, Uma Paku, and Uma Bawang, chiefly in the basin of the Baram; in the Rejang basin—the Uma Naving, Uma Lesong, Uma Daro; in the Bintulu basin—the Uma Juman; in the Batang Kayan—the Uma Lekan; in the Kapuas—the Uma Ging; the Uma Belun, the Uma Blubo scattered in several river-basins; and one other group in the Madalam river, and one in the Koti.

these fifteen sub-tribes represent fifteen original Kayan villages which at some remote period, before the tribe became so widely scattered, may have contained the whole Kayan population. At the present time the people of each sub-tribe occupy several villages, which in most cases, but not in all, are within the basin of one river.

In spite of the community of tribal sentiment, which leads Kayans always to take the part of Kayans, and prevents the outbreak of any serious quarrels between Kayan villages, there exist no formal bonds between the various sub-tribes and villages. Each village is absolutely independent of all others, save in so far as custom and caution prescribe that, before undertaking any important affair (such as a removal of the village or a warlike expedition), the chief will seek the advice, and, if necessary, the co-operation of the chiefs of neighbouring Kayan villages. The people of neighbouring villages, especially the families of the chiefs, are also bound together by many ties of kinship; for intermarriage is frequent.

As was said above, a Kayan village almost invariably consists of several long houses. Each house is ruled by a chief; but one such chief is recognised as the head-chief of the village.

The minor and purely domestic affairs of each house are settled by the house-chief, but all important matters of general interest are brought before the village-chief. In the former category fall disputes as to ownership of domestic animals and plants, questions of compensation for injury or loss of borrowed boats, nets, or other articles, of marriage and divorce, and minor personal injuries, moral or physical. The matters to be settled by the head-chief sitting in council with the subordinate chiefs are those affecting the whole village, questions of war and peace and of removal, disputes



PLATE 49. TAMA USONG, LEADING KAYAN CHIEF OF
THE BARAM DISTRICT.

between houses, trials for murder or serious personal injuries.

The degree of authority of the chiefs and the nature and degree of the penalties imposed by them are prescribed in a general way by custom, though as regards the former much depends upon the personal qualities of each chief, and as regards the latter much is left to his discretion. The punishments imposed are generally fines, so many *tawaks* (gongs), *parangs* (swords) or spears, or other articles of personal property. On the whole the chief plays the part of an arbitrator and mediator, awarding compensation to the injured party, rather than that of a judge. In the case of offences against the whole house, a fine is imposed; and the articles of the required value are placed under the charge of the chief, who holds them on behalf of the community, and uses them in the making of payments or presents in return for services rendered to the whole community.

The chief also is responsible for the proper observation of the omens and for the regulation of *malan* (tabu) affecting the whole house; and, as we shall see, he takes the leading part in social ceremonies and in most of the religious rites collectively performed by the village. He is regarded by other chiefs as responsible for the behaviour of his people, and above all, in war he is responsible for both strategy and tactics and the general conduct of operations.

For the maintenance of his authority and the enforcement of his commands the chief relies upon the force of public opinion, which, so long as he is capable and just, will always support him, and will bring severe moral pressure to bear upon any member of the household who hesitates to submit.

In return for his labours on behalf of the household or village the Kayan chief gains little or

nothing in the shape of material reward. He may receive a little voluntary assistance in the cultivation of his field ; in travelling by boat he is accorded the place of honour and ease in the middle of the boat, and he is not expected to help in its propulsion. His principal rewards are the social precedence and deference accorded him and the satisfaction found in the exercise of authority.

If the people of a house or village are gravely dissatisfied with the conduct of their chief, they will retire to their *padi*-fields, building temporary houses there. If many take this course, a new long house will be built and a new chief elected to rule over it, while the old chief remains in the old house with a reduced following, sometimes consisting only of his near relatives.

The office of chief is rather elective than hereditary, but the operation of the elective principle is affected by a strong bias in favour of the most capable son of the late chief ; so in practice a chief is generally succeeded by one of his sons. An elderly chief will sometimes voluntarily abdicate in favour of a son. If a chief dies, leaving no son of mature age, some elderly man of good standing and capacity will be elected to the chieftainship, generally by agreement arrived at by many informal discussions during the weeks following the death. If thereafter a son of the old chief showed himself a capable man as he grew up, he would be held to have a strong claim on the chieftainship at the next vacancy. If the new chief at his death left also a mature and capable son, there might be two claimants, each supported by a strong party ; the issue of such a state of affairs would probably be the division of the house or village, by the departure of one claimant with his party to build a new village. In such a case the seceding party would carry away with them their share of the timbers



PLATE 50. ABAN DENG, THE CHIEF OF THE LONG WAT
(KLEMANTANS) OF THE BARAM DISTRICT.

of the old house, together with all their personal property.

The Kenyahs form a less homogeneous and clearly defined tribe than the Kayans; yet in the main their social organisation is very similar to that of the Kayans, although, as regards physical characters and language as well as some customs, they present closer affinities with other peoples than with the Kayans, especially with the Klemantans. The Kenyah tribe also comprises a number of named branches, though these are less clearly defined than the sub-tribes of the Kayan people. Each branch is generally named after the river on the banks of which its villages are situated, or were situated at some comparatively recent time of which the memory is preserved. In many cases a single village adopts the name of some tributary stream near the mouth of which it is situated, and the people speak of themselves by this name. Thus it seems clear that the named branches of the Kenyah tribe are nothing more than local groups formed in the course of the periodical migrations, and named after the localities they have occupied.¹

The foregoing description of the relations of a Kayan chief to his people applies in the main to the Kenyah chief. But among the Kenyahs the position of the chief is one of greater authority and consideration than among the Kayans. The people voluntarily work for their chief both in his private and public capacities, obeying his commands cheer-

¹ All the Kenyahs of the Baram are known as Kenyah Bauh. On the watershed between the Batang Kayan and the Baram are the Lepu Payah and the Madang. In the Batang Kayan basin are the Lepu Tau, the Uma Kulit, Uma Lim, Uma Baka, Uma Jalan, Lepu Tepu. In the Koti basin are the Peng or Pnihing; in the Rejang the Uma Klap. These are the principal branches of the pure Kenyahs; each of them comprises a number of scattered villages, the people of each of which have adopted some local name. In addition to these there is a number of groups, such as the Uma Pawa and the Murik in the Baram, and the Lepu Tokong and the Uma Long in the Batang Kayan, the people of which seem to us to be intermediate as regards all important characters between the Kenyahs and the Klemantans. (For discussion of these relations see Chap. XXI.)

fully, and accepting his decisions with more deference than is accorded by the Kayans. The chief in return shows himself more generous and paternal towards his people, interesting himself more intimately in their individual affairs. Hence the Kenyah chief stands out more prominently as leader and representative of his people, and the cohesion of the whole community is stronger. The chief owes his great influence over his people in large measure to his training, for, while still a youth, the son or the nephew of a chief is accustomed to responsibility by being sent in charge of small bodies of followers upon missions to distant villages, to gather or convey information, or to investigate disturbing rumours. He is also frequently called upon to speak on public occasions, and thus early becomes a practised orator.

Among Klemantans, Muruts, and Sea Dayaks each house recognises a headman or chief; but he has little authority (more perhaps among the first of these peoples than among the other two). He acts as arbitrator in household disputes, but in too many cases his impartiality is not above suspicion, save where custom rigidly limits his preference.

Among both Kayans and Kenyahs three social strata are clearly distinguishable and are recognised by the people themselves in each village. The upper class is constituted by the family of the chief and his near relatives, his aunts and uncles, brothers, sisters, and cousins, and their children. These upper-class families are generally in easier circumstances than the others, thanks to the possession of property such as brass ware, valuable beads, caves in which the swift builds its edible nest, slaves, and a supply of all the other material possessions larger in quantity and superior in quality to those of the middle- and lower-class families.

The man of the upper class can generally be

distinguished at a glance by his superior bearing and manners, by the neatness and cleanliness of his person, his more valuable weapons, and personal ornaments, as well as by greater regularity of features. The woman of the upper class also exhibits to the eye similar marks of her superior birth and breeding. The tatuing of her skin is more finely executed, greater care is taken with the elongation of the lobe of the ear, so that the social status of the woman is indicated by the length of the lobe. Her dress and person are cleaner, and generally better cared for, and her skin is fairer than that of other women, owing no doubt to her having been less exposed to the sun.

The men of the upper class work in the *padi*-fields and bear their share of all the labours of the village ; but they are able to cultivate larger areas than others owing to their possession of slaves, who, although they are expected to grow a supply of *padi* for their own use, assist in the cultivation of their master's fields. For the upper-class women, also, the labours of the field and the house are rendered less severe by the assistance of female slaves, although they bear a part both in the weeding of the fields, in the harvesting, and in the preparation of food in the house.

The chief's room, which is usually about twice as long as others, is usually in the middle of the house ; and those of the other upper-class families, which also may be larger than the other rooms, adjoin it on either side.

In all social gatherings, and in the performance of public rites and ceremonies, the men of the upper class are accorded leading parts, and they usually group themselves about the chief. Social intercourse is freer and more intimate among the people of the upper class than between them and the rest of the household.

The upper class is relatively more numerous in the Kenyah than in the Kayan houses, and more clearly distinguishable by address and bearing.

The middle class comprises the majority of the people of a house in most cases. They may enjoy all the forms of property, though generally their possessions are of smaller extent and value, and they seldom possess slaves. Their voices carry less weight in public affairs; but among this class are generally a few men of exceptional capacity or experience whose advice and co-operation are specially valued by the chief. Among this class, too, are usually a few men in each house on whom devolve, often hereditarily, special duties implying special skill or knowledge, *e.g.* the working of iron at the forge, the making of boats, the catching of souls, the finding of camphor, the observation and determination of the seasons. All such special occupations are sources of profit, though only the last of these enables a man to dispense with the cultivation of *padi*.

The lower class is made up of slaves captured in war and of their descendants, and for this reason its members are of very varied physical type. An unmarried slave of either sex lives with, and is treated almost as a member of, the family of his or her master, eating and in some cases sleeping in the family room. Slaves are allowed to marry, their children becoming the property of their masters. Some slave-families are allowed to acquire a room in the house, and they then begin to acquire a less dependent position; and though they still retain the status of slaves, and are spoken of as "slaves-outside-the-room," the master generally finds it impossible to command their services beyond a very limited extent, and in some cases will voluntarily resign his rights over the family. But in this

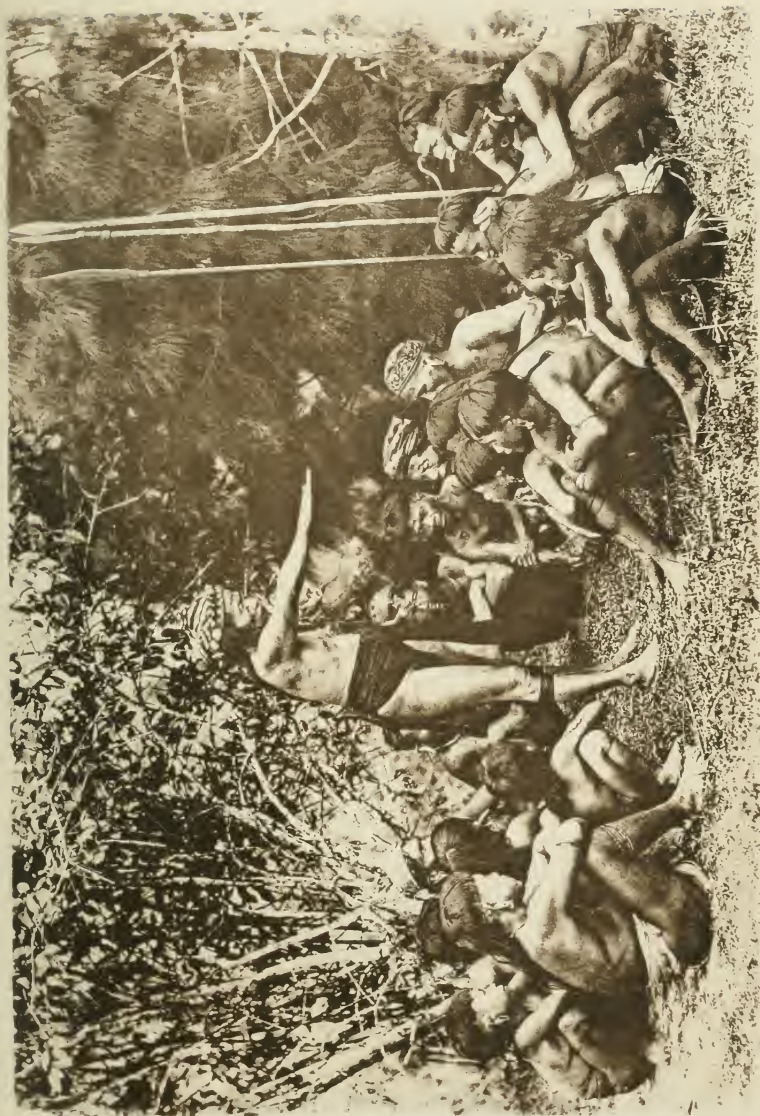


PLATE 51. SEBOP (KLEMANTAN) CHIEF HARANGUING HIS FOLLOWERS.

case the family continues to belong to the lower class.

The members of each of these classes marry in nearly all cases within their own class. The marriages of the young people of the upper class are carefully regulated. Although they are allowed to choose their partners according to the inscrutable dictates of personal affinities, their choice is limited by their elders and the authority of the chief. Many of them marry members of neighbouring villages, while the other classes marry within their own village.

A youth of the upper class, becoming fond of some girl of the middle class, and not being allowed to marry her (although this is occasionally permitted), will live with her for a year or two. Then, when the time for his marriage arrives (it having perhaps been postponed for some years after being arranged, owing to evil omens, or to lack of means or of house accommodation), he may separate from his mistress, leaving in her care any children born of their union, and perhaps making over to her some property—as public opinion demands in such cases. She may and usually will marry subsequently a man of her own class, but the children born of her irregular union may claim and may be accorded some of the privileges of their father's class. In this way there is formed in most villages a class of persons of ambiguous status, debarred from full membership in the upper class by the bar-sinister. Such persons tend to become wholly identified with the upper or middle class according to the degrees of their personal merits.

Marriages are sometimes contracted between persons of the middle and slave classes. In the case of a young man marrying a slave woman, the owners of the woman will endeavour to persuade him to live with her in their room, when he becomes

a subordinate member of their household. If they succeed in this they will claim as their property half the children born to the couple. On the other hand, if the man insists on establishing himself in possession of a room, he may succeed in practically emancipating his wife, perhaps making some compensation to her owners in the shape of personal services or brass ware. In this case the children of the couple would be regarded as freeborn. It is generally possible for an energetic slave to buy his freedom.

Less frequent is the marriage of a slave man with a free woman of the middle class. In this case the man will generally manage to secure his emancipation and to establish himself as master of a room, and to merge himself in the middle class. In the case of marriage between two slaves, they continue to live in the rooms of their owners, spending by arrangement periods of two or three years alternately as members of the two households. The children born of such a slave-couple are divided as they grow up between the owners of their parents.

On the whole the slaves are treated with so much kindness and consideration that they have little to complain of, and most of them seem to have little desire to be freed. A capable slave may become the confidant and companion of his master, and in this way may attain a position of considerable influence in the village. A young slave is commonly addressed by his master and mistress as "My Child." A slave is seldom beaten or subjected to any punishment save scolding, and he bears his part freely in the life of the family, sharing in its labours and its recreations, its ill or its good fortunes. Nothing in the dress or appearance of the slave distinguishes him from the other members of the village.

THE FAMILY

Very few men have more than one wife. Occasionally a chief whose wife has borne him no children during some years of married life, or has found the labours of entertaining his guests beyond her strength, will with her consent, or even at her request, take a second younger wife. In such a case each wife has her own sleeping apartment within the chief's large chamber, and the younger wife is expected to defer to the older one, and to help her in the work of the house and of the field. The second wife would be chosen of rather lower social standing than the first wife, who in virtue of this fact maintains her ascendancy more easily. A third wife is probably unknown; public opinion does not easily condone a second wife, and would hardly tolerate a third. In spite of the presence of slave women in the houses, concubinage is not recognised or tolerated.

The choice of a wife is not restricted by the existence of any law or custom prescribing marriage without or within any defined group; that is to say, exogamous and endogamous groups do not exist. Incest is regarded very seriously, and the forbidden degrees of kinship are clearly defined. They are very similar to those recognised among ourselves. A man may under no circumstances marry or have sexual relations with his sister, mother, daughter, father's or mother's sister or half sister, his brother's or sister's daughter; and in the case of those women who stand to him in any of these relations in virtue of adoption, the prohibitions and severe penalties are if possible even more strictly enforced. First cousins may marry, but such marriages are not regarded with favour, and certain special ceremonies are necessitated; and it seems to be the general opinion that such marriages are not

likely to prove happy. Many young men of the upper class marry girls of the same class belonging to neighbouring villages of their own people, and in some cases this choice falls on a girl of a village of some other tribe. A marriage of the latter kind is often encouraged by the chiefs and elder people, in order to strengthen or to restore friendly relations between the villages.

The initiative is taken in nearly all cases by the youth. He begins by paying attentions somewhat furtively to the girl who attracts his fancy. He will often be found passing the evening in her company in her parents' room. There he will display his skill with the *keluri*, or the Jew's harp, or sing the favourite love-song of the people, varying the words to suit the occasion. If the girl looks with favour on his advances, she manages to make the fact known to him. Politeness demands that in any case he shall be supplied by the women with lighted cigarettes. If the girl wishes him to stay, she gives him a cigarette tied in a peculiar manner, namely by winding the strip which confines its sheath of dried banana leaf close to the narrow mouth-piece; whereas on all other occasions this strip is wound about the middle of the cigarette. The young man thus encouraged will repeat his visits. If his suit makes progress, he may hope that the fair one will draw out with a pair of brass tweezers the hairs of his eyebrows and lashes, while he reclines on his back with his head in her lap. If these hairs are very few, the girl will remark that some one else has been pulling them out, an imputation which he repudiates. Or he complains of a headache, and she administers scalp-massage by winding tufts of hair about her knuckles and sharply tugging them. When the courtship has advanced to this stage, the girl may attract her suitor to the room by playing on the Jew's harp, with which she



PLATE 52. KENYAHs OF THE PATA RIVER.

The men wearing caps and the one squatting on the left are of the upper class, the others are of the middle class.

claims to be able to speak to him—presumably the language of the heart. The youth thus encouraged may presume to remain beside his sweetheart till early morning, or to return to her side when the old people have retired. When the affair has reached this stage, it becomes necessary to secure the public recognition which constitutes the relation a formal betrothal. The man charges some elderly friend of either sex, in many cases his father or mother, to inform the chief of his desire. The latter expresses a surprise which is not always genuine; and, if the match is a suitable one, he contents himself with giving a little friendly advice. But if he is aware of any objections to the match he will point them out, and though he will seldom forbid it in direct terms, he will know how to cause the marriage to be postponed.

If the chief and parents favour the match, the young man presents a brass gong or a valuable bead to the girl's family as pledge of his sincerity. This is returned to him if for any reason beyond his control the match is broken off. The marriage may take place with very little delay; but during the interval between betrothal and marriage the omens are anxiously observed and consulted. All accidents affecting any members of the village are regarded as of evil omen, the more so the more nearly the betrothed parties are concerned in them. The cries of birds and deer are important; those heard about the house are likely to be bad omens, and it is sought to compensate for these by sending a man skilled in augury to seek good omens in the jungle, such as the whistle of the Trogan and of the spider-hunter, and the flight of the hawk from right to left high up in the sky. If the omens are persistently and predominantly bad, the marriage is put off for a year, and after the next harvest fresh omens are sought. The man is encouraged

in the meantime to absent himself from the village, in the hope that he may form some other attachment. But if he remains true and favourable omens are obtained, the marriage is celebrated if possible at the close of the harvest. If the marriage takes place at any other time, the feast will be postponed to the end of the following harvest.¹ After the marriage the man lives with his wife in the room of his father-in-law for one, two, or at most three years. During this time he works in the fields of his father-in-law and generally helps in the support of the household, showing great deference towards his wife's parents. Before the end of the third year of marriage, the young couple will acquire for themselves a room in the house and village of the husband, in which they set up housekeeping on their own account. In addition to these personal services rendered to the parents of the bride, the man or his father and other relatives give to the girl's parents at the time of the marriage various articles which are valuable in proportion to the social standing of the parties, and which are generally appropriated by the girl's parents.²

Divorce is rare but not unknown among the Kayans. The principal grounds of divorce are

¹ For the marriage ceremony see Chap. XVIII.

² We take this opportunity of contradicting in the most emphatic manner a very misleading statement which of all the many misleading statements about the peoples of Borneo that are in circulation is perhaps the most frequently repeated in print. The statement makes its most recent reappearance in Professor Keane's book *The World's Peoples* (published in 1908). There it is written of the "Borneans" that "No girl will look at a wooer before he has laid a head or two at her feet." To us it seems obvious that this state of affairs could only obtain among a hydra-headed race. The statement is not true of any one tribe, and as regards most of the "Borneans" has no foundation in fact. Applied to the Sea Dayaks alone has the statement an element of truth. Among them to have taken a head does commonly enhance a wooer's chances of success, and many Sea Dayak girls and their mothers will taunt a suitor with having taken no head, but few of them will make the taking of a head an essential condition of the bestowal of their favour or of marriage. A mother will remark to a youth who is hanging about her daughter, *Bisi dalam, bisi deluar buli di tanya anak aku* (When you have the wherewithal to adorn both the interior and the exterior of a room (*i.e.* jars within the room and heads without in the gallery) you can then ask for my child).

misconduct, desertion, incompatibility of temper and family quarrels; or a couple may terminate their state of wedlock by mutual consent on payment of a moderate fine to the chief. Such separation by mutual consent is occasioned not infrequently by the sterility of the marriage, especially if the couple fails to obtain a child for adoption; the parties hope to procure offspring by taking new partners; for the desire for children and pride and joy in the possession of them are strongly felt by all. The husband of a sterile wife may leave the house for a long period, living in the jungle and visiting other houses, in the hope that his wife may divorce him on the ground of desertion, or give him ground for divorcing her. On discovery of misconduct on the woman's part the husband will usually divorce her; the man then retains all property accumulated since the marriage, and the children are divided between the parents. The co-respondent and respondent are fined by the chief, and half the amount of the fine goes to the injured husband. Misconduct on the part of the man must be flagrant before it constitutes a sufficient ground for his divorce by his wife. In this case the same rules are followed. Among the Kayans the divorce is not infrequently followed by a reconciliation brought about by the intervention of friends; the parties then come together again without further ceremony. There is little formality about the divorce procedure. In the main it takes the form of separation by mutual consent and the condonation of the irregularity by the community on the payment of a fine to the chief.

ADOPTION

Adoption is by no means uncommon. The desire for children, especially male children, is

general and strong; but sterile marriages seem to be known among all the peoples and are common among the Kenyahs. When a woman has remained infertile for some years after her marriage, the couple usually seek to adopt one or more children. They generally prefer the child of a relative, but may take any child, even a captive or a slave child, whose parents are willing to resign all rights in it. A child is often taken over from parents oppressed by poverty, in many cases some article of value or a supply of *padi* being given in exchange. Not infrequently the parents wish to have the child returned to them when their affairs take a turn for the better, owing to a good harvest or some stroke of luck, and this is a frequent cause of dissensions. Usually the adopted child takes in every way the position of a child born to the parents.

Some of the Klemantans (Barawans and Lelaks in the Baram) practise a curious symbolic ceremony on the adoption of a child. When a couple has arranged to adopt a child, both man and wife observe for some weeks before the ceremony all the prohibitions usually observed during the later months of pregnancy. Many of these prohibitions may be described in general terms by saying that they imply abstention from every action that may suggest difficulty or delay in delivery; *e.g.* the hand must not be thrust into any narrow hole to pull anything out of it; no fixing of things with wooden pegs must be done; there must be no lingering on the threshold on entering or leaving a room. When the appointed day arrives, the woman sits in her room propped up and with a cloth round her, in the attitude commonly adopted during delivery. The child is pushed forward from behind between the woman's legs, and, if it is a young child, it is put to the breast and encouraged to suck. Later it receives a new name.



PLATE 53. A KAYAN MAKING FIRE BY FRICTION WITH A *PUSA*.

It is very difficult to obtain admission that a particular child has been adopted and is not the actual offspring of the parents; and this seems to be due, not so much to any desire to conceal the facts as to the completeness of the adoption, the parents coming to regard the child as so entirely their own that it is difficult to find words which will express the difference between the adopted child and the offspring. This is especially the case if the woman has actually suckled the child.

PROPER NAMES

The child remains nameless during the first few years, and is spoken of as *Ukat* if a boy, *Owing* if a girl, both of which seem to be best translated as Thingummybob; among the Sea Dayaks *Ulat* (the little grub) is the name commonly used. It is felt that to give the child a name while its hold of life is still feeble is undesirable, because the name would tend to draw the attention of evil spirits to it. During its third or fourth year it is given a name at the same time as a number of other children of the house.¹ The name is chosen with much deliberation, the eldest son and daughter usually receiving the names of a grandfather and grandmother respectively. Male and female names are distinct. The name first given to any person is rarely carried through life; it is usually changed after any severe illness or serious accident, in order that the evil influences that have pursued him may fail to recognise him under the new name; thus the first or infant name of Tama Bulan was Lujah. After bearing it a few years he went through a serious illness, on account of which his name was changed to Wang. Among the Klemantans it is usual under these circumstances to name the child

¹ For the naming ceremony see Chap. XVIII.

after some offensive object, *e.g.* *tai* (dung), in order to render it inconspicuous, and thus withdraw it from the attention of malign powers. After the naming of a couple's first child, the parents are always addressed as father and mother of the child; *e.g.* if the child's name is *Obong*, her father becomes known as *Tama Obong*, her mother as *Inai Obong*, and their original names are disused and almost forgotten,¹ unless needed to distinguish the parents from other persons of the same name, when the old names are appended to the new; thus, *Tama Obong Jau*, if *Jau* was the original name of *Tama Obong*; and thus *Tama Bulan* received this name on the naming of his first child, *Bulan* (the moon), and when it is wished to distinguish him in conversation from other fathers of the moon he is called *Tama Bulan Wang*. If the eldest child *Obong* dies, the father, *Tama Obong Jau*, becomes *Oyong Jau*; if one of his younger children dies, he becomes *Akam Jau*; if his wife dies, he becomes *Aban Jau*; if his brother died, he would be called *Yat Jau*; and if his sister, *Harwan Jau*; and if two of these relatives are dead, these titles are used indifferently; but the deaths of wife and children are predominant over other occasions for the change of name. An elderly man who has no children receives the title *Lingo*, and a woman, the title *Apa* prefixed to his or her former name. A widow is called *Balu*. The names of father and mother are never assumed by the children, and their deaths do not occasion any change of name, except the adoption of the title *Oyau* on the loss of the father, and *Ilun* on the loss of the mother. These titles would be used only until the man became a father. When a man becomes a grandfather his title is *Laki* (*e.g.* *Laki Jau*), and this

¹ It is not rare to find that a child does not know the original names of his parents, and even husbands may be found to have forgotten the original names of their wives.

title supersedes all others. A child addresses, and speaks of, his father as *Taman*, and his mother as *Inai* or *Tinan*, and all four grandparents as *Poi*. The parent commonly addresses the child, even when adult, as *Anak*, or uses his proper name. A father's brother is addressed as *Amai*, but this title is used also as a term of respect in addressing any older man not related in any degree, even though he be of a different tribe or race. They use the word *Inai* for aunt as well as for mother, and some have adopted the Malay term *Ma manakan* for aunt proper. The same is true of the words for nephew and niece—the Malay term *Anak manakan* being used for both.

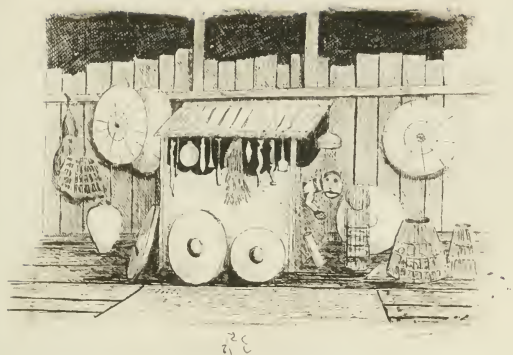
The terms used to denote degrees of kinship are few, and are used in a very elastic manner. The term of widest connotation is *Parin Igat*, which is equivalent to our cousin used in the wider or Scotch sense; it is applied to all blood relatives of the same generation, and is sometimes used in a metaphorical sense much as we use the term brother. There are no words corresponding to our words son and daughter, *anak* meaning merely child of either sex. There are no words corresponding to brother and sister; both are spoken of as *Parin*, but this word is often used as a title of endearment in addressing or speaking of a friend of either sex of the same social standing and age as the speaker. The children of the same parents speak of themselves collectively as *Panak*; this term also is sometimes used loosely and metaphorically. A step-father is *Taman Dong*; father-in-law is *Taman Divan*; forefather is *Sipun*, a term used of any male or female ancestor more remote than the grandparents; but these are merely descriptive and not terms of address. A man of the upper class not uncommonly has a favourite companion of the middle class, who accompanies him everywhere and

renders him assistance and service, and shares his fortunes (*Fidus Achates* in short); him he addresses as *Bakis*, and the title is used reciprocally. A title reciprocally used by those who are very dear friends, especially by those who have enjoyed the favours of the same fair one, is *Toyong* (or among the Sea Dayaks—*Imprian*).

This list includes all the important Kayan terms used to denote personal relations and kinship, so far as we know; and we think it very improbable that any have escaped us. There seem to be no secret names, except in so far as names discarded on account of misfortune are not willingly recalled or communicated; but a child's name is seldom used, and adults also seem to avoid calling on one another by their proper names, especially when in the jungle, the title alone, such as *Oyong* or *Aban* being commonly used; apparently owing to some vaguely conceived risk of directing to the individual named the attentions of malevolent powers.¹

The foregoing account of the social organisation of the Kayans applies equally well to the Kenyahs, except that some of the titles used are different. The Klemantans and Muruts, too, present few important differences except that the power of the chiefs is decidedly less, and the distinction of the social strata less clearly marked, and slaves are less numerous. The Sea Dayak social organisation is also similar in most of its features. The most important of the differences presented by it are the following:—Polygamy is not allowed, and occurs only illicitly. Both parties are fined when the facts are discovered. Divorce is very common and

¹ We append to this chapter a table showing the names and degrees of kinship of all the inhabitants of one Kenyah long house. At the suggestion of Dr. W. H. R. Rivers, who has found this method of great value in disentangling the complicated kinship systems of some Melanesian and Papuan and other peoples, we have collected similar information regarding Kayan, Sea Dayak, Klemantan, and Murut villages. But in no case does the table discover any trace of any elaborate kinship system.



A CORPSE IN A BARAWAN KLEMANTAN HOUSE.



PLATE 54. PARTY IN THE UNFINISHED HOUSE OF JANGAN, CHIEF OF THE SEBOPS, ON THE OCCASION OF THE NAMING OF HIS CHILD.

easily obtained ; the marriage relation, being surrounded with much less solemnity, is more easily entered into and dissolved. Infidelity and mutual agreement are the common occasions of divorce. Either party can readily secure his or her freedom by payment of a small fine. There are both men and women who have married many times ; a tenth husband or wife is not unknown ; and a marriage may be dissolved within a week of its consummation.

The Sea Dayak, like all the other peoples, regards incest very seriously, and the forbidden degrees of kinship are well understood and very similar to those of Kayans.

A Sea Dayak village consists in almost every case of a single house, but such houses are generally grouped within easy reach of one another. Very few slaves are to be found in their houses, since the Ibans usually take the heads of all their conquered enemies rather than make slaves of them.

INHERITANCE OF PROPERTY

At a man's death his property is divided between his widow and children. But in order to prevent the disputes, which often arise over the division of inheritance, an old man may divide his property before his death. The widow becomes the head of the room, though a married son or daughter or several unmarried children may share it with her. She inherits all or most of the household utensils. Such things as gongs and other brass ware, weapons, war-coats, and boats, are divided equally among the sons, the eldest perhaps getting a little more than the others. The girls divide the old beads, cloth, bead-boxes, and various trifles. The male slaves go to the sons, the female slaves to the daughters. Bird's nest caves and bee trees might be divided or shared among all the children.

It happens not infrequently that one son or daughter, remaining unmarried, continues to live in the household of the parents and to look after them in their old age. To such a one some valuable article, such as a string of old beads or costly jar, is usually bequeathed.

Among the Sea Dayaks the old jars, which constitute the chief part of a man's wealth, are distributed among both sons and daughters; if the jars are too few for equal distribution, they are jointly owned until one can buy out the shares of his co-owners.

The members of a Kayan household are bound together, not merely by their material circumstances, such as their shelter under a common roof and their participation in common labours, and not merely by the moral bonds such as kinship and their allegiance to one chief and loyalty to one another, but also by more subtle ties, of which the most important is their sharing in the protection and warning afforded to the whole house by the omen-birds or by the higher powers served by these. For omens are observed for the whole household, and hold good only for those who live under the one roof. This spiritual unity of the household is jealously guarded. Occasionally one family may wish for some reason, such as bad dreams or much sickness, to withdraw from the house. If the rest of the household is unwilling to remove to a new house, they will oppose such withdrawal, and, if the man insists on separating, a fine is imposed on him, and he is compelled to leave undisturbed the roof and all the main structure of his section of the house; though the room would be left unoccupied. Conversely Kayans are very unwilling to admit any family to become members of the household. They never or seldom add sections to a house which has once been completed; and young married couples must live in their parents' rooms,

until the whole household removes and builds a new house. Occasionally a remnant of a household which has been broken up by the attack of enemies is sheltered by a friendly house; but the newcomers are lodged in the gallery only until the time comes for building a new house, when they may be allowed to build rooms for themselves, and to become incorporated in the household. Another plan sometimes adopted is to build a small house for the newcomers closely adjoining the main house, but joined to it only by an open platform.

APPENDIX TO CHAPTER V

Tables showing Kinship of the Kenyahs of Long Tikan (Tama Bulan's house) in the Baram District of Sarawak.

We have made out tables showing the kinship of the inhabitants of several Kenyah long houses and of one Sea Dayak house, following the example and method of Dr. W. H. R. Rivers. These tables have not revealed to us indications of any peculiar system of kinship; but we think it worth while to reproduce one of them as an appendix to the foregoing chapter. The table includes all the inhabitants of the house living in the year 1899, as well as those deceased members of whom we are able to obtain trustworthy information. The arrangement is by door or room, but since on marriage some shifting from one room to another takes place, some individuals appear under two doors.

In these tables the names of males are printed in ordinary type, those of females in italics; and the following signs are used:—

= for married to.

=

| indicates the children of a married couple.

|

| implies that the individual below whose name it occurs reached adult life, but died without issue.

| implies a child dead at early age, sex and name unknown.

×

♂ implies male child not yet named.

♀ implies female child not yet named

? individual of unknown name.

(1) SIDI KARANG'S DOOR.

Sidi Karang = *Sidi Peng* (a Long Paku Kenyah).Baiai Gau = *Ulau*.*Other Members of the Room.*Tama Aping Layong = *Balu Buon*.

Lutang (nephew of Sidi Karang).

Sukun.Mang = *Boru Tellun*.

Luat = ?

Ukang.

Lesun = *Balu Ulan*.

Lim.

Usun.

Luyok = *Oyong Turing*.
(See Door 6.)

Linjau.

Itang Wing = *Lara Wan*.

(2) AJONG'S DOOR.

Mawa Ontong = ? (Long Belukun Kenyah woman).
(Long Belukun Kenyah)*Balu Lara*.Ajong = *Ngino* (Long Tikan).

Wan.

♂

♀

x

x

(3) MAWA JUNGAN'S DOOR.

Mawa Jungan (see Imoh's door) = *Mawa Ujong*.

x

x

x

x

x

x

x

Weak-
minded.

Kading.

♀

(4) IMOH'S DOOR.

Jilo = ?

Imoh = *Tina Aping Poyong*, formerly = Tama Aping Lalo.
 (sister of *Ngino*, see Door 2) (see Door 5).

Lirim.

(5) PALLAVO'S DOOR.

Maga = ?

Pallavo
 (unmarried at 60).

Tugan
 (weak-minded slave).

O

Tama Aping Lalo = (1st wife) *Tina Aping Poyong* = (2nd wife) *Usun*
 (see Door 4) (Likán Kenyah).

Anie Tapa (weak-minded) = ?

Tigiling (weak-minded).

(6) OYONG TURING'S DOOR.

Seling = ?

Sidi Ontong = ?

Oyong Lujok = Oyong Turing.

Maga.

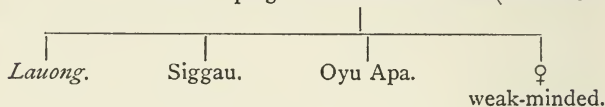
Balu Ating = ?

Laro Libo (Long Palutan Kenyah) = *Lara Ulau*.

Asong. Sapo. Lalo. Lunga. Usun. Singim. x x x x

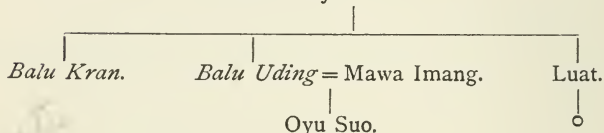
(7) BALU KRAN'S DOOR.

Lingan (a Likan Kenyah) = ?

Tama Aping Mawa = *Balu Kran* (see Door 8).

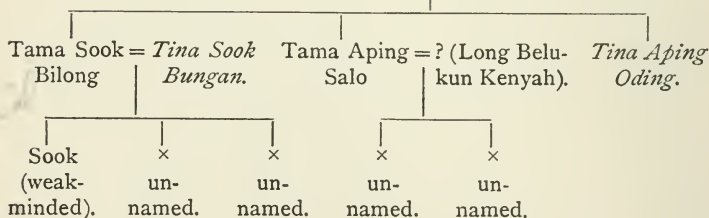
(8) BALU UTING'S DOOR.

Sawa Taja = ?

*Kening* (unmarried sister of Mawa Imang).

(9) ABAN MOUN'S DOOR.

Kamang.

Aban Moun = *Telun*.

(10) ABAN MAGI'S DOOR.

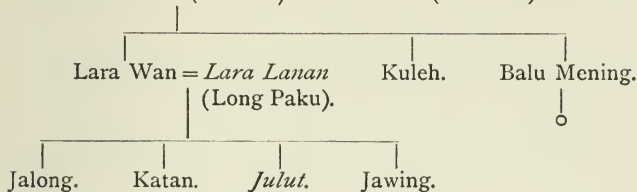
Aban Magi (see Door 13) = *Tina Aping Kran*.

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graph TD
    A[Aban Magi] --- B[Anie Liran.]
  
```

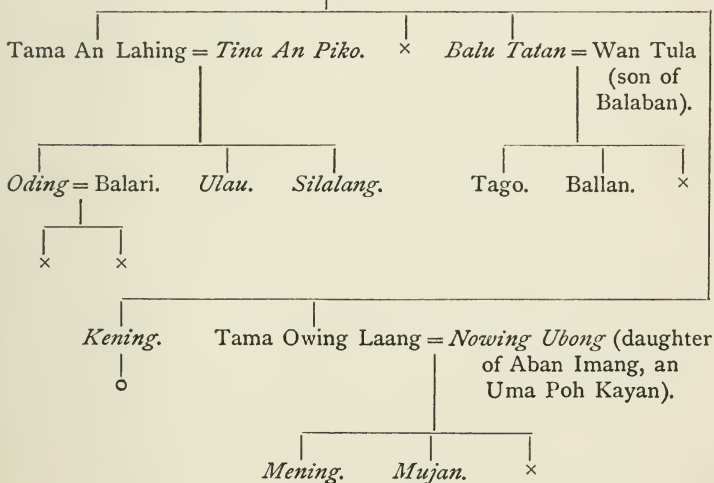
(11) LARA WAN'S DOOR.

Mawa Liva = (1st wife) *Tina Wan* = (2nd wife) *Utan Uring*.



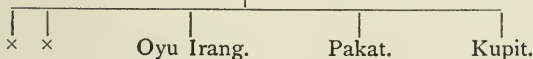
(12) TAMA AN LAHING'S DOOR.

Batang = *Tina Lahing*.



(13) OYU IRANG'S DOOR.

Sorang (Long Tikan) = *Sinjai* (Long Tikan) (sister of Aban Magi, see Door 10; and Lara Libo, see Door 6).



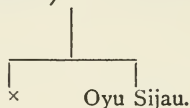
Other Members in the Room.

Balu Tubong (sister of Sorang) = ? (a Long Tikan man).

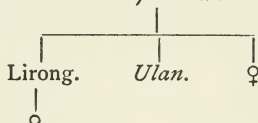
Abing Urai (sister of Balu Tubong) = Aban Madang (Long Paku).

(14) BALU USUN'S DOOR.

Balu Usan (Long Palutan) = Aban Siliwa (Long Palutan).



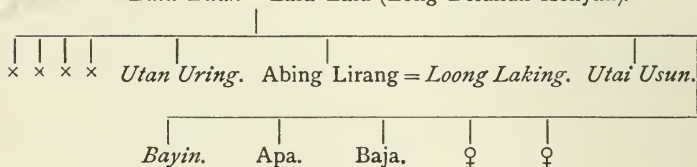
Balu Meno (niece of Balu Usan) = Aban Meggang (Long Paku).



(15) BALU BUAH'S DOOR.

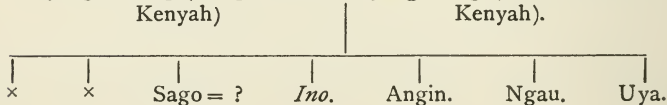
Tegging = *Balu Mujan*.

Balu Buah = Lara Lalu (Long Belukun Kenyah).

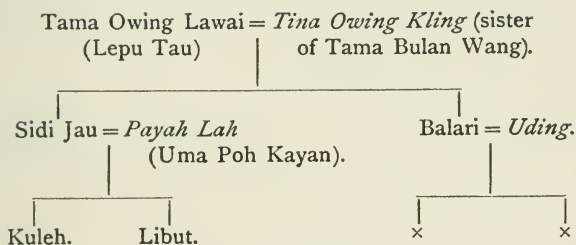
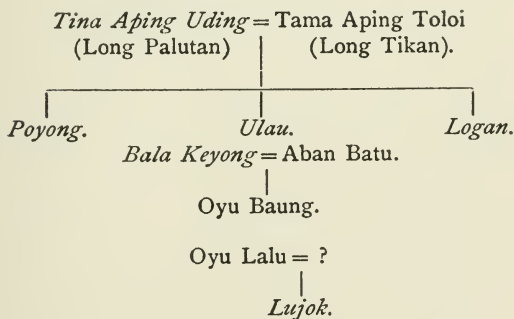


(16) OYONG KALANG'S DOOR.

Oyong Kalang (Long Palutan = *Oyong Nong* (Long Palutan Kenyah)



(17) SIDI JAU'S DOOR.

*Other People in the Room.*

Aban Jok (Murut x Kayan).

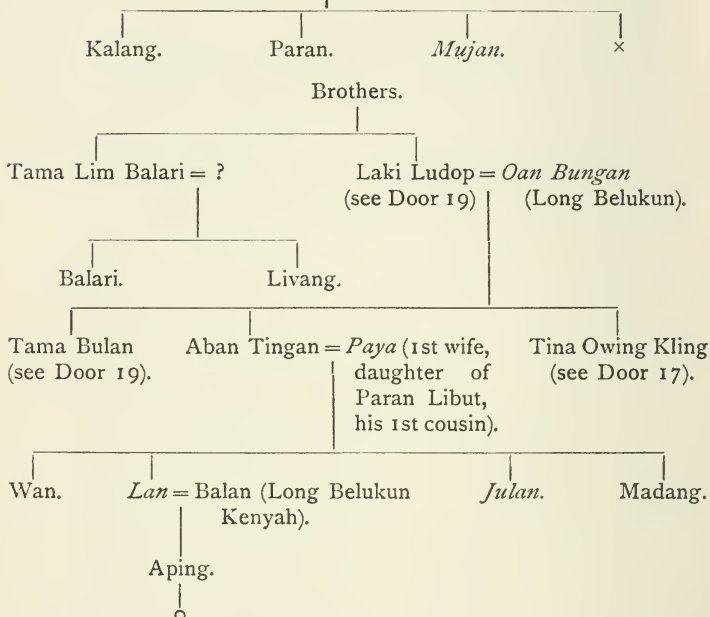
Kangin (sister to Mang, see Door 1).

Aban Oyu (Murut) = *Balu Mong*.

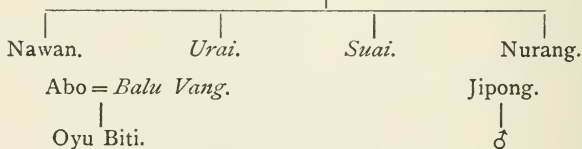
(18) ABAN TINGAN'S DOOR.

Aban Langat (Punan) = *Tina Oyu* (Punan).

Aban Tingan = *Belviun* (2nd wife).

*Slaves.*

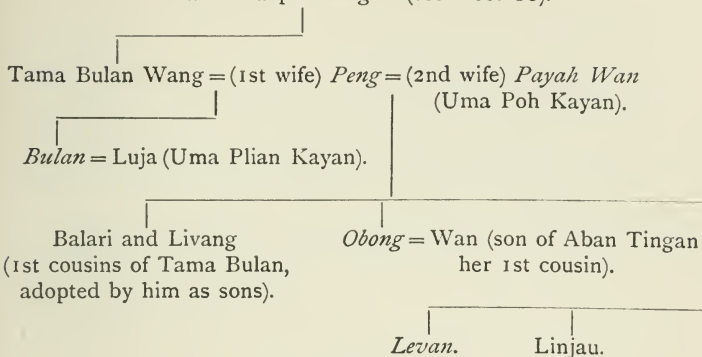
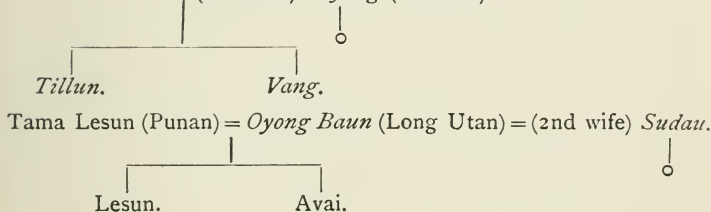
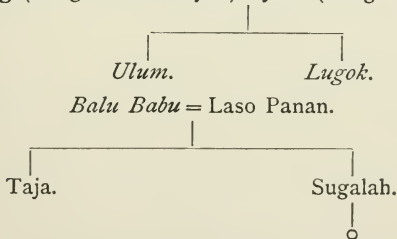
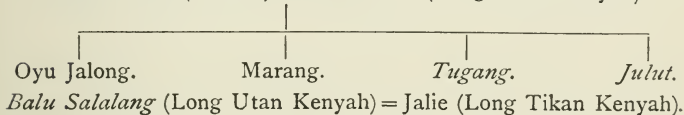
Aban Muda (Murut) = *Nuing Labai*.



Oan Igan, child of Mapit (Long Palutan), brother of Jilo (see Imoh's room).

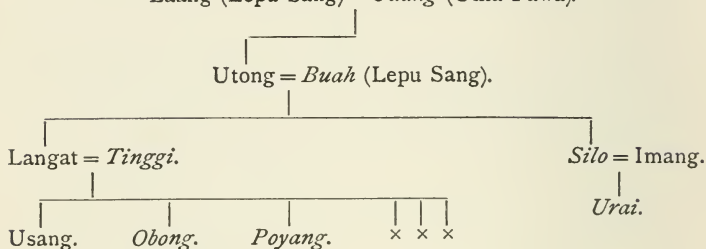
Apoi } brothers.
 Lujah }
 Ulau (Kalabit).
 Padan.

(19) TAMA BULAN'S DOOR.

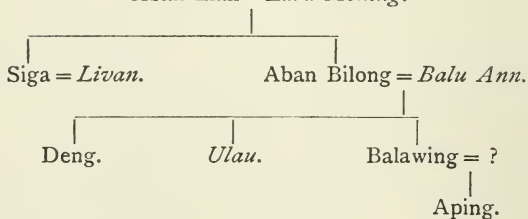
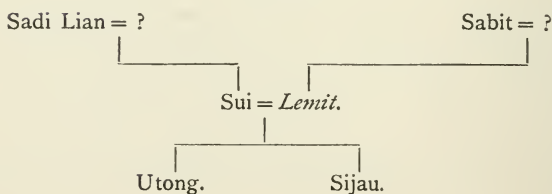
Laki Ludop = *Bungan* (see Door 18).*Slaves.*Segilah (Long Tikan × Lirong) = (1st wife) *Vang* (Long Tikan × Murut).Balu Tivan = (1st wife) *Oyong Uding* (Leppu Sang Kenyah).
(2nd wife) *Layang* (a Murut).Aban Tadan (Kalabit) = *Balu Tatan* (Long Utan Kenyah).*Balu Ulau*, stepmother of *Balu Baba*, married Aban Grang.

(20) TAMA POYONG LANGAT'S DOOR.

(This is room of freedman of Tama Bulan).

Laang (Lepu Sang) = *Udang* (Uma Pawa).

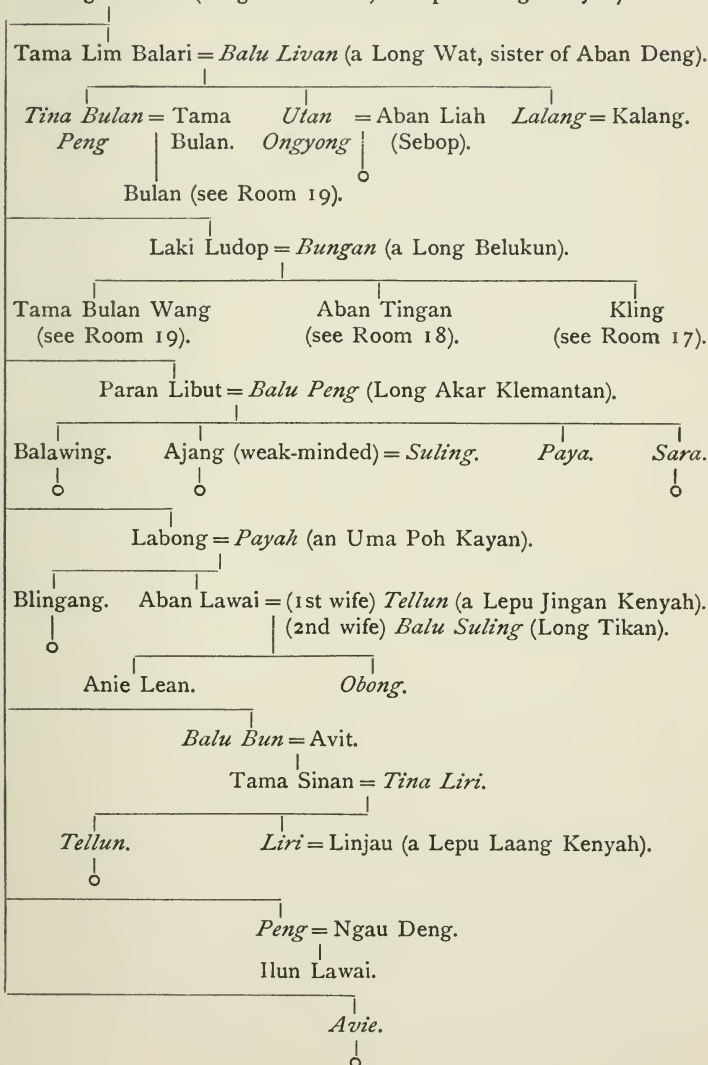
(21) SIGA'S DOOR.

Aban Lian = *Lara Mening*.*Slaves.*

(22) ABAN LAWAI'S DOOR.

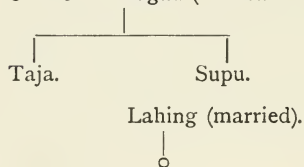
Kalala, father of Laki Jau, father of Kalang, grandfather
of Aban Lawai.

Kalang = *Bulan* (daughter of Avit, a Lepu Laang Kenyah).



(22) ABAN LAWAI'S DOOR (*continued*).*Slaves.*

Lara (Pabauan Murut).

Balu Lunau (Kalabit) = Igi.*Oan Ulau* = Igau (in Aban Tingan's room).

CHAPTER VI

AGRICULTURE

FOR all the peoples of the interior of Borneo, the Punans and Malanaus excepted, the rice grown by themselves is the principal food-stuff. Throughout the year, except during the few weeks when the jungle fruit is most abundant, rice forms the bulk of every meal. In years of bad harvests, when the supply is deficient, the place of rice has to be filled as well as may be with wild sago, cultivated maize, tapioca, and sweet potatoes. All these are used, and the last three, as well as pumpkins, bananas, cucumbers, millet, pineapples, chilis, are regularly grown in small quantities by most of the peoples. But all these together are regarded as making but a poor substitute for rice. The cultivator has to contend with many difficulties, for in the moist hot climate weeds grow apace, and the fields, being closely surrounded by virgin forest, are liable to the attacks of pests of many kinds. Hence the processes by which the annual crop of *padi* is obtained demand the best efforts and care of all the people of each village. The plough is unknown save to the Dusuns, a branch of the Murut people in North Borneo, who have learnt its use from Chinese immigrants. The Kalabits and some of the coast-wise Klemantans who live in alluvial areas have learnt, probably through intercourse with the Philippine Islanders or the inhabitants of Indo-

China, to prepare the land for the *padi* seed by leading buffaloes to and fro across it while it lies covered with water. The Kalabits lead the water into their fields from the streams descending from the hills.

With these exceptions the preparation of the land is everywhere very crude, consisting in the felling of the timber and undergrowth, and in burning it as completely as possible, so that its ashes enrich the soil. After a single crop has been grown and gathered on land so cleared, the weeds grow up very thickly, and there is, of course, in the following year no possibility of repeating the dressing of wood ashes in the same way. Hence it is the universal practice to allow the land to lie fallow for at least two years, after a single crop has been raised, while crops are raised from other lands. During the fallow period the jungle grows up so rapidly and thickly that by the third year the weeds have almost died out, choked by the larger growths. The same land is then prepared again by felling the young jungle and burning it as before, and a crop is again raised from it. When a piece of land has been prepared and cropped in this way some three or four times, at intervals of two, three, or four years, the crop obtainable from it is so inferior in quantity that the people usually undertake the severe labour of felling and burning a patch of virgin forest, rather than continue to make use of the old areas. In this way a large village uses up in the course of some twelve or fifteen years all the land suitable for cultivation within a convenient distance, *i.e.* within a radius of some three miles. When this state of affairs results, the village is moved to a new site, chosen chiefly with an eye to the abundance of land suitable for the cultivation of the *padi* crop. After ten or more years the villagers will return, and the house or



PLATE 55. IBANS FELLING A TREE.

houses will be reconstructed on the old site or one adjacent to it, if no circumstances arise to tempt them to migrate to a more distant country, and if the course of their life on the old site has run smoothly, without misfortunes such as much sickness, conflagrations, or serious attacks by other villages. After this interval the land is regarded as being almost as good as the virgin forest land, and has the advantage that the jungle on it can be more easily felled. But since no crop equals that obtainable from virgin soil, it is customary to include at least a small area of it in the operations of each year.

Each family cultivates its own patch of land, selecting it by arrangement with other families, and works as large an area as the strength and number of the roomhold permits. A hillside sloping down to the bank of a river or navigable stream is considered the choicest area for cultivation, partly because of the efficient drainage, partly because the felling is easier on the slope, and because the stream affords easy access to the field.

When an area has been chosen, the men of the roomhold first cut down the undergrowth of a V-shaped area, whose apex points up the hill, and whose base lies on the river bank. This done, they call in the help of other men of the house, usually relatives who are engaged in preparing adjacent areas, and all set to work to fell the large trees. In the clearing of virgin forest, when very large trees, many of which have at their bases immense buttresses, have to be felled, a platform of light poles is built around each of these giants to the height of about 15 feet. Two men standing upon this rude platform on opposite sides of the stem attack it with their small springy-hafted axes (Fig. 11) above the level of the buttresses (Pl. 55). One man cuts a deep notch on the side

facing up the hill, the other cuts a similar notch about a foot lower down on the opposite side, each cutting almost to the centre of the stem. This operation is accomplished in a surprisingly short time, perhaps thirty minutes in the case of a stem two to three feet in diameter. When all the large trees within the V-shaped area have been cut in this way, all the workers and any women, children, or dogs who may be present are called out of the patch, and one or two big trees, carefully selected to form the apex of the phalanx, are then cut so as to fall down the hill.¹ In their fall these giants throw down the trees standing immediately below them on the hillside; these, falling in turn against their neighbours, bring them down. And so, like an avalanche of widening sweep, the huge disturbance propagates itself with a thunderous roar and increasing momentum downwards over the whole of the prepared area; while puny man looks on at the awful work of his hand and brain not unmoved, but dancing and shouting in wild triumphant delight.

The fallen timber must now lie some weeks before it can be burnt. This period is mainly devoted to

¹ They are skilled woodmen, and know how to cut a tree so as to ensure its falling in any desired manner; the final strokes cut away the ends of the narrow portion of the stem remaining between the upper and lower notches.

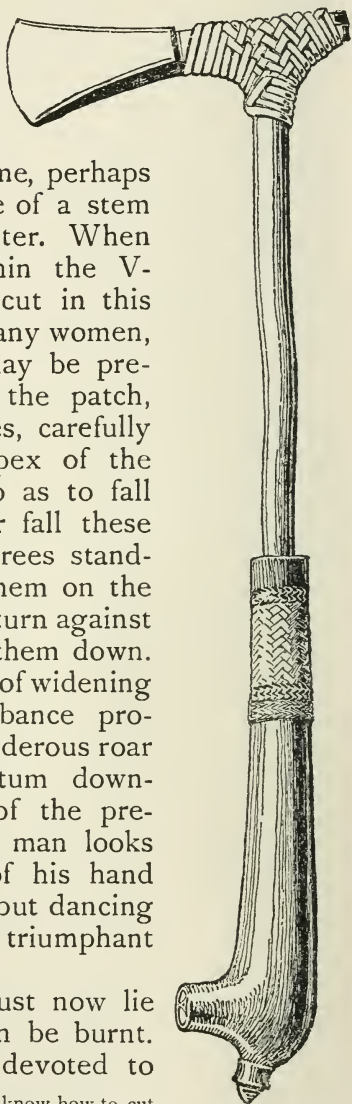


FIG. II.



PLATE 56. A LIRONG FARM IN THE TINJAR RIVER.

making and repairing the implements to be used in cultivating, harvesting, and storing the crop, and also in sowing at the earliest possible moment small patches of early or rapidly growing *padi* together with a little maize, sugar-cane, some sweet potatoes, and tapioca. The patches thus sown generally lie adjacent to one another. If the weather is fine, the fallen timber becomes dry enough to burn well after one month. If much rain falls it is necessary to wait longer in the hope of drier weather. Choosing a windy day, they set fire to all the adjacent patches after shouting out warnings to all persons in the fields. While the burning goes on, the men "whistle for the wind," or rather blow for it, rattling their tongues in their mouths. Some of the older men make lengthy orations shouted into the air, adjuring the wind to blow strongly and so fan the fire. The fire, if successful, burns furiously for a few hours and then smoulders for some days, after which little of the timber remains but ashes and the charred stumps of the bigger trees. If the burning is very incomplete, it is necessary to make stacks of the lighter timbers that remain, and to fire these again. As soon as the ashes are cool, sowing begins. Men and women work together; the men go in front making holes with wooden dibbles about six inches apart; the women follow, carrying hung round the neck small baskets of *padi* seed (Fig. 12), which they throw into the holes, three or four seeds to each hole. No care is taken to fill in the holes with earth. By this time the relatively dry season, which lasts only some two months, is at an end, and copious rains cause the seed to shoot above the ground a few



FIG. 12. — Sea Dayak basket for *padi* seed.

days after the sowing. Several varieties of *padi* are in common use, some more suitable for the hillsides, some for the marshy lands. On any one patch three or four kinds are usually sown according to the elevation and slope of the part of the area. Since the rates of growth of the several kinds are different, the sowings are so timed that the whole area ripens as nearly as possible at the same moment, in order that the birds and other pests may not have the opportunity of turning their whole force upon the several parts in turn. The men now build on each patch a small hut, which is occupied by most of the able-bodied members of the roomhold until harvest is completed, some fourteen to twenty weeks after the sowing of the *padi*, according to the variety of grain sown. They erect contrivances for scaring away the birds; they stick bamboos about eight feet in length upright in the ground every 20 to 30 yards. Between the upper ends of these, rattans are tied, connecting together all the bamboos on each area of about one acre. The field of one roomhold is generally about four acres in extent; there will thus be four groups of bamboos, each of which can be agitated by pulling on a single rattan. From each such group a rattan passes to the hut, and some person, generally a woman or child, is told off to tug at these rattans in turn at short intervals. Upon the rattans between the bamboos are hung various articles calculated to make a noise or to flap to and fro when the system is set in motion. Sometimes the rattan by which the system of poles is set in movement is tied to the upper end of a tall sapling, one end of which is thrust deeply into the mud of the floor of the river. The current then keeps the sapling and with it the system of bamboos swaying and jerking to and fro. The Kayans admit that they have learnt this last "dodge" from the Klemantans. The



PLATE 57. KAYANS OF BALOI IN THE *PADI* FIELD. THE TATU
ON THE THIGHS IS PERCEPTIBLE.

watcher remains in the hut all day long, while his companions are at work in the field; he varies the monotony of his task by shouting and beating with a pair of mallets on a hollow wooden cylinder. The watcher is relieved from time to time, but the watch is maintained continuously day and night from the time that the corn is about two feet above the ground until it is all gathered in. In this way they strive with partial success to keep off the wild pigs, monkeys, deer, and, as the corn ripens, the rice-sparrow (*Munia*).

When the hut and the pest-scaring system have been erected, the men proceed to provide further protection against wild pig and deer by running a rude fence round a number of closely adjacent patches of growing corn. The fence, some three to four feet high, is made by lashing to poles thrust vertically into the ground and to convenient trees and stumps, bamboos or saplings as horizontal bars, five or six in vertical row. When this is completed the men take no further part until the harvest, except perhaps to lend a hand occasionally with the weeding. This is the time generally chosen by them for long excursions into the jungle in search of rattans, rubber, camphor, and for warlike expeditions or the paying of distant visits.

It is the duty of the women to prevent the *padi* being choked by weeds. The women of each room will go over each patch completely at least twice, at an interval of about one month, hoeing down the weeds with a short-handled hoe; the hoe consists of a flat blade projecting at right angles from the iron haft (Fig. 13). The latter is bent downwards at a right angle just above the blade, in a plane perpendicular to that of the blade, and its other end is prolonged by a short wooden handle, into the end of which it is thrust. The woman stoops to the work, hoeing carefully round each *padi* plant, by holding

the hoe in the right hand and striking the blade downwards and towards her toes with a dragging action. In working over the patch in this careful fashion some three weeks are consumed. In the intervals the women gather the small crops of early *padi*, pumpkin, cucumbers, and so forth, spending several weeks together on the farm, sleeping in the hut. In a good season this is the happiest time of the year; both men and women take the keenest interest and pleasure in the growth of the crop.

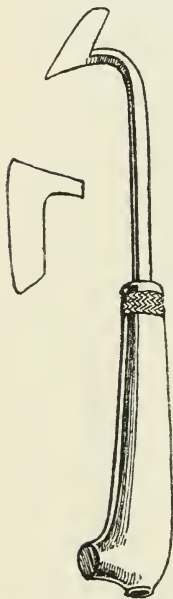


FIG. 13.

During the time when the grain is formed but not yet ripe, the people live upon the green corn, which they prepare by gathering the heads and beating them flat. These are not cooked, but merely dried in the sun, and though they need much mastication they are considered a delicacy.

During the time of the ripening of the corn a spirit of gaiety and joyful anticipation prevails. It is a favourite time for courtship, and many marriages are arranged.

The harvest is the most important event of the year. Men, women, and children, all take part. The rice-sparrows congregate in thousands as the grain begins to ripen, and the noisy efforts of the people fail to keep them at a distance. Therefore the people walk through the crop gathering all ripe ears. The operation is performed with a small rude knife-blade mounted in a wooden handle along its whole length (Figs. 14, 15). This is held in the hollow of the right hand, the ends of a short cross bar projecting between the first and second fingers and between thumb and first finger. The thumb seizes and presses the head of each blade of corn



PLATE 58. KENYAH WOMEN RESTING FROM WEEDING IN
THE *PADI* FIELD.

against the edge of the knife. The ears thus cropped are thrown into a basket slung round the neck. As soon as a large basket has been filled by the reapers, its contents are spread out on mats on a platform before the hut. After an exposure of two or three days, the grain is separated from the ears by stamping upon them with bare feet. The separated grain passes through the meshes of the coarse mat on to a finer mat beneath. The grain is then further dried by exposure to the sun. When the whole crop has been gathered, threshed, and dried in this way, it is transported in the large shoulder baskets amid much rejoicing and merry-making to

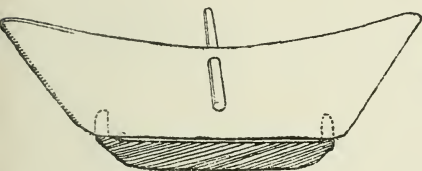


FIG. 14.

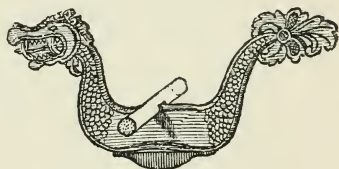


FIG. 15.

the *padi* barns adjoining the house, and the harvest festival begins.

The elaborate operations on the *padi* farm that we have described might seem to a materialist to be sufficient to secure a good harvest; but this is not the view taken by the Kayans, or any other of the cultivators of Borneo. In their opinion all these material labours would be of little avail if not supplemented at every stage by the minute observance of a variety of rites. The *padi* has life or soul, or vitality, and is subject to sickness and to many vaguely conceived influences, both good and bad.

DETERMINATION OF THE SEASONS

The determination of the time for sowing the seed is a matter of so great importance that in each

village this duty is entrusted to a man who makes it his profession to observe the signs of the seasons. This work is so exacting that he is not expected to cultivate a crop of *padi* for himself and family, but is furnished with all the *padi* he needs by contributions from all the other members of the village.

It is essential to determine the approach of the short dry season, in order that in the course of it the timber may be felled and burned. In Borneo, lying as it does upon the equator, the revolution of the year is marked by no very striking changes of weather, temperature, or of vegetation. In fact, the only constant and striking evidences of the passage of the months are the alternations of the north-east and the south-west monsoons. The former blows from October to March, the latter from April to September, the transitions being marked by variable winds. The relatively dry season sets in with the south-west monsoon, and lasts about two months; but in some years the rainfall during this season is hardly less abundant than during the rest of the year.

The "clerk of the weather" (he has no official title, though the great importance of his function secures him general respect) has no knowledge of the number of days in the year, and does not count their passage. He is aware that the lunar month has twenty-eight days, but he knows that the dry season does not recur after any given number of completed months, and therefore keeps no record of the lunar months. He relies almost entirely upon observation of the slight changes of the sun's altitude. His observations are made by the help of an instrument closely resembling the ancient Greek gnomon, known as *tukar do* or *aso do* (Pl. 60).

A straight cylindrical pole of hardwood is fixed

vertically in the ground ; it is carefully adjusted with the aid of plumb lines, and the possibility of its sinking deeper into the earth is prevented by passing its lower end through a hole in a board laid horizontally on the ground, its surface flush with the surface of the ground which is carefully smoothed. The pole is provided with a shoulder which rests upon this board. The upper end of the pole is generally carved in the form of a human figure. The carving may be very elaborate, or the figure may be indicated only by a few notches. The length of the pole from the collar to its upper extremity is made equal to the span from tip to tip of outstretched arms of its maker, plus the length of his span from tip of the thumb to that of the first finger. This pole (*aso do*) stands on a cleared space before or behind the house, and is surrounded by a strong fence ; the area within the fence, some three or four yards in diameter, being made as level and smooth as possible. The clerk of the weather has a neatly worked flat stick, on which lengths are marked off by notches ; these lengths are measured by laying the stick along the radial side of the left arm, the butt end against the anterior fold of the armpit. A notch is then cut at each of the following positions : one notch about one inch from the butt end, a second opposite the middle of the upper arm, one opposite the elbow, one opposite the bend of the wrist, one at the first interphalangeal joint, one at the finger-tip. The other side of the rod bears a larger number of notches, of which the most distal marks the greatest length of the mid-day shadow, the next one the length of the mid-day shadow three days after it has begun to shorten, the next the length of the shadow after three more days' shortening, and so on. The mid-day shadow is, of course, the minimal length reached in the course of the day, and the marks denoting the changes in

length of the shadow are arrived at, purely empirically, by marking off the length of the mid-day shadow every three days.

The clerk of the weather measures the shadow of the pole at mid-day whenever the sun is unclouded. As the shadow grows shorter after reaching its maximal length, he observes it with special care, and announces to the village that the time for preparing the land is near at hand. When the shadow reaches the notch made opposite the middle of the arm, the best time for sowing the grain is considered to have arrived; the land is therefore cleared, and made ready before this time arrives. Sowing at times when the shadow reaches other notches is held to involve various disadvantages, such as liability to more than the usual number of pests—monkeys, insects, rats, or sparrows. In the case of each successful harvest, the date of the sowing is recorded by driving a peg of ironwood into the ground at the point denoting the length of the mid-day shadow at that date. The weather prophet has other marks and notches whose meaning is known only to himself; his procedures are surrounded with mystery and kept something of a secret, even from the chief as well as from all the rest of the village, and his advice is always followed.

The method of observing the sun described above is universal among the Kenyahs, but some of the Kayans practise a different method. A hole is made in the roof of the weather-prophet's chamber in the long-house, and the altitude of the mid-day sun and its direction, north or south of the meridian, are observed by measuring along a plank fixed on the floor the distance of the patch of sunlight (falling through the hole on to the plank) from the point vertically below the hole. The horizontal position of the plank is secured by placing upon it smooth spherical stones and noting any inclination to roll.



PLATE 60. KENYAHS MEASURING THE LENGTH OF THE SHADOW OF THE *ASO DO* AT NOON TO DETERMINE THE TIME FOR SOWING *PADI*.

The sunbeam which enters this hole is called *kleput toh* (= the blow-pipe of the spirit).

Some of the Klemantans practise a third method to determine when the time for sowing is at hand, using a bamboo some feet in length which bears a mark at a level which is empirically determined. The bamboo is filled with water while in the vertical position. It is then tilted till it points towards a certain star, when of course some water escapes. After it has been restored to the vertical, the level of the surface of the remaining water is noted. The coincidence of this level with the mark mentioned above indicates that the time for sowing is come.

The Sea Dayaks are guided by the observation of the position of the Pleiades.

The appropriate season having been determined, it is necessary to secure good omens before the preparation of the land can be begun. A pig and a fowl having been sacrificed in the usual way, and their blood sprinkled upon the wooden figures before the house,¹ two men are sent out in a boat, and where they first see a spider-hunter they land on the bank and go through the customary procedures. The calls and appearances of various birds and of the *muntjac* are of chief importance. Some of these are good, some bad in various degrees. When a preponderance of favourable omens has been observed, the men return to the house to announce their success. They will wait two whole days if necessary to secure a favourable result. During their absence a strict *malan* or *lali* (tabu) lies upon the house; no stranger may enter it, and the people sit quietly in the house performing only the most necessary tasks. The announcement of the nature of the omens observed is made to the chief in the presence of a deeply interested throng

¹ See Chap. X.

of both sexes. If the omens observed are considered to be bad, or of doubtful import, the men go out for a second period; but if they are favourable, the women of each room perform the private rites over their stores of seed *padi*, which are kept in their rooms. After the pros and cons have been fully discussed, the chief names the day for the beginning of the clearing operations.

At the beginning of the sowing the house is again subject to *malan* for one day. During the growth of the *padi* various charms and superstitious practices are brought into use to promote its growth and health, and to keep the pests from it. The *padi* charms are a miscellaneous collection or bundle of small articles, such as curious pebbles and bits of wood, pigs' tusks of unusual size or shape, beads, feathers, crystals of quartz. Kayans as a rule object to pebbles and stones as charms. Such charms are generally acquired in the first instance through indications afforded by dreams, and are handed down from mother to daughter. Such charms contained in a basket are usually kept in a *padi* barn, from which they are taken to the field by the woman and waved over it, usually with a live fowl in the hand, while she addresses the *padi* seed in some such terms as the following: "May you have a good stem and a good top, let all parts of you grow in harmony, etc. etc." Then she rapidly repeats a long customary formula of exhortation to the pests, saying, "O rats, run away down river, don't trouble us; O sparrows and noxious insects, go feed on the *padi* of the people down river." If the pests are very persistent, the woman may kill a fowl and scatter its blood over the growing *padi*, while she charges the pests to disappear, and calls upon *Laki Ivong* (the god of harvests) to drive them out.

Women alone will gather the first ears of the

crop. If they encounter on their way to the fields any one of the following creatures, they must at once return home, and stay there a day and a night, on pain of illness or early death: certain snakes, spiders, centipedes, millipedes, and birds of two species, *jeruit* and *bubut* (a cuckoo). Or again, if the shoulder straps of their large baskets should break on the way, if a stump should fall against them, or the note of the spider-hunter be heard, or if a woman strikes her foot by accident against any object, the party must return as before.

It will be clear from the foregoing account that the women play the principal part in the rites and actual operations of the *padi* culture; the men only being called in to clear the ground and to assist in some of the later stages. The women select and keep the seed grain, and they are the repositories of most of the lore connected with it. It seems to be felt that they have a natural affinity to the fruitful grain, which they speak of as becoming pregnant. Women sometimes sleep out in the *padi* fields while the crop is growing, probably for the purpose of increasing their own fertility or that of the *padi*; but they are very reticent on this matter.

THE HARVEST FESTIVAL

When the crop is all gathered in, the house is *malan* to all outsiders for some ten days, during which the grain is transported from the fields to the village and stored in the *padi* barns. When this process is completed or well advanced, the festival begins with the preparation of the seed grain for the following season. Some of the best of the new grain is carefully selected by the women of each room, enough for the sowing of the next season. This is mixed with a small quantity of the seed grain of the foregoing seasons which has been care-

fully preserved for this purpose in a special basket. The basket contains grains of *padi* from good harvests of many previous years. This is supposed to have been done from the earliest time of *padi* planting, so that the basket contains some of the original stock of seed, or at least the virtue of it leavening the whole. This basket is never emptied, but a pinch of the old *padi* is mixed in with the new, and then a handful of the mixture added to the old stock. The idea here seems to be that the

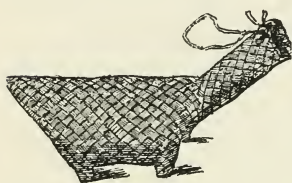


FIG. 16.

old grain, preserving continuity generation after generation with the original seed *padi* of mythical origin,¹ ensures the presence in the grain of the soul or spirit or vital principle of *padi*. While mixing the old with the new seed grain, the woman calls on the soul of the *padi* to cause the seed to be fruitful and to grow vigorously, and to favour her own fertility. For the whole festival is a celebration or cult of the principle of fertility and vitality—that of the women no less than that of the *padi*.²

The women who have been delivered of children during the past year will make a number of toys, consisting of plaited work, in the shapes of various animals filled with boiled rice (Fig. 16). These they throw to the children of the house, who scramble for them in the gallery. This seems to be of the nature of a thank-offering.

At this time also another curious custom is observed. Four water beetles, of the kind that skates on the surface of the still water, are caught on the river and placed on water in a large gong. Some old man specially wise in this matter watches

¹ See Chap. XVII.

² The same connexion of ideas is illustrated by the practice of sterile women who desire children sleeping upon the freshly gathered ears in the huts in the fields.

the beetles, calling to them to direct their movements. The people crowd round deeply interested, while the old man interprets the movements of the beetles as forecasting good or ill luck with the crops of the following season, and invokes the good-will of Laki Ivong. Laki Ivong is asked to bring the soul of the *padi* to their homes. Juice from a sugar-cane is poured upon the water, and the women drink the water, while the beetles are carefully returned to the river. The beetles carry the messages to Laki Ivong.

When these observances have been duly honoured, there begins a scene of boisterous fun. The women make pads of the boiled sticky new rice, and cover it with soot from their cooking vessels. With these they approach the men and dab the pads upon their faces and bodies, leaving sooty marks that are not easily removed. The men thus challenged give chase, and attempt to get possession of the rice pads and to return the polite attention. For a short space of time a certain license prevails among the young people; and irregularities, even on the part of married people, which would be gravely reprobated at all other times, are looked upon very much less seriously. It is, in fact, the annual carnival. Each roomhold has prepared a stock of *burak* from the new rice, and this now circulates freely among both men and women, and large meals of rice and pork are usually eaten. All join in dancing, some of the women dressed like men, some carrying *padi*-pestles; at one moment all form a long line marching up and down the gallery in step to the strains of the *keluri*; some young men dance in realistic imitation of monkeys (*dok*), or hornbills, or other animals, singly or in couples. Others mimic the peculiarities of their acquaintances. The women also dance together in a long line, each resting her hands on

the shoulders of the one going before her, and all keeping time to the music of the *keluries* as they dance up and down the long gallery. All this is kept up with good humour the whole day long. In the evening more *burak* is drunk and songs are sung, the women mingling with the men, instead of remaining in their rooms as on other festive occasions. Before midnight a good many of the men are more or less intoxicated, some deeply so; but most are able to find their way to bed about midnight, and few or none become offensive or quarrelsome, even though the men indulge in wrestling and rough horseplay with one another. After an exceptionally good harvest the boisterous merrymaking is renewed on a second or even a third day.

The harvest festival is the time at which dancing is most practised. The dances fall into two chief classes, namely, solo dances and those in which many persons take part. Most of the solo dances take the form of comic imitations of the movements of animals, especially the big macaque monkey (*dok*), the hornbill, and big fish. These dances seem to have no connection with magic or religion, but to be purely æsthetic entertainments. The animals that are regarded with most awe are never mimicked in this way. There are at least four distinct group dances popular among the Kayans. Both men and women take part, the women often dressing themselves as men for the occasion (Pl. 61). The movements and evolutions are very simple. The *lupa* resembles the dance on return from war described in Chap. X. In the *kayo*, a similar dance, the dancers are led by a woman holding one of the dried heads which is taken down for the purpose; the women, dressed in warcoats, pretending to take the head from an enemy. The *lakekut* is a musical drill in which the dancers stamp on the planks of the floor in time to the music.

The *lupak* is a kind of slow polka. In none of these do the dancers fall into couples. A fifth dance, the dance of the departure of the spirit, is a dramatic representation by three persons of the death of one of them, and of his restoration to life by means of the water of life (this is supposed to be brought from the country which is traversed on the journey to the land of shades). This dance is sometimes given with so much dramatic effect as to move the onlookers to tears.

CHAPTER VII

THE DAILY LIFE OF A KAYAN LONG HOUSE

A LITTLE before dawn the cocks roosting beneath the house awaken the household by their crowing and the flapping of their wings. The pigs begin to grunt and squeal, and the dogs begin to trot to and fro in the gallery. Before the first streaks of daylight appear, the women light the fires in the private rooms or blow up the smouldering embers; then most of them descend from the house, each carrying in a basket slung on her back several bamboo water-vessels to be filled from the river. Many of them bathe at this time in the shallow water beside the bank, while the toilet of others consists in dashing water over their faces, washing their mouths with water, and rubbing their teeth with the forefinger. Returning to the house with their loads of water (Pl. 63), they boil rice for the household breakfasts and for the dinner of those who are to spend the day in the *padi* field or the jungle. The boiled rice intended for the latter use is made up in packets wrapped in green leaves, each containing sufficient for a meal for one person. About half-past six, when the daylight is fully come, the pigs expectant of their meal are clamouring loudly for it. The women descend to them by ladders leading from the private rooms, and each gives to the pigs of her household the leavings of the meals of the previous day. About the same time the men begin to bestir themselves



PLATE 62. THE GARDEN OF A KAVAN HOUSE, *I.E.* THE AREA BETWEEN THE HOUSE AND
THE RIVER, WITH FRUIT-TREES AND *PADI* BARN'S.

sluggishly ; some descend to bathe, while others smoke the fag ends of the cigarettes that were unfinished when they fell asleep. Then the men breakfast in their rooms, and not until they are satisfied do the women and children sit down to their meal. During all this time the chronically hungry dogs, attracted by the odours of food, make persistent efforts to get into their owner's rooms. Success in this manœuvre is almost always followed by their sudden and noisy reappearance in the gallery, caused by a smart blow with a stick. In the busy farming season parties of men, women, and children will set off in boats for the *padi* fields taking their breakfasts with them.

After breakfast the men disperse to their various tasks. During some three or four months of the year all able-bodied persons repair daily to the *padi* fields, but during the rest of the year their employments are more varied. The old women and invalids remain all day long in the rooms ; the old men lounge all day in the gallery, smoking many home-made cigarettes, and perhaps doing a bit of carving or other light work and keeping an eye on the children. The young children play in and out and about the house, chasing the animals, and dabbling among the boats moored at the bank.

A few of the able-bodied men employ themselves in or about the house, making boats, forging swords, spear-heads, iron hoes, and axes, repairing weapons or implements. Others go in small parties to the jungle to hunt deer and pig, or to gather jungle produce—fruits, rubber, rattans, or bamboos—or spend the day in fishing in the river. During the months of December and January the jungle fruits—the durian, rambutan, mangosteen, lansat, mango, and numerous small sour fruits (Pl. 65)—are much more abundant than at other times ; and during these months all other work is neglected, while the

people devote themselves to gathering the fruit which forms for a time almost their only food.

Except during the busy *padi* season the work of the women is wholly within the house. The heaviest part of their household labour is the preparation of the rice. After breakfast they proceed to spread out *padi* on mats on the open platforms adjoining the gallery. While the *padi* is being dried by the exposure to sun and wind on these platforms, it must be protected from the domestic fowls by a guardian who, sitting in the gallery, drives them away by means of a long bamboo slung by a cord above the platform. Others fill the time between breakfast and the noonday dinner by bathing themselves and the children in the river, making and repairing clothing, mats, and baskets, fetching more water, cleaning the rooms and preparing dinner. This meal consists of boiled rice with perhaps a piece of fish, pork, or fowl, and, like breakfast and supper, is eaten in the private rooms.

As soon as dinner is over the pounding of the *padi* begins (Frontispiece, Vol. II.). Each mortar usually consists of a massive log of timber roughly shaped, and having sunk in its upper surface, which is a little hollowed, a pit about five inches in diameter and nine inches in depth. Into this pit about a quarter of a bushel of *padi* is put. Two women stand on the mortar facing one another on either side of the pit, each holding by the middle a large wooden pestle. This is a solid bar of hardwood about seven feet long, about two inches in diameter in the middle third, and some three or four inches in diameter in the rest of its length. The two ends are rounded and polished by use. Each woman raises her pestle to the full height of her reach, and brings it smartly down upon the grain in the pit, the two women striking alternately with a



PLATE 63. ELDERLY KAYAN WOMAN ASCENDING THE HOUSE-
LADDER WITH BASKETFUL OF WATER VESSELS.

regular rhythm. As each one lifts her pestle, she deftly sweeps back into the pit with her foot the grain scattered by her stroke.

After pounding the *padi* for some minutes without interruption, one woman takes a winnowing pan, a mat made in the shape of an English housemaid's dustpan, but rather larger than this article, and receives in it the pounded grain which the other throws out of the pit with her foot.

Both women then kneel upon a large mat laid beside the mortar; the one holding the winnowing pan keeps throwing the grain into the air with a movement which causes the heavier grain to fall to the back of the pan, while the chaff and dust is thrown forward on to the mat. Her companion separates the rice dust from the chaff by sifting it through a sieve. A considerable quantity of the dust or finely broken rice is formed by the pounding in the mortar, and this is the principal food given to the pigs. The winnowed grain is usually returned to the mortar to be put through the whole process a second time. The clean rice thus prepared is ready for the cooking-pot.

The winnowing and sifting is often done by old women, while the younger women continue the severer task of plying the pestle. In the Kayan houses the mortars are in many cases double, that is to say, there are two pits in the one block of timber, and two pairs of women work simultaneously. In the middle of the afternoon the whole house resounds with the vigorous blows of the pestles, for throughout the length of the gallery two or more women are at work beside each room, husking the day's supply of rice for each family.

For the women of all the peoples, except the Punans, the husking of the *padi* is a principal feature of the day's work, and is performed in much the same fashion by all. The Kenyahs alone do their

work out of doors beside the *padi* barns, sometimes under rude lean-to shelters.

When this task is completed the women are covered with dust ; they descend again to the river, and bathe themselves and the children once more. They may gather some of the scanty vegetables grown in small enclosures near most of the houses, and then proceed to prepare supper with their rice and whatever food the men may have brought home from the jungle. For now, about an hour before sundown, the men return from expeditions in the jungle, often bringing a wild pig, a monkey, a porcupine, or some jungle fruit, or young shoots of bamboo, as their contribution to the supper table ; others return from fishing or from the *padi* fields, and during the sunset hour at a large village a constant stream of boats arrives at the landing-place before the house. Most of the home-comers bathe in the river before ascending to the house. This evening bath is taken in more leisurely fashion than the morning dip. A man will strip off his waist-cloth and rush into the water, falling flat on his chest with a great splash. Then standing with the water up to his waist he will souse his head and face, then perhaps swim a few double overhand strokes, his head going under at each stroke. After rubbing himself down with a smooth pebble, he returns to the bank, and having resumed his waist-cloth, he squeezes the water from his hair, picks up his paddle, spear, hat, and other belongings, and ascends to the gallery. There he hangs up his spear by jabbing its point into a roof-beam beside the door of his chamber, and sits down to smoke a cigarette and to relate the events of his day while supper is preparing. As darkness falls, he goes to his room to sup. By the time the women also have supped, the tropical night has fallen, and the house is lit by the fires and by resin torches, and nowadays by a few



PLATE 64. THE GALLERY OF A KLEMANTAN (SEBOP) HOUSE, TINJAR DISTRICT.

kerosene lamps. The men gather round the fireplaces in the gallery and discuss politics, the events of the day, the state of the crops and weather, the news obtained by meetings with the people of neighbouring houses, and relate myths and legends, folk-tales and animal stories. The women, having put the children to bed, visit one another's rooms for friendly gossip; and young men drop in to join their parties, accept the proffered cigarette, and discourse the sweet music of the *keluri*,¹ the nose-flute, and the Jew's harp (Figs. 17, 18, 19). Or Romeo first strikes up his plaintive tune outside the room in which Juliet sits with the women folk. Juliet may respond with a few notes of her guitar² (Fig. 20), thus encouraging Romeo to enter and to take his place in the group beside her, where he joins in the conversation or renews his musical efforts. About nine o'clock all retire to bed, save a few old men who sit smoking over the fires far into the night. The dogs, after some final skirmishes and yelpings, subside among the warm ashes of the fireplaces; the pigs emit a final squeal and grunt; and within the house quietness reigns. Now the rushing of the river makes itself heard in the house, mingled with the chirping of innumerable insects and the croaking of a myriad frogs borne in from the surrounding forest. The villagers sleep soundly till cock-crow; but the European guest, lying in the place of honour almost beneath the row of human heads which adorns the gallery, is, if unused to sleeping in a Bornean long house, apt to be wakened from time to time throughout the night by an outburst of dreadful yelpings from the dogs squabbling for the best places among the ashes, by the prolonged fit of coughing of an old man, by an old crone making up the fire, by the goats squealing and scampering over the boats beneath the

¹ See Chap. XVIII.

² See Chap. V.

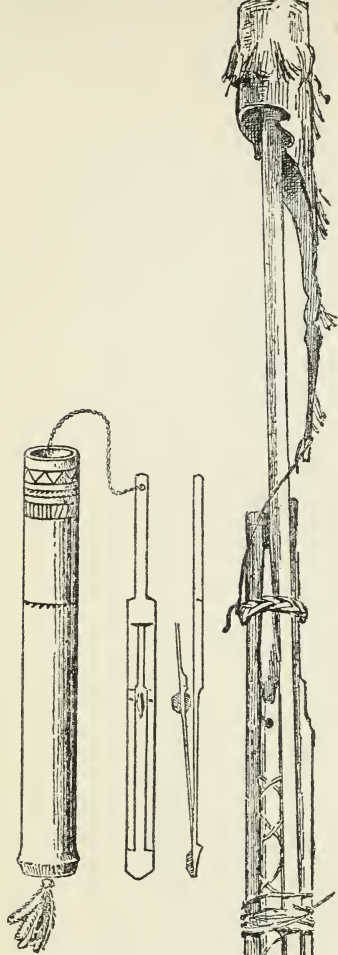


FIG. 19.

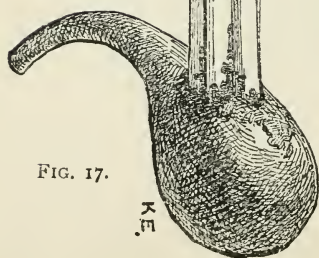


FIG. 17.

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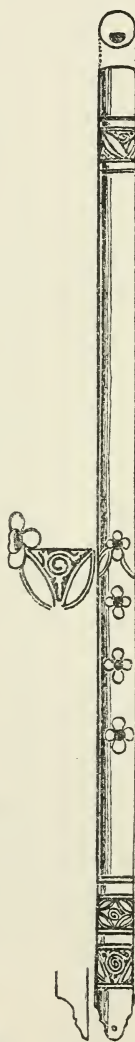


FIG. 18.

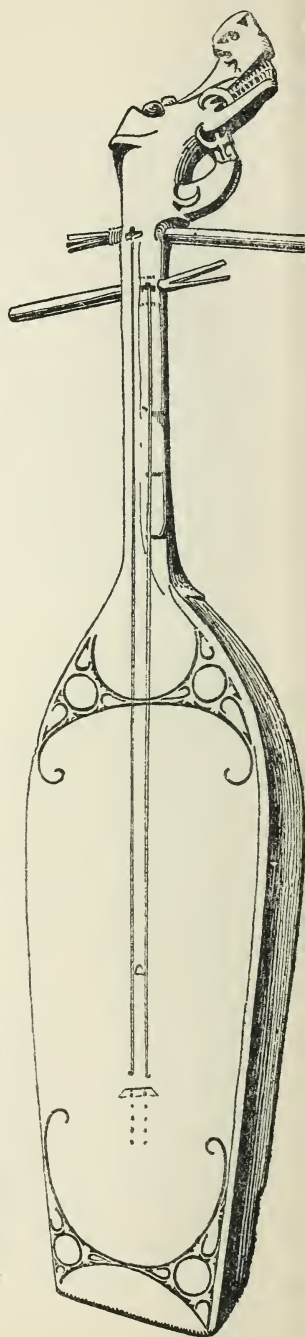


FIG. 20.



PLATE 65. JUNGLE FRUITS.

house, or by some weird cry from the depths of the jungle.

In the old days the peace of the night was occasionally broken an hour before the dawn by the yells of an attacking force, and by the flames roaring up from bundles of shavings thrown beneath the house. But happily attacks of this kind are no longer made, save in some few remoter parts of the interior where the European governments have not yet fully established their authority.

The even tenor of the life of a village is interrupted from time to time by certain festivals or other incidents—the harvest festival; the marriage or the naming of a chief's son or daughter; the arrival of important guests (one or more chiefs with bands of followers coming to make peace, or nowadays the resident magistrate of the district); the funeral of a chief; the preparations for war or for a long journey to the distant bazaar of Chinese traders in the lower part of the river; the necessity of removing to a new site; an epidemic of disease; the rites of formally consulting the omens, or otherwise communicating with and propitiating the gods; the operations of the soul-catcher. The more important of these incidents will be described in later chapters. Here we need only give a brief account of the way in which some of them affect the daily round of life in the long house.

A visiting chief will remain seated in his boat, while a follower announces his arrival and ascertains that there is no *malan* (*tabu*) upon the house which would make the presence of visitors unwelcome. Such *malan* affecting the whole house or village obtains during the storing of the *padi* for ten consecutive days, during epidemics of sickness in neighbouring villages, and at the time when the preparation of the farm land begins. If a favourable answer is returned, the visitor remains seated in his

boat some few minutes longer, and then makes his way into the gallery, followed by most of his men, who leave their spears and shields in the boats. If the visitor is an intimate friend, the chief of the house will send a son or brother to welcome him, or will even go himself. Arrived in the gallery, the visitor advances to the central platform where the chief of the house awaits him, unstrings his sword from his waist, hangs it upon any convenient hook, and sits down beside his host; while his men, following his example, seat themselves with the men of the house in a semicircle facing the two chiefs. The followers may greet, and even embrace, or grasp by the forearm, their personal friends; but the demeanour of the chiefs is more formal. Neither one utters a word or glances at the other for some few minutes; the host remains seated, fidgeting with a cigarette and gazing upon the floor; the visitor sitting beside him looks stolidly over the heads of his followers, and perhaps clears his throat or coughs. Presently a woman thrusts into the semicircle a tray of freshly made cigarettes. One of the men of the house pushes it forward towards the principal visitor, who makes a sign of acceptance by lightly touching the tray; the other, crouching on his heels, lights a cigarette with an ember from the fire, blowing it into a glow as he waddles up to present it to the visiting chief. The latter takes it, but usually allows it to go out. By this time the chief of the house is ready to open the conversation, and, after clearing his throat, suddenly throws out a question, usually, "Where did you start from to-day?" The embarrassing silence thus broken, question and answer are freely exchanged, the cigarette of the visitor is again lighted at the fire by a member of the household, and conversation becomes general. Not infrequently the host, becoming more and more friendly,



PLATE 66. A KLEMANTAN VILLAGE, SHOWING THE BALAWING POLE.

throws an arm across his guest's shoulders or strokes him endearingly with the palm of his hand.

In the meantime the women are busy preparing a meal, a pig having been killed and hastily cut up. When it is ready, the visitors, if old friends, are invited to partake of it in the chief's room. But if they are not familiar acquaintances, the meal is spread for them in the gallery on platters placed in a long row, one for each guest; each platter containing many cubes of hot boiled pork and two packets of hot boiled rice wrapped in leaves. The space is surrounded with a slight bamboo fence to keep away the dogs. In either case the visitors eat alone, their hosts retiring until the meal is finished. As the chief's wife retires, she says, "Eat slowly, my children, our food is poor stuff. There is no pork, no fish, nothing that is good." Before withdrawing, one of the people of the house pours a little water from a bamboo vessel on the right hand of the visiting chief, who then passes on the vessel to his followers. With the hand thus cleansed each guest conveys the food to his mouth, dipping his pieces of pork in coarse salt placed in a leaf beside his platter; and when he has finished eating, he drinks water from a bamboo vessel. The chief, and perhaps also one or more of his upper-class companions, leaves a little of the pork and a little rice on the platter to show that he is not greedy or ravenous; and his good breeding prompts him to prove his satisfaction with the meal by belching up a quantity of wind with a loud and prolonged noise, which is echoed by his followers to the best of their ability. After thus publicly expressing his appreciation of his host's hospitality, he rinses out his mouth, squirting out the water towards the nearest gap between the floor boards, rubs his teeth with his forefinger, again rinses his mouth, and washes his hand. Then relighting his cigarette,

which he has kept behind his ear or thrust through the hole in its shell, he rejoins his host, who awaits him on the dais.

On such an occasion, and in fact on any other occasion suggestive of festivity, the evening is enlivened with oratory, song, and drink. After supper the men gather together about the chiefs, sitting in close-set ranks on and before the dais. At a hint from the chief a jar of *burak* (rice-spirit) is brought into the circle. This may be the property of the chief or of any one of the principal men, who, by voluntarily contributing in this way towards the entertainment of the guests, maintains the honour of the house and of its chief. A little is poured into a cup and handed to the house-chief, who first makes a libation to the omen-birds and to all the other friendly spiritual powers, by pouring a little on to the ground through some crevice of the floor, or by throwing a few drops out under the eaves, saying, as he does so, "Ho, all you friendly spirits." Then he drinks a little and hands back the cup to the young man who has taken charge of the jar of spirit. The latter, remaining crouched upon his heels, ladles out another cupful of spirit and offers it in both hands to the principal guest, who drinks it off, and expresses by a grunt and a smack of the lips, and perhaps a shiver, his appreciation of its quality. The cup is handed in similar formal fashion to each of the principal guests in turn; and then more cups are brought into use, and the circulation of the drink becomes more rapid and informal. As soon as each man has had a drink, the house-chief rises to his feet and, addressing himself to his guest, expatiates upon his admirable qualities, and expresses eloquently the pleasure felt by himself and his people at this visit. Then speaking in parables and in indirect fashion, claiming perhaps indulgence on the ground that he is merely talking



PLATE 67. KAYANS SPLITTING RATTANS FOR MAT-MAKING.



PLATE 68. A KAYAN PARTY SITTING IN THE GALLERY OF A LONG HOUSE.

in his sleep, he touches upon local politics at first delicately; then warming up he speaks more directly and plainly. He may become much excited and gesticulate freely, even leaping into the air and twirling round on one foot with outstretched right arm in a fashion that directs his remarks to each and all of the listening circle; but, even though he may find occasion to admonish or reproach, or even hint at a threat, his speech never transgresses the strictest bounds of courtesy. Having thus unburdened himself of whatever thoughts and emotions are evoked by the occasion, he takes from the attendant Ganymede a bumper cup of spirit and breaks into song. Standing before his guest and swinging the cup repeatedly almost to his (the guest's) lips, he exhorts him in complimentary and rhyming phrases to accept his remarks in a friendly spirit, and reminds him of the age and strength of their family and tribal relations, referring to their ancestral glories and the proud position in the world of their common race. At the end of each sentence all the men of both parties break out into a loud chorus, repeating the last word or two in deep long-drawn-out musical cadence. Then, with the last words of his extemporised song, the chief yields up the cup to the expectant guest, who, having sat rigidly and with fixed gaze throughout the address, takes it in one long draught, while the chorus swells to a deep musical roar. At this moment the circle of auditors, if much excited, will spring to their feet and swell the noise by stamping and jumping on the resounding planks. The house-chief smilingly strokes his guest from the shoulder downwards and resumes his seat. The chorus and commotion die away, and are followed by a moment of silence, during which the guest prepares to make his reply in similar fashion. He rises and begins by naming and lightly touching or pointing to his

host and other of the principal men present. Then he makes acknowledgment of the kind and flattering reception accorded him, and his pleasure at finding this opportunity of improving the understanding between himself and his hosts. "The views so eloquently expressed by my friend (naming him and using some complimentary title, *e.g.* brother or father) are no doubt correct. Indeed, how could it be otherwise? But I have been told so and so, and perhaps it may be, . . ." and so he goes on to state his own views, taking care to shift the responsibility for any remaining dissension on to the shoulders of some distant third party. He congratulates all parties on this free discussion of matters of common interest, and with free gesticulation exhorts them to turn a deaf ear to vague rumours and to maintain friendly relations. Then, dropping down beside his host, he says "Take no notice of what I have said, I am drunk." Ganymede again approaches him with a bumper cup, and then rising to his feet and calling on his men, he addresses his host in complimentary song and chorus, using the gestures and expressions peculiar to his own people. The song culminates as before in a general chorus, long drawn out, while the house-chief drains the cup.

The cups then circulate freely, and the smoking of cigarettes is general; other shorter speeches may be made, perhaps by the sons or brothers of the chiefs. As the evening wears away, both guests and hosts become increasingly boisterous and affectionate; but few or none on an occasion of this sort become intoxicated or quarrelsome. If a man becomes a little too boisterous, he is led away to one of the sleeping platforms in the gallery, and kept there until he falls asleep.

During an evening of this sort the women congregate in the adjacent rooms, where they can



PLATE 69. ENTERTAINING GUESTS IN THE GALLERY OF A KLEMANTAN
(BARAWAN) HOUSE.

overhear the proceedings ; and if they find these exceptionally interesting, they will congregate about the doors, but will strictly abstain from interfering with them in any way. The flow of speech and song and conversation goes on uninterruptedly, except when the occasional intrusion into the circle of some irrepressible dog necessitates its violent expulsion ; until, as midnight approaches, the men drop away from the circle by twos and threes, the circle being finally broken up when the visiting chief expresses a desire to sleep. Each guest spreads his own mat on the platform assigned to the party, and the men of the house retire to their rooms.

We will not conclude this chapter without stating that among the Kayans, Kenyahs, and most of the Klemantans, alcoholic intoxication is by no means common. At great feasts, such as are made at the close of the harvest or on the return of a successful war-party, much *borak* is drunk, the women joining in, and a few of the men will usually become quite drunk ; but most of them will hardly go further than a state of boisterous jollity.

Although in a year of good *padi* harvest each family constantly renews its supply of *borak*, yet the spirit is never drunk in private, but only on festive occasions of the kind described above, or when a man entertains a small party of friends in his own chamber.

The account given above of the reception and entertainment of guests would apply with but little modification to the houses of the Kenyahs and Klemantans. In the Sea Dayak house the reception and entertainment of guests is less ceremonious, and is carried out by the unorganised efforts of individuals, rather than by the household as a whole with the chief at its head. On the arrival of a party of visitors, the people of each room

clamorously invite the guests to sit down before their chamber. The guests thus become scattered through the house. First they are offered betel nut and sirih leaf smeared with lime to chew, for among the Sea Dayaks this chewing takes the place of the smoking of cigarettes which is common to all the others; and they are then fed and entertained individually, or by twos and threes, in various rooms. No pig is killed or rice-spirit offered, though possibly a toasted bat or bit of salted wild pig will be served as a relish.

At great feasts the Sea Dayaks drink more freely than the other peoples, except the Muruts. Men and women alike drink deeply, and many become intoxicated. The men take pride in drinking the largest possible quantity; and when the stomach is filled, will vomit up large quantities, and then at once drink more, the women pressing it upon them. The Dayaks and Muruts alone thus sink in the matter of drink to the level of those highly cultured Europeans among whom a similar habit obtains: while among all the other tribes strong drink is seldom or never abused, but rather is put only to its proper use, the promotion of good fellowship and social gaiety.



PLATE 70. LEPU POHUNS (KLEMANTANS) OF THE TINJAR RIVER.

CHAPTER VIII

LIFE ON THE RIVERS

WITH the exception of the Punans and some of the Muruts who inhabit the few regions devoid of navigable streams, all the peoples of Borneo make great use of the rivers. The main rivers and their principal branches are their great highways, and even the smallest tributary streams are used for gaining access to their *padi* fields. It is only when hunting or gathering jungle produce that they leave the rivers. Occasionally *padi* is cultivated at a distance of a mile or more from the nearest navigable stream, and a rough pathway is then made between the field and the nearest point of the river. Here and there also jungle paths are made connecting points where neighbouring rivers or their navigable tributaries approach closely to one another. In the flat country near the coast, where waterways are less abundant than in the interior, jungle tracks are more used for communication between villages. Where a route crosses a jungle swamp, large trees are felled in such a way that their stems lie as nearly as possible end to end. Their ends are connected if necessary by laying smaller logs from one to the other. In this way is formed a rude slippery viaduct on which it is possible for an agile and bare-footed man to walk in safety across swamps many miles in extent.

But the jungle paths are only used when it is

impossible to reach the desired point by boat, or if the waterway is very circuitous. On the lower and deeper reaches of the rivers the paddle is the universal instrument of propulsion. It is used without any kind of rowlock—the one hand, grasping the handle a little above the blade, draws the blade backwards through the water ; the other hand, grasping the T-shaped upper end, thrusts it forward. The lower hand thus serves as a fulcrum for the other.

A small boat may be propelled by a single rower, who, sitting at the stern, uses the paddle on one side only, and keeps the boat straight by turning the paddle as he finishes his stroke. In a boat of medium size one man seated at the stern devotes himself to steering with his paddle, although here and there among the coast-people a fixed rudder is used. In a war boat of the largest size, the two men occupying the bow-bench and the four men on the two sternmost benches are responsible for the steering ; the former pull the bow over, or lever it in the opposite direction.

During a day's journey the crew of a boat will from time to time lighten their labour with song, one man singing, the others joining in the chorus ; and if several boats are travelling in company the crews will from time to time spurt and strive to pass one another in good-humoured rivalry. At such times each crew may break out into a deep-pitched and musical roar, the triumphal chorus of a victorious war party.

In the upper reaches of the rivers there are numerous rapids, and here and there actual falls. The boat is usually propelled up a rapid by poling. Each member of the crew has beside him a stout pole some eight or nine feet long ; and when the boat approaches a rapid, the crew at a shout from the captain, usually the steersman, spring to their



IBANS PREPARING A BOAT FOR A LONG JOURNEY.



PLATE 71. KAYAN WAR-BOAT ON THE LOWER BARAM.



PLATE 72. A HALT AT BATU PITA ON THE BARAM.

feet, dropping their paddles and seizing their poles. Thrusting these against the stony bottom in perfect unison, the crew swings the boat up through the rushing water with a very pleasant motion. If the current proves too strong and the boat makes no progress, or if the water is too shallow, three or four men, or, if necessary, the whole crew, spring into the water and, seizing the boat by the gunwale, drag it upstream till quieter water is reached. It is necessary for a man or boy to bale out the water that constantly enters over the gunwale while the boat makes the passage of a rapid. All through these exciting operations the captain directs and admonishes his men unremittingly, hurling at them expressions of a strength that would astonish a crew on the waters of the Cam or Isis: "Matei tadjin selin" (may you die the most awful death) is one of the favourite phrases. These provoke no resentment, but merely stimulate the crew to greater exertions.

Sometimes, when much water is coming down after heavy rains, the current is so swift in deep places that neither paddling, poling, nor wading is possible. Then three or four men are landed on the bank, or on the boughs of the trees, and haul on the boat with long rattans, scrambling over rocks and through the jungle as best they can.

The passage down stream in the upper reaches of a river is even more exciting and pleasurable. The crew paddles sufficiently to keep good steerage way on the boat, as it glides swiftly between the rocks and shallows; as it shoots over the rapids, the steersman stands up to choose his path, the water splashes and gurgles and leaps over the gunwale, and the men break out into song. The smaller waterfalls do not check its onward rush; as the boat approaches a fall, several men near the bow stand up to see if there is sufficient water; then,

as they resume their seats, all paddle with might and main until the boat takes the leap. Occasionally a boat is upset during such an attempt, and rarely one or two of the crew are lost through being hurled against rocks and drowned while stunned.

In making a long journey the nights are passed if possible in friendly villages. When no such village can be reached, the night is passed either in the boats moored to the bank or on the river-bank. In the former case the leaf mats, of which each man carries at least one in his basket, are used to roof the boat ; in the latter case a rude hut is quickly built, a framework of saplings lashed together, roofed with the mats, and floored at a level of some feet above the ground with bamboos or slender saplings. On camping in the evening and before starting in the morning, rice is cooked and eaten ; and about mid-day the journey is interrupted for about an hour while the party lands on the bank, or, if possible, on a bed of pebbles, to rest and to cook and eat the mid-day meal.

FISHING

Fish are caught in the rivers in several ways, and form an important part of the diet of most of the peoples. Perhaps the cast net is most commonly used. This is a net which, when fully extended in the water, covers a circular patch about six yards in diameter, while its central part rises in a steep cone, to the peak of which a strong cord is tied. The main strands run radially from this central point, increasing in number towards the periphery. They are crossed by concentric strands. The periphery is weighted with bits of metal or stone. This net is used both in deep and in shallow water. In the former case one man steers and paddles a boat, while the other stands at the prow with the cord of the net wound about the right hand. The bulk of



PLATE 73. COOKING THE MID-DAY MEAL ON A GRAVEL BED, BARAM RIVER.



PLATE 74. BOAT PROCEEDING UP THE REJANG RIVER BELOW THE PALAGUS FALLS.

the net is gathered up on his right arm, the free end is held in the left hand. Choosing a still pool some two fathoms in depth, he throws a stone into the water a little ahead of the boat, in the expectation that the fish will congregate about the spot as they do when fruit falls from the trees on the banks. Then, as the boat approaches the spot he deftly flings the net so that it falls spread out upon the surface; its weighted edge then sinks rapidly to the bottom, enclosing any fish that may be beneath the net. If only small fish are enclosed, the net is twisted as it is drawn up, the fish becoming entangled in its meshes, and in pockets formed about its lower border. If a large fish is enclosed, the steersman will dive overboard and seize the lower part of the net so as to secure the fish.

Or the boat is paddled to the foot of a small rapid; the fisherman springs out and runs to the head of the rapid, and casts his net in the still water immediately above it where fish frequently congregate.

Or a party takes the same net to the mouth of a small tributary, and, while some hold the net so as to block the mouth almost completely, others run through the jungle to a point some hundred yards up the stream, and then drive down the fish by wading down stream splashing and shouting. As soon as a number of fish come down against the net its upper border is thrown down so as to enclose them.

Another net, made quite flat and some fifteen yards long by four feet wide, is suspended by wooden floats across a small river so that the fish may become entangled in its meshes.

Another net is used only by the women. In shape it is like a deep basin; its wide mouth is attached to a stout circle of rattan, and a wooden bar is tied across the mouth to serve as handle. With this the women catch the sucker fish in the shallow

rapids, one turning up stones, the other catching in the net the fish that dart from beneath them.

Yet another mode of netting fish is to suspend a square of net attached by its corners to the ends of two crossed and downward bending sticks. The net is suspended by cords from its corners to the end of a long bamboo, which rests upon a post about its middle. The fisherman lowers the net into the water by raising the landward end of the bamboo lever, and when he sees fish swimming above it, attracted by a bait, he suddenly depresses his end of the bamboo, so as to bring the net quickly above the surface. On the coast drag nets are used.

The *selambo* is used in small streams where fish are abundant. A fence of upright bamboos is built out from either bank, starting at opposite points and converging down stream to two points near the middle of the stream and about seven feet apart; where each terminates a stout pole is driven firmly into the bed of the river. These two poles are connected by a stout cross-piece lashed to them a little above the level of the water. The cross-piece forms a fulcrum for a pair of long poles joined together with cross-pieces, in such a way that their downstream ends almost meet, while up stream they diverge widely. They rest upon the fulcrum at a point about one-third of their length from their downstream ends. Between the widely divergent parts up stream from the fulcrum a net is loosely stretched. The net lies submerged until fish coming down stream are directed on to the net by the convergent fences. The fisherman stands on a rude platform grasping the handle-end, and, feeling the contacts of the fishes with the net, throws his weight upon the handle, so bringing the net quickly above the surface. Beside him he has a large cage of bamboo standing in the water, into which the fish are allowed to slide from the elevated net.



PLATE 75. POLING UP THE PALAGUS FALLS, REJANG RIVER.



KENYAHS HAULING A BOAT OVER RAPIDS.



PLATE 75. HUT BUILT ON RIVER BANK FOR A NIGHT'S SHELTER.

A rod and line and baited hook are also in common use. The Kayans make a hook of stout brass wire, cutting a single barb. The Kenyahs use a hook made of rattan thorns. A strip is cut from the surface of a rattan bearing two thorns about an inch apart; this is bent at its middle so that the cut surfaces of the two halves are brought into opposition, and the thorns, facing outward opposite one another, form the barbs. The line is tied to the bend, and the bait is placed over the tip projecting beyond the thorns. When the fish takes the hook into his mouth and swallows the bait, the barbs being released spring outward and secure the fish.

A rough kind of spoon bait is also used with rod and line.

Fish are taken also in traps. The most generally used is the *bubu*. This varies in length from eighteen inches to eight feet or even more. The body of the trap is a conical cage of bamboo. From the wide mouth of the cone a second smaller flatter cone passes upwards within the outer one; the slender bamboo strips of which it is made come almost together in the centre, their inner ends being free and pliable. This is fixed beside the bank, its mouth turned down stream, and a few stakes are driven into the bed of the river to guide the fish into the mouth; or it may be laid in shallow water, two barriers of stones converging to its mouth. The fish working up stream pass in at the mouth, and, when they have passed the inner lips, cannot easily pass out again.

A still simpler trap consists merely of a long slender cone of bamboo strips. The fish entering the mouth and passing up to the confined space of the other end become wedged fast in it.

A Sea Dayak trap found in the south-west of Borneo is a cylindrical cage of bamboo attached to

a pole driven vertically into the bed of the river. (Fig. 21). At one side of the cage is a circular aperture. Into this fits a section of bamboo, the end of which within the cage is cut into longitudinal strips that are made to converge, forming a cone, through the apex of which the fish can push his way into the cage, but which prevents his return. It is an application of the same valve principle as that used in the trap first described above.

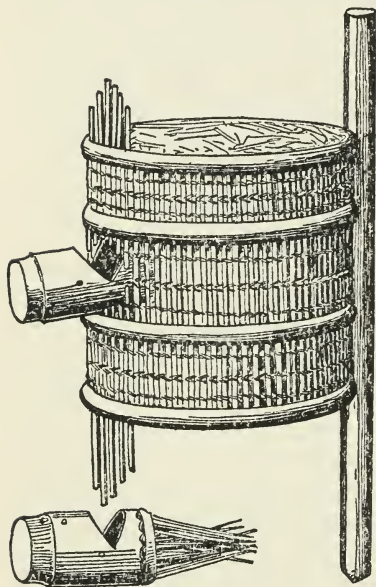


FIG. 21.

A larger trap is the *kilong*, which is used in the lower reaches of the rivers and also on the coast. It consists of a fence of stakes running out from the bank or shore into water some two fathoms in depth. The free end of the fence is wound in a spiral of about two turns. One or two gates are made between the outer and the inner chambers of the spiral on the side nearest to the bank or shore, and

are left open when the trap is set. The fish, finding themselves confined by the fence, make for deeper water, and, entering the central chamber, do not readily return. The fisherman then closes the gate and takes out the fish with a landing net.

A prawn trap consists of a cylinder of heavy bark. One end is closed with a conical valve of bamboo strips like that of the two traps described above; the other flattened end is hinged to open for the extraction of the catch. The trap is baited



PLATE 77. A BOAT ABOUT TO DESCEND THE FALLS AT LONG BUKAU, REJANG RIVER.

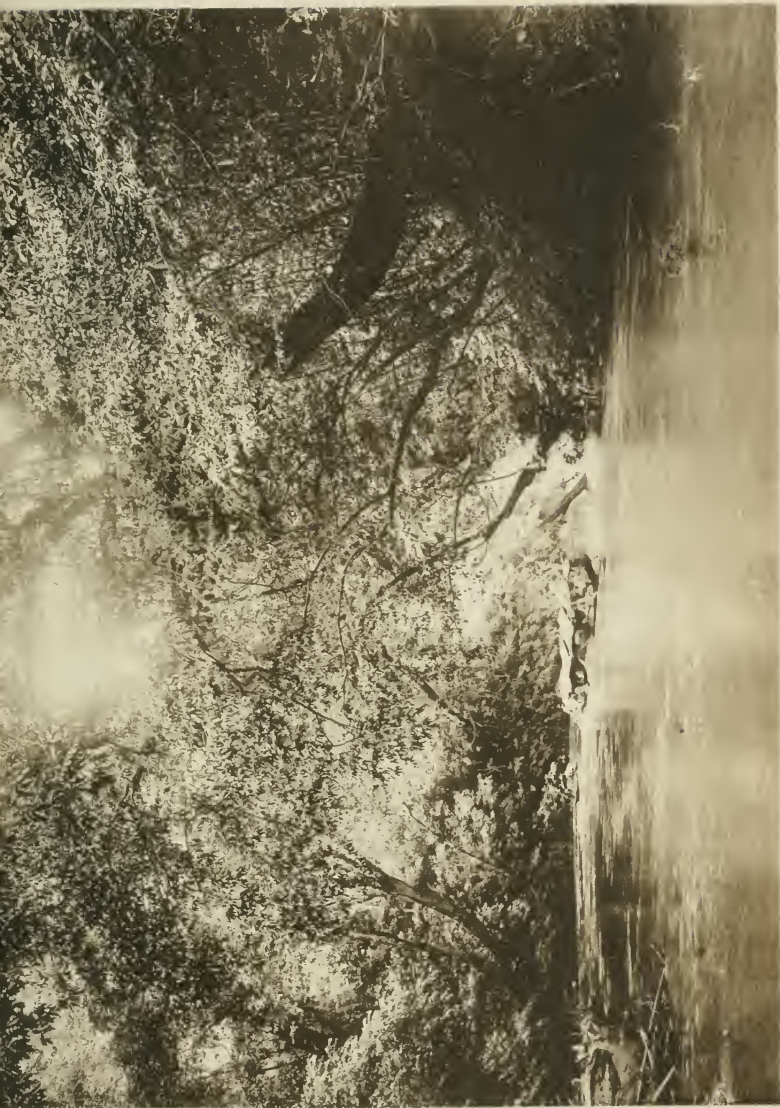


PLATE 78. BOAT ROOFED WITH LEAF MATS ON THE DAPOI RIVER, BARAM DISTRICT.

with decaying cocoanut and thrown into the river with a long rattan attached to it and tied to a pole ; the trap sinks to the bottom and is examined from time to time.

TUBA FISHING

Fish are caught on the largest scale by poisoning the water with the juice of the root of the *tuba* plant. This is usually practised in the smaller rivers at times of slack water, all the people of a village co-operating. The *tuba* plant is cultivated in patches on the *padi* fields. Pieces of the roots are cut off without destroying the plants. When a large quantity has been gathered, a fence is built across the river at the spot chosen, and big *bubu* traps are let into it facing up stream. Then all the available small boats are manned and brought into the reaches of the river extending about a mile above the fence. Each boat carries a supply of *tuba* root, which the people bruise by pounding it with wooden clubs against stumps and rocks on the bank or against the side of the boat. Water is thrown into the bottom of the boat and the pounded root is rinsed in the water, pounded again, and again rinsed, until all its poisonous juice is extracted. The water in all the boats, become milky with the juice, is poured at a given signal into the river, either by baling or by overturning the boats. After some twenty minutes the fish begin to rise to the surface and rush wildly to and fro. In the meantime the boats have been put to rights, and now begin to pursue the fish, the men armed with fish-spears, the women with landing-nets. The sport goes on for several hours. Some men armed with clubs stand upon a platform which slopes up at a low angle out of the water and rests upon the fence. Big fish come leaping upon this platform and are clubbed by the men, who have to exert

their agility to avoid the spikes with which some of the fish are armed. Large quantities of fish are sometimes taken in this way; what cannot be eaten fresh are dried and smoked over the fires in the house.

While the *tuba* fishing is being arranged and the preparations are going forward, great care is taken to avoid mentioning the word *tuba*, and all references to the fish are made in oblique phrases, such as "The leaves (*i.e.* the fishes) can't float over this fence." This precaution is observed because it is believed that the birds and the bats can understand human speech, and may, if they overhear remarks about the preparations, give warning to their friends the fish, whose magician¹ (a bony fish called *belira*), will then make rain, and, by thus swelling the river, prevent the successful poisoning of the water.

Tickling is also practised with success, the men standing in the edge of a lake among the grass and sedges, where the fish seek cooler water in the heat of the day.

All the methods of taking fish described above are practised by most of the peoples, except of course the use of the drag-net in the sea.

The crocodiles, which are numerous in the lower reaches of the rivers, are not hunted or attacked, save on provocation, by any of the peoples of Borneo except the Malays.² Occasionally a bather is seized by one of them while in the water or standing on a log floating in deep water; and more rarely a person is dragged out of a small boat, while drifting quietly on deep water at evening. If men and boats are at hand they turn out promptly to attack the crocodile, if it rises to the surface; but there is small chance of rescue. If the victim has sufficient presence of mind and strength to thrust his thumbs against

¹ See Chap. XVII.

² See Chap. XV.



PLATE 79. KAYANS FISHING WITH CAST-NET IN THE UPPER BARAM RIVER.



PLATE 80. FISHING WITH ROD AND LINE AT THE TIPANG FALLS OF THE BARAM.

the eyes of the reptile it may release him, escape in this way is not unknown. In the case of a fatal issue, the men of the village turn out to avenge the outrage, and, in the case of the seizure of an important person, those of neighbouring villages will join them. All available boats are manned by men armed with spears, some of which are lashed to the ends of long poles. Congregating in their boats near the scene of the disaster, the men prod the bed of the river with their spears, working systematically up and down river and up the small side streams. In this way they succeed in stabbing some of the reptiles; and in this case, though they usually do not rise to the surface, their bodies are found after some days in the creeks, death having ensued from the inflammation set up in the wounds. The wound caused by a spear-thrust would seldom be fatal to the crocodile, but that the wound is liable to the perpetual assaults of smaller creatures—fish while he is in the water, flies when he lies on the bank. These irritate and extend the wound. The stomachs of those crocodiles that are captured are opened in search of traces of the person taken, traces which usually remain there for some time in the shape of hair or ornaments. If no trace is found the people's vengeance is not satisfied, and they set baited hooks, or pay Malays to do so, partly because the Malays are experts and claim to have potent charms to bring the offender to the hook, partly because a Kayan does not care to take upon himself the individual responsibility of catching a crocodile, though he does not shrink from the collective pursuit. The decaying body of a fowl, monkey, or other animal (Malays sometimes use a living dog) is bound to a strong bar of hardwood, sharpened at both ends and some fifteen inches in length. A number of small rattans are tied to the bar about its middle, their other ends being

made fast to a log. This arrangement is allowed to float down river; if it does not float freely, the crocodile will not take the bait. When a crocodile rises to the bait and swallows it, the bar gets fixed cross-wise in his gullet as he pulls on the rattans. The hunters, having kept the log in sight, then attach the ends of the rattans to the boat, tow the reptile to the bank, and haul him up on dry land. They secure his tail and feet with nooses, which they lash to a pole laid along his back, and lash his jaws together. Throughout these operations the crocodile is addressed deferentially as *Laki* (grandfather). He is then left exposed to the sun, when he soon dies; in this way the people avoid the risks attaching to slaying the crocodile with their own hands.



PLATE 81. TYPICAL SCENE IN THE UPPERMOST REACHES OF A RIVER.

CHAPTER IX

LIFE IN THE JUNGLE

ALL the peoples of Borneo support themselves in part by hunting and trapping the wild creatures of the jungle, but for the Punans alone is the chase the principal source of food-supply ; the various natural products of the jungle are, with the exception of cultivated sago in some few regions, their only marketable commodities.

HUNTING

The wild pig (*Sus barbatus*¹) is the principal object of the chase, but deer of several species are also hunted and trapped. The largest of these (*Cervus equinus*) is rather bigger than the English fallow deer ; the smallest is *plandok*, or mouse deer (*Tragulus napu* and *T. Javanicus*), standing only about eight inches at the shoulder ; intermediate in size is the muntjac (*Cervulus muntjac*). There are also small herds of wild cattle (*Bos sondaicus*), a small rhinoceros (*R. sumatranus*), large lizards (*Varanus*), various apes and monkeys, and a large porcupine (*Hestrix Crassispinus*), and several small mammals, such as otters (*Lutra*), bear-cats (*Arctictis*), and civet cats (*Paradoaurs*) of various species, all of which are hunted for their flesh, as

¹ There are said to be two other less common species of wild pig, but probably there is only one other.

well as several birds. The tiger-cat (*Felis nebulosa*) and the bear (*Ursus Malayanus*) are hunted for their skins and teeth, and the dried gall-bladder of the bear is sold for medicine.

The pig and deer are most commonly hunted on foot by a party of several men with a pack of four or five dogs. The dogs, having found the trail, chase the pig until he turns on them. The dogs then surround the pig, barking and yelping, and keep it at bay till the men run up and despatch it with their spears. Both men and dogs sometimes get severely bitten and torn by the tusks. During the fruit season the pigs migrate in large herds and cross the rivers at certain places well known to the hunters. The people lie in wait for them in little huts built on the banks, and kill them from their boats as they swim across.

Kenyahs and Klemantans sometimes catch deer by driving them into a *jaring*. This consists of a strong rope of plaited rattans stretched in a straight line across the jungle, from tree to tree, some five feet above the ground. It is generally laid so as to complete the enclosure of an area that is almost surrounded by the river. Dependent from the whole length of the rattan rope is a series of running nooses also of rattan, each of which, overlapping its neighbours on both sides, forms a loop about two feet in diameter. Men armed with spears are stationed along the *jaring* at short intervals, and the rest of the party with the dogs beat the jungle, driving any deer in the enclosed space headlong towards the *jaring*. Some of the deer may escape, but some will usually run their heads into the nooses and fall victims to the spears of the watchers. Both pig and deer are sometimes brought down with the blow-pipe, especially by the Punans, whose favourite weapon it is.

The wild cattle are very wary and dangerous to



PLATE 82. KENYAH HUNTERS AT WORK WITH THE BLOW-PIPE.

attack. They sometimes take to the water and are then easily secured. Punans, who hunt without dogs (which in fact they do not possess) will lie in wait for the rhinoceros beside the track by which he comes to his daily mud-bath, and drive a spear into his flank or shoulder; then, after hastily retiring, they track him through the jungle, until they come upon him again, and find an opportunity of driving in another spear or a poisoned dart through some weak spot of his armour.

Birds and monkeys are chiefly killed with the blow-pipe.

TRAPS

Traps of many varieties are made. For pig and deer a trap is laid at a gap in the fence about the *padi* field. It consists of a bamboo spear of which the end is sharpened and hardened in the fire. This is laid horizontally about two feet from the ground, resting on guides. Its butt end is lashed to one end of a springy green pole at right angles to its length; the pole is laid horizontally, one end of it being firmly fixed to a tree, and the other (that carrying the spear) bent forcibly backwards and held back by a loop of rattan. This spring is set by means of an ingenious trigger, in such a way that an animal passing through the gap must push against a string attached to the trigger, and so release the spring, which then drives the bamboo spear across the gap with great force. (The drawing (Fig. 22) will make clear the nature of the trigger.)

In one variety of this trap the spring is set vertically. The trap is varied in other ways. A curious practice of the Ibans on setting such a trap is to measure the appropriate height of the spear by means of a rod surmounted with a carving of a human figure (Fig. 23).

Of many ingenious traps for small animals the *jerat* is the most widely used (see Fig. 24 and Pl. 85). A rude fence some hundreds of yards, in some cases as much as a mile, in

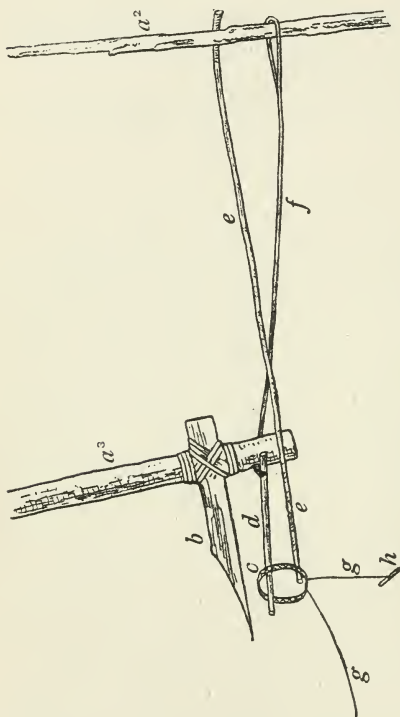


FIG. 22.—Trigger of Pig Trap.

length, is made by filling up with sticks and brushwood the spaces between the trees and undergrowth of the jungle. At intervals of ten or twenty yards narrow gaps are left, and in each of these a *jerat* is set to catch the small creatures that, in

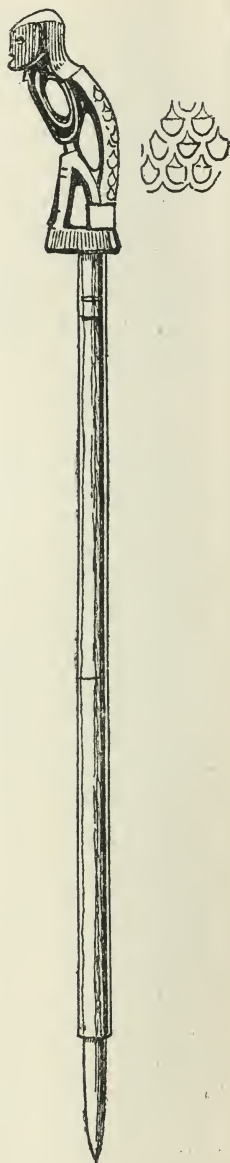


FIG. 23.



PLATE 83. KENYAH HUNTER RETURNING HOME WITH YOUNG PIG.



PLATE 84. KAVAN HUNTING-PARTY CAMPING FOR THE NIGHT.

wandering through the jungle and finding their course obstructed by the fence, seek to pass through the gaps. The gap is floored with a small platform of light sticks, six to eight inches long, laid across it parallel to one another in the line of the fence. The ends of these are supported at one side of the gap, about two inches above the ground, by a cross-stick lying at right angles to them. This stick in turn is supported about one inch above the ground in the following way: the two ends of a green stick are thrust firmly

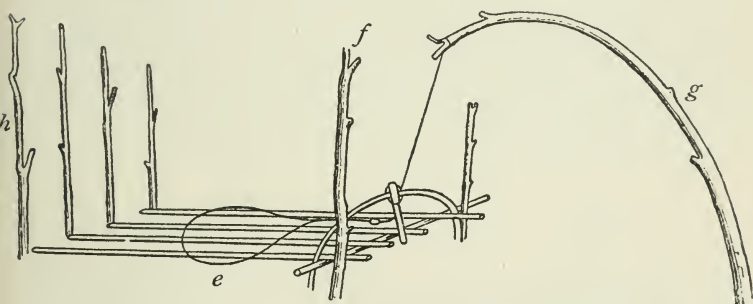


FIG. 24.—The Jerat.

into the ground forming an arch over the end of the platform, and the extremities of the cross-stick are in contact with the pillars of the arch, and kept a little above the ground by being pulled against them by the spring trigger. This consists of a short stick attached by a cord to a strong springy pole thrust vertically into the ground. To set the trigger it is pulled down, bending the pole, and passed under the arch from the platform side outwards; the upper end of the trigger is then kept by the pull of the cord against the curve of the arch, and its lower end is pulled against the middle of the cross-stick. The pressure being maintained by the tension of the cord, this end of the platform is supported by the friction

between the trigger and the cross-stick. The cord is prolonged beyond the trigger in a slip noose which lies open on the platform completely across the gap, so that any small animal entering the gap, and stepping upon the platform, necessarily places its feet within the noose. A few leaves are laid on the platform and cord to disguise them. When, then, a pheasant or other creature of appropriate size and weight steps on the platform, its weight causes the cross-stick to slip down from the hold of the trigger, and this, being released, is violently jerked with the noose into the air by the elastic reaction of the bent pole; in a large proportion of cases the noose catches the victim's feet and jerks him into the air, where he dangles by the feet till the arrival of the trapper, who visits his traps twice a day.

Another very curious and strikingly simple plan is employed by the Sea Dayaks for catching the Argus pheasant, whose beautiful wing feathers are highly valued. The cock-birds congregate at certain spots in the jungle, where they display their feathers and fight together. These spots they clear of all obstacles, pulling and pushing away sticks and leaves with their heads and necks, as well as scratching with their feet. The Dayaks, taking advantage of this habit, thrust vertically into the ground slips of bamboo, the edges of which are hardened in the fire and rendered very sharp. In the course of their efforts to remove these obstructions, the birds not infrequently inflict serious wounds about their necks, and weakened by loss of blood, are found by the Dayaks at no great distance from the fighting ground.

Traps of many other kinds are made for animals both large and small, especially by the Sea Dayaks, who use traps more frequently than the other



IBANS SETTING TRAPS FOR PHEASANTS AND SMALL MAMMALS.



PLATE 85. PUNANS AT HOME.

peoples. Our few descriptions will serve to illustrate the ingenuity displayed, the complexity of the mechanical principles involved in some of them, and the extreme simplicity of others. Previous writers have described many of these in detail, and we content ourselves with referring the curious reader to their accounts.¹

The Klemantans and some of the Kenyahs catch a small ground pigeon (*Chalcophaps indica*) in large numbers by the aid of a pipe or whistle, by blowing softly on which the cooing notes of the bird are closely imitated. The instrument consists of a piece of large bamboo closed at one end and having a small hole about its middle (Fig. 25). The hunter, concealed behind a screen of leafy branches, blows across this hole through a long slender tube of bamboo; and when a bird approaches the whistle, he slips over its head a fine noose attached to the end of a light bamboo and, drawing it behind the screen, puts it alive into a cage.

Small parrots are sometimes caught with bird-lime, made with the juice of a rubber-tree.

THE GATHERING OF JUNGLE PRODUCE

The principal natural products gathered by the people

¹ A good account, taken mainly from Skertchly, of many traps may be found in Mr. Ling Roth's well-known work, *The Natives of Sarawak and British North Borneo*, London, 1896; and also in McPherson's work on *Fowling*.

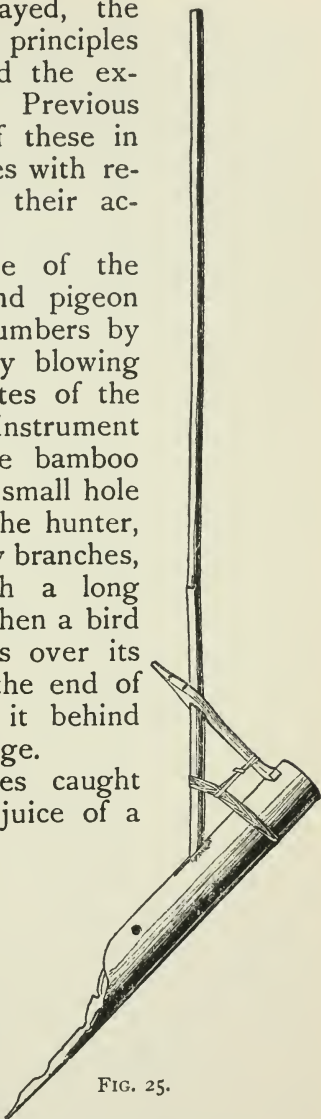


FIG. 25.

in addition to the edible fruits are, gutta-percha, rubber, camphor, various rattans, beeswax and honey, vegetable tallow, wild sago, damar-resin from various trees, and the edible birds' nests.

Small parties of men and boys go out into the jungle in search of these things, sometimes traveling many days up river before striking into the jungle; for it is only in the drier upland forests that such expeditions can be undertaken with advantage. The party may remain several weeks or months from home. They carry with them a supply of rice, salt, and tobacco, cooking-pots and matches, a change of raiment, spears, swords, shields, blow-pipes, and perhaps two or three dogs. On striking into the jungle, they drag their boat on to the bank and leave it hidden in thick undergrowth. While in the jungle they camp in rude shelters roofed with their leaf mats and with palm leaves, moving camp from time to time. They vary their labours and supplement their food-supply by hunting and trapping. Such an expedition is generally regarded as highly enjoyable as well as profitable. As in camping-parties in other parts of the world, the cooking is generally regarded as a nuisance to be shirked if possible. The Sea Dayaks indulge in these expeditions more frequently than others, and such parties of them may often be found at great distances from their homes. In the course of such long excursions they not infrequently penetrate into the regions inhabited by other tribes, and many troubles have had their origin in the truculent behaviour of such parties. Such parties of Sea Dayaks have been known to accept the hospitality of unsuspecting and inoffensive Klemantans, and to outrage every law of decency by taking the heads of old men, women, and children during the absence of their natural defenders.

Valuable varieties of gutta-percha are obtained



PLATE 86. KAYANS WORKING GUTTA-PERCHA.

from trees of more than a score of species. The best is known as Kayan gutta, because it is gathered and sent to the bazaars by the Kayans in a pure form. The trees are felled and the stem and branches are ringed at intervals of about eighteen inches, a narrow strip of bark being removed at each ring. The milky viscid sap drips out into leaf-cups, which are then emptied into a cylindrical vessel of bark. Water is then boiled in a large pan beside the tree, a little common salt is added to the water, and the gutta is poured into the boiling water, when it rapidly congeals. Then, while still in a semi-viscid state, it is kneaded with the feet and pressed into a shallow wooden frame, which in turn is compressed between two planks. In this way it is moulded into a slab about one and a half inches thick, about a foot long, and about six inches across at one end, two inches across at the other. While it is still warm a hole is pierced through the narrower end; and the slab is then thrown into cold water, where it sets hard. In this form it reaches the market at Singapore, where it is valued at about five hundred dollars (£50) the hundred-weight.

Gutta of an inferior quality is obtained in large quantities by tapping a large tree (*Jelutong*) which grows abundantly in the low-lying jungles.

The best rubber, known as *pulut* by the Kayans, is obtained by them from a creeper, the stem of which grows to a length of fifty to a hundred feet and a diameter of six inches or more. It bears a brilliant red luscious fruit which is eaten by the people; its seeds being swallowed become distributed in this way. The Punans carefully sow the seed they have swallowed, and transplant the young seedlings to the most suitable positions. The milky juice of the creeper is gathered and treated in much the same way as the gutta. It

is rolled up while hot into spherical lumps, each of which is pierced with a hole for convenient transportation.

Camphor is formed in the crevices of the stems of old trees of the species *Dryobalanops aromatica*, when the heart is decayed leaving a central hollow. The tree is cut down, the stem split up, and the crystalline scales of pure camphor are shaken out on to mats. It is then made up in little bundles wrapped in palm leaves. The large-flaked camphor fetches as much as £6 a pound in the Chinese bazaar. Special precautions are observed by men in search of camphor. A party of Kayans, setting out to seek camphor, commonly gets the help of Punans, who are acknowledged experts in this business. Omens are taken before setting out, and the party will not start until favourable omens have been observed. The party is *lali* from the time of beginning these operations. They will speak to no one outside the party, and will speak no word of Malay to one another; and it is considered that they are more likely to be successful if they confine themselves to the use of a peculiar language which seems to be a conventional perversion of the Punan speech.

On entering a small river the party stretches a rattan across its mouth; and, where they leave the river, they erect on the bank a pole or frayed stick.¹ Other persons seeing such sticks set up will understand and respect the party's desire for privacy. They then march through the jungle to the place where they expect to find a group of camphor trees, marking their path by bending the ends of twigs at certain intervals in the direction in which the party is moving. Having found a likely tree they

¹ A stick of this kind is used in many rites. It is prepared by whittling shavings from a stick and leaving them attached at one end; so that a series of the shavings projects along one side of the stick.



PLATE 87. GATHERING THE *IPOH*
DART-POISON.



USONG, A KAVAN YOUTH OF UPPER CLASS,
SON OF TAMA USONG (PLATE 49).



PLATE 88. KENYAH COLLECTING *IPOH* POISON. ~

cut into the stem with a small long-bladed axe, making a deep small hole. An expert, generally a Punan, then smells the hole and gives an opinion as to the chances of finding camphor within it. If he gives a favourable opinion, the tree is cut down and broken in pieces as described above. On cutting down the tree, an oil which smells strongly of camphor sometimes pours out and is collected. The party remains *lali* until the collection of the camphor is completed; no stranger may enter their hut or speak with them. The practice of collecting camphor in this way is probably a very ancient one,¹ whereas the collection of gutta and rubber has been undertaken only in recent years in response to the demands of the European market.

Many varieties of the rattan palm grow luxuriantly in the forests of Borneo, some attaining a length of 150 to 200 feet. It is a creeper which makes its way towards the light, suspending itself to branches and twigs by means of the curved spines which prolong the midribs of the leaves. The cane is collected by cutting through the stem near its root, and hauling on it, several men combining their efforts. The piece cut down is dragged through the jungle to the river-bank. There it is cut into lengths of fifteen feet, *i.e.* two and a half spans, and dried in the sun. If the sap is thoroughly dried out, the cane assumes a permanent yellow colour; but if any is left, the cane darkens when soaked in water. When a large number of bundles has been collected, they are bound together to form a raft. On this a hut is erected, and two or three men will navigate the raft down river to the Chinese bazaar, which is to be found in the lower part of every large river.

The small yellow fruit of the rattan is gathered in large quantities and subjected to prolonged boiling.

¹ A similar practice prevails in the Malay Peninsula.

The fluid becomes of a bright crimson colour ; this, boiled down till it has the consistency of beeswax, is known as dragon's blood, and is used by the people as a colouring matter and also exported for the same purpose.

Honey and beeswax are found in nests which are suspended by the wild bee from high branches of the *mingris* (*Coompassia*) and *tapang* (*Arbouria*) trees, sometimes many nests on one tree. To reach the nest the men climb the tree by the aid of a ladder somewhat in the fashion of a steeple-jack. A large number of sharpened pegs of ironwood are driven into the softer outer layers of the stem in a vertical row about two feet apart, and bamboos are lashed in a single vertical row to the pegs and to one another and to the lower branches. The ladder is built up until at some sixty or eighty feet from the ground it reaches a branch bearing a nest. The taking of the nests is usually accomplished after nightfall. A man ascends the ladder carrying in one hand a burning torch of bark, which gives off a pungent smoke, and on his back a large hollow cone of bark. Straddling out along the bough, he hangs his cone of bark beneath the nest, smokes out the bees, and cuts away the nest from the bough with his sword, so that it falls into the cone of bark. Then, choosing a piece of comb containing grubs, he munches it with gusto, describing from his position of advantage to his envious friends the delicious quality of the grubs. After thus gathering two or three nests he lets down the cone with a cord to his eagerly expectant comrades, who then feast upon the remaining grubs and squeeze out the honey into jars. The tree having been cleared of nests in this way, the wax is melted in an iron pot and moulded in balls. The honey is eaten in the houses ; the wax is sold to the Chinese traders at about a shilling a pound.



PLATE 89. KLEMANTANS MAKING FIRE IN THE JUNGLE BY SAWING
ONE PIECE OF BAMBOO ACROSS ANOTHER.

Vegetable tallow is procured from the seeds of the *engkabong* tree (*Shorea*). The seeds are crushed and the tallow melted out and gathered in bamboos. It is used as a food, generally smeared on hot rice. It is sometimes a principal feature of the Punan's diet for considerable periods.

Wild sago is abundant and is much used by Punans, and occasionally by most of the other peoples when their supply of *padi* is short. The sago tree is cut down and its stem is split into several pieces with wedges. The pith is knocked out with a bamboo mallet. The sago is prepared from the pith by the women, who stamp it on coarse mats, pouring water upon it. The fine grains of sago are carried through on to a trough below. It is then washed and boiled in water, when it forms a viscid mass; this is eaten with a spoon or with a strip of bamboo bent double, the two ends of which are turned round in the sago and withdrawn with a sticky mass adherent; this is plunged in the gravy of pork and carried to the mouth. It is generally considered a delicacy.

Many varieties of the forest trees exude resins, which are collected and used for torches and for repairing boats, as well as brought to the bazaars, where the best kinds fetch very good prices. Sometimes the resin is found in large masses on the ground where it has dripped from the trees.

A curious and valuable natural product is the bezoar stone. These stones are found in the gall-bladder and intestines of the long-tailed monkey *Semnopithecus* (most frequently of *S. Hosei* and *S. rubicundus*). They are formed of concentric layers of a hard, brittle, olive-green substance, very bitter to the taste. A soft brown variety is found in the porcupine. Both kinds are highly valued by the Chinese as medicine. The monkeys and porcupines are hunted for the sake of these stones. A similar

substance, also highly valued as a medicine by the Chinese, is sometimes found as an accretion formed about the end of a dart which has been broken off in the flesh of *S. Hosei* and has remained there for some long period.

The most important of the natural products gathered by the people are the edible nests of three species of swift : *Collocalia fuciphaga*, whose nest is white ; *C. Lowii*, whose nest is blackish ; and *C. Linchii*, whose nest contains straw and moss as well as gelatine. All three kinds are collected, but those of the first kind are much more valuable than the others. The nest, which is shaped like that of our swallow, consists wholly of a tough, gelatinous, translucent substance, which exudes from the bill of the bird as it builds. We do not understand the physiology of this process. The people generally believe that the substance of the nest is dried sea-foam which the birds bring from the sea on returning from their annual migration.

The nests are built always on the roofs and walls of large caves : the white nests in low-roofed caves, generally in sandstone rock ; the black in the immense lofty caves formed in the limestone rocks. The latter are reached by means of tall scaffoldings of strong poles of bamboo, often more than a hundred feet in height. The nests are swept from the rock with a pole terminating in a small iron spatula, and carrying near the extremity a wax candle ; falling to the ground, which is floored with guano several feet thick, they are gathered up in baskets. The white nests are gathered three times in the year at intervals of about a month, the black nests usually only twice ; as many as three tons of black nests are sometimes taken from one big cave in the course of the annual gathering. Each cave, or, in the case of large caves, each natural subdivision of it, is claimed as the property of some individual, who



PLATE 90. INSTRUCTING KAYAN YOUTHS IN THE JUNGLE.

holds it during his lifetime and transmits it to his heirs. During the gathering of the nests of a large cave, the people live in roofless huts built inside it. The nests are sold to Chinese traders—the black nests for about a hundred dollars a hundredweight, and the white nests for as much as thirty or forty shillings per pound.

CHAPTER X

WAR

THE Kayans are perhaps less aggressive than any other of the interior peoples with the exception of the Punans. Nevertheless prowess in war has made them respected or feared by all the peoples; and during the last century they established themselves in the middle parts of the basins of all the great rivers, driving out many of the Klemantan communities, partly by actual warfare, partly by the equally effective method of appropriating to their own use the tracts of jungle most suitable for the cultivation of *padi*.

The fighting quality of the individual Kayan, the loyalty and obedience of each household to its chief, the custom of congregating several long houses to form a populous village upon some spot carefully chosen for its tactical advantages (generally a peninsula formed by a deep bend of the river), and the strong cohesion between the Kayans of different and even widely separated villages,—all these factors combine to render the Kayans comparatively secure and their villages immune from attack. But though a Kayan village is seldom attacked, and though the Kayans do not wantonly engage in bloodshed, yet they will always stoutly assert their rights, and will not allow any injury done to any member of the tribe to go unavenged. The avenging of injuries and the necessity of



PLATE 91. KENYAH AND KAVAN SWORDS AND SHEATHS.

possessing heads for use in the funeral rites are for them the principal grounds of warfare; and these are generally combined, the avenging of injuries being generally postponed, sometimes for many years, until the need for new heads arises. Though an old dried head will serve all the purposes of the rites performed to terminate a period of mourning, yet it is felt that a fresh head (or heads) is more desirable, especially in the case of mourning for an important chief.

When an old head is used in these rites, it is customary to borrow it from another house or village, and it is brought to the house by a party of warriors in the full panoply of war, who behave both on setting out and returning as though actually on the war-path.

It may be said generally that Kayans seldom or never wage war on Kayans, and seldom attack others merely to secure heads or in sheer vain-glory, as the Ibans not infrequently do. Nor do they attack others merely in order to sustain their prestige, as is sometimes done by the Kenyahs, who in this respect carry to an extreme the principle that attack is the most effective mode of defence.

War is generally undertaken by the Kayans very deliberately, after much preparation and in large well-organised parties, ranging in numbers from fifty to a thousand or more warriors, made up in many cases from several neighbouring villages, and under the supreme command of one chief of acknowledged eminence.

The weapons and war-dress are similar among all the peoples. The principal weapon is the sword known as *parang ilang*, or *malat*, a heavy blade (Pl. 91) of steel mounted in a handle of horn or hardwood. The blade, about twenty-two inches in length, has the cutting edge slightly bowed and the blunt back edge slightly hollowed. The edges diverge slightly

from the handle up to a point about five inches from the tip, where the blade attains its maximum width of nearly two inches. At this point the back edge bends sharply forward to meet the cutting edge at the tip. A very peculiar feature of the blade is that it is slightly hollowed on the inner surface (*i.e.* the thumb side or left side in the case of the *parang* of a right-handed man, the right side in case of one made for a left-handed man), and is convex in transverse section to a corresponding degree on the other surface. This peculiar shape of the blade is said to render the *parang* more efficient in sinking into or through either limbs or wood, and is more easily withdrawn after a successful blow. This weapon is carried in a wooden sheath suspended by a plaited waist-strap, and is the constant companion of every man; for it is used not only in warfare, but also for a variety of purposes, such as the hewing down of jungle undergrowth, cutting rattans and bamboos, the rough shaping of wooden implements.

The weapon second in importance is the spear (Pl. 92). It consists of a flat steel blade, about one foot in length, of which the widest part (between one and two inches) is about four inches from the tip. The tip and lateral edges of the blade are sharp, and its haft is lashed with strips of rattan to the end of a wooden shaft. The extremity of the haft is bent outwards from the shaft, to prevent its being dragged off from the latter. The shaft is of tough wood and about seven feet in length; its butt end is usually shod with iron. The spear is used not only for thrusting, but also as a javelin and as a parrying stick for warding off the spears hurled by the foe. It is always carried in the boat when travelling on the river, or in the hand during excursions in the jungle.

The blow-pipe, which projects a poisoned dart,



PLATE 92. SPEARS AND PADDLES (KAYAN AND KLEMANTAN).

is used by many of the Kayans in hunting, but is hardly regarded as a weapon for serious use in warfare.

Beside the principal spear, two or three short spears or javelins, sometimes merely pointed bars of hardwood, are usually carried in the left hand when an attack is being made.

Beside the sword and the spears the only weapons commonly used are heavy bars of iron-wood, sharpened at both ends and flung so as to twirl rapidly in the air. They are chiefly used in defending houses from attack, a store of them being kept in the house. For the defence of a house against an expected attack, short sharp stakes of split bamboo are thrust slantingly into the ground, so as to present the fire-hardened tip towards the feet of the oncoming foe.

The interior peoples have long possessed a certain number of European-made muskets (mostly flint-locks) and small Bruni-made brass cannon, obtained from the Malay and Chinese traders. The latter were chiefly valued for the defence of the house, but were sometimes mounted in the bows of the war-boats. The difficulty of obtaining supplies of gunpowder has always restricted greatly the use of firearms, and in recent years the European governments have strictly limited the sale of gunpowder and firearms; and even at the present day any war-party commissioned by one of the governments to execute any police measure, such as apprehending, or burning the house of, people who have wantonly killed others, has to rely in the main on its native weapons.

The equipment of the fighting-man consists, in addition to his weapons, of a war-cap and war-coat and shield (Pl. 93 and Fig. 26). The former is a round closely-fitting cap woven of stout rattans split in halves longitudinally. It affords good protection

to the skull against the stroke of the sword. It is adorned with two of the long black-and-white



FIG. 26.

barred feathers of the hornbill's tail in the case of any man who has earned this distinction by taking part in successful expeditions.

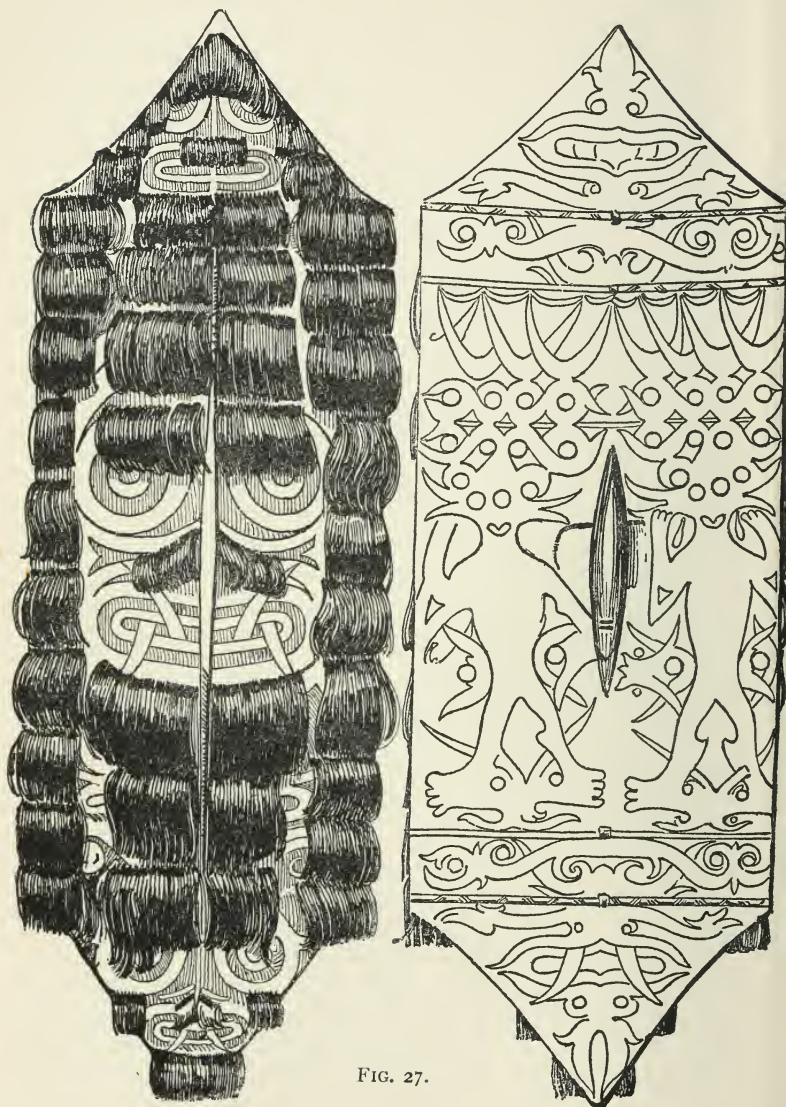


PLATE 93. KAVAN AND KENYAH WAR-CAPS.

The war-coat is made of the skin of the goat, the bear, or (in case of distinguished chiefs) of the tiger-cat. The whole of the skin in one piece is used, except that the skin of the belly and of the lower parts of the forelimbs are cut away. A hole for the warrior's head is made in the mid-dorsal line a little behind the skin of the head, which is flattened out and hangs over the chest, descending to the level of the navel; while the skin of the back, flanks, and hind limbs in one large flap, covers the back and hind parts of the warrior as far as the bend of the knees. A large pearly shell usually adorns the lower end of the anterior flap. The warrior's arms are thus left free, but unprotected. In the finest coats there is a patch of brightly coloured bead-work at the nape of the neck, and the back-flap is adorned with rows of loosely dangling hornbills' feathers; but these again are considered appropriate only to the coats of warriors of proved valour.

The Kayan shield is an oblong plate cut from a single piece of soft wood. Its ends are pointed more or less acutely; the length between the points is about four feet. The inner surface forms a flat hollow; the outer is formed by two flat surfaces meeting in a flat obtuse angle or ridge extending from point to point. The grain of the wood runs longitudinally, and a downward falling *parang* is liable to split the wood and become wedged fast in it. In order to prevent the shield becoming divided in this way, and to hold fast the blade of the sword, it is bound across with several stout strips of rattan which are laced closely to the wood with finer strips. The handle, carved out of the same solid block of wood as the body of the shield, is in the middle of the concave surface; it is a simple vertical bar for the grasp of the left hand. The Kayan shield is commonly stained red with iron oxide, and touched up with black pigment, but not otherwise decorated.

Wooden shields of this kind are used by almost



all the tribes, but some of them decorate their



PLATE 94. COAT AND CAP, SWORD, KNIFE, AND SHIELD OF KENYAH WARRIOR.

shields elaborately. The two surfaces of almost all Kenyah shields (Fig. 27) are covered with elaborate designs picked out in colours, chiefly red and black. The designs are sketched out on the wood with the point of a knife, and the pigment is applied with the finger and a chisel-edged stick. The principal feature of the designs on the outer surface is in all cases a large conventionalised outline of a face with large eyes, indicated by concentric circles in red and black, and a double row of teeth with two pairs of canines projecting like huge tusks. This face seems to be human, for, although in some shields there is nothing to indicate this interpretation, in others the large face surmounts the highly conventionalised outline of a diminutive human body, the limbs of which are distorted and woven into a more or less intricate design. Each extremity of the outer surface is covered by a similarly conventionalised face-pattern on a smaller scale. On the inner side each longitudinal half is covered with an elaborate scroll-pattern, generally symmetrical in the two halves; the centre of this pattern is generally a human figure more or less easily recognisable; the two halves sometimes bear male and female figures respectively.

The shields most prized by the Kenyahs are further decorated with tufts of human hair taken from the heads of slain enemies. It is put on in many rows which roughly frame the large face with locks three or four inches in length on scalp, cheeks, chin, and upper lip; and the smaller faces at the ends are similarly surrounded with shorter hair. The hair is attached by forcing the ends of the tufts into narrow slits in the soft wood and securing it with fresh resin.

The Klemantan shields are, in the main, variations on the Kenyah patterns. The Murut shields closely resemble those of the Kayans, though the

Dusuns, who have the domesticated buffalo, use a shield of buffalo-hide attached to the forearm by a strap—a feature unknown in all the other types, which are borne by the handle only. The Sea Dayaks nowadays make a greater variety of shields, copying those of the other tribes with variations of

their own. The shield originally used by them before coming into contact with many other tribes, but now discarded, was made of strips of bamboo plaited together and stiffened with a longitudinal strip of wood (Fig. 28). It was of two shapes, both oblong, one with rounded, the other with pointed ends.

The Land Dayaks still use a shield of tough bark (Fig. 29), and it is not improbable that these were used by other tribes at no distant date.

Every Kayan household possesses, beside the many smaller boats, one or more boats especially

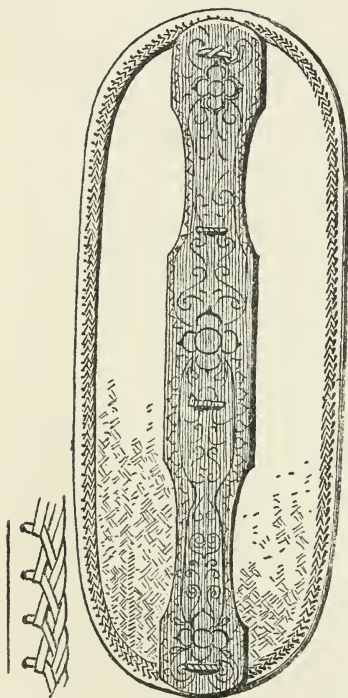


FIG. 28.

designed for use in war. A typical war-boat is about 100 feet in length, from six to seven feet wide in its middle part, and tapers to a width of about three and a half feet at bow and stern. In some cases the length of the war-boat, which is always made from a single log, is as much as 145 feet in length (Pl. 96), but so large a boat is unwieldy in use, and its construction costs an exces-



PLATE 95. A MURIK (KLEMANTAN) YOUTH IN WAR DRESS.

sive amount of labour. The ordinary war-boat carries from sixty to seventy men seated two abreast on the cross-benches. It is steered by the paddles of the two bow-men and the four next the stern.

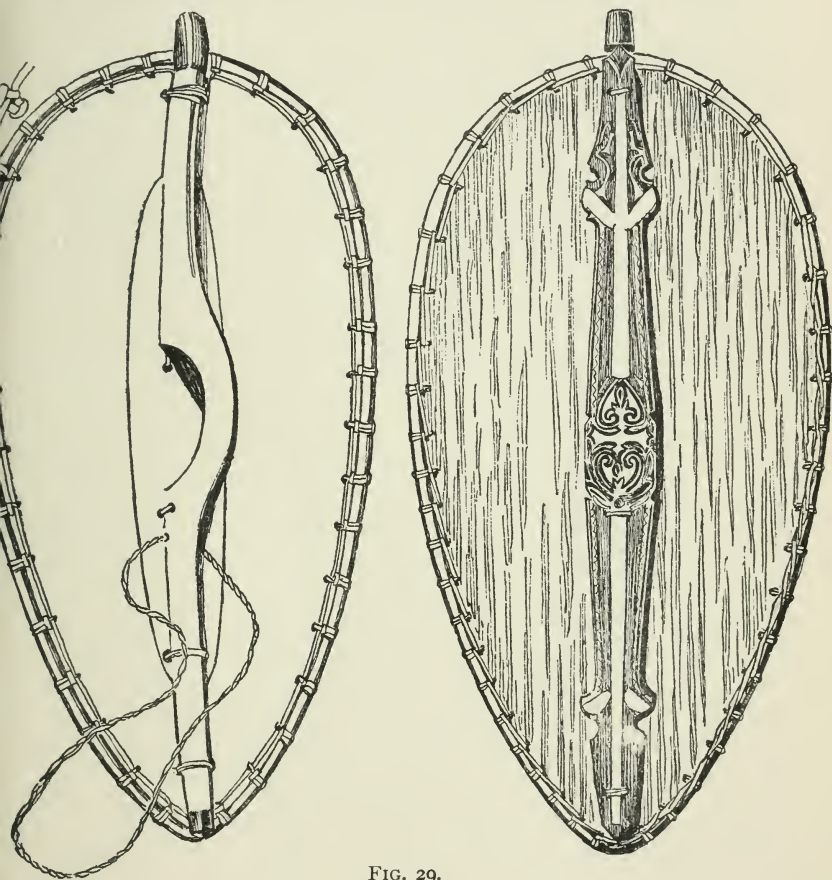


FIG. 29.

One of these war-boats, manned by sixty or seventy paddlers, can maintain a pace about equal to that of our University racing eights.¹

¹ On one occasion on which a race between twenty-two of these war-boats was rowed at Marudi on the Baram river, we timed the winning-boat over the down-stream course of four and half miles. The time was twenty-two minutes thirteen seconds.

War is only undertaken after formal consultation and many discussions between the chief or chiefs and all the leading men. If the village primarily concerned does not feel itself strong enough to achieve its ends, it will seek the help of some neighbouring village, usually, but not always one of its own tribe. The discussion may be renewed day after day for some little time, before the decision to fight is taken and the time for the expedition is fixed.

The next step is to seek favourable omens, and two men are told off for this work. They repair to some spot in the jungle, or more commonly on the bank of the river, where they build a small hut; they adorn it by fraying the poles of its framework, and so secure themselves against interruptions by passing acquaintances. The sight or sound of certain birds and beasts is favourable, of others unfavourable; but the favourable creatures must be observed in a certain order, if the omens are to be entirely satisfactory. If very bad omens are observed, the men return home to report the fact, and will make another attempt after a few days. If the omens are of mixed character, they will persist for some time, hoping to get a sufficient number of good omens to counteract or nullify the bad. When seeking for their place of observation, their choice is determined by seeing a spider-hunter (*Arachnothera*) flying across the river, chirping as it flies. When this is seen they stop the boat, calling out to the bird, "O friend *Isit*, protect us and give us success." One of the men lands on the bank, hews out a pole about eight feet long, cuts upon it bunches of shavings without detaching (Pl. 97) them from the pole, and thrusts one end of it into the ground so that it remains sloping towards the abode of the foe. While this is being done on the bank, fire of some sort (if only a



PLATE 96. KLEMANTAN WAR-BOAT ASCENDING A REACH OF THE BARAM NEAR MARUDI.

cigarette) is lighted in the boat, and the position is explained more fully to the bird, but without any mention of the name of the enemy. The observers then erect a hut near the omen-pole for their shelter, and pass the night there before looking out for the omen-bird next desired. This is the trogan (*Harpactes Duvaucelii*), which has a peculiar soft trilling note and a brilliant red chest. When this bird appears, it is addressed in the same way as the spider-hunter; and this second step of the process is also marked by a feathered stick thrust into the ground before the hut. Then they spend another night in the hut hoping for significant dreams. To dream of abundance of fruit (which symbolises heads) is favourable; any dream of a disagreeable or fearful situation is unfavourable. After a favourable dream comes the most important stage of the business, the observation of the hawks. They look for *Laki Neho* from the door of their hut about nine o'clock in the morning. As soon as a hawk is seen, they light a fire and call on him to go to the left, waving a feathered stick in that direction, and, shouting at the top of his voice, one of them pours out a torrent of words addressed to the hawk. If he goes out of sight towards the right, they console themselves by remarking that he is one of low degree, and they sit down to wait for another. If two hawks are seen to fight in the air, that foretells much bloodshed. They are not satisfied until they see a hawk sail far away out of sight towards the left. Then a break is made; after which they observe the hawks again, until they see one sail out of sight towards the right. If all this is accomplished without the intervention of unfavourable omens, they return home to report progress; but immediately return to the hut and remain there. Then for one, two, or even three days, all the men of the house stay at home quietly,

busying themselves in preparing boats and weapons. The chief, or some deputy, then performs the rites before the altar-post of the war-god that stands before the house in the way described in Chap. XV. The omens given by the hawks on this occasion are guarantees for the safety of the house and those left in it, and against accidents and sickness incidental to the journey; they have no reference to the actual fighting.¹ All the men of the war-party then proceed in their war-boats to the spot where the war-omens have been observed, and camp round about it in roughly built huts. Here they will remain at least two days, establishing their connection with the favourable omen-birds. From this encampment they may not return to the house, and, if they are expecting a party of allies, they may await them here. By this time the war-fever is raging among them, and rumours of the preparations of the enemy are circulating. Spies or scouts may be sent out to seek information about the enemy; but usually such information is sought from the liver of a pig with the customary ceremony. A sharp ridge on the liver dividing their own region from that of the enemy is unfavourable, a low soft ridge is favourable.

From the moment of leaving the village the men of the war-party must observe many tabus until their return home. They may not eat the head of a fish; they must use only their home-made earthen

¹ There is no reason to suppose that the Kayan augurs have not complete faith in the significance of the omens, and in the reality of the protection afforded by the favourable omen-birds, which they speak of as upholding them. Nevertheless, there can be no doubt that the strong faith of the people in the omen-birds, and the awe inspired by them, is very favourable to the maintenance of discipline and obedience to the chiefs, and that this fact is appreciated by the chiefs. The cult of the omen-birds, which hampers the undertakings of these peoples at almost every turn, and which might seem to be wholly foolish and detrimental, thus brings two great practical advantages: namely, it inspires confidence, and it promotes discipline and a strong sense of collective unity and responsibility. It is not improbable, then, that the advantages of this seemingly senseless cult outweigh its drawbacks, which in the shape of endless delays and changes of plans are by no means small.



PLATE 97. POLE SET UP IN RIVER BY KAYANS TO MARK THE SPOT WHERE A
FAVOURABLE OMEN WAS OBSERVED.

pots; fire must be made only by friction (see Pl. 89); they must not smoke; boys may not lie down, but must sleep sitting. The people who remain at home are not expected to observe these tabus; they may go to the farms, but must keep quiet, and undertake nothing outside the ordinary routine.

If the object of the attack is a village in their own river, the expedition paddles steadily day after day until it reaches the mouth of some small stream at a distance of some miles from the enemy's village. Forcing their boats some two or three miles up this stream they make a camp. Here two solid platforms are built about twenty feet apart, and a large beam is laid from one to the other. The chiefs and principal men take their seats on the platforms, and then every man of the party in turn approaches this beam, the fighting leader, who is usually not one of the chiefs, coming first. If he is willing to go through with the business, *i.e.* to take part in the attack, he slashes a chip from the beam with his *parang* and passes under it. On the far side of the beam stands a chief holding a large frond of fern, and, as each man passes under, he gives him a bit of the leaf, while an assistant cuts a notch on a tally-stick for each volunteer. If for any reason any man is reluctant to go farther, he states his excuse, perhaps a bad dream or illness, or sore feet, and returns to the boats, amid the jeers of those who have passed the ordeal, to form one of a party to be left in charge of the camp and boats.

Next, all the left-handed men are sorted out to form a party whose special duty is to ambush the enemy, if possible, at some favourable spot. These are known as the hornets (*singat*). If any swampy ground or other obstruction intervenes between their camp and the enemy's village, a path is made through or over it to facilitate retreat to the

boats. A password is agreed upon, which serves as a means of making members of the party known to one another upon any chance meeting in the dark.

Scouts are sent out at dusk and, if their reports are favourable, the attack is made just before dawn. About half the warriors are provided with large bundles of dry shavings, and some will carry torches. When the attacking party has quietly surrounded the house or houses, the bundles of shavings are ignited, and their bearers run in and throw them under the house among the timbers on which it is supported. Then ensues a scene of wild confusion. The calm stillness of the tropical dawn is broken by the deep war-chorus of the attacking party, by the shouts and screams of the people of the house suddenly roused from sleep, by the cries and squeals of the frightened animals beneath the house, and the beating of the alarm signal on the *tawak*. If the house is ignited, the encircling assailants strive to intercept the fleeing inhabitants. These, if the flames do not drive them out before they have time to take any concerted measures, will hurl their javelins and discharge their firearms (if they have any) at their assailants; then they will descend, bringing the women and children with them, and make a desperate attempt to cut their way through and escape to the jungle or, sometimes, to their boats. Kayans conducting a successful attack of this kind will make as many prisoners as possible, and will as a rule kill only those men who make desperate resistance, though occasionally others, even women and children, may be wantonly killed in the excitement of the moment. It is not unusual in the case of an able-bodied man who has surrendered, but shown signs of attempting to escape or of renewing his resistance, to deal him a heavy blow on the knee-cap, and so render him



PLATE 98. SCOUTS WATCHING A BOAT IN TROUBLE AT THE MOUTH OF THE AKAR RIVER,
BARAM DISTRICT.

lame for some time. It usually happens that the greater part of the fugitives escape into the jungle ; and they are not pursued far, if the victors have secured a few heads and a few prisoners. The head is hacked off at once from the body of any one of the foe who falls in the fight ; the trunk is left lying where it fell. If any of the assailants are killed in the course of the fray, their heads are not taken by their friends, and their corpses are left upon the field covered with boughs, or at most, in the case of chiefs, are dragged into the jungle and covered up with boughs and twigs, in order to prevent their heads being taken by the enemy. If any of the enemy remain so badly wounded that they are not likely to recover, their heads are taken ; and if no other heads have been secured, the head of one of the more seriously wounded captives is taken, or of one who is deformed or incapacitated in any way. If a captive dies of his wounds his head is taken ; but it is a rare exception for Kayans to kill any of their captives after the short excitement of the battle is over. The attacking party, even though it has gained a decisive victory, usually returns with all speed, but in good order, to its boats, carrying with it through the jungle all the loot that is not too cumbersome for rapid portage, especially old beads, gongs, and brass-ware ; for they are always in danger of being cut off by a party of their enemies, rallied and reinforced by parties from neighbouring friendly villages. Still more are they liable to be pursued and cut off, if the attack on the village has failed through the defenders having been warned ; for an attack upon a strong house or village has little chance of success if the defenders are prepared for and expecting it. The pursuit of the retreating party may be kept up throughout one or two days, and, if the pursuers come up with them, a brisk and

bloody battle is the natural outcome; and it is under these circumstances that the most severe fighting takes place. But here again it is seldom that any large proportion of either party is slain; for the dense jungle everywhere offers abundant opportunities of concealment to those who condescend to seek its shelter, and there are few, even among the Kayans and Kenyahs, who will fight to the bitter end, if the alternative of flight is open to them.

A successful war-party returning home makes no secret of its success. The boats are decorated with palm leaves (*daun isang*), and a triumphal chorus is raised from time to time, especially on passing villages. As the villagers come out to gaze on them, those who have taken heads stand up in the boats. The heads, slightly roasted, are wrapped up in palm leaves and placed in baskets in the stern of the boat. If the return home involves a journey of several days, the victors will, if possible, pass the nights in the houses of friendly villages, where they are made much of, especially those who have taken heads; and on these occasions the glamour of victory is apt to turn the heads of some of the women and to break down the reserve that modesty normally imposes upon them.

On approaching their own village, whither the rumour of their success usually precedes them, the war-party is received with loud acclamations, the people coming down to the riverside to receive them. Before they ascend to the house, the heads have to be safely lodged in a small hut specially built for their reception; and the young boys are brought down to go through their first initiation in the arts of war. Each child is made to hold a sword and, with the assistance of some aged warrior, to strike a blow at one of the newly captured heads. The older boys, some nine or ten years



PLATE 99. IBAN WAR-PARTY IN THE JUNGLE.

of age, who are ripe for their second participation in mock warfare, also strike at a head in a similar way, but engage also in mimic battles with one another, using wooden swords and spears, and, curiously enough, small roughly made bows and arrows.¹ It is customary for the victorious warriors to spend the first night after their return encamped before the house. A strip of green *daun isang* is tied about the left wrist of each man who has taken part in the expedition, and also of each of the young boys. Those who have taken heads adorn also their war-caps with the same leaf and with feathered sticks. On the following day a tall post of bamboo (*balawing*) is erected near the figure of the war-god. It is covered with frayed palm leaves (*daun isang*), and from its tip a single head, also wrapped in leaves, is suspended by a long cord (Pl. 66). Before the altar-post of the war-god several shorter thicker posts are erected, and to each of these two or three small pieces of human flesh, brought home from the corpses of the slain enemies for this purpose, are fastened with skewers. These pieces of flesh seem to be thank-offerings to the hawks to whom the success is largely attributed. These bits of flesh are dried over a fire at the first opportunity on the return journey, in order to preserve them.²

¹ So far as we know this is the only way in which the bow and arrow is used in Borneo, although the principle of the bow is frequently applied in making traps. It is perhaps worthy of remark that the dense character of the jungle is probably more favourable to use of the blow-pipe than to that of the bow and arrow.

² It is probable that the observation of this practice by Europeans has given rise to the frequently published statements that the tribes of the interior are cannibals. We affirm with some confidence that none of the peoples of Borneo ever consume human flesh as food. It is true that Kayans, Kenyahs, and Klemantans will occasionally consume on the spot a tiny piece of the flesh of a slain enemy for the purpose of curing disorders, especially chronic cough and dysentery; and that Ibans, men or women, during the mad rejoicings over captured heads will occasionally bite a head, or even bite a piece of flesh from it. A third practice involving the consumption of human flesh was formerly observed among the Jingkangs (Klemantans of Dutch Borneo); when a son was seriously ill and the efforts of the medicine-men

As soon as the news of the taking of heads reaches the house, the people go out of mourning, *i.e.* they shave the parts of the scalp surrounding the crown and pull out eyebrows and eyelashes (which have been allowed to grow during mourning); they put off their bark-cloth garments and resume their cotton-cloths and ornaments.

If, as is usually the case on the return of a war-party, mourning for a chief is to be terminated, one of the heads is carried down river to his tomb, followed by most of the men, while the women wail in the house. The head is first brought before the house, but not into it. An old man shoots a dart into the air in the direction of the enemy, and then, pattering out a long formula in the usual way, he slaughters a fowl and puts a part of the carcase upon a short stick thrust into the earth. The men of the party then march past, each touching the carcase with his knee, and saying as he does so, "Cast out sickness, make me strong and healthy, exalt me above my enemies, etc. etc." Beside the tomb a tall pole is set up, and the head dressed in leaves is suspended by a cord from its upper end. A number of pigs will already have been slain in preparation for the feast, and their lower jaws are hung about the tomb on poles. The deep war-chorus is shouted by the party as it travels to and from the tomb. In returning the whole party bathes in the river, and while they are in the water an old man waves over them some of the *isang* leaves with which the head has been decorated, wishing them health and long life.

A few days (not less than four) after the return of the war-party, the heads are brought into the house with much rejoicing and ceremony. Every

proved ineffective, an infant sister of the patient was killed and a small piece of the flesh given to the patient to eat. It would, we think, be grossly unfair to describe any of these peoples as cannibals on account of these practices.



PLATE 100. KAVAN HOUSE FENCED IN FOR PROTECTION AGAINST ENEMIES.

family kills a pig and roasts its flesh,¹ brings out stores of rice-spirit, and prepares cakes of rice-flour. The pigs' livers are examined, and their blood is smeared upon the altar-post of the war-god with a sort of brush (*pla*) made by fraying the end of a stick in a more than usually elaborate manner. Each head, adorned with a large bunch of *daun isang*, is carried by an elderly man or woman into the house, followed by all the people of the house—men, women, and children—in long procession. The procession marches up and down the whole length of the gallery many times, the people shouting, singing, stamping, and pounding on the floor with *padi* pestles, or playing the *keluri*. This is followed by a general feast and drinking bout, each family preparing its feast in its own chamber, and entertaining friends and neighbours who come to take part in the general rejoicing. In the course of the feasting the women usually take temporary possession of the heads, and perform with them a wild, uncouth dance, waving the heads to and fro, and chanting in imitation of the men's war-song (Pl. 102). The procession may be resumed at intervals until the heads are finally suspended beside the old ones over the principal hearth of the gallery. The heads have usually been prepared by removal of the brain through the great foramen, by drying over a fire, and by lashing on the lower jaw with strips of rattan. The suspension of the head is effected by piercing a round hole in the crown, and passing through it from below, by way of the great foramen, a rattan knotted at the end. The free end of the rattan is passed through and tied in a hole in the lower edge of a long beam suspended parallel to the length of the gallery from the beams of the roof (Pl. 68). The Kenyahs suspend the heads in the same way as the Kayans, but most of the

¹ At one such feast eighty-five pigs and fifty-six fowls were slaughtered.

Klemantans and Ibans use in place of the long beam a strong basket-work in the shape of a cone, the apex being attached to the roof beams, and the heads tied in two or three tiers in the wall of the cone. In either case the heads hang some five or six feet above the floor, where they are out of reach of the dogs.

DEFENCE

Since every Bornean long-house is, or until recently was, liable at almost any time to a night attack of the kind described above, the situation of the house is chosen with an eye to defence. The site chosen is in nearly all cases on the bank of a river or stream large enough for the navigation of small boats; a high and steep river-bank is commonly preferred; and spits of land between two converging streams or peninsulas formed by sharp bends of the rivers are favoured spots.

Beside the natural situation, the prime defence of the house is its elevation some 10 to 30 feet above the level of the ground, joined with the difficulty of access to the house by means of narrow ladders easily drawn up or thrown down. This elevation of the house serves also to secure its contents against sudden risings of the river, and also against the invasion of evil odours from the refuse which accumulates below it; but its primary purpose is undoubtedly defence against human enemies. The interval between the low outer wall of the gallery and the lower edge of the roof is the only aperture through which missiles can be hurled into the house, and this is so narrow as to render the entry of any missiles well-nigh impossible.

When a household gets wind of an intended attack, they generally put the house into a state of defence by erecting a fence of vertical stakes around it, some three yards outside the posts on which



PLATE 101. KENYAH MODE OF ATTACK.

it is supported and some six to eight feet in height. This fence is rendered unclimbable by a frieze consisting of a multitude of slips of bamboo; each of these is sharpened at both ends, bent upon itself, and thrust between the poles of the palisade so that its sharp points (Pl. 100) are directed outwards. This dense jungle of loosely attached spikes constitutes an obstacle not easily overcome by the enemy; for the loosely fitting bamboo slips can neither be hacked away nor removed individually without considerable expenditure of time, during which the attackers are exposed to a shower of missiles from the house. A double ladder in the form of a stile is placed across the fence to permit the passage of the people of the house. If there is any definite pathway leading to the house, a log is sometimes suspended above it by a rattan passing over a branch of a tree and carried to the house. This can be allowed to fall upon the approaching enemy by severing the rattan where it is tied within the house (Klemantan).

A further precaution is to stick into the ground round about the house a large number of slips of bamboo. Each slip is some six inches in length, and its sharp, fire-hardened point projects upwards and a little outwards.

If the attacking party is likely to approach by the river, a trap may be arranged at some point where, by reason of rapids or rocks, the boats are likely to be delayed. Here a large tree overhanging the river is chosen for the trap. Stout rattans are made fast to its branches, brought over the branches of a neighbouring tree, and made fast in some spot within reach of a hidden watcher. The stem of the overhanging tree is then cut almost through, so that a few blows of a sword, severing the supporting rattans, may cause the tree to fall upon the passing boat.

When a hostile war-party enters a section of a river in which there is a number of villages of one tribe or of friendly tribes, its approach may be signalled throughout the district by the beating of the *tawak*. The same peculiar rhythm is used for this purpose by all the tribes, though it probably has been copied from the Kayans by all the others. It consists in a rapid series of strokes of increasing rate upon the boss, followed by one long deep note, and two shorter ones struck upon the body and once repeated. Whenever this war-alarm is heard in a village, it is repeated, and so passed on from village to village. The people working in the farms or in the jungle, or travelling on the river, return at once to their villages on hearing the alarm, and the houses are prepared for defence. When the news of the approach of a hostile party has been spread in this way throughout the river, it has little chance of successfully attacking a house or village, and it will, unless very numerous, content itself with attempting to cut off some of the people returning home from the farms. If the invading party is very strong, it may surround a house whose defenders have been warned of their coming, and attempt to starve them into submission. In the old days it was not uncommon for a strong party of Kayans to descend upon a settlement of the more peaceable coastwise people, and to extort from them a large payment of brass-ware as the price of their safety. If the unfortunate household submitted to this extortion, the Kayans would keep faith with them, and would ratify a treaty of peace by making the headman of the village blood-brother of their chief.

Some features of the tactics adopted by the Kayans are worthy of more detailed description. If a strong party determines to attack a house in face of an alert defence, they may attempt to storm



PLATE 102. KAYAN WOMAN DANCING, AND CARRYING IN RIGHT HAND A HEAD DRESSED IN LEAVES.

it in broad daylight by forming several compact bodies of about twenty-five men. Each body protects itself with a roof of shields held closely together, and the several parties move quickly in upon the house simultaneously from different points, and attempt to carry it by assault. The defenders of the house would attempt to repel such an attack by hurling heavy bars of iron-wood, sharpened at both ends, in such a way that the bar twirls in the air as it hurtles through it; and this is one of the few occasions on which the blow-pipe is used as a weapon of defence.

A village that has been warned of the approach of the foe may send out a party to attempt to ambush the attackers at some difficult passage of the river or the jungle. Scouts are sent out to locate the enemy. Some climb to the tops of tall trees to look for the smoke of the enemy's fires. Having located the enemy, the scouts approach so closely as to be able to count their numbers and observe all their movements; and, keeping in touch with the party, they send messages to their chief. If the defenders succeed in ambushing the attackers and in killing several of them, the latter usually withdraw discouraged, and may for the time give up the attempt. If the defending party should come upon the enemy struggling against a rapid, and especially if the enemy is in difficulties through the upsetting of some of their boats, or in any other way, they may fall upon them in the open bed of the river, and then ensues the comparatively rare event, a stand-up fight in the open. This resolves itself in the main into hand-to-hand duels between pairs of combatants, as in the heroic age. The warriors select their opponents and approach warily; they call upon one another by name, hurling taunts and swaggering boastfully in the heroic style. Each abuses the other's parents, and threatens to

use his opponent's skin as a war-coat, or his scrotum as a tobacco-pouch, to take his head and to use his hair as an ornament for a *parang*-handle ; or doubt as to the opponent's sex may be insinuated. While this exchange of compliments goes on, the warriors are manœuvring for favourable positions ; each crouches, thrusting forward his left leg, covering himself as completely as possible with his long shield, and dodging to and fro continually. The short javelins and spears are first hurled, and skilfully parried with spear and shield. When a man has expended his stock of javelins and has hurled his spear, he closes in with his *parang*. His enemy seeks to receive the blow of the *parang* on his shield in such a way that the point, entering the wood, may be held fast by it. Feinting and dodging are practised ; one man thrusts out his left leg to tempt the other to strike at it and to expose his head in doing so. If one succeeds in catching his enemy's *parang* in his shield, he throws down the shield and dashes upon his now weaponless foe, who takes to his heels, throwing away his shield and relying merely on his swiftness of foot. When one of a pair of combatants is struck down, the other springs upon him and, seizing the long hair of the scalp and yelling in triumph, severs the neck with one or two blows of the *parang*. The warrior who has drawn first blood of the slain foe claims the credit of having taken his head. Such a free fight seldom lasts more than a few minutes. Unless one party quite overwhelms the other in the first few minutes, both draw off, and the fight is seldom renewed.

Since the establishment of the European governments in Borneo, punitive expeditions have been necessary from time to time in order to put a stop to wanton raiding and killing. In this respect the Ibans and some of the Klemantans have been the chief offenders ; while the Kayans and Kenyahs



PLATE 103. IBAN WAR-BOATS ON THE REJANG RIVER.

have seldom given trouble, after once placing themselves under the established governments. In the Baram river, in which the Kayans form probably a larger proportion of the population than in any other, no such expedition against them has been necessary since they accepted the government of H.H. the Rajah of Sarawak nearly twenty-five years ago.

In organising such an expedition, the European governments, especially that of Sarawak, have usually relied in the main on the services of loyal chiefs and their followers, acting under the control of a European magistrate, and supported usually by a small body of native police or soldiers armed with rifles. There is usually no difficulty in securing the co-operation of any desired number of native allies or volunteers; for in this way alone can the people now find a legitimate outlet for their innate and traditional pugnacity. Sometimes the people to be punished desert their village, hiding themselves in the jungle; and in such cases the burning of their houses is usually deemed sufficient punishment. In cases of more serious crime, such as repeated wanton bloodshed and refusal to yield to the demands of the government, it becomes necessary to apprehend the persons primarily responsible, and, for this purpose, to pursue the fugitives. These sometimes establish themselves on a hill-top surrounded by precipices which can be scaled only by the aid of ladders, and there defy the government forces until the hill is carried by assault, or by siege, or the defenders are enticed to descend. One such hill in the basin of the Rejang (Sarawak), Bukit Batu by name, consists of a mass of porphyry some 1500 feet in height, and several miles in diameter, with very precipitous sides. This has been used again and again as a place of refuge by recalcitrant offenders, being so strong a natural

fortress that it has never been possible to carry it by assault. On the last occasion on which Bukit Batu was used in this way, two Iban chiefs established themselves on the hill and defied the government of Sarawak for a period of four years, during which the hill became a place of refuge for all evil-doers and outlaws among the Ibans of the Rejang and neighbouring districts, who built their houses on ledges of the mountain some four hundred feet above the level of the river.

The punitive expedition that we briefly describe in Chapter XXII. was but a small affair compared with some, in which as many as 10,000 or 12,000 men have mustered under the government flag. So large a number is seldom necessary or desired by the government; but when contingents from all the loyal communities of a large district eagerly offer their services, it is difficult to deny any of them permission to take part. Kenyahs and Kayans will co-operate harmoniously, and also Klemantans; but the former distrust the Sea Dayaks and will not join forces with any large number of them.

The modes of warfare of the other tribes are similar in most respects to that of the Kayans described above; but some peculiarities are worthy of note.

Kenyah warfare is very similar to Kayan, save in so far as their more impetuous temper renders their tactics more dashing. While the Kayans endeavour to make as many captives as possible, the Kenyahs attach little value to them. While Kayans never attack communities of their own tribe, such "civil war" is not unknown among the Kenyahs, whose tribal cohesion is less intimate in many respects. From these two differences it results that the Kenyah war-parties are generally smaller than those of the Kayans, more quick-



PLATE 104. IBAN SCOUTS ON THE ALERT.

moving, and more prone to attack groups of the enemy encountered on farms or on the river. Like the Ibans, the Kenyahs make peace more readily than the Kayans, who nurse their grievances and seek redress after long intervals of time.

The Ibans conduct their warfare less systematically, and with far less discipline than the Kayans and Kenyahs. An attack upon a house or village by Ibans is usually made in very large force; the party is more of the nature of a rabble than of an army; each man acts independently. They seek above all things to take heads, to which they attach an extravagant value, unlike the Kayans and Kenyahs who seek heads primarily for the service of their funeral rites; and they not infrequently attack a house and kill a large number of its inmates in a perfectly wanton manner, and for no other motive than the desire to obtain heads. This passion for heads leads them sometimes into acts of gross treachery and brutality. The Ibans being great wanderers, small parties of them, engaged perhaps in working jungle produce, will settle for some weeks in a household of Klemantans, and, after being received hospitably, and sometimes even after contracting marriages with members of the household, will seize an opportunity, when most of the men of the house are from home, to take the heads of all the men, women, and children who remain, and to flee with them to their own distant homes.

So strong is this morbid desire of the Ibans to obtain human heads, that a war-party will sometimes rob the tombs of the villages of other tribes and, after smoking the stolen heads of the corpses, will bring them home in triumph with glowing accounts of the stout resistance offered by the victims. Their attitude in this matter is well expressed by a saying current among them, namely, "Why should we eat the hard caked rice from the edge of the

pot when there's plenty of soft rice in the centre?"
The Iban women urge on the men to the taking of

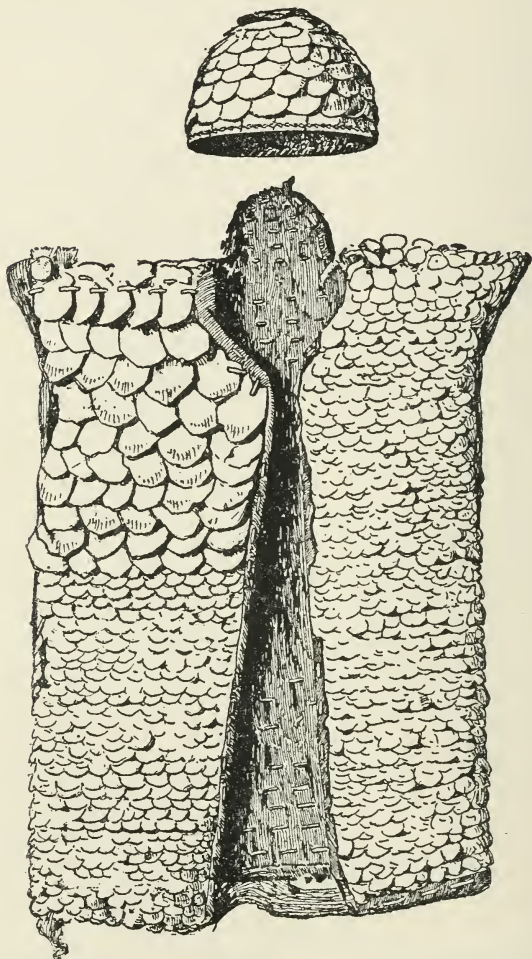


FIG. 30.—Iban war-coat and war-cap covered with fish scales ;
mail of this kind is becoming rare.

heads ; they make much of those who bring them home, and sometimes a girl will taunt her suitor by saying that he has not been brave enough to take



PLATE 105. PUNAN HEADS TAKEN BY IBANS.



a head ; and in some cases of murder by Sea Dayaks, the murderer has no doubt been egged on in this way.

Nevertheless, we repeat that there is no ground for the oft-reprinted assertion that the taking of a head is a necessary prelude to marriage.¹ Like other tribesmen Ibans do not bring home the heads of their companions who have fallen in battle ; but while men of other tribes are content to drag the corpses of their fallen friends into some obscure spot and to cover them with branches, Ibans frequently cut off the heads and bury them at a distance from the scene of battle, in order to prevent their being taken by the enemy.

The Ibans use a rather greater variety of weapons than the Kayans, in that they have spears whose blades bear barbs which prevent the withdrawal of the blade from the body of the enemy without great violence.

The Klemantan tribes are on the whole far less warlike than Kayans, Kenyahs, and Ibans. Their offensive warfare is usually on a small scale, and is undertaken primarily for revenge. Their warlike ambition is easily satisfied by the taking of a single head, or even by a mere hostile demonstration against the enemy's house. Nevertheless, like all the other tribes, except the Punans, the Klemantans need a human head to terminate a period of mourning.

We venture to append to this chapter a few speculations on the origin and history of head-hunting. From what we have said above it is clear that the Ibans are the only tribe to which one can apply the epithet head-hunters with the usual connotation of the word, namely, that head-hunting is pursued as a form of sport. But although the Ibans are the most inveterate head-hunters, it is probable that they adopted the practice some few generations

¹ See footnote, vol. i., p. 76.

ago only (perhaps a century and a half or even less) in imitation of Kayans or other tribes among whom it had been established for a longer period. The rapid growth of the practice among the Ibans was no doubt largely due to the influence of the Malays, who had been taught by Arabs and others the arts of piracy, and with whom the Ibans were associated in the piratical enterprises that gave the waters around Borneo a sinister notoriety during the eighteenth and first half of the nineteenth centuries. Until the middle of the nineteenth century, the settlements of Ibans were practically confined to the rivers of the southern part of Sarawak; and there the Malays of Bruni and of other coast settlements enlisted them as crews for their pirate ships. In these piratical expeditions the Malays assigned the heads of their victims as the booty of their Iban allies, while they kept for themselves the forms of property of greater cash value. The Malays were thus interested in encouraging in the Ibans the passion for head-hunting which, since the suppression of piracy, has found vent in the irregular warfare and treacherous acts described above. It was through their association with the Malays in these piratical expeditions that the Ibans became known to Europeans as the Sea Dayaks.

It seems not impossible that the practice of taking the heads of fallen enemies arose by extension of the custom of taking the hair for the ornamentation of the shield and sword-hilt. It seems possible that human hair was first applied to shields in order to complete the representation of a terrible human face, which, as we have seen, is commonly painted on the shield, and which is said to be valued as an aid to confusing and terrifying the foe. It is perhaps a difficulty in the way of this view that the use of human hair to ornament the shield is peculiar to the Kenyahs and some of

the Klemantans (the latter probably having imitated the former in this), and does not occur among the Kayans. The Kenyahs themselves preserve the tradition of the origin of the taking of heads; and the suggestion is further borne out by the legend of *Tokong*, which is widely known, but is probably of Kenyah origin (see Chapter XVII.), according to which the frog admonished a great Kenyah chief that he should cease to take only the hair of the fallen foe, but should take their heads also.

A second plausible view of the origin of head-taking is that it arose out of the custom of slaying slaves on the death of a chief, in order that they might accompany and serve him on his journey to the other world. We have pointed out several reasons for believing that this practice was formerly general, and that it has fallen into desuetude, but is hardly yet quite extinct. It is obvious that since the soul of the dead man is regarded as hovering in the neighbourhood of the body for some little time after its death, it would be felt that the despatch of a companion soul was not a matter of immediate urgency; and considerations of economy might well lead the mourners to prefer capturing and killing members of some hostile community to slaying one or more of their slaves, highly valued and sometimes affectionately regarded as they are. It would then be felt that the relatives of the deceased should continue to display signs of mourning until they should have discharged this last duty to their departed friend. The next step would be to supplant the practice of capturing a member of a hostile community, and bringing him home to be slain, by the simpler, less troublesome, and more merciful one of slaying the enemy on the field of combat and bringing home only his head. In this way we may, with some plausibility, seek to account for the origin of the practice of taking

heads, and of the tradition that the taking of a head is necessary for the termination of a period of mourning. This second suggestion is strongly supported by the fact that Kayans, Kenyahs, and Klemantans occasionally, on returning home from a successful raid, will carry one of the newly taken heads to the tomb of the chief for whom they are mourning, and will hang it upon, or deposit it within, the tomb beside the coffin. The head used for this purpose is thickly covered with leaves (*daun isang*) tied tightly about it. It is possible that this thick covering was first applied in order to disguise the fact that the head is that of an enemy, and that the sacrifice of the life of a domestic slave, originally demanded by custom and piety, has been avoided by this process of substitution.

We have suggested above two different origins of the custom of taking the heads of enemies. These two possibilities are by no means mutually exclusive, and we are inclined to think that both substitutive processes may have co-operated in bringing about this custom.

It seems probable that the taking of heads was introduced to Borneo by Kayans when they entered the island, probably some few centuries ago, and that the Klemantans and other tribes, like the Ibans, have adopted the custom from their example.

We will conclude this chapter by questioning yet another of the stories, the frequent repetition of which has given the tribes of the interior the reputation of being savages of the worst type, namely, the story that it is the practice of Kayans to torture the captives taken in battle. This evil repute is, we have no doubt, largely due to the fact that very few Europeans have acquired any intimate first-hand acquaintance with the Kayans or Kenyahs; and that too often the stories told by Sea Dayaks have been uncritically accepted; for

the Sea Dayaks have been bitterly hostile to the Kayans ever since the tribes have been in contact ; and the Iban is a great romancer. It will be found that many of the alleged instances of torture by Kayans have been described by Sea Dayaks ; and we think there is good reason for hesitating to accept any of these. But we would point out that, if some of these accounts have been founded on fact, the Sea Dayak victims, or their companions, have in all probability provoked the Kayans to severe reprisals by their atrocious behaviour, and may be fairly said to have deserved their fate.

It is true that Kayans have been guilty of leaving a slave or captive bound upon a tomb until he has died from exposure to the sun. We know also of one instance in which a Murut slave, having treacherously murdered the only son of a great Kayan chief in the Baram, at the instigation of Bruni Malays, was killed by a multitude of small stabs by the infuriated Kayan women, on being brought captive to the house.

But such occurrences as these by no means justify the statement that it is the practice of Kayans to torture their captives ; and we have heard of no well-attested instances that give any colour to it. As we have said above, Kayans commonly treat their captives so kindly that they soon become content to remain in the households of their captors. The Kayan feeling about torture is well illustrated by the fact that the Kayan village responsible for the exposure of the slave mentioned above was looked at askance by other Kayans. The spot was regarded with horror by them, and they regard as a consequence of this act the failure of the line of the chief of that village to perpetuate itself.

We have to admit that some of the Klemantans cannot be so whole-heartedly defended against the charge of torturing their captives. But we believe

that it is not regularly practised by any Klemantan tribe, but rather only on occasions which in some way evoke an exceptional degree of emotional excitement. Thus, in one instance known to us, the Orang Bukit of the Bruni territory, having lost the most highly respected of their chiefs, purchased a slave in Bruni to serve as the funereal victim, and, having shut him in a wicker cage, killed him with a multitude of stabs, some eight hundred persons taking part in the act. But even this act was, it must be observed, of the nature of a pious and religious rite rather than an act of wanton cruelty.

We cannot leave this subject without this last word. If we are quite frank, we shall have to admit that, even though the worst accounts of Kayan cruelty were substantially true, such behaviour would not in the least justify the belief that the Kayans are innately more cruel than ourselves. If we are tempted to take this view, let us remember that, after our own race had professed Christianity for many generations, the authority of Church and State publicly decreed and systematically inflicted in cold blood tortures far more hideous and atrocious than any the Kayan imagination has ever conceived.

CHAPTER XI

HANDICRAFTS

IN any account of the arts and crafts of the Kayans, the working of iron claims the first place by reason of its high importance to them and of the skill and knowledge displayed by them in the difficult operations by which they produce their fine swords. The origin of their knowledge of iron and of the processes of smelting and forging remains hidden in mystery ; but there can be little doubt that the Kayans were familiar with these processes before they entered Borneo, and it is probable that the Kayans were the first ironworkers in Borneo, and that from them the other tribes have learnt the craft with various measures of success.¹ However this may be, the Kayans remain the most skilful ironworkers of the country, rivalled only in the production of serviceable sword-blades by the Kenyahs.

At the present day the Kayans, like all the other peoples, obtain their iron in the form of bars of iron and steel imported from Europe and distributed by the Chinese and Malay traders. But thirty years ago nearly all the iron worked by the tribes

¹ The Malays of Bruni and the other coast settlements have, of course, used iron, and perhaps to some small extent forged it, since the time when they adopted Arab civilisation ; but they have not at any time practised the smelting of iron ore. Between three and five hundred years ago the principal currency of the people of Bruni consisted of small oblong flattened pieces of iron known as *sapanggal* (about $2 \times 1 \times \frac{1}{4}$ inches) bearing the Sultan's stamp. This iron was probably obtained from Chinese and other foreign traders, and was worked up into implements.

of the interior was from ore found in the river beds, and possibly from masses of meteoric iron ; and even at the present day the native ore is still smelted in the far interior, and swords made from it by the Kenyahs are still valued above all others.

Smelting and forging demand a specialised skill which is attained by relatively few. But in each Kayan village are to be found two or three or more skilled smiths, who work up for a small fee the metal brought them by their friends, the finishing touches being generally given by the owner of the implement according to his own fancy.

The smelting is performed by mixing the ore with charcoal in a clay crucible, which is embedded in a pile of charcoal. The charcoal being ignited is blown to a white heat by the aid of four piston-bellows. Each of the bellows consists of a wooden cylinder (generally made from the stem of a wild sago palm) about four feet in length and six inches in diameter, fixed vertically in a framework carrying a platform, on which two men sit to work the pistons (see Pl. 107). The lower end of each cylinder is embedded in clay, and into it near its lower end is inserted a tube of bamboo, which, lying horizontally on the ground, converges upon and joins with a similar tube of a second cylinder. The common tube formed by this junction in turn converges with the tube common to the other pair of cylinders, and with it opens by a clay junction into a final common tube of clay, which leads to the base of the fire. The piston consists of a stout stick bearing at its lower end a bunch of feathers large enough to fill the bore of the cylinder. When the piston is thrust downwards, it drives the air before it to the furnace ; as it is drawn upwards, the feathers collapsing allow the entrance of air from above. The upper extremity of each of the piston-rods is attached by a cord to



PLATE 107. KALABIT SMITHS USING STONE HAMMERS.

The bellows are simpler than those described in text.

one end of a stout pliable stick, which is firmly fixed at its other end in a horizontal position, the cord being of such a length that the piston-head is supported by it near the upper end of the cylinder. Two men squat upon the platform and each works one pair of the cylinders, grasping a piston-rod in each hand, thrusting them down alternately, and allowing the elastic reaction of the supporting rods above to draw them up again. The crucible, having been brought to white heat in the furnace, is allowed to cool, when a mass of metallic iron or steel is found within it.

The forging of implements from the metal obtained is effected by the aid of a charcoal furnace to which a blast is supplied by the bellows described above, or sometimes by one con-

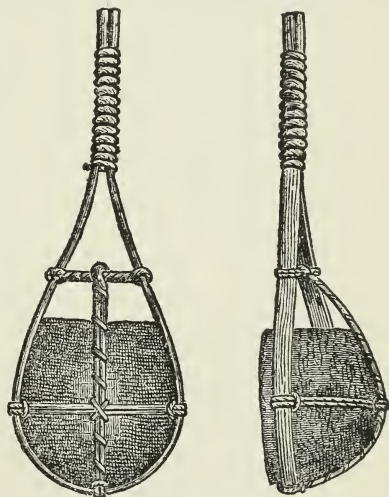


FIG. 31.—Stone Hammers.

sisting of two cylinders only. Stone anvils and hammers were formerly used, and may still be seen in use in the far interior (Fig. 31); but the Kayans make iron hammers and an anvil consisting of a short thick bar of iron, the lower end of which is fixed vertically in a large block of wood.

The peculiarly shaped and finely tempered sword-blade, *malat*, is the highest product of the Kayan blacksmith. The smith begins his operations on a bar of steel some eight inches in length. One end is either grasped with pincers, or thrust firmly into a block of wood that serves for a handle. The

other end is heated in the furnace and gradually beaten out until the peculiar shape of the blade is achieved, with the characteristic hollow on the one side and convexity on the other. If the blade is to be a simple and unadorned weapon, there follow only the tempering, grinding, and polishing. But many blades are ornamented with curled ridges projecting from the back edge. These are cut and turned up with an iron chisel while the metal is hot and before tempering.

Two methods of tempering are in use. One is to heat the blade in the fire and to plunge it at a dull heat into water. The other is to lay the cold blade upon a flat bar of red-hot iron. This has the advantage that the degree of the effect upon the blade can be judged from the change of its colour as it absorbs the heat. The Kayan smiths are expert in judging by the colours of the surface the degree and kind of temper produced. They aim at producing a very tough steel, for the *malat* has to serve not only in battle, but also for hacking a path through the jungle, and for many other purposes.

Many sword-blades are elaborately decorated with scroll designs along the posterior border and inlaid with brass. The inlaid brass commonly takes the form of a number of small discs let into the metal near the thick edge; small holes are punched through the hot metal, and brass wire is passed through each hole, cut off flush with the surface and hammered flat. The designs are chased on the cold metal with a chisel and hammer supplemented by a file. The polishing and sharpening are done in several stages: the first stage usually by rubbing the blade upon a block of sandstone; the second stage by the use of a hone of finer grain; and the highest polish is attained by rubbing with a leaf whose surface is hard and probably contains silicious particles. At the present time imported files are much used.



PLATE 108. IBAN MAKING FIRE-PISTONS.

Other implements fashioned by the smiths are the small knives, spear-heads, hoes, small adzes, rods for boring the sumpitan, the anvil, and the various hammers, and chisels, and rough files used by the smiths.

BRASS-WORK

Although brass-ware is so highly valued by all the peoples of the interior, the only brazen articles made by them (with one exception presently to be noticed) are the heavy ear-rings of the women. The common form is a simple ring of solid metal interrupted at one point by a gap about an eighth of an inch wide, through which is pulled the thin band of skin formed by stretching the lobule of the ear. Other rings form about one and a half turns of a corkscrew spiral. These rings are cast in moulds of clay, or in some cases in moulds hollowed in two blocks of stone which are nicely opposed.

The Malohs, a Klemantan sub-tribe in the upper basin of the Kapuas river, are well known as brass-workers; their wares are bartered throughout the country, and a few Maloh brass-workers may be found temporarily settled in many of the larger villages of all tribes. They make the brass corsets of the Iban women, tweezers for pulling out the hair of the face, brass ear-rings, and a variety of small articles, and they make use of the larger brass-ware of Malay and Chinese origin as the source of their material.

FIRE PISTON

This very ingenious instrument for the making of fire is cast in metal by the Ibans. (See Fig. 36 and Pl. 108.) It consists of a hollow brass or leaden cylinder about five inches in length and one inch in diameter, the bore being about one-quarter of an inch in diameter and closed at one end. A wooden



FIG. 35.—Old
Brass Ear-ring.



FIG. 32.
Fish Spear.



FIG. 33.
Brass Tweezers.

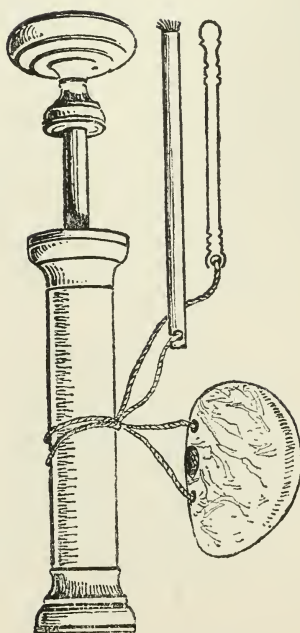


FIG. 36.—Fire Piston.



FIG. 34.



PLATE 109. IBAN HOUSE IN COURSE OF CONSTRUCTION.

piston, which closely fits the bore, bears a rounded knob; it is driven down the cylinder by a sharp blow of the palm upon the knob and is quickly withdrawn. The heat generated by the compression of the air ignites a bit of tinder (made by scraping the fibrous surface of the leaf stem of the Arenga palm) at the bottom of the cylinder. The cylinder is cast by pouring the molten metal into a section of bamboo, while a polished iron rod is held vertically in the centre to form the bore. When the cylinder is cold the iron rod is extracted, and the outer surface is trimmed and shaped with knife or file.

BOAT-BUILDING

The Kayans make much use of boats, as described in Chapter VIII., and are skilful boat-makers. The forest offers them an abundant variety of timbers suitable for the different types of boat used by them.

The most ambitious efforts of this kind are devoted to the construction of the great war-boats, fine specimens of which are as much as 100 feet in length, or even, in exceptional instances, nearly 150 feet. The foundation of every boat is a single piece of timber shaped and hollowed by fire and adze. Several kinds of timber are used, the best being the kinds known as *aroh* (*Shorea*) and *ngelai* (*Afzelia palambanica*). Sometimes a suitable stem is found floating down river and brought to the bank before the house. But such good fortune is exceptional, and commonly a tree is selected in the forest as near as possible to the river bank. The tree is felled in the way described in Chapter VI. (Pl. 55), its branches are hewed away, and the stem is cut to the required length and roughly hewn into shape. About one-fourth of the circumference of the stem is cut away along the whole

length, and from this side the stem is hollowed. When, by chopping out the centre, the thickness of this shell has been reduced to a thickness of some five inches, it is brought down to the river. This is effected by laying through the jungle a track consisting of smooth poles laid across the direction of progress; the hollowed stem is pulled endwise over this track with the aid of rattans, perhaps a hundred or more men combining their strength. If the stem proves too heavy to be moved at any part of the journey by their direct pull and push, a rough windlass is constructed by fixing the stem of a small tree across two standing trees and winding the rattans upon this, the trimmed branches of the tree serving as the arms of the windlass. The Kayans are skilled in this kind of transport of heavy timber; for the building of their houses and of the larger tombs involves similar difficulties, though the timbers required for these purposes are not so huge as those used for the war-boats. Arrived at the river bank, the hollowed stem is launched upon the water and towed down stream to the village at a time when the water is high. It is made fast to the bank before the village at as high a point as the water will allow, so that when the river subsides it is left high and dry. A leaf shelter is then built over it to protect it and the workers from the sun. The shell is then further hollowed, partly by firing it with shavings inside and out, and by scraping away the charred surfaces. The inside is fired first; then the hollow is filled with water, and the outside is fired.

When in this way the shell has been reduced to a thickness of a few inches, it is opened out, while hot from firing and still filled with water, by wedging stout sticks some six to seven feet in length between the lateral walls, so that the hollow stem (which hitherto has had the form of a hollow cylinder



PLATE 110. KANOWIT (KLEMANTAN) BASKETS AND BEADWORK.

some three to four feet in diameter, lacking along its whole length a strip about the fourth of its circumference) becomes a shallow trough some six to seven feet wide in the middle of its length. During the hollowing, small buttresses are left along each side at intervals of about two feet to form supports for benches. After the opening, the shell is left lying covered with branches for some days, while the wood sets in its new form. The outer surface is then shaved approximately to the required degree, all irregularities are removed, and holes about half-an-inch in diameter are bored through all parts of the shell at intervals of some twenty inches. Wooden pegs are then hammered into these holes, each peg bearing two marks or grooves at an interval equal to the thickness of the shell desired at each part; the peg is driven in from the outside until the outer groove is flush with the outer surface of the shell, and the projecting part is cut away; the inner surface is then further chipped and scraped in each area until it becomes level with the inner groove on the peg. In this way the workers are enabled to give to each part its appropriate thickness. The outer surface is then finally smoothed to form about one-third of a cylinder, and the foundation is complete. It only remains to lash the cross-benches to their supports, to raise the sides by lashing on a gunwale, and to fit in wedge-shaped blocks at bow and stern. The gunwale consists of a tough plank some ten inches wide overlapping the outer edge of the shell, and lashed firmly to it by rattan strips piercing both shell and planks at intervals of about six inches. In some cases the gunwale is further raised in its middle part by lashing on a second smaller plank to the upper edge of the first. The block fitted in at the prow presents to the water a flat surface inclined at a low angle; and a

similar block completes the shell at the stern. The prow is often ornamented with the head of a crocodile or the conventional dog's head carved in hard wood and painted in red and black.

The whole operation, like every other important undertaking, is preceded by the finding of omens, and it is liable to be postponed by the observation of ill omens, by bad dreams, or by any misfortune such as a death in the house. In each house are certain men who are specially skilled in boat-making, and by them the work is directed and all the finer part of the work executed. In the case of a war-boat which is to be the property of the household, these special workers are paid a fee out of the store of valuables accumulated under the care of the chief by way of fines and confiscations.

The smaller boats, ranging from a small canoe suitable for one or two paddlers only, to one capable of carrying a score or more, are generally private property. These, like the war-boats, are made from a single stem. The larger ones are made in just the same way as the war-boats. In the smaller ones the bow is shaped from the solid block and is not opened out, as is the rest of the boat. The craftsman who makes a boat for another is helped by his customer, and is paid by him a fee in brass-ware or dollars, the usual fee being a *tawak* varying in size according to the size of the boat.

If Kayans find themselves for any reason in immediate need of a boat when none is at hand, they sometimes fashion one very rapidly by stripping the bark from a big tree. The two ends of the sheet of bark are folded and lashed with rattan to form bow and stern; the middle part is wedged open with cross-pieces which serve as benches, and the shell is strengthened with transverse ribs and longitudinal strips. A serviceable boat capable of carrying several men and their baggage may be completed in the



PLATE III. KAYAN KNIFE AND AXES.

course of two hours. Such a makeshift boat is more commonly made by Sea Dayaks.

Of all the interior tribes the Kayans are probably the best boat-makers ; but most of them make their own boats in the same way as the Kayans. There are, however, a few of the Klemantan sub-tribes who never attempt to make anything more than a very rough small canoe of soft wood, and who buy from others what boats they need. This is a curious instance of the persistent lack of the tradition of a specialised craft among communities that might have been expected to acquire it easily from their neighbours.

For ordinary work a rough paddle made from iron-wood is generally used ; the blade and shaft are of one piece ; the flat blade, nearly two feet in length, is widest about six inches below its junction with the shaft, and from this point tapers slightly to its square extremity ; the shaft is about three feet in length and carries, morticed to its upper end, a cross-piece for the grip of the upper hand.

A few paddles, especially those made for women, are very finely shaped and finished, and have their shafts ornamented with carving of a variety of designs, generally one band of carving immediately above the blade and a second below the cross-piece. Some of the Klemantans excel the Kayans in this work, producing very beautiful women's paddles, sometimes with designs of inlaid lead (Pl. 92).

HOUSE-BUILDING

A Kayan community seldom continues to inhabit the same spot for more than about a dozen years ; though in exceptional instances houses are continuously inhabited for thirty or even forty years. House-building is thus a craft of great importance, and the Kayans are seldom content to build their

houses in the comparatively flimsy style adopted by the Ibans and some of the Klemantans, and even occasionally by Kenyahs. The main features of the structure of a Kayan long-house have been described in Chapter IV. Here it remains only to describe some of the more peculiar and important processes of construction.

The great piles that support the house may be floated down river from the old house to be used in the construction of the new;¹ they are not dug from the ground, but are felled by cutting close to the surface of the ground. The great planks of the floor, the main cross-beams, and the wooden shingles of the roof, are also commonly carried from the old house to the new. If a house has been partially destroyed by fire, no part of the materials of the old house is used in the construction of the new; for it is felt that in some indefinable way the use of the old material would render the new house very liable to the same fate, as though the new house would be infected by the materials with the ill-luck attaching to the old house.² In such cases, or upon migration to a different river, the whole of the timbers for the house have to be procured from the jungle, and shaped, and erected; and the process of construction is extremely laborious. But once the timber has been brought together upon the chosen site, the building goes on rapidly, and the whole of a house some hundreds of yards in length may be substantially completed within a fortnight. The main supports of the structure are four rows of massive

¹ The convenience of thus floating the timber is one reason for the general tendency shown by Kayans to migrate gradually down river.

² This is an example of a very common type of practice which implies the belief that the attributes of any object will attach themselves to any whole into which the object may be incorporated as a part; thus a hunter who has shot dead a pig or deer with a single bullet will cut out the bullet to melt it down with other lead, and will make a fresh batch of bullets or slugs from the mixture, believing that the lucky bullet will leaven the whole lump, or impart to all of it something of that to which its success was due. Compare also the similar practice in regard to the seed grain (vol. i., p. 112).



PLATE 112. KENYAH HEWING OUT SHAFT OF BLOW-PIPE BEFORE BORING IT.

columns of iron-wood. Holes about four feet in depth are dug for the reception of the butt ends of these. They are disposed in the manner indicated in the diagrams (Figs. 37, 38, 39), so that a single row supports the front of the house, another the back, and a double row the middle.¹ The intervals between the columns of each row are about twenty feet, or rather more. Each pile is erected by raising the one end until the other slips into the hole. Rattans

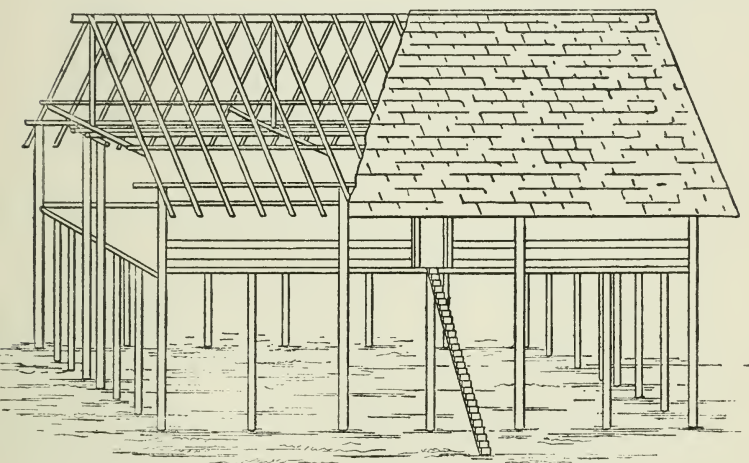


FIG. 37.

are tied round it a little above its middle and passed over a tall tripod of stout poles. A number of men haul on these while others shove up the top end with their shoulders. The pile is thus suspended with its butt end resting so lightly on the ground that it can easily be guided into the hole prepared for its reception. Smaller accessory piles, to serve as additional supports, are put under the main cross beams of the floor when these have

¹ The pair of centre columns and the main columns supporting the roof back and front should have been drawn thicker than the accessory columns supporting the floor, and the width of the roof-plates is much greater than is indicated in the diagrams.

been laid. The columns of the double row in the middle line are about six feet taller than those of the front and back rows. For the support of the floor a massive squared transverse tie is morticed through each set of four columns at a height of some fifteen to twenty feet from the ground, and secured by a pin through each extremity. A squared roof-plate, still more massive than the floor ties, is then laid upon the crowns of the columns of the front

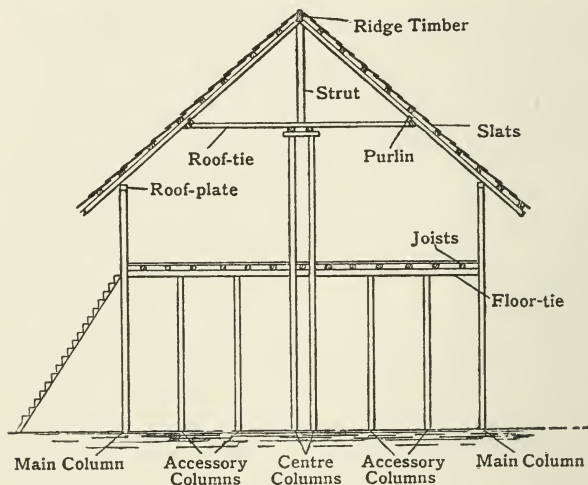


FIG. 38.

row, along its whole length, and a second one upon the back row. This is dowelled upon the columns (*i.e.* the top of the column is cut to form a pin which is let into the longitudinal beam); and the beams which make up the roof-plate are spliced, generally in such a way that the top of a column serves as the pin of the splice. Each of these heavy beams is generally lifted into its place by tiers of men standing on poles lashed at different heights across the columns, their efforts being seconded by others pulling on rattans which run from the beam over the



PLATE 113. KENYAHS DRILLING A BLOW-PIPE.

topmost cross-pole. The framework of the roof is then completed by laying stout roof-ties across the crowns of the double row of columns of the middle line, and lashing their extremities to stout purlins (longitudinal beams for the support of the rafters in the middle of their length), and by laying the ridge-timber upon a line of perpendicular struts. The ridge-timber and purlins, though less heavy than the roof-plates, consist also of stout squared timbers, spliced to form beams continuous throughout the whole length of the house. The rafters are laid at an angle of about forty degrees and at intervals of eighteen inches; they are lashed to the ridge-timber and to the purlins, and lipped on to the roof-plates, beyond which they project about four feet to form an eave. Strong flat strips or laths are laid along the rafters parallel to the length of the house at intervals of about sixteen inches. On these are laid the shingles or slats of iron-wood in regular rows, in just the way in which roof tiles are laid in this country. Each slat is a slab about $1 \times 30 \times 12$ inches, and is lashed by a strip of rattan, which pierces its upper end, to one of the laths. The floor is completed by laying longitudinal joists of stout poles across the main floor-ties; the poles are notched to grip the ties. Upon these joists, transversely to them, are laid a number of flat strips which immediately support the floor planks; these are kept in place by their own weight.

In a well-built house these planks are between thirty and forty feet in length, or even more, two to three feet in breadth, and three to four inches thick. They are made from tough strong timber, but usually not from the iron-wood trees. They are moved from house to house, and some of those in use are probably hundreds of years old. A single tree is generally made to yield two such planks. After being felled it is split into halves longitudinally in

the following way. A deep groove is cut along one side, and wedges of hard tough wood are driven in with rough heavy mallets. Deep transverse grooves are then cut in the rounded surface of each half at intervals of three or four feet ; and the intervening masses of wood are split off. In this way it is whittled down until it is only some six inches thick. The plank is then trimmed down to the desired thickness by blows of the adze struck across the direction of the grain. The two ends are generally left untrimmed until the plank has been transported to the site of the house and has lain there for some time. This prevents its splitting during the journey to the house and the period of seasoning.

When the floor has been laid, it only remains to make the main partition wall which separates the gallery from the rooms along the whole length of the house, and the walls between the several rooms. These walls are made only some eight or nine feet in height. The wall of the gallery is made of vertical planks lashed to horizontal rails whose extremities are let into the columns of the anterior set of the double median row. The wall thus divides the house into a narrower front part, the gallery, and a broader back part ; the latter is subdivided by the transverse walls into the series of rooms each of which accommodates one family.

The work of construction is carried on by all the men of the house ; the women and children lend what aid they can in the way of fetching and carrying, and in preparing rattans. The ownership of each section is arranged beforehand ; the section of the chief being generally in the middle, and those of his near relatives on either side of it. Each man pays special attention to the construction of his own section, and carries out the lighter work of that part, such as laying the shingles, with the help of



PLATE 114. KENYAH LASHING SPEAR-BLADE TO BLOW-PIPE.

his own household. If any widow is the head of a household, her section is constructed by her male neighbours or relatives without payment.

Before beginning the building of a new house favourable omens must be obtained; and the Kayans would be much troubled if bad omens were observed during the building, especially during the first few days. At this time, therefore, children are told off to beat upon gongs hung about

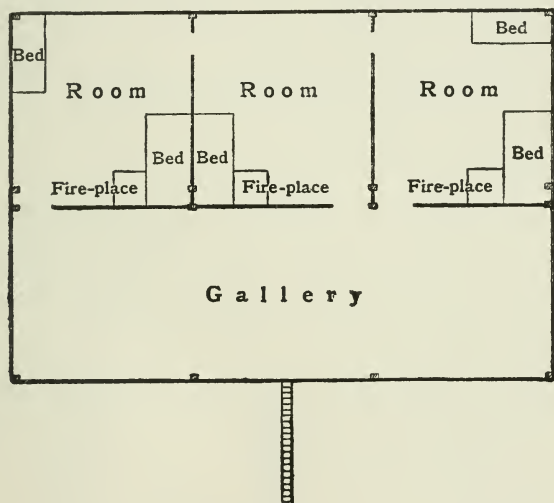


FIG. 39.

the new site, and so, by scaring away the birds and obscuring the sound of their cries, to prevent the appearance of bad omens from their side. Bad omens combined with ill-luck, such as death, bad dreams, or an attack by enemies during building (even if this were successfully repelled), would lead to the desertion of a partially built house and the choice of another site.

All the interior peoples construct their houses on principles similar to those described above, but with considerable diversity in detail. The greatest

diversity of plan is exhibited by the houses of Ibans. An Iban community seldom remains in the same house more than three or four years; it is, no doubt, partly on this account that their houses are built in a less solid style than those of most other tribes. The timbers used are lighter; the house is not raised so high above the ground, and the floor is usually made of split bamboo in place of the heavy planks used by Kayans and others. The plan of construction is less regular. The numerous slight supporting piles pass through the floor of the gallery in all sorts of odd positions; the only part that is kept clear of them being a narrow gangway that runs from end to end of the house; it adjoins the private chambers, and is about four feet in width; it is called *tempuan*.

Some of the Klemantans make houses very inferior to those of the Kayans in respect to size, solidity, and regularity of construction; lashed bamboos largely replace the strongly morticed timber-work of the better houses; but the worst houses of all are made by those Punans who have recently adopted the agriculture and settled habits of the other peoples.

OTHER KINDS OF WOOD-WORKING

The building of houses and the shaping of boats are by far the most important kinds of wood-working; but there are many small articles of wood in the making of which much skill and ingenuity are displayed. Among these the shields and parang-sheaths deserve special mention. The former have been described in Chapter X.

The sword-sheath is made from two slips of hard wood, cut to fit together exactly, leaving a space accurately shaped for the lodgment of the sword-blade. The two slips are neatly lashed



PLATE 115. KENYAH MAKING DART FOR BLOW-PIPE.

together with rattan, and in many cases are elaborately carved with varieties of a peculiar conventional design in relief (see vol. i., p. 240).

Dishes of iron-wood, now almost superseded by European earthenware, were formerly in general use (Figs. 6 and 7). Their shapes are very good; the dish is generally provided with one or two "ears" or flanges for the grip of the hands, and these are cunningly decorated with carved designs or inlaid pieces of shell or pottery. Some have a spout opposite the single handle. The hollowing and

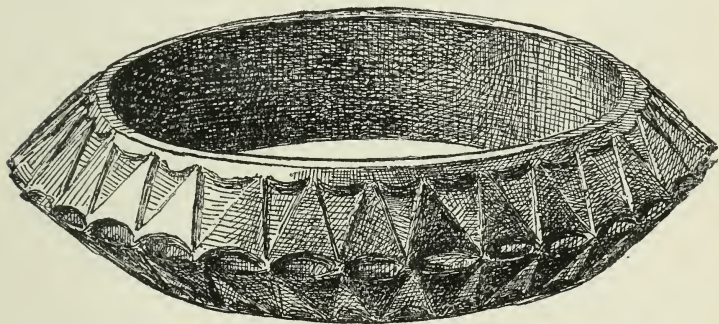


FIG. 40.—Sea-Dayak Armlet (*simpai*).

general shaping of such dishes is done with a small adze, and they are finished with the knife.

BASKET-WORK, ETC.

The weaving of baskets, mats, and caps is one of the most important handicrafts of the Kayans. It is chiefly practised by the women, though the men help in collecting and preparing the materials. The material chiefly used is strips of rattan. A rattan about one-third of an inch in diameter is split into five strips, and the inner surface of each strip is smoothed with a knife; but the stems of several other jungle-plants are also used.

The most important of the baskets (Pl. 43), are the following: The large one used for carrying *padi* from the farms to the house; the small basket hung on the back by a pair of shoulder-straps, and always carried by the men on going far from home; the fish-baskets; large baskets

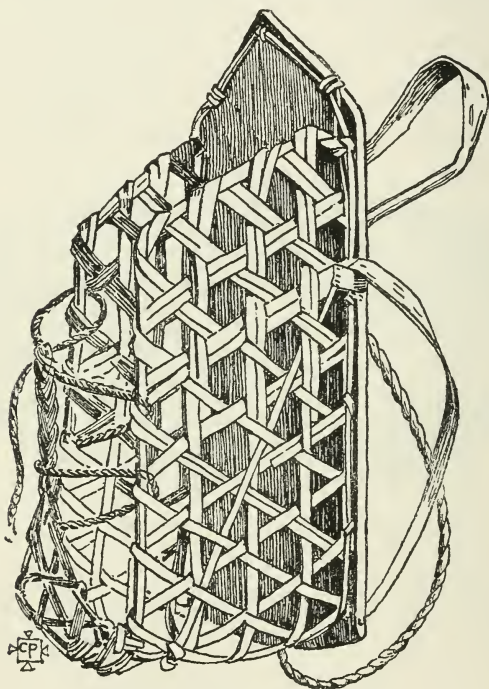


FIG. 41.—Kayan Tool-basket.

provided with lids and kept in the rooms for storing clothing and other personal valuables; the winnowing trays, and the large rough basket used for carrying on the back water-vessels or any other heavy objects (Fig. 41).

Of the mats (see Pl. 43), the principal are the mat worn round the waist for sitting upon; the large mats spread for seating several persons



PLATE 116. KENYAH MAKING DART POISON.

in the gallery or private chambers; those spread on the floor for catching the winnowed rice, or on the platforms outside the gallery for exposing and drying the *padi* before pounding it; the mat which every person spreads to sleep upon.

Most of these baskets and mats are made from narrow strips of rattan varying from $\frac{1}{16}$ to $\frac{1}{4}$ of an inch according to the size and use of the article; the strips are closely woven with great regularity. The commonest arrangement is for two sets of strips to cross one another at right angles, each strip passing over and under two of the opposed set. The basket-work so made is very pliable, tough, and durable. The standard shapes are worked out with great precision. The Kayans are generally content to make strong serviceable basket-ware without ornamentation; but in a large proportion of basket-ware of this kind made by the other peoples, strips of rattan dyed black are combined with those of the natural pale yellow colour, and very effective patterns are thus worked in. The dyeing of the strips is effected by soaking them in a dye obtained by beating out in water the soft stem and leaves of a plant known as *tarum*. The dark stain is rendered still blacker by subsequently burying the strips in the mud of the river for some ten days, or by washing them in lime. The dyed strips are then jet black with a fine polished surface, and the dye is quite permanent.

A form of mat-work deserving special notice is the *lampit*, the mat used largely for sleeping and sitting upon. It is made of stout strips of rattan lying parallel to one another, and held together by strings threaded through the strips at right angles to their length at intervals of four or five inches. This mat has an extremely neat appearance and allows itself to be neatly rolled up. The piercing of the rattan strips at suitable intervals is facilitated

by the use of a block of wood grooved for the reception of the strip and pierced with holes opening into the groove at the required intervals.

The most elaborately decorated and finely plaited basket-ware is made by some of the Klemantan sub-tribes, especially the Kanowits and the Tanjongs, and the Kalabits, who use, as well as the black dye, a red dye (Pl. 110). The last is made by boiling the seeds of the rattan in water and evaporating the product until it has the consistency of a thick paste. The Punans also excel in this craft. These adepts barter much of their handiwork in this kind with the people of communities less skilled in it. This affords yet another illustration of the fact that the various specialised handicrafts are traditional in certain tribes and sub-tribes, and are practised hardly at all or in an inferior manner only by the other tribes, who seem to find it impossible to achieve an equal degree of mastery of these crafts.

HAT-MAKING

The large flat circular hat worn by the Kayans for protection against sun and rain is made by the women from the large leaves of a palm. It is the only important handicraft practised by the women only. The hard tough fluted leaves are pressed flat and dried, when the flutes form ribs diverging from the stem. Triangular pieces of the length of the radius of the hat (*i.e.* from twelve to eighteen inches) are cut and then sewn together in a double layer; those of the upper layer radiate from the centre; those of the under layer are disposed in the reverse direction, so that their ribs diverge from the periphery, crossing those of the upper layer at an acute angle. This arrangement gives great rigidity to the whole structure. The two layers are stitched together by threads carried round the hat in con-



PLATE 117. KENYAHs MAKING BARK CLOTH.

centric circles at intervals of about one inch. The peripheral edges are sewn to a slender strip of rattan bent to form a circle, the two ends overlapping. The centre is generally finished with a disc of metal or strong cloth on the outer surface (Pl. 45). The hats hung upon the tombs are decorated on the upper surface with bold designs painted in black and red.

Most of the other tribes make similar hats, and the Malanaus and Land Dayaks are especially skilled in this craft. The former make very large hats of similar shape, the upper surface being of strips of rattan dyed red and black, and woven to form elaborate patterns.

Besides these sun-hats, the Kayans and Kenyahs and some of the Klemantans weave with fine strips of rattan close-fitting skull-caps and head-bands. The ends of the strips, some three or four inches in length, are sometimes left projecting from the centre or forming a fringe round the lower edge.

The close-fitting hemispherical war-cap is made of rattans about half an inch thick split in halves.

THE MAKING OF THE BLOW-PIPE

The blow-pipe or *sumpitan* is perhaps the finest product of native Bornean craftsmanship. It is made by Kayans, Kenyahs, and Punans, and rarely by Ibans and Klemantans.

The best sumpitans are made from the hard straight-grained wood of the *jagang* tree. Having chosen and felled the tree, often one of large size, the craftsman splits from it long pieces about eight feet in length. Such a piece is shaved with the adze until it is roughly cylindrical and three to four inches in diameter (Pl. 112). The piece may be carried home to be worked at leisure, or the boring may be done upon the spot. A platform is erected about seven feet above the ground; and the prepared rod

is fixed vertically with the upper end projecting through the platform, its lower end resting on the ground (Pl. 113). Its upper end is lashed to the platform, its lower end to a pair of stout poles lashed horizontally to trees, and its middle to another pair of poles similarly fixed.

The next operation, the boring of the wood, is accomplished by the aid of a straight rod of iron about nine feet long, of slightly smaller diameter than the bore desired for the pipe, and having one end chisel-shaped and sharpened. One man standing on the platform holds the iron rod vertically above the end of the wood, and brings its sharp chisel edge down upon the centre of the flat surface. Lifting the rod with both hands he repeats his blow again and again, slightly turning the rod at each blow. He is aided in keeping the rod truly vertical by two or three forked sticks fixed horizontally at different levels above the platform in such a way that the vertical rod slides up and down in the forks, which thus serve as guides. The rod soon bites its way into the wood. An assistant, squatting on the platform with a bark-bucket of water beside him, ladles water into the hole after every two or three strokes, and thus causes the chips to float out. This operation steadily pursued for about six hours completes the boring. In boring the lower part, the craftsman aims at producing a slight curvature of the tube by very slightly bending the pole and lashing it in the bent position; the pole on being released then straightens itself, and at the same time produces the desired slight curvature of the bore. This curvature is necessary in order to allow for the bending of the blow-pipe, when in use, by the weight of the spear-blade which is lashed on bayonet-fashion. If the desired degree of curvature is not produced in this way, the wooden pipe, still in the rough state as regards its outer surface, is suspended horizontally



PLATE 118. IBAN WOMAN EXTRACTING COTTON SEEDS.

on loops, and weights are hung upon the muzzle end until, on sighting through the bore, only a half circle of daylight is visible—this being the degree of curvature of the bore desired. The wood is then heated with torches, and on cooling retains the curvature thus impressed on it.

It only remains to whittle down the rough surface to a smooth cylinder slightly tapering towards the muzzle (Pl. 114), to polish the pipe inside and



FIG. 42.—Kayan Gauge used in making Pith-cone for dart.

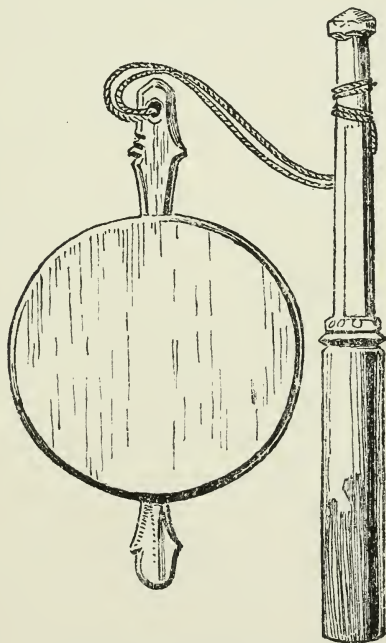


FIG. 43.—Kayan Wooden Plate for working up *ipoh* poison for darts.

out, to lash on the spear-blade to the muzzle end with strips of rattan, and to attach a small wooden sight to the muzzle end opposite the spear-blade. The polishing of the bore is effected by working to

and fro within it a long piece of closely fitting rattan; that of the outer surface, by rubbing it first with the skin of a stingray (which, although a marine fish, sometimes ascends to the upper reaches of the rivers), and afterwards with the leaf (*emplas*) which is the local substitute for emery paper.

The shaft of the poisoned dart is made from the wood of the *nibong* and wild sago palms. It is about nine inches in length and one-sixteenth to one-eighth of an inch in diameter (Pl. 115). On to one end of this is fitted a small tapering cylinder of tough pith, about one inch in length, its greatest diameter at its butt end being exactly equal to the bore of the pipe. The pith is shaved to the required diameter by the aid of a small wooden cylinder of the standard size (Fig. 42); this is prolonged in a pin of the same diameter as the shaft of the dart. A piece of pith transfixed by the pin is shaved with a sharp knife until its surface is flush with that of the wooden gauge.

The poison is prepared from the sap of the *Ipok* tree, *Antiaris Toxicaria*. The milky sap runs out when the bark is incised, and is collected in a bamboo cup (Pl. 88). It is then heated slowly over a fire in a trough made from the leaf stem of a palm, until it becomes a thick paste of dark purple brown colour (Pl. 116). When the poison is to be applied to the darts, it is worked into a thinner paste on a palette with a spatula. A circular groove is cut round the shaft of the dart about two inches from its tip, and the part so marked off is rolled in the paste and then dried before a fire. For use against large game, pig, deer, or human beings, a larger dose of poison is required than can be carried on the tip of the shaft. A small triangular piece of metal is affixed by splitting the tip of the shaft, thrusting in the base of the triangular plate, and securing it with a fine



PLATE 119. IBAN WOMAN WITH SPINNING-WHEEL.

thread of rattan or fern-stem. The poison is then applied to the surface of this metal. The metal is obtained nowadays from imported tin or brass ware, but formerly a slip of hard wood was used, and, possibly, in some cases stone.

The quiver for carrying the darts is a section of bamboo about four inches in diameter and ten inches in length, fitted with a cap of the same which fits over the shaved lip of the main piece (Fig. 44). A wooden hook lashed to the quiver enables it to be hung from the belt. The darts, mostly without piths, are wrapped in a squirrel skin and thrust tip downwards into the quiver. A small gourd tied to the quiver carries a supply of piths all ready to be placed on the darts.

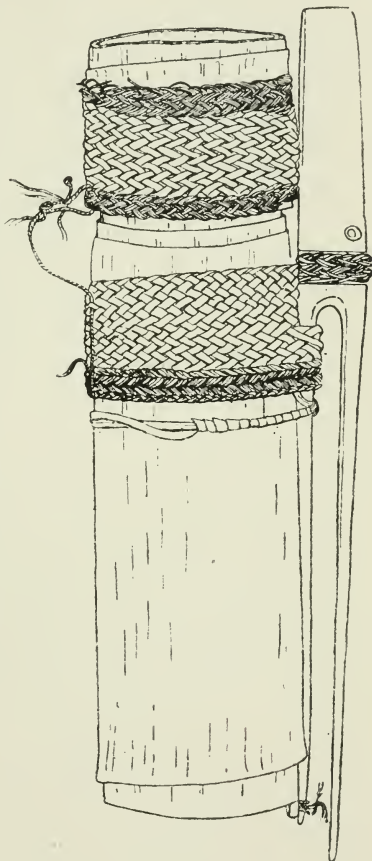


FIG. 44.

POTTERY

The importation of earthenware and of cooking pots of brass and iron has now almost put an end to the native manufacture of pottery; but in former times simple earthenware vessels for boiling rice were made by Kayans, Kenyahs, Ibans, and some of the Klemantans. Those who made no pots boiled their rice and sago

in bamboos. The earthenware cooking pot is a simple egg-shaped vessel, one end of which is open and surrounded by a low everted lip or collar (Fig. 8, p. 60).

The clay is kneaded with water on a board until it has the desired consistency. The vessel is then built up on a hollowed base by squeezing the clay between a smooth rounded stone held by one hand within the vessel and a flat piece of wood, with which the clay is beaten from without. The roughly shaped vessel is allowed to dry in the sun and baked in the fire. In some cases the surface is smoothed and glazed by rubbing resin over its surface while hot.

Pots of this one shape only are made, but of several sizes. The commonest size holds about a quart; the largest about two gallons. A pot of this sort is carried in a basket made of fine unsplit rattans loosely woven in the form of interlacing rings.

THE MANUFACTURE OF BARK-CLOTH

The native cloth, which was in universal use among the tribes of the interior until largely supplanted in recent years by imported cloth, is made from the bark of trees of several species (principally the *Kumut*, the *ipoh*, and the wild fig). The material used is the fibrous layer beneath the outer bark. A large sheet of it is laid on a wooden block and beaten with a heavy wooden club in order to render it soft and pliable. A piece of the required size and shape is cut from the sheet, and sewn across the direction of the fibres with needle and thread at intervals of about an inch. This prevents the material splitting along the direction of the fibres. Before European needles were introduced, the stitching was done by piercing holes with a small awl and pushing the thread through the hole after withdrawing the awl (Pl. 117).



PLATE 120. IBAN WOMAN PREPARING THE WEB FOR DYEING.

SPINNING AND WEAVING AND DYEING OF CLOTH

The Kayans, Kenyahs, and most of the Klemantans weave no cloth; but the Kayans claim, probably with truth, that they formerly wove a coarse cloth. In recent years the Ibans, Muruts, and a few of the Klemantan tribes have been the only weavers. It may be said, we think, without fear of contradiction, that this is the only craft in which the Ibans excel all the other peoples. Their methods are similar to those of the Malays, and have probably been learnt from them. The weaving is done only by the women, though the men make the machinery employed by them.

The fibre used by the Ibans is cotton, which is obtained from shrubs planted and cultivated for the purpose. The seed is extracted from the mass of fibre by squeezing the mass between a pair of rollers arranged like a rude mangle, while the fibre is pulled away by hand (Pl. 118). Next the thread is spun from the mass of fibre by the aid of a simple wheel, turned by the right hand while the left hand twists the fibres (Pl. 119). The dyeing precedes the weaving if a pattern is to be produced. The web is stretched on a wooden frame about six feet long and twenty inches in width, by winding a long thread round it from end to end. The parts of the web corresponding to the parts of the cloth that are to remain undyed and of the natural pale brown colour of the thread are tied round with dried strips of a fibrous leaf (*lemba*), the upper and lower set of threads being wrapped up together in the same bundles (Pl. 120). If only one colour is to be applied, the web is then slipped off the frame. The threads are held in their relative positions by the wrappings, but are further secured by tying a string

tightly about the whole bundle at each end. The web thus prepared is soaked in the dye for some two or three days, and then dried in a shady spot. The wrappings upon the threads are waterproof and protect the wrapped parts from the dye. When, after the dyeing, the web is stretched upon the loom, it presents the desired pattern in colour upon the undyed ground. The undyed weft is then woven across the web in the usual way. And since the threads of the weft do not appear on the surface, the dyed parts of the web present a uniformly coloured surface (Pl. 121).

In most cloths two colours, as well as the natural colour of the thread, appear on the surface—the commonest colour being a warm brick red (obtained from the bark of the *samak* tree) and a dark purple (obtained from the leaves of the *tarum* plant). Lime and gypsum are sometimes mixed with the watery extracts as mordants, but these are probably modern refinements. When two colours are to appear, those parts of the web which are to be of one colour (say purple) are wrapped up during the immersion in the red dye together with the parts that are to appear uncoloured. When this first dyeing is completed the web is prepared for the purple dye, by uncovering the undyed parts which are to be purple, and wrapping up in bundles the threads which have already been dyed red. After being soaked in the purple dye and dried, all the wrappings are removed from the web, and the desired pattern in three colours appears upon it when it is stretched. Perhaps the most noteworthy feature of the operation of dyeing is that the woman generally wraps up the threads in the way required to produce the pattern without any guidance, judging the length and number of the threads to be included in each bundle purely by memory of the design aimed at.



PLATE 121. IBAN WOMAN WEAVING.

The only striking peculiarity of the loom is its extreme simplicity. The upper ends of the web are looped over a stout bar which is fixed to a pair of uprights about a yard above the floor. The lower ends of the web are looped over a stout rod, to the ends of which a loop of cord is tied. The woman sits on the ground (see Pl. 121) with this loop around her waist, and thus stretches the web and maintains the necessary tension of it. The manipulation of the shuttle and of the threads of the web is accomplished without other mechanical aids than the rods to which the one set of web-threads is tied by short threads.

CHAPTER XII

DECORATIVE ART

ALL the tribes of Borneo practise a number of decorative arts. Some of the Klemantans, notably the Malanaus, excel all other tribes, in that they attain a high level of achievement in a great variety of such arts; but each tribe and sub-tribe preserves the tradition of some one or two decorative arts in which they are especially skilled. Thus some of the Klemantan tribes specially excel in the finer kinds of wood-carving (*e.g.* the decoration of paddles); the Kayans in tatuing and in chasing designs on steel; the Kenyahs in the painting of shields and in the production of large designs carved in low relief on wood and used for adorning houses and tombs; both Kayans and Kenyahs excel in the carving of sword-handles in deer's horn; the Barawans and Sebops in beadwork; the Kalabits and Ibans in tracing designs on the surface of bamboo; Punans in the decorative mat-work; Kanowits and Tanjongs in basket-work.

Wood-carving is the most generally practised and on the whole the most important of the decorative arts. Much of it is done on very hard wood; and the principal tools are the sword, the small knife carried in the sword-sheath, and adzes and axes of various sizes. The blade of the knife is some three inches in length, resembling in general shape the blade of the sword; it is wider in proportion,

but has the same peculiar convexity of the one side and concavity of the other in transverse section. The shaft is sunk into the end of a rod of hard wood and secured with gutta and fine rattan lashing. The handle of hard wood is about a foot in length, half an inch in diameter, and slightly bowed in the plane of the blade, the convexity being in the direction of the cutting edge of the blade. The butt end of the handle is cunningly carved in the



FIG. 45.—Figure-head of Kayan War-boat carved in hard wood.

shape of a crocodile's head, or prolonged in a piece of carved deer's horn. The blade of the knife is held between the thumb and finger of the right hand, the cutting edge directed forwards, and the long handle is gripped between the forearm and the lower ribs; the weight of the body can thus be brought to the assistance of the arm in cutting hard material. With this knife most of the finer carving is done, the adze and sword being used chiefly for rough shaping.

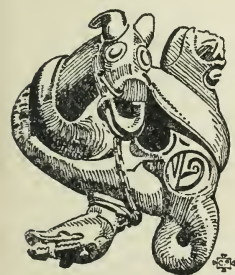


FIG. 46.—Kayan Button for Sword-belt carved in hard wood or substance of the horn-bill's beak.

The adze consists of a flat blade of steel in the shape of a highly acute-angled triangle (Pl. III). The slightly convex base is the cutting edge. The upper half of the triangle (which may or may not be marked by a shoulder) is buried in the lashings by which it is attached to the wooden haft. The

haft is a small bough of tough, springy wood, cut from a tree, together with a small block of the wood of the stem; the latter is shaved down until it forms an oblong block continuous with the haft and at an angle to it of 70° - 80° . The upper half of the

metal blade is laid upon the distal surface of this block and lashed firmly to it with fine strips of rattan. A piece of skin is often placed between the metal and the lashings; this facilitates the removal of the blade, and enables the craftsman to alter the angle between the cutting edge and the haft. Commonly the blade is laid in the plane of the haft, and the implement is then what we should call a small axe; on turning the blade through 90° , it is converted to a small adze; and not infrequently the blade is turned through a smaller angle, so that its plane forms an acute angle with that of the haft.

Carved woodwork is commonly painted with black and red paint, prepared respectively from soot and iron oxide mixed with sugar-cane juice or with lime; the moist pigment is applied with the finger on larger surfaces, and the finer lines and edges are marked out with the aid of a chisel-edged stick of wood.

BEADWORK

Old beads are much valued and sought after by all the tribes except Ibans, especially by the Kayans. There are few families of the upper class that do not possess a certain number of them.

Many varieties are well known, and some of the Kayan women are very expert in recognising the genuine old specimens, and in distinguishing these varieties from one another and from modern imitations.

Formerly these old beads were one of the principal forms of currency, and they still constitute an important part of the wealth of many families.

Most of these valuable old beads are of foreign manufacture, though a few made from shell and agate are of the country. The old foreign-made beads were probably imported by Arab and



PLATE 122. CARVED DOOR TO THE ROOM OF ABAN JAU, A CHIEF OF THE SEBOPS (KLEMANTANS), TINJAR RIVER.

Chinese traders at various dates. Some of them are probably of Chinese manufacture, others probably came from the near East and even from Venice. Some are of glass curiously marked and coloured, others of stone inlaid with bits of different colours, others of some hard substance whose composition defies description. Certain rare kinds are especially valued and can hardly be bought at any price; they are reckoned to be worth at least 100 dollars apiece. The most valuable of all is known as the *lukut sekala*; the ownership of each such bead is as accurately known throughout a large district as the ownership of the masterpieces of ancient art in our own country. The wife of a rich chief may possess old beads to the value of thousands of pounds, and will wear a large part of them on any occasion of display (Pl. 130). These old beads are worn threaded together to form necklaces and girdles, being arranged with some reference to harmony of size and colour and to value, the most valuable being placed in the middle where they will be shown to best advantage. A single rare bead is sometimes worn on the wrist.

A woman who possesses a good stock of such beads will seldom be seen without some of them on her person. She will occasionally exchange a few for other varieties, and is generally eager to add to her collection; she may occasionally make a present of one or two to some highly esteemed friend or relative, and will generally assign them, but without handing them over, to various female relatives before her death.

Besides these valuable old beads there are in use among all the tribes many small glass beads of modern European manufacture. These are threaded to form a variety of designs, generally in two colours, the combination of black and yellow being the most commonly preferred. These strips of bead-

work are put to many decorative uses: they are applied to the women's head-bands, to the centre of the sun-hat, to sword sheaths, to cigarette boxes, to the war-coat at the nape of the neck, and, by some Klemantans, to the jackets of the women.

The designs worked in this way are but few, and most of them are common to all the tribes. The thread used is prepared by rolling on the thigh fibres drawn from the leaf of the pine-apple; it is very strong and durable. The design to be reproduced is drawn or carved in low relief on a board. A thread is fixed across the end of the board and others are tied to it at short intervals; on these the beads are threaded, neighbouring threads being tied together at short intervals; and the colours of the beads are selected according to the demands of the pattern over which they are worked.

Besides these designs on the flat, tassels, girdles, necklaces, ear-rings, and cigarette rings are also made of these beads. The modern imported beads used for these purposes are sometimes improved by being ground flat on the two surfaces that adjoin their neighbours; this is done by fixing a number of them into the cut end of a piece of sugar-cane and rubbing this against a smooth stone. This treatment of the beads gives to the articles made of them a very neat and highly finished appearance.

BAMBOO DECORATIONS

The working of designs on the surface of pieces of bamboo is done very simply, but none the less effectively. Among the bamboo articles generally decorated in the way to be described are the native drinking-cup, the tobacco-box, and tubes for carrying flint and steel and all sorts of odds and ends.

The pattern to be produced is outlined with the



PLATE 123. DOOR OF ROOM IN SEBOP (KLEMANTAN) HOUSE.

The two figures near the top probably represent gibbons.

point of the knife upon the surface of the bamboo, the artist working from memory of the desired pattern and adapting it to the proportions of the surface to be covered. The Iban works more freely than others, working out the pattern and modifying it to meet the exigencies of his material, section by section, as he goes along. Others plan out the design for the whole surface before working out any part in detail. It is probable that in no case does a man sit down and produce a new pattern; but the freer mode of working of the Iban leads him on to greater modifications of the traditional designs; and it is probably partly for this reason that a much larger variety of designs is applied in this way by them than by the other tribes, among whom they are very limited in number. But the greater variety of designs worked by the Ibans is due also to the readiness with which he copies and adopts as his own the patterns used by other tribes. The Kayans and Kenyahs use almost exclusively varieties of the dog pattern and of the hook and circle (see Fig. 47).

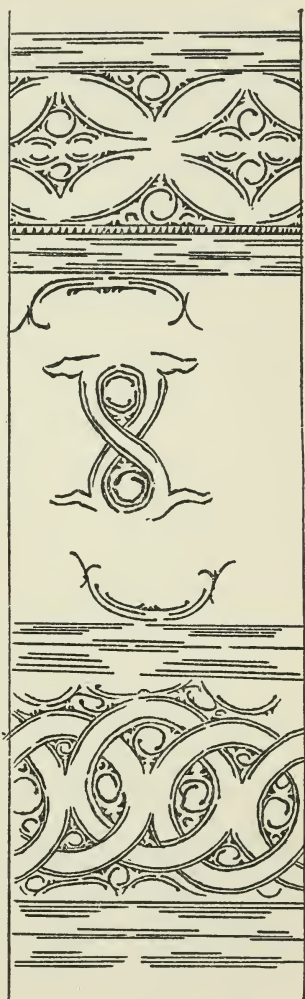


FIG. 47.

The design outlined by the point of the knife

is made to stand out boldly from the ground by darkening the latter. This is achieved in two ways : (1) the ground is covered with parallel close-set scratches, not running continuously throughout the larger areas of the ground, but grouped in sets of parallel lines some few millimetres in length, the various sets meeting at angles of all degrees ; (2) the hard surface of the bamboo is wholly scraped away from the ground areas to a depth of about half a millimetre. In either case the black or red paint is then smeared over the whole surface with the finger, and when it has become dried the surface is rubbed with a piece of cloth (Kayan), or scraped lightly with a knife (Iban). The pigment is thus removed from the intact parts and remains adherent to the lines and areas from which the hard surface layer has been removed. The design is thus left in very low relief, and is of the natural colour of the bamboo upon a black or dark-red ground, or on a ground merely darkened by the parallel scratches (Pls. 126, 127).

LASHING

Lashing with strips of rattan and with coarse fibres from the leaf-stem of some of the palms and ferns is applied to a great variety of purposes, and largely takes the place of our nailing and screwing and riveting. It is carried out extremely neatly and commonly has a decorative effect. This effect is in some cases enhanced by combining blackened threads with those of the natural pale yellow colour ; and the finer varieties of this work deserve to be classed with the decorative arts. The finest lashing-work is done by the Kalabits, who cover small bamboo boxes with a layer of close-set lashing, producing pleasing geometrical designs by the combination of yellow and black



PLATE 124. CARVINGS ON THE WALL OF THE GALLERY IN A LONG ULAI (KLEMANTAN) HOUSE,
BARAM DISTRICT.

threads. The surface of the bamboo to which the lashing is applied is generally scraped away to a depth of about one-sixteenth of an inch ; it is thus rendered less slippery than the natural surface, and is therefore gripped more firmly by the lashing, and the surface of the lashing is brought flush with the unlashd natural surface. The effect is not only a highly ornamental appearance, but also a greatly increased durability of the box, the natural tendency of the bamboo to split longitudinally being very effectively counteracted.

Similar fine decorative lashing is used by all the tribes for binding together the two halves of the sword sheath, and for binding the haft of knife or sword where it grips the metal blade, though brass wire is sometimes used for this purpose.

Closely allied to this lashing is the production of decorative knots. A considerable variety of knots are in common use ; they are always well tied and practically effective, but some are elaborated for decorative purposes to form rosettes, especially by Kayans in making their sword sheaths.

PAINTING

We have stated above that the carved woodwork is often painted with black, red, and white pigments. It must be added that wooden surfaces are often painted on the flat, especially shields, the outer surfaces of walls of *padi* huts, and tombs, also grave hats and the gunwales of boats, and decorative planks in the inner walls of the long gallery of the house. The Kenyahs and some of the Klemantans, especially the Skapans and Barawans, are most skilled in, and make most use of, this form of decoration ; but it is probably practised in some degree by all the peoples.

The three pigments mentioned above—black, red,

and white, made respectively from soot, iron oxide, and lime—are, so far as we know, the only native varieties; but at the present day these are sometimes supplemented with indigo and yellow pigments obtained from the bazaars. The pigment is generally laid on free-hand with the finger-tip, a few guiding points only being put in.

It may be mentioned here that individuals of all the tribes will occasionally amuse themselves by making rude drawings with charcoal on the plank wall of the gallery. The drawings usually depict human and animal figures, and scenes from the life of the people, and they generally illustrate the

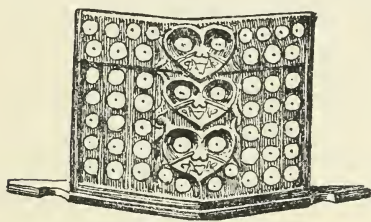


FIG. 48.—Kayan Cradle ornamented with flat tops of cone shells.

particular form of occupation in which the household is employed at the time, *e.g.* scenes from the *padi* fields, a group of people weeding, the return of a war-party, the collection of honey, the capture of a large fish. These drawings are invariably very crude; their nature is sufficiently indicated by Pl. 128. There seem to be no noteworthy differences in this respect between the different peoples.

The Punans, having no houses and therefore no walls on which to draw pictures, have little opportunity to indulge any such tendency; but we have seen rude hunting scenes depicted by them on the walls of shallow caves; the technique consisted in scratching away the soft rotted surface of the limestone rock to produce outlines of the figures depicted.

The Malanaus, who live in the large limestone caves during the time of harvesting the edible nests of the swift, sometimes make rude drawings with charcoal on the walls of the cave.

The weaving of decorative designs on cloth is almost confined to the Sea Dayaks. Some account of the designs will be given below.

SHELL-WORK

Shells (chiefly nassas and the flat bases of cone-shells) are sometimes applied by the Iban women to decorate their woven coats, by Kalabits (in concentric circles on their sunhats), and more rarely by other tribes in the decoration of baskets (Fig. 48). Fig. 49 represents a garment decorated in this fashion by Iban women, and worn by them when dancing with the heads of enemies in their hands.

THE DECORATIVE DESIGNS

The Kayans make use in their decorative art of a large number of conventional designs. The principal applications of these designs are in tatu, beadwork, the production of panels of wood for the adornment of houses, tombs, boats, and *padi* barns, the decoration of bamboo boxes, and the painting of hats, and the carving of highly

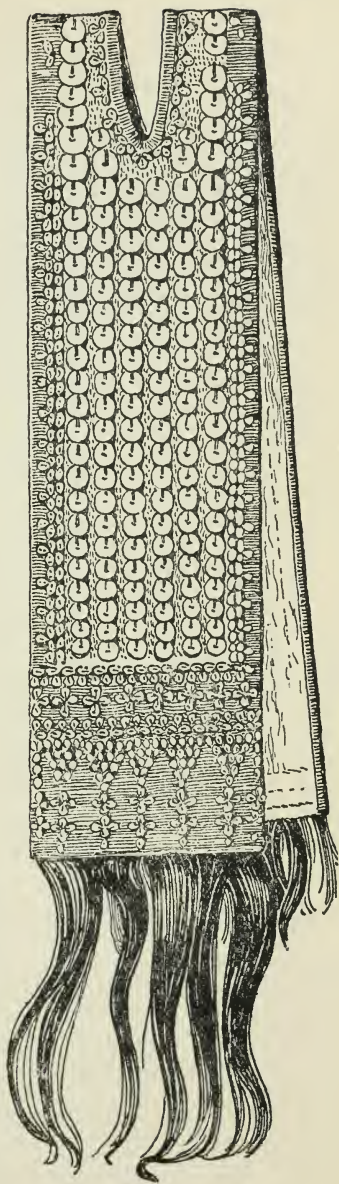


FIG. 49.

ornate doors to the rooms. All these applications involve the covering of flat or curved surfaces with patterns either in low relief only or without relief; and many of the designs are applied in all these different ways, and all of them together form a natural group. Besides these surface designs, a considerable variety of designs is used in giving decorative form to solid objects such as the handles of swords and paddles, the ends of main roof-beams in the houses, posts used in various rites and in the construction of tombs, the figure-heads of war-boats. These, with the exception of those used in carving the sword handles, which are highly peculiar, form another group of relatives. The designs chased upon the blades of the swords constitute a fourth natural group distinct from the other two groups. A fifth small group of designs is carved in the form of fretwork. We propose to say a few words about the designs of each of these five groups.

(1) The designs of the first group are the most numerous and most widely applied. A large proportion of them obviously are conventionalised derivatives from animal forms. Of these animal forms the human figure, the dog, and the prawn have been the originals of the largest number of patterns; the macaque monkey and the large lizard (*Varanus*) are also traceable. Some designs vaguely suggest a derivation from some animal form, but cannot confidently be assigned to any one origin.

A few seemed to be derived from vegetable forms; while some few, for example the hook-pattern, seem to be derived from no animal or vegetable form. The hook-pattern seems to be symbolical of conjunction and acquisition in various spheres.

Of all the designs the derivatives from or variants of the dog are the most numerous and the most



PLATE 126. A KENYAH PATTERN CARVED ON A BAMBOO TOBACCO BOX.

frequently applied. The name dog-pattern (*kalang asu*) is given to a very large number; and of these some obviously reproduce the form of the dog, while the derivation of the others from the same original can generally be made clear by the inspection of a number of intermediate forms, although some of them retain but very slight indications of the form or features of the dog. The unmistakable dog-patterns are illustrated by one of the panels shown in Pl. 124; and in Pls. 134 *et seq.* we reproduce a number of dog-patterns of more or less conventionalised characters. It will be noticed that the eye is the most constant feature about which the rest of the pattern is commonly centred; but that the eye also disappears from some of the most conventionalised. It seems probable that, although the name *kalang asu* continues to be commonly used to denote all this group of allies, many of those who use the term, and even of those who carve or work the patterns, are not explicitly aware in doing so that the name and the patterns refer to the dog, or are in any way connected with it; that is to say, both the words and the pattern have ceased to suggest to their minds the meaning of the word dog, and mean to them simply the pattern appropriate to certain uses.

We have questioned men who have been accustomed to apply the dog-pattern as to the significance of the parts of the pattern, and have led them to recognise that the parts of the dog, eye, teeth, jaws, and so on, are represented; and this recognition has commonly been accompanied by expressions of enlightenment, as of one making an interesting discovery.¹ This ignorance of the origin of the pattern is naturally true only of the more conventionalised examples, whether of the dog or

¹ Some Kayans habitually speak of most of the dog-patterns by the term *usang orang* (which means the prawn's head). This indicates possibly some gradual substitution of designs of the one origin for those of the other.

other natural forms. Probably a few who have specially interested themselves in the designs have traced out their connections pretty fully, but this is certainly quite exceptional. Most of the craftsmen simply copy the current forms, introducing perhaps now and then an additional scroll, or some other slight modification.

Some men are well known as experts in the production of designs, and such a man can produce a wonderful variety, all or most being well-known conventions. Their mode of working frequently implies that the artist is working to a pattern, mentally fixed and clearly visualised, rather than working out any new design. For he will work first on one part of the surface, then on another, producing disconnected fragments of the pattern, and uniting them later. Although the women use these patterns in beadwork and in tatuing, they rely in the main on the men for the patterns which they copy; these being drawn on wood or cloth for beadwork, or carved in low relief for tatuing. A Kayan expert may carry in mind a great variety of designs. One such expert produced for our benefit, during a ten days' halt of an expedition, forty-one patterns, drawn with pencil on paper; most of these are of considerable complexity and elaboration.

(2) The designs carved in the solid or in high relief are for the most part conventionalised copies of human and animal forms; but the conventionalising is not carried so far as in those of the first class, so that the carving generally constitutes an unmistakable representation of the original. The posts set up as altars to the gods are generally carved in the human form, and the degree of elaboration varies widely from the rudest possible indication of the head and limbs to a complete representation of all the parts. But in no case



PLATE 127. ANNULAR DESIGN WORKED ON BAMBOO TOBACCO-BOX (KEN'YAH).

(with the possible exception of some of the figures carved by Malanaus) is the human form reproduced with any high degree of accuracy or artistic merit (Figs. 50-53).



FIG. 50.



FIG. 51.



FIG. 52.



FIG. 53.



FIG. 54.



FIG. 55.



FIG. 56.



FIG. 57.

The animal forms are used chiefly as the figure-heads of war-boats and at the ends of the main roof-beams of the houses; and some of these are executed with a degree of artistry that must win our admiration, especially when we reflect that the timber used is generally one of the harder kinds (but not iron-wood) such as the mirabo (*Afzelia*

palembanica), and that the only tools used are the axe, sword, and knife. The animals most frequently represented are the dog, crocodile, monkey, horn-bill, and bear (Pls. 122, 125, Figs. 45, 46, 54-57). Carved dogs, comparatively little conventionalised, are sometimes used as the supports of low platforms upon which the chiefs may sit on ceremonious occasions.

(3) The handles of the swords, generally of deer's antlers, but sometimes of wood, exhibit a group of highly peculiar closely allied designs. All these seem to be derived from the human form, although in many cases this can only be traced in the light of forms intermediate between the less and the more highly conventionalised (Pls. 129, 184). In examples in which the human form is most obvious, it has the following position and character:—The butt end of the blade is sunk in a piece (about six inches in length) of the main shaft of the antler at its distal or upper end. This piece constitutes the grip of the handle or hilt. The proximal or lowest point of the antler projecting at an angle of some 70° from the grip is cut down to a length of some four inches, forming a spur standing in the plane of the blade and towards its cutting edge. The grip is lashed with fine strips of rattan. The spur and the thick end in which the spur and the grip unite are elaborately carved. If the sword is held horizontally, its point directed forwards and its cutting edge upwards, the butt end is presented with the spur vertically before the face of the observer. It will then be seen that the surface turned to the observer presents the principal features of the human figure, standing with arms akimbo face to face with the observer. The key to the puzzle is the double row of teeth. Above this are the two eyes. Below the level of the mouth the elbows project laterally, and

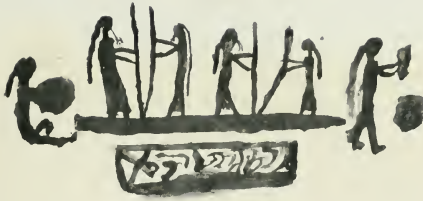


PLATE 128. CHARCOAL DRAWINGS.

The first depicts women at work on *padi* mortars ; the second the feeding of pigs and fowls ; the third the laying of a corpse in the tomb.

a little below these and nearer the middle line are the two hands; and below these again the two legs stand out, carved not merely in relief, but in the solid, and bent a little at the knee. The feet are indicated below and more laterally. From the crown of the head projects a ring of short hair made up of tufts white, black, and red in colour. Another short tuft projects from the region of the navel (? pubis), and a pair of tufts project laterally a little below the level of the mouth. The extremity of the main shaft of the antler projects a little beyond the feet of the human figure, and is carved in a form which is clearly an animal derivative—probably from the dog or possibly the crocodile. From its open jaws projects a long tuft of hair, and a pair of short tufts project laterally from the region of its ears. The whole of the carved part of the hilt thus represents a man standing upon the head of a dog (or crocodile). The interpretation of the whole is much obscured by the fact that the parts of the human figure named above are separated from one another by areas which are covered with a continuous scroll design in low relief, and by the fact that all the lateral parts of the carved area bear, scattered irregularly in relief, reduplications of the various features of the human figure, *e.g.* of the hands, elbows, knees, and even of the teeth, as well as many pairs of interlocking hooks. These last, which recur in other decorative designs, and which (as was said above) seem to symbolise the taking of heads, form an important and constant feature of the whole scheme of decoration. In the more elaborate examples they are carved out of the solid; and usually one hole (or more) about 5 mm. in diameter perforates the thickest part of the hilt, and contains in the middle plane a pair of these interlocking hooks.

In the most elaborate examples of these carved

sword hilts all obvious trace of the human figure is lost in a profusion of detail, which, however, is of the same general character as that of the examples described above, and seems to consist of the various features of the human and animal pattern combined in wild profusion with regard only to decorative effect, and not at all to the reproduction of the parent forms.

With the decorative designs of the hilt of the sword must be classed those of its sheath. The sheath consists of two slips of *tapang* wood firmly lashed together with finely plaited rattan strips, both strips being hollowed so that they fit closely to the blade. It is provided with a plaited cord, which buckles about the waist. The inner piece of the sheath is smooth inside and out. The outer surface of the outer piece is often elaborately decorated. The decoration consists in the main of designs carved in relief; and these are composed of the same elements as the design upon the sword hilt, namely, hooks, single and interlocking, elbows, teeth, etc., all woven about with a scroll design of relieved lines.

(4) The designs reproduced in fretwork are in the main adaptations of some of those used in decorating surfaces, especially of the dog pattern; but they are always conventionalised in a high degree (see Pl. 130). The hook pattern is frequently introduced to fill up odd corners. The human form is seldom or never traceable in work of this kind. Fretwork is chiefly used to adorn the tombs of chiefs.

(5) The designs chased on the surfaces of the blades of swords and knives and spear-heads form a distinctive group. They are flowing scroll patterns containing many spiral and S-shaped curves in which no animal or plant forms can be certainly traced, though suggestions of the *kalang asu* may

be found. The lack of affinity between these patterns and those applied to other surfaces suggests that they may have been taken over from some other people together with the craft of the smith; but possibly the distinctive character is due only to the exigencies of the material. Some of the designs painted on hats and shields exhibit perhaps some affinity with these. This work is almost confined to the Kayans.

It is worthy of remark that the art work of the Kayans is in the main of a public character; for example, the decorative carving about the house is done by voluntary and co-operative effort in the public gallery and hardly at all in the private rooms; and ornamented hats and shields are hung in the gallery rather than in the private rooms; again, the war-boats, which are the common property of the household, are decorated more elaborately than those which are private property.

All these forms of art work are the products of distinctly amateur effort; that is to say that, although certain individuals attain special skill and reputation in particular forms of art, they do not make their living by the practice of them, but rather, like every one else, rely in the main upon the cultivation of *padi* for the family support; they will exchange services of this kind, and definite payments are sometimes agreed upon, but a large amount of such work is done for one another without any material reward.

THE KENYAHs, KLEMANTANS, AND IBANS

The Kenyahs make use of all, or most, of the patterns found among the Kayans, and there is little or nothing that distinguishes the decorative art of the one tribe from that of the other. They use the patterns based on the monkey rather more

than the Kayans; and a decoration commonly found in their houses is a frieze running along the top of the main partition wall of the house, bearing in low relief an animal design, painted in red and black, which is called *Bali Sungei* (i.e. water-spirit) or Naga. The latter name is known to all the tribes, and is probably of foreign origin; and it seems possible that the design and this name are derived from the dragon forms so commonly used in Chinese decorative art.

The various Klemantan tribes make use of many decorative designs very similar to those of the Kayans. Different animal forms predominant among the different tribes, e.g. among the *Long*

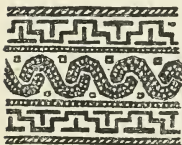


FIG. 58.



FIG. 59.



FIG. 60.

Pokuns the form of the gibbon and of the sacred ape (*Seminopithecus Hosei*) are chiefly used in house decoration. Among the Sebops and Barawans the human figure predominates; the Malanaus make especially elaborate crocodile images in solid wood. The tombs of some of the Klemantans are very massive and elaborately decorated. The Tanjongs and Kanowits and Kalabits, who excel in basket-work, introduce a variety of patterns in black, red, and white. The majority of these are simple geometrical designs which arise naturally out of the nature of the material; of more elaborate designs specially common are the hook-pattern (Fig. 58), the pigeon's eye (Fig. 59), and the caterpillar (Fig. 60).

In wealth of decorative designs the Ibans



PLATE 129. KENYAH SWORD-HANDLE CARVED FROM A DEER'S HORN.

surpass all the other tribes. These designs are displayed most abundantly in the decoration of bamboo surfaces and in the dyeing of cloths. The

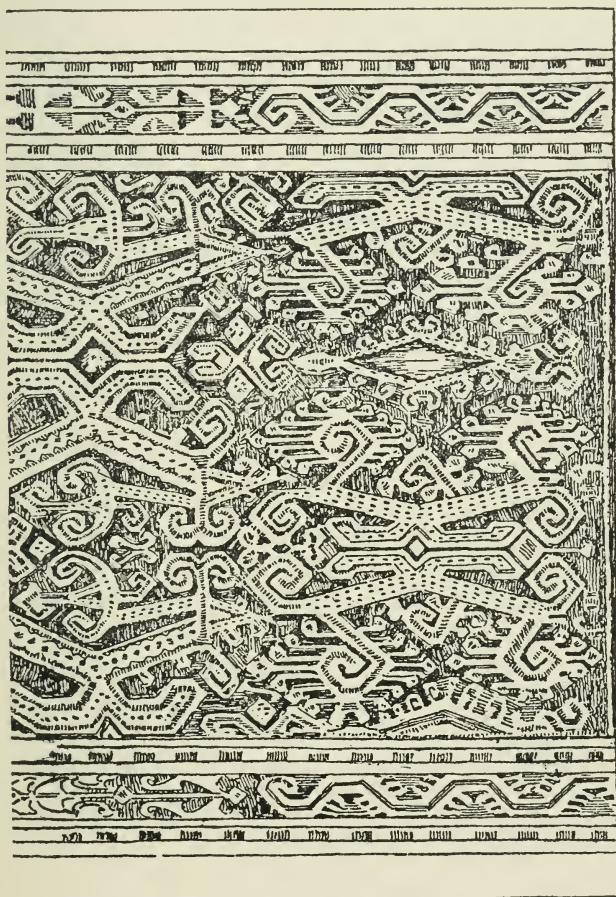


FIG. 61.

designs on bamboo surfaces are largely foliate scrolls, especially the yam-leaf, but also occasionally animal derivatives.

The designs dyed upon the cloths (Fig. 61)

are largely animal derivatives ; but the artists themselves seldom are aware of the derivation, even when the pattern bears the name of its animal origin ; and as to the names of all, except the most obvious animal derivatives, even experts will differ. The frog, the young bird, the human form, and the lizard are the originals most frequently claimed. Parts of the animal, such as the head or eye, are commonly repeated in serial fashion detached from the rest of its form. And in many cases it is, of course, impossible to identify the parts of the pattern, although it may show a general affinity with unmistakable animal patterns. One such pattern very commonly used in dyeing is named after *Agi bulan*, the large shrew (*Gymnura*) ; but we have not been able to trace the slightest resemblance to the animal in any of the various examples we have seen (Pls. 131, 132).

We are inclined to suppose that the Ibans have copied many of their cloth-patterns from the Malays together with the crafts of dyeing and weaving. For their technique is similar to that of the Malays all over the peninsula, and the same is true of some of their designs. Only in this way, we think, can we account for their possession of these crafts, which are practised by but very few of the other inland peoples. The fact that plant derivatives predominate greatly over animals in their designs, whereas the reverse is true of almost all other tribes, bears out this supposition, for the Malays are forbidden by their religion to represent animal forms, and make use largely of plant forms.

TATU

Tatuing is extensively practised among the tribes of Borneo. A great variety of patterns are used, and they are applied to many different parts of

PLATE 130. OLD BEADS WORN BY KAYANS

- A. LUKUT SEKALA.—Value formerly one healthy adult male slave ; present value, from £10 to £15.
- B. LABANG PAGANG.—Value 5s. to 15s. Used chiefly at marriage ceremony. Kayan value in brassware, one gong.
- C. JEKOKOK.—Value 15s. to 25s. ; or in brassware, a small tawak.
- D. KELAM WIT.—Value 15s. to 30s. ; or in brassware, a tawak which measures from the base of the boss to the outer edge a span between the first finger and the thumb. Also much used in marriage ceremony.
- E. KELAM BUANG.—Value about 15s. ; much sought after and worn on a girdle by Kayan girls. The bear bead.
- F. KELAM BUANG BUTIT TELAWA.—The name means the bear bead with spider's belly. Value about 15s.
- G. KAJA OBING.—Value 15s. to 25s.
- H. KELAM SONG.—Value from £4 to £6 ; or one adult female slave.
- I. KELAM.—Kenyah. Value about 15s.
- J. LUKUT.—Kenyah. Value about 10s., or a gong ; value about ten to fifteen ingans of *padi*, or about 7 bushels.
- K. LUKUT MURIK.—A bead used by the Murik tribe. Value about 10s.
- L. INO KALABIT.—A Kalabit necklace. Value about £5 ; or an adult buffalo.
- M. A single blue bead from the necklace "L."

The yellow beads in the necklace are known as LABANG, and the blue ones as BUNAU. The beads in the necklace are all very old ones. The beads A to H are chiefly, though not exclusively, found among Kayans ; I and J among Kenyahs ; K among Muriks (Klemantans) ; and the necklace L among Kalabits (Murut).



PLATE 130. OLD BEADS WORN BY KAYANS.

the body. A paper embodying most of the facts hitherto ascertained has been published by one of us (C. H.) in conjunction with Mr. R. Shelford, formerly curator of the Sarawak Museum, who has paid special attention to the subject; we therefore reproduce here the greater part of the substance of that paper,¹ with some slight modifications, and we desire to express our thanks to Mr. Shelford² for his kind permission to make use of the paper in this way.

The great diversity of tribes in Borneo involves, in a study of their tatu and tatuings 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 a 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 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.

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 (mostly Klemantan) that have given up the practice of tatu owing to contact with Mohammedan and other influences.

- A. 1. Punan.
- 2. Maloh.
- 3. Land Dyak.

¹ "Materials for a Study of Tatu in Borneo," by Charles Hose and R. Shelford, *J.R.A.I.* vol. xxxvi. Here also we have to thank the Council of the Royal Anthropological Institute for permission to republish part of this paper, and to reproduce the plates and figures accompanying it. The reference figures of this section refer to the bibliographical list at the end of this chapter.

² Since these pages were printed we have had to mourn the loss of our friend and fellow-worker, cut off in the early summer of a life strenuously devoted to scientific research.

- B. 4. Malanau.
- 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.

The patterns once employed by the tribes included in the second section of this list, most of which have adopted Malay dress and to some extent Malay customs, are lost beyond recall. 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.¹

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, Pl. 16)² 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 Klemantan designs are quite simple, and it is noteworthy that although the Kenyah tribes most nearly akin to Kayans have

¹ 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.

² These figures refer to the bibliography printed at the end of this chapter, vol. i., p. 280.



PLATE 131. BLANKET (PUA) WOVEN BY IBAN WOMAN.

borrowed the Kayan tatu patterns, the majority of Kenyah and Klemantan 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 Klemantan 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 Klemantan 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 tabu 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 (Pl. 141, 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]. 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; fearing that he would fail miserably to complete the task, he told the coucal to sit in a bowl of *samak* tan, and then poured the black dye over him, and flew off, remarking that the country was full of enemies and he could not

stop; 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.

Among Kayans isolated designs are found on the following parts of the bodies of the men:—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. But not all the men are tatued on all these parts of the body. The design tatued on the wrist (Pl. 139, Figs. 8-10) is termed *lukut*, the name of an antique bead much valued by Kayans; the significance of this design 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*¹ 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 wrist 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 Pl. 142, Fig. 10, and we were 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 Pl. 136, Figs. 1, 2, 5, 6. Nieuwenhuis has figured a series of these designs [9, Pl. 82]² showing a transition from a

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

² See also Haddon (4, Fig. 2), and Nieuwenhuis (8, Pls. 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).

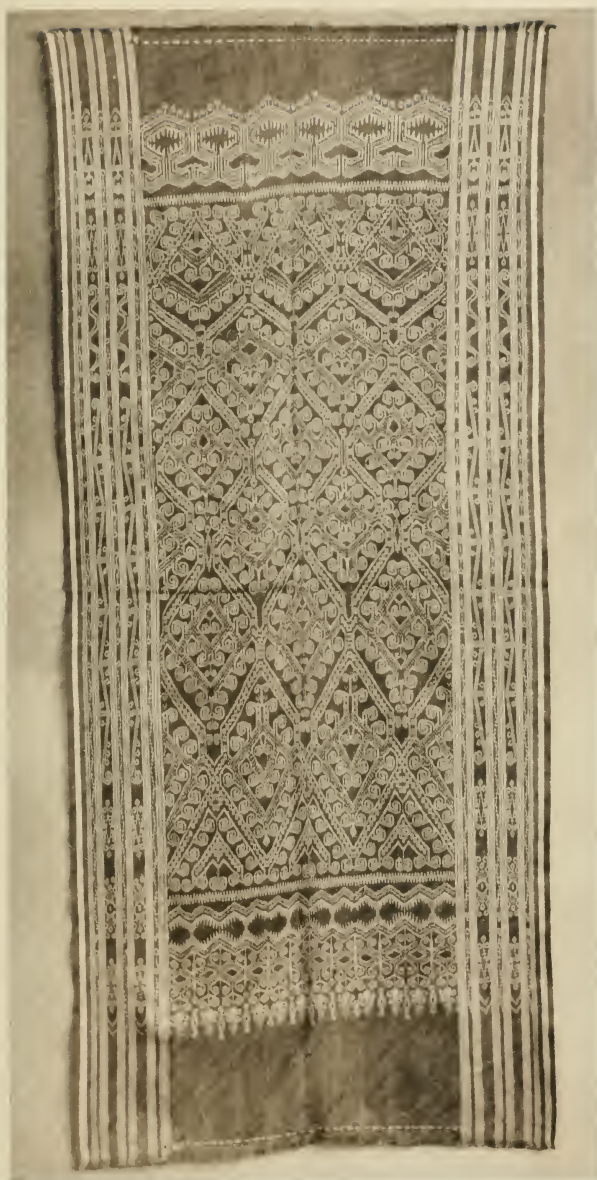


PLATE 132. BLANKET (PUA) WOVEN BY IBAN WOMAN.

very elongate animal form to a rosette form; we have occasionally met with the former amongst Sarawak Kayans, but it is a common thigh design amongst the Mendalam Kayans; the forms numbered *b* and *c* are unusual in Sarawak. Of the four examples given in Pl. 136—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

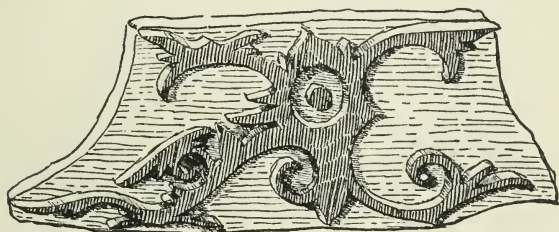


FIG. 62.

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. 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 degradation and change of name (Fig. 62).

On the deltoid region of the shoulders and on the breast, a rosette or a star design is found (text, Figs. 63 and 64). 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 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



FIG. 63.



FIG. 64.

general use (cf. Pl. 140, Fig. 4, Pl. 141, Fig. 7, and Pl. 142, Fig. 9).

On Pl. 141, Fig. 1, is shown a hand tatued in the Kayan manner; the figures on the phalanges are known as *tegulun*,¹ 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.

¹ In ancient days when a great Kayan or Klemantan 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.



PLATE 133. TATU PATTERNS ON THIGHS OF KAYAN WOMEN.

Kayan women are tatued in complicated serial¹ 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



FIG. 65.



FIG. 66.



FIG. 67.

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, *i.e.* about puberty, 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,

¹ 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.

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 *lali* to let blood at such times; 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 (*Varanus*) or of the scaly manis (*Manis javanica*), and her husband 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. The operation of tatuing amongst Kayans 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 tatuer 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 disregards the prohibitions imposed upon her profession, the designs that she tatus will not appear clearly, and she herself may sicken and die.

The tools used by a tatu artist are simple,¹ 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 pricker is a wooden rod with a short pointed head projecting at right angles at one end; to the point of

¹ Cf. Ling Roth (7, p. 34) and Nieuwenhuis (9, Pl. 32).



PLATE 134. TATU PATTERNS ON A KALABIT WOMAN.

the head is attached a lump of resin in which are embedded three or four short steel needles, their points alone projecting from the resinous mass (Fig. 68). 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, *kelinge*¹ (Fig. 62), 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; 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 *ikor*, then taking a tatu block carved with the required design, she smears it with pigment and presses it on to the limb between two lines. 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, driving the needle points into the skin at each tap. The operation is painful, and the subject can rarely restrain her cries of anguish; but the artist is quite unmoved by such demonstrations of woe, and proceeds methodically with her task. As no antiseptic precautions are 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 tissues.

It is against custom to draw the blood of a friend (*pesu dala*), and therefore, when first blood is drawn in tatuing, it is customary to give a small present to the artist. The



FIG. 68.

¹ The Sea Dayak word *telingai* or *kelingai* has the same meaning.

present takes the form of four antique beads, or of some other object worth about one dollar ; it 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 while she consumes a hurried meal. Fowls or a pig 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 fore-arms a gong, worth from eight to twenty dollars, according to the workmanship required ; for the thighs a large *tawak*, worth as much as sixty dollars if the very best workmanship is demanded, from six to twenty dollars if only inferior workmanship is required.¹ For tatuing the fingers the operator receives a *malat* or short sword. 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 the thigh is always left untatued ; it is supposed that mortification of the legs would ensue if this strip was not left open.

¹ 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).



PLATE 135. KALABIT TATU (WOMAN).

The time at which to begin tatuing 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 and of 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, but 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 always 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 Pl. 140, 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, Pl. 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*, 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 designs are: three bands of concentric circles (AAA)

termed *beliling bulan* or full moons; a triangle (B) each, limb formed by several parallel lines, *dulang harok*, the bows of a boat; spirals (CC) *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 *daun wi* (D), rattan leaves, and at the proximal end of the pattern an interlacing design, *tushun tuva* (E), bundles of tuba root (*Derris elliptica*). 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.

Nieuwenhuis [8, Pl. 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 Pl. 140, 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 daun wi* and *tushun tuva*; but the *dulang harok* is absent, and the *silong* or face pattern appears.

Nieuwenhuis [9, Pl. 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 Klemantan 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 Pl. 138, 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. Pl. 138, Fig. 2, and Pl. 139, 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 Pl. 139, Figs. 1 and 2. If these two latter designs are compared with the hornbill design of the Long Glat, a figure of which, taken from Nieuwenhuis [9, Pl. 86] is given (Pl. 139, 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 Pl. 139, 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 dog derivative, and no doubt was used for the tatu of the front of a woman's thigh,¹ being serially repeated in three or four rows as with

¹ 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

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



FIG. 69.



FIG. 70.



FIG. 71.



FIG. 72.

was *tuang buvong asu*, pattern of dog without tail, and they

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.



PLATE 136.

stated that a somewhat similar design was engraved by them on sword blades. Pl. 139, 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.

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 (Pl. 140, 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 Pl. 138, 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, good examples of which are shown in Figs. 70, 71 ; Fig. 72 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 (Pl. 140, Fig. 2) represent on the back of the thigh (AA) *beliling bulan*, on the front and sides (BB) *silong*, faces or *silong lejau*, tigers' faces ; the latter is evidently an anthropomorph ; the knee-cap design is particularly worthy of notice.¹ Nieuwenhuis [9, Pl. 83, and 8, Pl. 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-

¹ 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 Pl. 139, 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.

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. 69); the centre of the knee-cap is occupied by a very similar anthropomorph, known however as *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 *kalang ngipa*, the snake design; below the knee-cap is a transverse band of hour-glass shaped figures termed *pedjako*. Nieuwenhuis also figures [9, Pl. 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, Pl. 82, and 8, Pl. XXVIII.].

A comparison of the figures here given lends strong support to the supposition that the tuba-root pattern is merely a degraded anthropomorph. Fig. 69 is a recognisable anthropomorph such as is tatued in rows on the thigh, and some such name as *tegulun*, *silong*, or *kohong* is applied to it. Fig. 70 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. 71 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 Pl. 138, Figs. 4 and 5, is quite obvious; the lower of the two *tushun tuva* designs in Fig. 5, Pl. 138, is composed of angular lines, thus reverting to the angularity of the lines in text, Fig. 69; at E, Fig. 3, Pl. 140, the lines are partly angular, partly curved, and the bilateral symmetry is entirely lost; finally, in Fig. 72, 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 Pl. 138, Fig. 6; a chief's daughter would have some modification of the principal element of the thigh design tatued on this part.

ii. *Kenyah Tatu*.

The culture of the Sarawak Kenyahs is closely allied to that of the Kayans, and their tatu may be considered



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separately from that of the Kenyah-Klemantan tribes whose tatu is much more original in design.

The men of such Kenyah tribes as the Lepu Jalan, Lepu Tau, Lepu Apong, etc., if tatued at all, 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 orang*, 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 *Palæman*, 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 Pl. 137, Fig. 9; Pl. 136, Fig. 4, is a dog design, and is so termed. Pl. 136, 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*. Pl. 136, Fig. 9, is termed *lipan katip*, jaws of the centipede. All these are tatued on the flexor surface of the forearm or on the outside of the thigh.¹ An example of a star design termed *usong dian*, durian pattern, is shown in Pl. 141, 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. Amongst the Baram Kenyahs there appears to be very little ceremonial connected with the process of tatuing.

iii. *Kenyah-Klemantan*² *Tatu*.

Amongst this rather heterogeneous assemblage of tribes considerable diversity of tatu design is found. The men are seldom tatued, but when they are it is in the Kayan manner. The Peng or Pnihing of the Koti basin have an elaborate system of male tatu, but it seems to be dying out; the only examples that we have met are shown on Pl. 141, Figs. 2 and 3. These represent the arms of Peng men; unfortunately we have no information as to the significance of the designs. 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].

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

² By this name we denote those Kenyah tribes which stand nearest to the Klemantans and furthest from the Kayans in respect of customs. Cf. Chap. XXI.

The Kenyah women of the Baram district exhibit a very primitive style of tatu on the arms and hands (Pl. 141, 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 tatu. No other part of the body is tatued.

Nieuwenhuis figures [9, Pl. 95] a somewhat similar design employed by the Lepu Tau 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 cannot be executed in the communal house, but only in a hut built for the purpose. The males of the family, to 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 (or Lepu Tau) 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



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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 Julan, 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-Klemantan of the Upper Mahakam and Batang Kayan. On Pl. 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 *kerip 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 *kalang song sepit*.¹ The knee is left untatued. Some other examples of the *kërip kwe* design are given on Pl. 90, and of the *song sepit* on Pl. 91 ; some of the *song sepit* designs recall the *kalang 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 Pl. 87, Fig. *a* ; it appears to be a composition of four heads, and in appearance is not unlike *silong lejau* of the Uma Lekan, 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, Pl. 143. 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, Pl. 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 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

¹ The names of the designs are given in Kayan.

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, Pl. 87, Fig. *b*, Plate 88, Pl. 89, Pl. 93, Fig. *a*, Pl. 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 Luhats [2, Pl., p. 189 and 7, p. 91].

iv. *Tatu of Muruts and Klemantans.*

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 (Pl. 138, 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 Pl. 137, 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, Pl., p. 187] gives some 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



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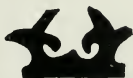
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Kayan exhibit the most primitive form of tatu known in Borneo. It differs from every other form in that the tatued surface of the skin is not covered uniformly with the ink, but the design, such as it is, is merely stippled into the skin, producing an appearance of close-set irregular dots. Two aspects of the forearm of an Uma Long woman are shown on Pl. 142, 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 abdomen, 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.¹ 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,

¹ 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." This explanation seems to us most improbable.

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.

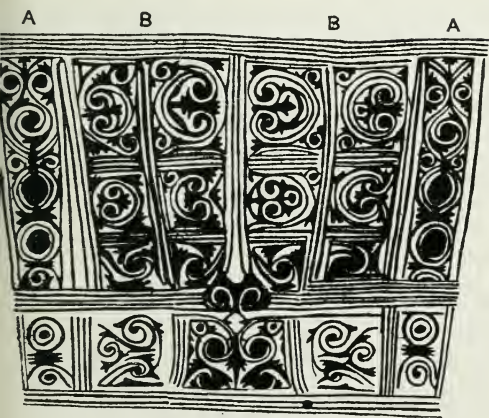
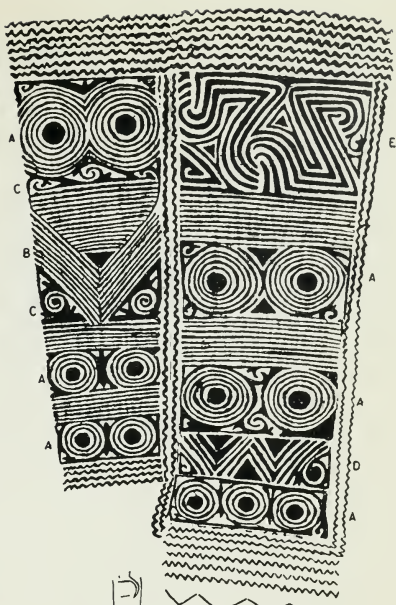
(d) *Kalabit*.—This tribe, dwelling in the watershed of the Limbang and Baram rivers, is closely akin to Muruts, but its tatu is very different. The men tatu but rarely, and then with stripes down the arms. The women, however, are decorated with most striking geometrical designs, shown on Pl. 142, Figs. 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 tisú*, 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 middle of the back of the wrist and two lozenges are tatued on the metacarpals; these are known as *teparat* (Pl. 142, 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 Pl. 142, Figs. 2-4; 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.

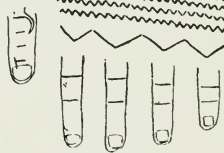
(e) *Long Utan*.—An extinct Klemantan tribe, once dwelling on the Tinjar river, an affluent of the Baram. We owe our knowledge of their tatu to an aged Klemantan, who was well acquainted with the tribe before their disappearance;



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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 were not tatued, and the designs reproduced on Pl. 141, 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 Klemantan 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. cxc. cxciv.]: The men of Pulu Petak, the right-hand lower branch of the Barito or Banjermasin 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' (? Kayans) (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



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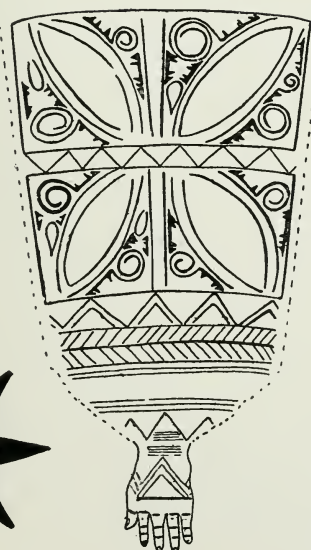
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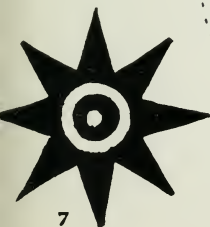
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the limb. On the thigh is tatued a design termed *soewroe*, said to resemble a neck ornament. A disc tatued on the calf of the leg is termed *boentoer*, and from it to the heel runs a barbed line called *ikoeh bajan*, tail of the monitor lizard; curiously 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 *sarapang 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 (Pl. 142, Fig. 6); on the outside of the thigh a rather remarkable design, shown on Pl. 142, 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 *kalang baboi*, the wild 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. (Pl. 142, 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 (Pl. 141, Fig. 3), and Pl. 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



FIG. 73.

extensively tatued, and we figure the principal designs (Pl. 143), 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 Fig. 73, 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

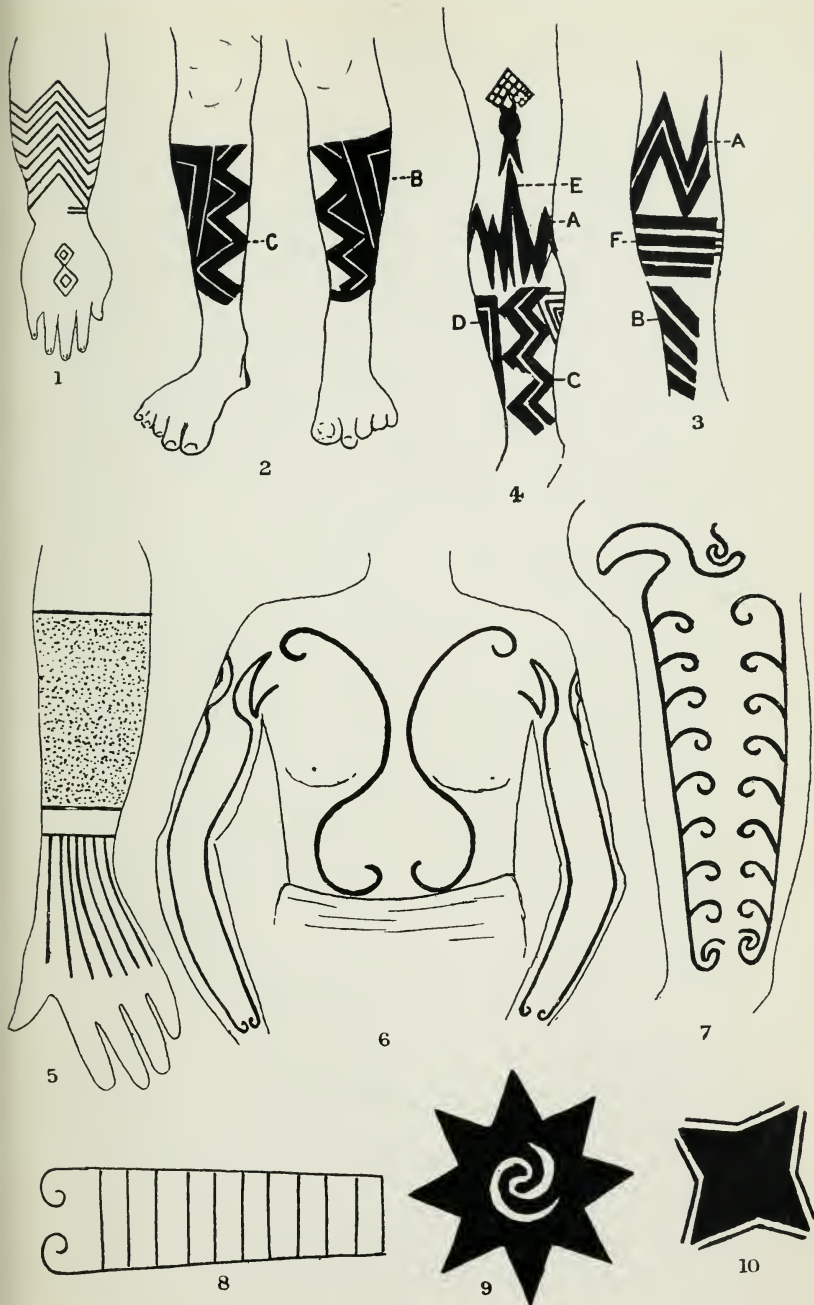


PLATE 142.

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.¹ Kenyahs when on the warpath frequently tie a 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 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. (Pl. 143, 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 Fig.

¹ As an instance of a quite opposite effect produced by a mark on the forehead, we may note here, that some Madangs 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.

74, and Pl. 143, 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, Pl. 80] a Bakatan tatued on the chest in the typical manner.

The only other designs, apparently of Kalamantan



FIG. 74.

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; the woman had in all probability been brought captive to Sarawak, where Mr. Crossland saw her, and it is 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 (Pl. 138, 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 very probably 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.¹ 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.

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 (Figs. 75 and 76) and that on the wrist (Pl. 143, 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

¹ 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.

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

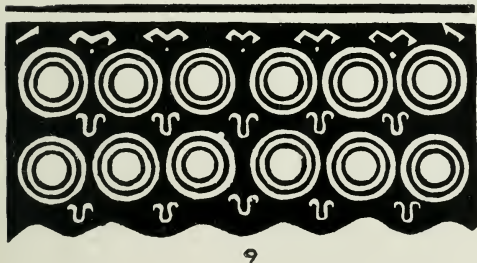


FIG. 75.



FIG. 76.

arts and crafts from tribes who have been longer established in Borneo ; but it must be confessed that in their decorative art they have often improved upon their models ; their bamboo carvings and their woven cloth are indeed " things of beauty." But their tatu involves, not an intelligent elaboration of the models, but a simplification and degradation, or at best an elaboration without significance. Figs. 1-6, Pl. 137, are examples of the Sea Dayaks *tuang asu* or dog design. The figures show the dog design run mad, and it is idle to attempt to interpret 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 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 forms that the original names and significance are lost. 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 by their more restrained practice of tatu and by the constant intercourse between them and the Kayans, for they always have good models before them. Pl. 137, Fig. 3, illustrates the extreme limit of degradation of the dog design amongst Sea Dayaks; it is sometimes termed *kala*, scorpion,¹ 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 design, tatued on the forearm, and termed *taia gasieng*, the thread of the spinning wheel; a similar one figured by Ling Roth [7,

¹ 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*, *prawn*, or *crab*.

p. 88] is termed *trong*, the egg plant. On the breast and shoulders some forms of rosette or star design are tatued in considerable profusion; they are known variously as *bunga trong*, the egg plant flower, *tandan buah*, bunches of fruit, *lukut*, an antique bead, and *ringgit salilang*. A four-pointed star, such as that shown in Fig. 64, 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



FIG. 77.

(Figs. 75, 76, 77) 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. 75, 77) are evidently modifications of the Bakatan *gerowit* 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 derivation 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.

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.

TABLE SHOWING THE FORMS OF TATU PRACTISED BY THE TRIBES OF BORNEO

		Character of Designs.	Part of Body Tatued.	Ceremonial.	Object of Tatu.
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 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.
Kenyah	♂	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.
Peng	♂	Geometrical serial designs, discs, ? isolated designs.	Arm from shoulder to wrist; calf of leg.	?	? Ornament.
	♀	Designs employed by Kayan ♂ ♂ . .	Forearms and legs	?	? Ornament.
Lepu Lutong	♀	Simple geometrical design	Forearm and back of hand	?	?
	♂	? ? same as Kayan designs.	?	?	?
Uma Tow	♀	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	As with Kayan ♀ ♀, but also with lines round the ankles. Tatu of forearms not so extensive.	?
Long Glat and Uma Luhut.	♀	Complicated serial designs, chiefly of zoomorphic <i>motif</i>	Chiefly for ornament, for use in the next world.

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Uma Long	Simple geometrical design (supplied)	Forearm and back of hand	Stomach, breast, arm	None	Partly as a tally of enemies slain.
Dusun	♂ Lines			None	
Murut	♂ Scroll design and circles		Above the knee-cap; on the breast (Practice obsolescent).	None	?
	♀ Parallel lines		Arm and back of hand	? None	? Ornament.
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.	?	With some sub-tribes to signify success in war and love, manual dexterity, etc.
Biajau	♀ ? ?		? ? as with Long Glat	?	?
Ot-Danum Ajar, etc.	♂ 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	?	?
Kahayan	♂ Chequer design		On breast, stomach, throat, arms	?	?
Bakatan and Ukit	♂ 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.
Sea-Dayak	♂ 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.

Kalamantan.

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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 136.

- 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 jaws 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 137.

- Fig. 1.—Sea Dayak modification of the dog design. From a tatu-block in the Sarawak Museum. (No. 1054.102.)
- Fig. 2.— " " " (No. 1054.101.)
- Fig. 3.— " " " (No. 1054.67.)
- Fig. 4.— " " " (No. 1054.109.)
- Fig. 5.— " " " (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.— " " " (No. 1054.75.)
- Fig. 9.—Kenyah modification of the dog design, but known as the "prawn" (*orang*) pattern. From a tatu-block in the Sarawak Museum. (No. 1054.89.)

PLATE 138.

- 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 tuwa*, tuba root; B=*jalaut*, 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 tuwa*; 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 139.

- 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 buwong asu*). From a tatu-block in the Sarawak Museum. (No. 1054.8.)
- Fig. 5.—Kayan (Rejang R.) tatu design known as "dog without a tail" (*tuang buwong 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 (*silong*), 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. 1054.62.)

Fig. 11.—Portion of Uma Lekan Kayan design for back of thigh of women of high rank (after Nieuwenhuis).

PLATE 140.

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=*daun wi*, leaves of rattan; 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. 1054.14.)

Fig. 5. Kayan (Baloi R.) *kalang kowit* or hook design for back of thigh of woman of high rank. From a tatu-block in the Sarawak Museum. (No. 1054.54.)

PLATE 141.

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 Lepu 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. 1054.17.)

PLATE 142.

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.

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 Biajau man of low class. From a drawing by a Maloh.
- Fig. 7.—Tatu design on leg of Biajau man of low class. From a drawing by a Maloh.
- Fig. 8.—Tatu design on shin of Biajau woman of low class. From a drawing by a Maloh.
- Fig. 9.—Kajaman design representing the fruit of *Plukenetia corniculata* (*jalaui*), 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 143.

- 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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