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FASCICULI MALAYENSES

ANTHROPOLOGICAL AND ZOOLOGICAL RESULTS OF AN EXPEDITION
TO PERAK AND THE SIAMESE MALAY STATES, 1901-1902

UNDERTAKEN BY

NELSON ANNANDALE AND HERBERT C. ROBINSON

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MUSICAL INSTRUMENTS

BY

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FELLOW OF EXETER COLLEGE, OXFORD

REPORT ON A COLLECTION OF MUSICAL INSTRUMENTS FROM THE SIAMESE MALAY STATES AND PERAK

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THE musical instruments collected by Messrs. ANNANDALE and ROBINSON in the Siamese Malay States and Perak may, for description, conveniently be divided into the usual three main groups, viz., (A) percussion instruments, (B) wind instruments, (C) stringed instruments. While many of the instruments in the collection are of types already well known, others are, as far as I am aware, new, while others, again, have not, I believe, been recorded from this region. In the following list I have kept the instruments belonging to the wild tribes (Sakai, etc.) separate from those of the Malays and Siamese. As regards the specimens described, the greater number were acquired by Mr. ANNANDALE for the Pitt Rivers Museum at Oxford, where they now are, and I am indebted to him for information regarding their use and *provenance*. A few belonging to Mr. ROBINSON were kindly lent me for examination and are included in the list, being distinguished by having ('ROBINSON coll.') appended. *The collector's notes are enclosed in single inverted commas.*

I. INSTRUMENTS OF THE CIVILIZED TRIBES

A. PERCUSSION INSTRUMENTS

1. *Child's Rattle*. Samsam. Ban Pra Muang, Trang.

Merely a hollow staff of cane with the nodes very close together. The upper internode has a rough lateral perforation, and contains a small pellet, which rattles when the staff is shaken.

'Deformed pieces of cane of the kind are regarded as lucky by the Malays, Siamese, and Sakais, all of whom believe that such deformities "have a spirit."'

2. *Clapper-rattle or sistrum*. Malay name, *rau-rau*. Malay. Jujul, Patani (Plate XX, Fig. 1).

A rod of bamboo, split for rather more than half its length, the split ends being forced apart and kept in position by a transverse bar of wood, upon which are loosely set four half cocoanut shells, disposed in pairs, the hollows of each pair being set towards each other. The cross-bar passes through holes in the cocoanut shells. Total length from cross-bar to end of handle, thirty inches. When shaken, the cocoanut shells clash loudly together. This instrument is used for frightening fish into the nets. It is interesting to note that instruments identical in character with the above appear again in the Melanesian region, where they are used also in connexion with fishing operations, being shaken either above or below water to attract sharks. Santa Cruz, San Cristoval, and the islands off the East Coast of New Guinea (Trobriands, d'Entrecasteaux Islands, etc.) all have this instrument, the form varying in detail only. These must certainly be genetically connected with the Malay *rau-rau*.

'Being only used by fishermen, who are all Mahommedans, the *rau-rau* may be regarded at the present day as distinctly "Malay," but it must be remembered that the coast of Patani, probably, had at one time a large Bugis population.

'Cocoanut shells are strung together on sticks (which, in this case, are fixed upright in the ground) in the open air, and are also used as torches by the natives of the Patani States. A few drops of kerosene, or some other inflammable material, are placed in the uppermost shell, but the natural oil of the shells themselves allows them to burn with a brilliant light. We have seen such torches used at theatrical performances both in Nawngchik and Jalor. Possibly the noise they produce when being set up, or carried from place to place, may originally have suggested the manufacture of an instrument like the *rau-rau*.'

Fig. 1. Scale = $\frac{1}{3}$.

'Another percussion instrument may be mentioned as being used by the Patani fishermen. It consists of a little triangular or square float of light wood,

on which are fastened, suspended from upright sticks, a number of bells, formed either of pieces of tinned iron (derived from kerosene tins) roughly twisted into a conical or flattened tube, or of large crabs' claws. The clapper, in either case, is generally the tip of a similar claw. These floats are attached to drift nets, the position of which they indicate to the fishermen at night.

3. *Spring Castanet*. Malay. Kampong Jalor, Jalor (Fig. 1).

A light rod of bamboo, split into two slender, springy arms, which are united below. On the end of each is fixed a large shell (genus *Ampullaria*), the spring of the supporting arms keeping the shells pressed against one another. A light stick or plectrum is passed rapidly to and fro between the shells, causing them to strike together very rapidly. This instrument is used by Malay children to imitate the sound made by the rice-swamp frogs (*Rana limnocharis*), a very good simulation being produced. A similar instrument is often improvised by peasants in Bosnia and elsewhere, by holding two wooden spoons together, with their bowls back to back, and rapidly passing the handle of a third backwards and forwards between the bowls.

4. *Bamboo Gong*. Malay name, *kalah*. Malay and Siamese. Kampong Jalor (Fig. 2).

Fig 2. Scale = $c. \frac{1}{6}$.

A section of stout bamboo, eighteen and a half inches long, closed by a node at each end. Along one side runs a longitudinal, slit-like opening, twelve inches by nine-sixteenths inch, the bamboo is slightly engraved. The wooden striker is attached by a cord to a flange projecting at one end.

‘Malays travelling at night often carry one of these bamboo gongs, which they strike when uncertain as to the way. The people in the nearest village reply. In some districts of the Patani States the use of the *kalah* is restricted to the *nai-ban* and *kem-nan* (heads of tens and hundreds), who summon their followers with it in case of fire, robbery or the like. Similar gongs are used by the guards on the birds'-nest islands of the Taleh Sap, where each sentinel is obliged to strike his gong every hour through the night,

the signal being taken up by the next watcher, and so on all round the island. In the Patani States the end of the rounds at cock-fights was formerly announced by means of a *kalah*, but a Chinese metal gong is now more commonly employed.'

Such gongs of bamboo are common in the Asiatic region, the Malayan Islands, and parts of the South Pacific.

5. *Cow or Sheep Bell*. Malay name, *keretok*; Siamese name, *ki-tong*. Ban Sai Kau, Nawngchik.

Seed of *tah* or sugar palm (*Arenga saccharifera*); somewhat globular, the lower end cut off to leave a wide opening. Upper end perforated at three places, two holes being for a suspending cord of creeper, the ends of which are knotted through them, and a central one serving for the suspension of a clapper of palm wood. Height of bell, two and a half inches.

6. *Cattle or Elephant Bell*. Ban Sai Kau, Nawngchik (Pl. XX, Fig. 2).

Made from a joint of stout bamboo, cut so as to leave a straight back projecting into a flange at each end, the flanges being perforated for the suspending cord. Sides pared down and flattened; opening below rectangular; ends closed by natural nodes. Clapper of bamboo suspended from a bamboo rod, which is fixed through holes in the ends of the bell and passes through a hole in the top of the clapper. Total length, eight and a quarter inches.

7. *Buffalo Bell*. Malay name, *keretok-krebau*. Kampong Jalor, Jalor (Pl. XX, Fig. 3).

Similar precisely to the last, but made of solid wood instead of bamboo. Length, ten and a half inches.

It is difficult to determine whether the wooden or the bamboo form is the earlier. Cattle bells of this form are common also in Burma.

'This specimen was procured from a Malay, but it is difficult to be sure, with regard to any object procured in Jalor or Nawngchik, whether its original owner was a Malay or a Siamese, *i.e.*, a Mahommedan or a Buddhist.'

8. *Drum*. Malay. Kampong Jalor, Jalor (Pl. XX, Fig. 5).

Body made from half a large cocoanut shell, six and a quarter inches across the opening, overlaid with membrane of raw hide, which is braced by a zigzag lacing of split cane to a cane ring passing round the cocoanut shell. One of the 'eyes' is perforated. Used as a plaything by a Malay child. Similar drums are occasionally used in theatrical performances.

9. *Drum*. Malay. Kampong Jalor (Pl. XX, Fig. 4).

Made from the neck and rim of a large earthenware vessel, the body of which has been broken away. The rim is overlaid with membrane (? stomach

membrane), drawn tight and adhering to the neck of the vessel. Cane loop for suspension. Width across membrane, six-and-a-quarter inches. Malay child's toy.

10. *Drum.* Malay name, *gedombok*. Ban Kassôt, Rhaman-Jalor border (Pl. XX, Fig. 6).

Standing single-membrane drum. Body and stand in one piece of wood, wine-glass shaped. Body rounded, nine inches wide, open above and overlaid with python skin, which is braced with a zigzag lacing of split cane to a ring of cane passing round the lower part of the body. The stand is hollow, barrel-shaped outside, cylindrical within, with an expanding ring base. This drum is used in theatrical performances; it is probably of Siamese origin, the form being well known in Siam proper, where it is frequently very elaborately made, and is called *thon*.

11. Another similar drum, but with the addition of wedges for tightening the bracing thongs, and with monkey's skin instead of python's (ROBINSON coll.)

'Nos. 10 and 11 were obtained together and form a pair. Similar drums are often played singly by the natives of the Patani States, but in theatrical performances, whether the company be Malay or Siamese, the pair is almost invariably associated with a third drum, as is well shown in a model of the Senggora type of orchestra now in the Pitt Rivers Museum. The third drum has a double membrane, and is of a cylindrical or barrel-shaped form; unlike the pair, which are played with the fingers, it is struck with a couple of drumsticks at one end, which is inclined towards the player by means of a forked stick on which the instrument is supported behind.'

12. *Pair of Drums.* Malay. Ban Pra Muang, Trang (Pl. XX, Fig. 7).

Double-membrane drums. Dimensions of one, twenty-three inches long, nine and a half inches across one end and eight and a half across the other. The other drum is half-an-inch smaller in all dimensions. Body of hard, heavy wood, nearly cylindrical, hollow, both ends overlaid with membrane (skin of the *kijang*, *Cervulus muntjac*). The membranes are braced from one to the other with a long zigzag lacing of split cane, their edges being strengthened with cords. The bracing-lines are drawn together in pairs by sliding loops of cane, by which the braces can be tightened to raise the pitch. Both membranes are beaten. These drums were probably made in Kedah; they are rude forms of a well-known Siamese type.

'I was told that in theatrical performances in Kedah drums of this kind largely took the place of specimens like Nos. 10 and 11. Both in Upper

Perak and in Trang all the actors, musicians, and other public entertainers come from Kedah, bringing their more elaborate instruments with them.'

13. *Jew's-harp*. Malay name, *gěnggōng*; Siamese name, *gěng-gōng*. Ban Sai Kau, Nawngchik (Pl. XXI, Fig. 8).

Made of bamboo in one piece, four and a quarter inches long. The vibrating tongue is wide towards the attached end, suddenly narrowing towards the free vibrating end, thickened at the shoulders to add weight and increase the oscillation. The frame follows the outline of the tongue. At the distal end is fixed a plait of coloured threads, by which it is held; at the proximal end the frame terminates in a small spur, to which is attached the jerking-string, which ends in a long, slender wooden toggle. In playing, the instrument is held to the mouth, with the left hand holding the distal end; the string is jerked with the right hand, and this causes the tongue to vibrate, the notes being varied by altering the resonant cavity of the mouth. Jew's-harps of bamboo have a wide range in Eastern Asia, as far north as the Ainu of Yezo, and eastwards through the Malayan Archipelago to the Pacific, where they occur in many of the island groups.

'I have seen them among the Semangs of Upper Perak.'

14. *Jew's-harp*. Kampong Jalor, Jalor (Pl. XXI, Fig. 9).

Similar to No. 13, but of rougher make, four and three quarter inches long, with a strip of cloth and palm leaf at the distal end. The jerking-string is fastened through a small hole at the wide end of the frame, and ends in a small wooden toggle. A lump of wax is fixed to this end of the frame.

15 and 16. Two Jew's-harps similar to No. 14. Kampong Jalor and Ban Sai Kau, five and three-eighths and five and one-eighth inches long. In one the toggle is of porcupine's quill (ROBINSON coll.)

17. *Jew's-harp*. Samsam name, *gěnggōng*. Ban Pra Muang, Trang (Pl. XXI, Fig. 10).

Well and stoutly made of palm wood, five and five-eighths inches long, and half-an-inch wide. The shape as in those of bamboo, but deeper and with the weighted portion of the tongue correspondingly deep. A long strip of cotton cloth is attached to the flattened distal end of the frame. Jerking-string attached to small knob, and ending in a carved wooden toggle. This form is doubtless derived from the bamboo form.

'This instrument was probably made by a Samsam. Bamboo is not so common in the coast districts of Trang as it is in most parts of the Patani States.'

18. *Jew's-harp*. Siamese. State of Trang.

Made of iron, long and narrow in outline; frame two and three-eighths

inches long, made from a quadrangular bar tapering to a point at either end, bent upon itself in the centre, so that the two ends come close together. The tongue of flat steel is clamped at its broad end into a notch in the frame, at the end where the frame is bent round, and projects in a flat flange beyond the frame. It is tapered towards its free end, where it is turned up at an angle. A small cylindrical case of bamboo serves for carrying the instrument. In playing, the terminal flange of the tongue is held in one hand, while the upturned free end is plucked with the fingers of the other hand, the jerking-string being in this way no longer necessary. A similar form to this occurs in Northern India, and the European form of jew's-harp is probably derived from it.

'I was indebted for this specimen to the kindness of Mr. A. STEFFEN.'

B. WIND INSTRUMENTS

19. *Trumpet*. Siamese name, *tat*. Ban Kassôt, Rhaman.

Made of buffalo horn, cut down so as to leave a cupped *embouchure*, expanding towards the other end, which is wide open. The horn is strongly curved, and has two small perforated flanges for a suspending cord.

'Trumpets of the kind often have a magic square engraved on one side. They are used by village headmen in some parts of the Patani States, instead of the bamboo gongs (see No. 4), to call together the people. In the towns and larger villages of the 'Seven Provinces' the Siamese police go round every night at nine p.m. blowing trumpets of the kind, and after the

Fig. 3.

trumpet has sounded no one may go out without carrying a light. The *custom*¹ has been recently introduced from the Dutch East Indies; whither it was probably brought from South Africa, in some parts of which it still prevails.

20. *Musical Windmill*. Malay name, *berbaling* or *baling* (turnabout). Malay. Kampong Jarum, Rhaman.

1. There is no reason to think that the Dutch brought the *instrument* to the East Indies; the similarity between the trumpets of the Zulus and those of the Malays is probably a mere coincidence, and in any case is not very close.—N.A.

A long, narrow blade-like wooden lath, cut in such a way that the planes of the surfaces on either side of the centre are at a slight angle to one another, after the fashion of the blades of a screw-propeller. At the centre this fits over the squared end of a small cylinder or socket of bamboo, which can rotate freely upon the narrowed-down end of a stick, the socket resting on the shoulder of the stick. At the end of each blade of the windmill a small bamboo tube, closed at one end and bevelled off at the other, is lashed transversely. These tubes, which produce the musical sound, are practically single *syrinx* pipes, and are sounded by the wind against which they are driven. To direct the air against the sharp sound-producing edge a small mass of wax partially closes the orifice. Length of the rotating bar, twenty-four and a half inches.

'These musical windmills are used by Malay children in different parts of the Patani States and Perak ; they are held in front of the body while the children run against the wind, which causes the lath to rotate rapidly and the bamboo pipes to give out loud-humming sounds. The pipes are often omitted, the toy being, of course, silent in this case. A *baling* is frequently fixed on the top of a high tree near the entrance to a village, in the belief that its notes call the wind, and so the rain. A similar practice obtains on the tops of mountains. In these cases the instrument is decorated with a palm leaf or stick, projecting at right angles to the lath on an inclined plane, from which bunches of cloth or grass depend, and it seems to be regarded as representing some kind of bird, of which the palm leaf or stick is the tail (*ekor*).'

21. *Whistle*. Malay name, *sernei* ; Siamese name, *whi*. Ban Sai Kau, Nawngchik.

Fig. 4. Scale = c. $\frac{2}{3}$.

Roughly made of wood, consisting of a plain tube, two and seven-eighths inches long, having a cylindrical bore. Externally, it tapers towards the mouthpiece. At the narrower end the surface is cut flat on one side, and a small hole is pierced through the flattened portion. There is no duct for directing the breath, which is guided against the edge of the hole by the lips of the performer. Inserted into the tube is a rough, short stick, which can be slid up and down the bore, and by this means the pitch is raised or lowered at will. The unusual feature of a slide for varying the pitch is noteworthy, the method being an uncommon one among the musical instruments of

barbaric peoples. This instrument is almost identical, in principle, with the old-fashioned European 'pitch-pipes,' although its construction is very rude and primitive.

22. *Whistles of clay.* Malay. Malay name, *pulik*. Patani and Ban Sai Kau.

These are whistling toys made of clay and painted, representing a variety of birds and animals (duck, woodpecker, hornbill, pigeon, frog, rat, etc.) The air is carried through a duct (usually the tail of the bird, etc.) against the edge of the sound-orifice. These toys bear a close resemblance to the bird and animal whistles of pottery made and sold as toys in various parts of Europe.

'No attempt is made to reproduce the cries of the animals represented. In Patani town these whistles are sold for a *keping* (a perforated pewter coin, worth the eighth of a cent).'

23. *Flageolet.* Samsam name, *suling*. Ban Pra Muang, Trang. (Pl. XXI, Fig. 11).

Made of bamboo, seventeen and one-eighth inches long by one and one-eighth inches, decorated with burnt designs. The ends are cut off square. Upper end closed with a long plug of wood, extending one and three-quarter inches into the bore. This is cut so as to leave a narrow air duct, which conducts the air against the edge (or 'voice') of the sound-orifice, which is rectangular, with bevelled sounding-edge. The lower end of the tube is open. Seven open stops on the side opposite to the sound-orifice, and one on the same side as it, opposite to the uppermost of the other series. This type of instrument is very characteristic of Siam proper, where it is often beautifully made, with the addition, occasionally, of a supplementary hole or stop, which is overlaid with thin membrane to give a 'reedy' intonation.

24. *Flageolet.* Malay name, *suling*. Ban Kassot, Rhaman. (Pl. XXI, Fig. 12).

Similar to number 23, but smaller and of ruder make; length, nine and five-eighths inches; width, three-quarters inch. Rectangular sound-orifice cut in a bevelled portion of the surface. Six stops on opposite side to one on the same side as the sound-orifice. Slightly engraved in bands.

25. *Flageolet.* Kampong Jalor, Jalor. (Pl. XXI, Fig. 13).

Similar to the above, roughly made of bamboo, eight and nine-sixteenths inches long, seven-eighths inch wide. The sound-orifice is very close to the end. Six stops in front, none at the back.

26. *Flageolet.* Senggora town.

Similar to the above; five and seven-eighths inches long, five-eighths inch

wide. Mouth-piece plugged with wedge-shaped plug, the thicker end being interior. The embouchure is built up with wax to narrow the duct. Three stops in front, none behind. This instrument was used by a Siamese child, to accompany the workings of a toy puppet in imitation of the *wayang kulit* shadow dance figures.

27. *Flageolet*. Ban Pra Muang, Trang (Pl. XXI, Fig. 14).

Similar in form to No. 23, but somewhat differently constructed. Of dark, mottled bamboo, twelve and five-eighths inches long, seven-eighths inch wide, upper end re-inforced with a ferule of horn. The bamboo has been split along one side and has been mended with three bands of cane work, the crack having been stopped with wax. Seven stops in front, the lowest plugged with wax; one stop at the back, slightly above the uppermost of those on the other side; sound orifice as in No. 23.

28. *Pigeon-call*. Malay name, *bulu decot*. Ban Sai Kau, Nawngchik (Pl. XX, Fig. 15).

Body of large bamboo, twenty and a half inches long, closed by a node near one end, open and prolonged into a spur at the other. Sound-orifice upon the upper surface below the node; the air being driven against it through a long duct formed of a narrow bamboo tube, thirty-two inches long, which passes through an upright wooden rest, which is tenoned through the larger bamboo above the node. A binding of plaited rattan, which is braced to the upright, keeps the duct in position. When blown through, the instrument emits a rich, mellow note, which varies with the force of the blast. It is used for calling a particular kind of wild pigeon called *kabo-ko-pbi* in Siamese. This pigeon-call is identical in all particulars with one used by the Kadyans and Muruts of Northern Borneo for luring the little green pigeons (*Chalcophaps indica*), probably the same species which is captured by its aid in the Malay Peninsula. There is a specimen in the British Museum (Murut), and its use is well described by F. W. BURBRIDGE.¹

‘Several specimens were seen at Ban Sai Kau, all closely similar, and we found it difficult on Bukit Besar to distinguish between the cry of the real pigeon and its imitation. The Selangor pigeon-call appears to be very much larger.’²

29. *Oboe*. Samsam name, *sernei*. Pulau Telibun, Trang (Pl. XXI, Fig. 16).

Tube of wood, tapering slightly upwards, carved with raised bands between the stops, which are six in number in front and one at the back. Plain bell-mouth of light wood. Into the upper end of the tube is inserted a reed-carrier of

1. *The Gardens of the Sun*, p. 73.

2. See W. W. Skeat, *Malay Magic*, p. 133, pl. 4.

tin bound with thread ; double sounding-reed made of double layers of palm-leaf. Lip-rest of cocoanut shell. A seventh stop in front above the others and a corresponding stop at the back have been plugged up with wax, and are functionless. This oboe was used to accompany a *rebab* (fiddle), No. 34. It was probably made in Kedah.

'Sounding-reeds, very similar to that used with this oboe, are employed as deer-calls in Jalor. As a rule two are tied together with a long string, so that one may be available if the other goes wrong.

30. *Oboe*. Malay name, *sernei*. Kampong Jalor, Jalor.

Similar to the last, but with tube of turned wood, varnished ; six stops in front, one at the back. Upper end of tube carved, as is also the bell-mouth. Reed missing.

'This was used, together with *rebab*, three drums (*cf.* No. 11), and simple bamboo clappers, in theatrical performances.'

31. *Whizzing-stick or Bull-roarer*. Malay name, *berbaling*¹ or *baling*. Kampong Jalor, Jalor (Fig. 5, upper figure).

Fig. 5. Scale = $\frac{1}{4}$

A very thin, blade-like slip of bamboo, eight inches by three-quarters inch, cut off square at the lower end, shaped with sloping shoulders and narrow neck for attachment of string at upper end. Attached by a piece of string to a small, slender stick, about thirteen inches long. It is whirled round in the air and produces a humming sound.

'Now almost obsolete, but occasionally made as a Malay child's toy. Formerly it was used for scaring elephants from plantations.'

The name *berbaling* is also applied to the toy wind-mills (see Fig. 3 in the text).

32. *Whizzing-stick or Bull-roarer*. Patani town (Fig. 5, lower figure).

A very thin blade of bamboo, shaped like the usual form of spear-head, more or less leaf-shaped, with a tang ; ten and a quarter inches long. The

1. Mr. W. W. Skeat suggests that the name is really *babaling* or *bebaling*—a reduplicated form of *baling*. Owing to the burr with which it is spoken it is often impossible to transliterate words in the Patani dialect exactly.—ED.

string is attached to a neck cut in the end of the tang, its other end being fastened to a stick nearly four feet long. This specimen was made by a Patani boatman—the same man who made two specimens for Mr. W. W. Skeat, one of which is figured by Professor A. C. Haddon (*Study of Man*, Fig. 40, No. 7).

‘The native name given by Mr. Skeat applies to the spear-head shaped form only, the name *berbaling* being that applied to the instrument in general.’

C. STRINGED INSTRUMENTS

33. *Fiddle*. Malay name, *rebat*.¹ Patani town (Pl. XXI, Fig. 17).

Length, thirty-three inches. Body made from a large cocoanut shell, cup-shaped, widely oval at the rim, overlaid with membrane. A rod of palm-wood passes through the shell, and over this is slid the neck of bamboo, to the upper end of which is fixed a head of carved wood, having three tuning-pegs. A ‘foot’ of bamboo passes over the palm-wood rod, below the resonator. Three strings are attached to the ‘foot’ and to the tuning-pegs, passing over an arched bridge on the membrane. The strings are bound against the neck, high up, with a whipping of string, their tension keeping the parts together. Bow of wood, twenty-four and five-eighths inches long, arched; proximal end discoidal with groove for the index-finger to lie in; distal end carved, flat, and pointed; bunch of strings of vegetable fibre, very loose. These are tautened by the fingers of the right hand in playing. This form of fiddle is common to Siam proper and to Java, though minor modifications are observable locally.

‘In the Patani States such fiddles are generally used either in theatrical performances or in magical incantations. In either case they are regarded as sacred (*kramat*), all dramatic entertainments being of a semi-magical nature.’

34. *Fiddle*. Samsam name, *rebat*. Pulau Telibun, Trang (Pl. XXI, Fig. 18).

Similar to No. 33, but of superior make. Length, thirty-six inches; body of cocoanut shell, nearly circular, seven and a quarter inches across, covered with fine membrane. ‘Foot’ and ‘neck’ of ornamentally turned wood. Head large and carved; turned tuning-pegs. Three strings of twisted cord, arranged as in No. 33. Bow as in No. 33, twenty-four and three-quarters inches long, the proximal end in a separate piece, with small perforated flange for attachment of strings. This instrument was probably made in Kedah (*cf.* No. 29).

1. Mr. W. W. Skeat has been kind enough to send me the following note regarding this word:—‘The word *rebat* is merely a loose pronunciation of *reba*—more strictly *geba*—which is the Patani-Kelantan form of *rebab* or *hurebab*, the Malay fiddle. Certain final consonants, e.g., “b,” “p,” “k,” etc., are broken down into a mere “click” in the Patani-Kelantan dialect, and *rebat* is merely a loose pronunciation of this, = *rebab*.’ The word is not Malay, but Arabic; probably having come, originally, from North Africa or Turkey.—Ed.

35. *Fiddle*. Malay. Jambu, Jhering.

Similar to the above ; thirty-one inches long. Neck in two parts, upper part bearing a carved 'head.' The wooden parts are turned and painted. Two ebony tuning-pegs ; two strings of brass wire. Bridge with wide-spread foot and narrow columnar rest. Small bag of rosin attached to neck. Bow twenty-two inches long, plain, shaped as before.

36. *Fiddle*. Malay. Patani River, Hulu Rhaman.

Similar to the above, but of ruder construction. 'Foot' and lower part of neck of soft wood, upper part of neck of bamboo, head of wood carved to represent the head-dress of a *dewa* (demi-god) and inset with fragments of glass. Three plain wooden tuning-pegs, three strings of twisted fibre ; arched bridge. Bow similar to those of the above instruments.

37. *Fiddle*. Patani town.

Similar to No. 36, but better finished. Carved and painted, with burnt designs on the bamboo part of the neck. Carved head terminating in the glass stopper of a bottle. Three carved pegs ; arched bridge. On the membrane is fixed a lump of gum or rosin, probably to quench the inharmonic tones of the membrane. Bow of cane, slender and flexible, perforated at the proximal end and notched at the distal end ; horsehair strings knotted through hole and notch. The bow is modelled upon the Chinese pattern and may probably have belonged to another instrument of Chinese form (see No. 39). (ROBINSON coll.)

38. *Fiddle*. Kampong Jalor, Jalor.

Similar to No. 33, but smaller and of ruder make. Length, twenty-seven and a half inches. Head and neck in one piece of bamboo. Bow fifteen and a quarter inches long, of rude construction, proximal end expanded and curled over, with finger groove.

39. *Fiddle*. Samsam name, *rebab*. Pulau Telibun, Trang (Pl. XXI, Fig. 19).

Length, twenty-three and three-quarters inches. Body of scraped cocoanut shell, bowl-shaped ; aperture, four and a half inches across, covered with layers of newspaper. Neck and head in one piece of wood, cut square at the head. Two large tuning-pegs. The neck passes through the resonator, and forms a small foot below it. Two strings attached to the foot, and passing over a bridge of rolled-up paper, through a sliding loop on the neck, to be fastened above to the split ends of the tuning-pegs, which project far out. Bow as in No. 37, twenty-nine inches long. This is a thoroughly Chinese form of fiddle, and resembles the *erb-hsien* of the lower-class Chinese. The form has been adopted in Siam proper, and much improved upon.

II. INSTRUMENTS OF THE WILD TRIBES

A. PERCUSSION INSTRUMENTS

40. *Toy Squirrel (tupai)*. Kampong Jarum, Hulu Rhaman.

Fig. 6. Scale = c. $\frac{1}{6}$

Made of light wood to represent a squirrel with movable limbs, mounted upon a stick. When the stick is waved to and fro the squirrel flies backwards and forwards, striking the stick; or the stick may be struck against the palm of the left hand. This instrument was made by a Malay after the fashion of the movable toy animals used by Malay and Siamese children in the Patani States, but he affirmed that the Semangs of Rhaman used these in their musical entertainments, for beating time to the music and setting the rhythm, in conjunction with Nos. 41 and 46.

41. *Musical Clapper*. Malay name, *genggong Sakai*. K. Jarum, Rhaman.

Fig. 7. Scale = c. $\frac{1}{4}$

Made from a cylinder of bamboo, fifteen and a quarter inches long, one and three-eighths inches wide. For half the length, two portions of the bamboo are cut away, so as to leave two long and nearly flat vibrating tongues. On either side of the cylindrical part of the bamboo an elliptical hole is cut through, about four and a half inches from the end and at right angles to the plane of the two tongues. The bamboo between the holes and the bases of the tongues is split. The instrument is struck upon the thigh, the split edges being thus caused to jar together, and the two tongues to vibrate. The sound is modified by closing one or both of the lateral holes. This instrument was made by a Malay, who said that it was used by the *Orang Sakai* (i.e., *Semangs*) of

the district, in conjunction with their rude stringed instruments and toy squirrels. It somewhat resembles a tuning-fork in principle, but is peculiar from the fact of its being furnished with stops, a very unusual feature in percussion instruments. An identical instrument is described by Dr. A. SCHANDENBURG¹ from the Philippine Islands, under the name *buncacan*. It is therefore probable that this instrument occurs in other intermediate localities, to which, however, I have no references at present.

‘Should it prove to be a real Semang instrument and to be peculiar to the Malay Peninsula and the Philippines, it would be a most interesting link between the Semangs and the Negritos of these islands.’

‘At Ban Sai Kau, in Nawngchik, an implement, similar in form to this instrument, but six or seven feet in length, was seen in use as a pair of tongs in removing elephant dung from the space round which one of the hamlets was built.’

42. *Musical Clapper*. Procured together with the last, to which it is similar. It is smaller (fifteen inches long) and narrower. This specimen sounds very well.

B. WIND INSTRUMENTS

43. *Transverse Flute*. Semang (*Semán*). Grit, Upper Perak (Pl. XX, Fig. 20).

Of bamboo ; twenty-three inches long, three-quarters inch broad. The upper end is plugged up with wax. Sound-orifice lateral, one and a half inches from the end. There are three stops: six and three-quarters, two and seven-eighths, and one and a quarter inches from the lower end, which is closed by a node. It is blown transversely across the sound-orifice.

‘On several occasions I heard the Semangs playing these flutes in the jungle, and noticed that the younger men generally had one stuck into their belts when travelling. In a dance they got up, at my request, at Grit, they did not play their flutes, but used them as clappers, beating them down vertically on the ground in time with their primitive zithers. The Sakais of the Batang Padang district, South Perak, use larger bamboos in a similar way upon recumbent tree-trunks.’

44. *Two Nose-flutes*. Sakai (*Mai Darát*). Batang Padang district, South Perak.

Of green bamboo ; fifteen and a half inches long, narrow. The upper end cuts through a node, which is perforated with a central hole, across which the breath is blown from the nostril somewhat diagonally. There are five

rectangular stops towards the lower end, the lowest being only three-eighths inch from the bottom. The use of the nostril in blowing upon wind instruments is very widely spread, and may have arisen, independently, in some of the less connected areas. This form of nose-flute, with the sound-orifice at the extremity, resembles that of the Kayans and Kenniahs of Borneo, the island of Nias, Sumatra (Battaks), the Caroline Islands, etc.

‘In the Malay Peninsula, nose-flutes appear to be characteristic of the true Sakai tribes (not the ‘Sakais’ or bastard Semangs of Upper Perak), as distinct from the true Semangs, who, as far as I could discover, only use mouth flutes. These, on the other hand, are probably unknown to the true Sakais. The nose-flute forms an interesting connexion between the Sakais and other primitive tribes of at least partially Mongoloid origin in the Malay Archipelago.’

C. STRINGED INSTRUMENTS

45. *Monochord*. Malay name, *gendang batak*. Kampong Jalor, Jalor (Fig. 8).

Fig. 8

The string is formed of a strip of cane, six feet three inches long, tied at each end to a pointed wooden peg, ten inches long. The pegs are driven into the ground, so as to stretch the string to its full length. A pot-shaped hollow is dug in the ground below the centre of the string, and over this is laid a sheet of *upik* (areca palm flower-spathe). A short stick rests upright upon the *upik* and serves as a bridge, over which the string is strained. In playing, the performer squats on the ground in front of the instrument and taps the string, on either side of the bridge, with two little strikers of wood or rattan. He also strikes the surface of the *upik*, which thus acts as a kind of drum.

‘This form of monochord is common among Malay children in parts of Jalor and Rhaman, but we did not hear of its existence in any Sakai or Semang tribe. It appears to be quite unknown to the Malays of Hulu Kelantan, and I was unable to ascertain its occurrence in Upper Perak.’

46. *Primitive Zither*. Malay name, *gendang batak*. Kampong Jarum, Rhaman.

Bamboo internode, twenty-eight and one-half inches long, closed by a node near each end. Five strings, formed by splitting away narrow strips of the fibrous surface of the bamboo, leaving their ends still attached near the nodes. Bands of cane prevent their tearing away any further. Small bridges raise up the strings at either end. Two pairs of strings are joined by small rectangular plates of bamboo, the ends of which clip on to the strings near the centre. Underneath these plates are rectangular holes into the cavity of the bamboo. The instrument is played by twanging the strings with the fingers and tapping the little plates of bamboo upon the strings. It was made by a Malay, but was said to be used by the Semangs of the district. This method of making strings by splitting up portions of a bamboo is very widely spread throughout the Malayan region, and occurs also in India, North Africa, Madagascar, South America, and elsewhere.

‘Instruments of this kind are common among the Malayo-Siamese, and we did not see them in any Semang or Sakai camp. A slightly different form, noted among the Malays at Jambu and elsewhere, has a circular piece of *upik* lightly fastened to one side of the upper end over the node, which is pierced in the centre and is not quite at the end in this form. The *upik* is tapped with the fingers very much in the same way as the little plates of bamboo that clip on to the strings. The name *gendang batak* must not be taken to imply that the Malays associate either instrument they know by it with the Bataks or Battaks of Sumatra, for the word, though also used as the name of this tribe, has often quite a general sense, whether primitive or not I do not know, in the Patani dialect, meaning “cannibal” or “savage.” The word *dayak* is used in a similar way, but without the association of cannibalism. “Raja Batak” is a common figure in the shadow plays of the Malays and Siamese, representing a woman with the huge canine fangs commonly attributed to cannibals by these peoples.

47. *Primitive Zither*. Kampong Jarum (Pl. XXI, Fig. 21).

Procured at the same time as the last, which it closely resembles. It is of stouter bamboo, twenty-seven and a half inches long, and has seven strings.

48. *Primitive Zither*. Malay. Kampong Jalor, Jalor (Pl. XXI, Fig. 22).

Same as Nos. 46 and 47, but shorter (only sixteen and seven-eighths inches long); of stout, thick-walled bamboo. Seven strings, without binding bands beyond the bridges.

49. *Zither*. Sakai (*Mai Darát*). Bidor, South Perak (Pl. XXI, Fig. 23).

Cylinder of bamboo, roughly cut, about sixteen and a half inches long, open at both ends. Two strings of dark-brown fibre, knotted through slits below and bound round the bamboo high up, one above the other; the ends finished off ornamentally in a scroll. The strings should be bridged up at both ends. Played with the fingers.

'The ornamental scrolling of the strings is very characteristic of the instruments of the Sakais and Semangs, differentiating them from those of the Malays, Siamese, or Samsams.'

50. *Sakai Zither*. Same particulars. Similar to No. 49, but smaller; eleven and three-quarter inches long.

51. *Zither*. Semang (*Semán*). Grit, Upper Perak (Pl. XXI, Fig. 24).

Similar to Nos. 49 and 50, but better made. Bamboo cylinder, eighteen and a half inches long, slightly engraved. Two strings, consisting of a single cane thong, the ends of which are passed through small holes at the lower end of the bamboo, and are drawn tight and bound round the bamboo above, the ends being scrolled ornamentally. The upper bridges are missing.

52. *Zither*. Sakai (*Orang Bukit*). Labuansara, near Kuala Lumpur, Selangor (Pl. XXI, Fig. 25).

Similar to No. 51, but three-stringed. The bamboo cylinder is twenty-five inches long and is narrow; partly closed by a perforated node at one end, open at the other. The three cane strings are fastened at the lower end through a hole in the bamboo. They pass over a single grooved bridge at this end, over three bridges at the other, where they are fastened as in No. 51. Below the centre of the bamboo are four equidistant longitudinal slits about two and seven-eighths inches long and about three-sixteenths inch wide. The bridges were gummed in position in this instrument when it was procured; in the other Sakai and Semang zithers they were loose.

'The following facts should be emphasized with regard to the specimens described under the heading "Instruments of the Wild Tribes." Only Nos. 43, 44, 49, 50, 51, and 52 were actually made by Sakais or Semangs, the remainder having been constructed by Malays, who said that they were Semang in design. Nos. 45 and 47, however, were not even ascribed to the wild tribes in this limited sense, but are included under the same heading for the sake of convenience, as one of them is identical with another specimen said to be of Semang design, while the other has the same Malay name, though it is quite a different instrument.'

SCOTT, I. I. III
A.

S. A. I. L. I. N. A. R. B.

SCALE = ; LINEAR.
C.

PERCUSSION AND WIND INSTRUMENTS.

A. COW-BELLS, RATTLE AND BIRD-CALL.

B DRUMS

C. FILL FLAGEOLETS AND OBOI

SCALE = $\frac{1}{2}$ LINEAR
A.

SCALE = $\frac{1}{2}$ LINEAR
B.

SCALE = $\frac{1}{2}$ LINEAR
C.

JEWS-HARPS AND STRINGED INSTRUMENTS.

A. JEWS-HARPS.

B. FIDDLES

C. PRIMITIVE ZITHERS

RELIGION AND MAGIC

BY

NELSON ANNANDALE, B.A.

RELIGION AND MAGIC AMONG THE MALAYS OF THE PATANI STATES

By NELSON ANNANDALE, B.A.

PART II

GHOSTS AND ANCESTOR WORSHIP

ALTHOUGH, as has been shown in a former part, the Malays of the Patani States regard many naturally organized things—vegetable and mineral as well as animal—as beings endowed with a soul, even extending the same property to certain objects made with men's hands, yet I am not aware that they believe that the souls of animals, plants, minerals, houses or the like, remain in existence after the dissolution of their concrete bodies as actual spectres, unless it be in the case of certain animals, which have become *kramat* or sacred (like the crocodile, 'Toh Sri Lam) and do not really die, though their bodies may appear to do so.

It is otherwise with human beings ; but it is not clear, in many cases, which of the souls I have enumerated becomes the ghost, or, indeed, whether it may not be some other vaguely imagined emanation, which has no very definite existence as an entity during the physical life of the person. It has been already noted that men's *badi* are sometimes called *hantu orang*, but I have been told by Jalor peasants that there are other *bantu orang*, also called *jimbalam orang*, which are not *badi*, though they originate from dead men. These *jimbalam orang* may occasionally be seen at night in waste places, leaning on long sticks, wearing red caps and eating earth. If anyone is bold enough to seize one of their caps, and swift enough to escape their pursuit, he will gain the 'great science' (*bilmu besar*), that is to say, the art of becoming invisible. These ghosts appear to be closely connected with the Earth Spirits, which will be described later.

In the town of Patani one of the most dreaded of spirits is the *hantu bungkus* or *bantu galas* (Bundle or Package Spirit), whose proper form is that of a white cat, but which lies about at night in lanes leading to the cemetery in the form of a bundle of dirty white rags. Should a person pass it who is afraid,

it unrolls itself, twines itself round his feet, enters his person by means of his big toe, and feasts within on his soul, so that he becomes distraught and dies in convulsions, unless a competent medicine-man can exorcise it in time to save his life and reason. It is said that spirits of this kind have become far less numerous of recent years, perhaps because the establishment of Siamese rule has restrained the ferocity of the native rajas, making it impossible for them to murder their subjects at will. A very intelligent Malay, whom I met in Upper Perak, explained to me that the *hantu bungkus* was a corpse in its shroud.

The spirits of dead men do not confine themselves to waste places, for they are naturally anxious to re-visit their former homes. For this reason a curious belief is held in Patani regarding talking birds, such as the mina and the cockatoo. It is said that such birds never live very long after attaining human speech, because the spirits of the dead strangle them. The mere fact that they are able to acquire articulate speech marks them off from other animals, and they are believed to be also singular in being able to see spirits which do not willingly reveal themselves. The spirits, therefore, are afraid that they will warn the master of the house of their approach, having gained the capacity to do so in his own language, and so they strangle them, not wishing that the inmates should be given the opportunity of protecting themselves against their attacks.

Houses, especially those in which a murder has been committed, often get the reputation of being haunted by a ghost, and the same fate is believed to befall families which have been cursed on a death-bed. The hereditary governors of Nawnghchik were long subject to a curse of the kind, the legend of its origin being as follows:—The first governor, on his death-bed, threatened to kill anyone but his own son who should succeed him. By the intrigues of a rival candidate the son was declared insane, and was not given the governorship. For several generations no governor lived for more than a month after succeeding to the office, and strange noises were heard at night in the house, until the predecessor of the present governor summoned a great magician from Patalung, who successfully exorcised the ghost.

The form of the *hantu bungkus* shows that it is not necessary for a ghost, when it reveals itself, to have the proper form of its corporeal body, though it generally does so, and the same idea is illustrated in a less striking manner by the *hantu langsuir*, the ghost of a woman dead in child-birth. This spirit takes the form of a very beautiful woman with a hole in the back of her neck. We were told in Jalor by several old women that it only originated from Siamese or Chinese women, and that Malay women who lost their lives in augmenting the population went straight to heaven (*sûrga*), but this is certainly

not the belief in other parts of the Malay Peninsula, and, in any case, I do not think there is any reason why one part of the spiritual essence of a person should not go to heaven while the other remains on earth, for although the *badi* of a murdered Mahomedan remains by his bones, this does not prevent him from enjoying the delights of Paradise. The fact is that in a jumble of incompatible religions like that of the Patani Malays we must not expect clearly defined tenets, while even in the beliefs of savages, whose religion has not been influenced by a higher culture, the materialism of their spiritual conceptions does not argue a logical or dogmatic creed. The *hantu langsuir* is regarded in Upper Perak and the Patani States as being a jungle spirit (*hantu hutan*), which cannot be tamed, but in some parts of the Peninsula it can be transformed into a living woman by cutting off its long locks and stuffing them down the hole in the back of its neck.¹ In the former localities it is believed to sit in the peculiar *Ficus* known as *paum jerei*,² and to come into the village at night and possess women.

Of actual ancestor-worship the traces are comparatively slight, though the very word *hantu*, now chiefly, but not entirely, applied to spirits which have no direct connexion with men, is believed by some authorities³ to be a Sanscrit word meaning 'dead.' At the present day, however, offerings to *hantu* are frequently made in cemeteries, especially in the neighbourhood of Patani Town, and also in waste places where those who have died a 'bad' death are buried. Dutiful children visit their parents' graves once a year, generally on a Mahomedan 'great day' (*hari raya*), and pour water on them, 'to keep their parents cool,' and the same ceremony was performed by the ex-Raja of Patani whenever he was about to leave his state. When persons have died a 'bad' or unlucky death it is not performed, because their children would be afraid to visit the grave. The idea conveyed may be the same as that of the Orang Laut of Trang when they bury a bottle of water⁴ with the corpse.

To explain another series of beliefs, which have been described with some, but not with full, justification as a system of ancestor-worship,⁵ it will be necessary to embark on a discussion of the word *kramat*, the exact derivation

1. Skeat, *Malay Magic*, p. 326. According to this author the *langsuir* was originally a woman who died on hearing that her child was stillborn.

2. The seed of this parasite, probably introduced by a bird, germinates in some cavity of the trunk of another tree. Hence it sends its branches upwards, and its tangled twisted roots downwards, until it strangles its host, which finally disappears, disintegrated by the weather. The *jerei* then stands upon its own legs, or rather roots, its weird form causing it to be regarded with superstitious reverence in the Andamans, in Borneo and elsewhere, as well as in Malaya. Malay rajas in the Peninsula are fond of comparing the British rule to it, they themselves being the original host.

3. Favre, *Dictionnaire Malais-Français*, vol. i, p. 193, s. v. *hantu*.

4. *Antea*, part i, p. 64.

5. A. O. Blagden, *Malay Magic*, pp. 673 et postea.

and meaning of which have been much disputed by Malay scholars. So far as its etymology is concerned, it will be sufficient for my purpose to state, as all authorities appear to agree, that it is derived from the Arabic, but its applied meaning in the Patani States cannot be dismissed so lightly. Generally speaking, it means 'sacred,' or, when used as a substantive, 'a sacred place,' but sometimes can only be translated 'lucky' or 'accursed,' for it has come to have the wide meaning 'connected with a spirit or supernatural influence' of any kind. But the quality of being 'sacred' falls naturally under two headings, and a place may be either 'saint-sacred' (*kramat wali*, or, in more correct Malay, *kramat walir*) or 'spirit-sacred' (*kramat bantu*), though the qualifying word is usually omitted in conversation.

So far as I know a *kramat walir* is always the grave of a Mahommedan saint, where miracles are wrought, or prognostications of the future given, in return for sacrifice and prayer. This system is one common to the Mahommedan world and need not detain us, seeing that Mr. SKEAT¹ has published the legend of the only 'saint-sacred' shrine of any importance in the Patani States, namely the grave of 'Toh Panjang at Kampong Datoh, on Cape Patani. Two suggestive facts may, however, be noted in regard to this shrine: (1) since Mr. SKEAT's visit, in 1899, a Mahommedan Indian from Singapore has discovered what is believed to be the grave of a second follower of the saint, and this grave, situated beside those of 'Toh Panjang himself and another henchman, has already commenced to be the centre of a cultus; while, (2) seeing that Cape Patani is difficult of access in bad weather, there exists at the mouth of the Patani River what may be described as a chapel-of-ease of 'Toh Panjang, that is to say, a tree whereon offerings to the Saint may be hung by those who are too poor or too lazy to visit the shrine itself.

Leaving Mahommedan saints and shrines, we find that the beliefs and practices connected with the word *kramat* are of a complicated nature. For the sake of lucidity, I propose to deal with them in the same order as that adopted when dealing with souls, viz., to talk first of persons who are *kramat*, then of animals, and finally of trees, places and inanimate objects generally.

A *kramat hidup*, that is to say, a 'living sacred place,' a living shrine, is a person who is so intimate with the spiritual world that the spirits have become part of himself; he is able to materialize them when others can only ensure their presence in an incorporate condition, and when he offers them a sacrifice they devour it bodily, not merely consuming its savour (*babu*) or soul (*semangat*) as they do when an ordinary medicine-man makes them an offering. When a man or woman has gained such spiritual power, by study

1. *Fables and Folk-tales from an Eastern Forest*: Cambridge, 1901.

and a strong soul (*semangat kuat*), he or she is no longer subject to death in the ordinary sense, though the body may perish and decay, but, as a young Patani fisherman expressed it to me, 'lives on in the woods and in the dreams of men,' becoming visible to favoured persons who are in the jungle or asleep. After seeming death, after becoming habitually invisible, such a person may even marry or give in marriage, as the following story shows :—

On a hill in Rhaman, not very far above Bendang Stah, there is a shrine reputed to be the grave of a woman called 'Toh Bidan Ma Saleh, Grandmother Midwife the Mother of Saleh, who became a living shrine on account of her skill in bringing babies into the world, or rather in counteracting the wiles of the spirits which attend when a baby is born. Some years ago a tornado arose in Rhaman which swept round a great stretch of country, cutting a narrow and well-defined path for itself through the jungle. Ten days before its occurrence 'Toh Bidan Ma Saleh appeared in a dream to the raja of Rhaman at Kota Bharu, and said, 'Let not thy people be alarmed, for in ten days I marry my son to the daughter of the raja of Lakawn Suka. When they hear the noise of guns and a mighty wind, and the marriage procession passes, let them not be afraid.' At the same time the raja of the spirit-land of Lakawn Suka appeared to the headman of Kampong Jarum, whose brother-in-law told me the story. On the appointed day, after the sound of cannons had been heard from the mountain, the marriage procession passed the village in a mighty wind, hurting no one and doing no harm to the houses, but cutting a path in the jungle as though with hundreds of knives. The headman's brother-in-law was seated on the platform of his house, beside a number of trays of new tobacco which were drying in the sun. He told me that he was the only person in Jarum who was not afraid, but he cried out 'O 'Toh Bidan Ma Saleh, take the tobacco to make cigarettes for the wedding feast,' and the wind carried the tobacco away.

The power to become a living shrine is, in a very limited sense, hereditary, though not necessarily descending from father to son. I know of a family in Jalor which has produced five such members within three generations. The reason of this is twofold ; in the first place, all medicine-men, whatever their grade may be, are obliged to hand on their art to an apprentice, who is often, but not always, a relation of a younger generation, and, in the second, everything connected in any way with a living shrine becomes more or less sacred itself. The legends surrounding the great name of 'Toh Ni, a raja of Rhaman who died within the last fifty or sixty years, are very instructive from several points of view, and I will deal with them together, although in so doing it will be impossible to keep exactly to the order proposed in a recent paragraph.

In a well-defined district, commencing near Lenggong in Upper Perak, reaching across the main range of the Peninsula and ending abruptly at Bendang Stah near the Jalor-Rhaman border, this raja has become practically a local saint or genius, equally revered by Buddhists and Mahommedans, though there are many persons still living who claim to remember his earthly reign. In this district no native will start on a journey in the jungle without first lighting a taper in honour of 'Toh Ni and asking for his protection in the woods. No formula of dedication is used, but the traveller 'remembers 'Toh Ni in his heart.' No sacred place is visited, but the taper is often fastened to a large jungle tree, sometimes to the posts of a house or even to the side of an elephant howdah. Outside of 'Toh Ni's country it is not customary to make him offerings unless they have been vowed within its borders, but if a promise has been made it may be fulfilled elsewhere. A Patani man whom I knew was travelling with his uncle in 'Toh Ni's country when he fell sick of a fever. The uncle promised to light twenty-four wax tapers in honour of 'Toh Ni if he recovered, which he did at once. But the vow was not fulfilled. The two men returned to the coast, where my friend was taken ill—worse than before. The uncle remembered his vow and offered the candles there and then, thus securing his nephew's immediate recovery.

'Toh Ni is believed to object to quarrelling and evil speaking of all kinds in his country, especially after dark, and is said to avenge himself on those who forswear themselves by him. If anyone does this at night he hears a rustling in the trees ; if he persists, he dies with his neck so twisted that his face is over his back. A woman was said to have died in this way shortly before my visit to Rhaman.

'Toh Ni was not only raja of the human state of Rhaman, but also of the spirit-land of Lakawn Suka, which he could make near or far, anywhere or nowhere, as he pleased. As a rule it is supposed to lie somewhere at the headwaters of the Sungei Lakawn Suka, a tributary of the Patani up which it is said that no man has ever made his way. The following story¹ is told regarding this country in Rhaman ; I had it from one of my raftsmen on the river :—'Toh Ni had lost some elephants and had sent three of his young men to search for them in the woods, where they wandered for many days. At last they came to a fair city with a fine guest-house, into which their leader went, leaving his two companions without, and bidding them speak to no one. Within he found an old man, who was really a spirit, mending a casting-net, and was told that the elephants had been found. Meanwhile a beautiful

1. It is quite possible that this legend may refer to some jungle tribe still existing, for the sources of the Patani River and its tributaries are still unexplored.

woman, also a spirit, had accosted the two who had remained without, and one of them had attempted to embrace her. She had bitten his shoulder, causing him an agony of pain. But 'Toh Ni, foreseeing some such occurrence, had given the headman a magic ball, which he rubbed on his companion's shoulder, producing instant relief. The three men returned to Kota Bharu, which they reached in three days. Their leader, however, after many years, became possessed of a strong desire to revisit the beautiful land of Lakawn Suka, and, setting out to seek it in the woods, never returned again.

So great was 'Toh Ni that everything he owned or handled became sacred. One day, on a journey, he threw away an old bamboo cylinder which had contained *blacham*—a malodorous conserve of fish, prawns and salt of which Malays are fond. Dead as the bamboo was to all appearance, it sprouted and grew, producing in the course of time a large thicket, which is distinguished from other bamboos by the peculiar shape and size of the leaves, and, above all, by the fact that the stems are covered with a white efflorescence like that of salt. It is situated in Rhaman, on the left bank of the Patani River, some miles above Bendang Stah. When I passed it on my way to Patani from Upper Perak, my raftsmen, some of whom were Malays and some Siamese, tried to persuade my Siamese servant, who came from Bangkok, to pluck a twig, saying that the *Datoh* would not hurt a Bangkok man; but one of them told me that his own brother, having attempted to steal a small branch, immediately fell down dead, with blood spurting out all over his body. Even a leaf would have been a most powerful luck charm.

'Toh Ni's elephants also became sacred, especially a large female, on which he generally rode. After his apparent death he appeared in a dream to his successor, and told him that this elephant was about to bring forth a male foal, which should also be sacred and should be known by the semi-royal title of *ni*. The younger elephant, now in its prime, is still regarded with the greatest reverence; persons who chance to meet it—it wanders freely about the district—do obeisance to it, as I have myself seen, believing that it will bring about some injury to those who are rude to it; and it is even reputed to collect all the other elephants in Rhaman occasionally and to take them on a pilgrimage to the shrine of 'Toh Panjang, which is several days' journey distant from the nearest point in 'Toh Ni's country. I was told that many persons had seen the pious procession, and that the elephants which composed it would do no harm to those who were polite to them, but would eat up all the growing rice or destroy the fruit trees of anyone who did not greet them with the salutation of an inferior to superiors.

From what has been said in the present paper and in the former one about the customs and beliefs of the Patani fishermen, it will be seen that animals are sometimes believed to have attained sanctity, with its concomitant qualities, through being associated with a powerful medicine-man, or even because of actual descent from some mythical person, as the 'white' crocodile is descended from Betimor, who became 'Toh Sri Lam'; and it is perhaps natural that any easily recognized individual of a powerful species, if well-known in a district, should often become connected with the local folklore or the local saint. To the Malays of Patani, moreover, as to many primitive people, natural deformity is the outward and visible sign of an inward and spiritual abnormality, generally of an extraordinary increase of power. In some cases it is not difficult for even an educated European to see why this should be so, but in others the reason is more obscure. For example, it is obvious that no great exercise of the imagination is necessary to ascribe to a gigantic individual a 'giant's strength,' even though giants are not always stronger than normal individuals, and it is quite reasonable that persons who regard white as a holy and imperial colour should reverence albinos as peculiarly sacred; but it is not obvious why an elephant or a tiger with a withered or shortened limb should be considered sacrosanct, except, perhaps, because of the rarity of such conditions among powerful animals whose survival depends to a great extent upon their strength. In my former paper I noted instances of human beings who were believed, because of a natural disfigurement, to wield supernatural powers, and throughout the Patani States it is asserted that hairy men have it in them to become magicians. I cannot explain why the black mark on his face should have been regarded as conferring on 'Prince Black Cheek' the power of regulating the weather at sea and of slaying his enemies by a curse, except on the general principle enunciated; but it is possible, I think, that hairiness of the body and face, a rare condition among the Malays themselves, may have become associated in their minds with some foreign race (perhaps the Arabs or Hindus), from whom their medicine-men believed that their charms and incantations were largely derived, or who were reputed, as a race, to be peculiarly skilled in magic.

An instance of a somewhat similiar belief, though its origin is possibly more ancient, may be dealt with in this connexion, namely, that a certain Sumatran tribe, comprising half of the Korinchis and living in the territory of Achin, but separated from the other Korinchis by a river, have no hollow in the centre of the space between their upper lips and their noses. It is this race who are said in the Siamese States to have the power of turning themselves

into tigers,¹ of which power their neighbours across the stream are devoid, having faces of the normal human type.

A few instances of unusually large or otherwise abnormal animals being considered *kramat* may be given. Perhaps this quality is more frequently ascribed to large snakes than to any other beast or bird, and we have already seen that all cobras and hamadryads, and also the numerous species described by the Patani Malays as 'axe snakes,' are regarded as sacred and possessed of evil souls or *badi*, because of certain peculiarities in their coloration and in the movements of their eyes. Large pythons, that is to say, large individuals of the species *Python reticulatus* and, probably, *Python molurus*, are frequently considered sacred by the inhabitants of villages near which they take up their abode, and at Jarum I was told that a European, who had been the last white man to travel through Rhaman before my own journey from Upper Perak to Patani, had been seized with a bad attack of fever, because either he or one of his followers had shot a snake of the kind. When travelling upon the Patani River, above Bendang Stah, I heard a peculiar sound proceeding from a wood on the bank, and was told by my raftsmen that it was the voice of a huge python² which lived in this wood coiled round a palm-trunk. They added that in spite of its monstrous size it was quite gentle, and that people sometimes gave it fowls. Near Berusong, on the Temongoh River, I was shown a peculiarly shaped rock on which a sacred elephant of gigantic stature was said to sharpen its tusks. It was believed to have done so for generations, not being subject to death, and was also reputed to have one foot shorter³ than the other three. White animals, especially albinos, are generally held sacred, either in a major or minor degree. The so-called white elephants, which are

1. Cf. Skeat, *Malay Magic*, pp. 160-163. I have not heard the power of turning himself into a tiger ascribed locally to any native of the Patani States, though several persons in this district told me that both the members of the Sumatran tribe and also certain natives of Java could do so; but Skeat records the existence of the belief in Kelantan with regard to the local Semang medicine-men (*Journ. Anthropol. Inst.* 1902, pp. 137, 138). The opposite belief, however, namely, that there are certain tigers which, being great magicians, can turn themselves into human beings, is prevalent in Rhaman and Patani. It is believed that these tiger magicians cannot alter the shape of their teeth, so that they can always be recognized when in human guise, and any person who has protruding canines is thus liable to be accused on the one hand of being a tiger in disguise, and on the other, of being a cannibal; anthropophagy being connected, in the opinion of the Malays and Siamese, with huge fang-like teeth. The same superstition about tigers being able to change themselves into human beings was prevalent in Malacca in the fifteenth century (see Groenvelt's papers on the Chinese accounts of the Malay Peninsula, translated in *Miscellaneous Papers relating to Indo-China*, Second Series, Vol. I, p. 245. London, 1887).

2. It is extremely interesting to compare the relics of serpent-worship that persist in the Patani States with the cult of the great snake which is said to have been formerly worshipped by the Malays of Kedah, which they consulted regarding the election of their sultans, and to which they sacrificed their virgin daughters. (Cf. Sherard Osborne, *My Journal in Malayan Waters*, p. 352. London, 1860). It is believed in Jalor that certain trees are haunted by a spirit which takes the form of a snake, and that a great snake or dragon (*naga*) dwells in certain mountains, while a rock on Bukit Jalor that is thought to resemble a dragon's head is believed to presage great power to the rajas of Jalor. In the winter of 1900 the summit of Bukit Biloh, where an ancient place of execution, consisting of a chasm down which criminals were thrown, was used by the rajas of Rhaman until comparatively recent times, suddenly split open in a new place, and a terrible storm swept down to the coast with torrents of rain. This occurrence, probably due to a landslip produced by a tornado, was locally ascribed to the dragon of the mountain breaking loose and rushing to the sea, concealed in the darkness and the rain. A similar event, on a smaller scale, was also said to have taken place in one of the limestone hills near Biserat during the same season, and it was evident that a landslip or an earthquake had taken place in this hill between my two visits to it, in 1899 and 1901.

3. Cf. Skeat, *Malay Magic*, pp. 70, 71.

mostly caught in Lower Siam or Lower Burma, receive a certain amount of reverence from the Malays, who do not, however, treat them with the complicated etiquette adopted by the Siamese; while white monkeys, especially the white gibbon, are reputed sacred both by the Malays and by the aboriginal tribes of this district, their bones being looked upon as powerful luck charms. White buffaloes, on the other hand, are said to be accursed, and their flesh is believed to cause a sickness to those who eat it; but they are agreed to be *kramat*, because they form the most acceptable offering to the spirits, to which white cocks are also offered as well as being often used in magical ceremonies.

Certain large trees also get the reputation of being sacred, and it is these which are said to be haunted by a snake-spirit, and also to have a *badi*. As has already been noted, offerings to 'Toh Panjang are frequently hung on a tree growing at the mouth of the Patani River, and there is a sacred place only a few hundred yards up stream from this tree which is known as *Kramat Perapit*, because a *perapit* tree, a kind of mangrove, is said to have formerly grown there. It is sometimes stated, moreover, by the natives of this district, that all trees are sacred, in that spirits frequently rest upon them, and there are many Patani men who will not take shelter under a tree at any time on a Friday, or at sunrise, mid-day or sunset on other days—these being the times when spirits are most powerful—lest the spirits sitting in the tree might dive down into them. The precaution especially applies to travellers, whose bodies are weary and whose souls are, therefore, weak.

The peaks of mountains' are as a rule held sacred in lower Siam, and white flags are often attached to the top of the highest tree upon them, accompanied, not infrequently, by a *baling* or musical wind-mill.² On Bukit Besar, between Jalor and Nawngchik, both Mahomedans and Buddhists resort to the top of the mountain, and sometimes spend the night there fasting, in order to obtain the gratification of any wish. A curious belief, perhaps more Siamese than Malay, has it that no man can become a really great magician in any country in which the peaks of the hills are rounded, and that, therefore, the state of Patalung,³ in which there are

1. At the Siamese village of Ban Kassôt, on the Jalor-Rhaman border, we found the population being rapidly decimated by some form of lung disease, apparently tubercular. Their houses were small, dirty and airless, though they were well-to-do enough. I gave them a lecture on the germ theory of disease, adapted to suit their comprehension, translating 'germ' by the Malay phrase *hibu penakit* (mother of the sickness). They replied that they knew the mother of the sickness must be ever with them, for they lived shut in between three hills, right in the pathway of the spirits, which were continually passing from one hill to another. Our Malay servant quite agreed with them.

2. *Antea*, pp. 7, 8.

3. The Patalung people, who are partly of Malay origin, still enjoy a very bad reputation in the Malay Peninsula, and are said to have formerly been dacoits, whose bands, frequently led by women, penetrated as far south as Kelantan. They were believed to have the power of rendering themselves invulnerable by a ceremony considered very wicked, during which they, like many Burmese dacoits, inserted coins or medals beneath their skin. A Patani Malay told me that the curious thing about them was not that they could make themselves invulnerable—many people could do that—but that their invulnerability did not wear off when they visited a foreign country, whereas, in other cases, it disappeared as soon as the charmed person 'left his own water,' that is to say, went into a district not watered by his native river. It is interesting to contrast this idea with the belief recorded by Skeat among the Kelantan Semangs, that the man-tiger can only manifest his power at a considerable distance from home or in another valley (*Journ. Anthropol. Inst.*, 1902, p. 137).

many conical hills, produces the most powerful medicine-men¹ in the Malay Peninsula ; it is for this reason that charms and amulets from Patalung enjoy a great reputation in the Siamese Malay States. Caves, too, are often said to be *kramat*, as the residence of the *Hantu Parai* or Peris, which the Patani Malays regard as spirits of the rocks ; and when a cave has been made into a rock temple by the Siamese it has always been regarded as a true shrine by the Mahommedans of the neighbourhood, for they believe that the Siamese idols are not mere images but actually 'have a spirit'²—an evil spirit, of course, but one of which use can be made. In a cavern near Biserat a Siamese, or, more probably, a Chinese governor of Senggora, who made a tour through the Patani States at the beginning of the nineteenth century, caused a gigantic recumbent statue of Buddha to be made, and other persons, since his day, have surrounded it with many others of a smaller size, two of which are said to represent the mother and father of Gotama. This cavern is frequented by Buddhists, Mahommedans and Chinese, all of whom regard it as sacred, bringing their sick to be cured by lying for a night on a shelf of rock just outside, and casting lots in the cave to find out whether any undertaking they may have in hand will prosper. This they do by means of a pear-shaped bamboo or rattan root, which has been split longitudinally into two equal halves and generally lies on the altar. They clasp it between two palms, and after doing reverence to the great statue and muttering a formula, separate their hands in such a way that the two halves of the root fall to the ground separately ; the omen is favourable or the reverse according as they fall on the rounded or the flat side, and the ceremony is always repeated three times.

In that part of Upper Perak which was formerly under the rajas of Rhaman, the Perak river is beset with rapids, at the upper end of which there is, in several instances, an upright rock in which some natural resemblance to a human figure can just be traced. These rocks³ are *kramat*, being called *berbala*, or idols of the Malays, who always make an offering to them before shooting the rapids, addressing the spirit which lives in them as *Datoh*. The steersman, or one of the other raftsmen, stands up in front of the raft with a banana and a chew of betel or a cigarette in his hand, and after a speech, in which he explains to the spirit of whom the party consists and what is their business, asking leave at the same time for them to pass, throws the offering at the 'idol'

1. *Antea*, part 1, p. 60.

2. On our journey from Senggora to Kedah a Patani Malay pointed out to me a Buddhist monastery, where, on a former occasion, he said that he had seen the 'spirits of the idols' (*hantu berbala*). They had hovered over the temple in form like the images on the altar, but of monstrous size. The man was subject to fits or seizures of some kind.

3. These upright rocks may be compared with the broken stalactites before which the birds'-nesters on the islands of the Tuleh Sap do reverence on starting to their work in the caves (See *Scot. Geograph. Mag.* 1900, p. 520 ; and *Man*, 1903, No. 79).

as hard as he can. The ceremony is also practiced by Chinamen, who sometimes let slices of melon, stuck full of cigarettes, float down in front of them ; it is called by the Malays 'doing obeisance to the idols'—a curious description of his own actions in the lips of a Mahomedan. At one place, a little above Janing, the Malay who throws the offering and makes the speech frequently has a white cross marked with lime upon his back, but I was told that this was only customary at this particular spot—the head of the Jeram Panjang, or Long Rapid, reputed the most dangerous on the river. On the navigable part of the Patani River there are no dangerous rapids, but at the mouths of tributaries, which are liable to be rather risky spots after heavy rain, a small mound is often stuck with white flags and regarded as a sacred place ; the boatmen scattering rice on the water as they pass it.

Perhaps, however, the majority of sacred places in the Patani States, where they are more numerous than in Perak, are the reputed graves of great medicine-men or living shrines, which are said to be visited by spirits as well as men. The latter bring little white flags¹ as offerings, light candles and incense, kill a sheep or some fowls, or even a white buffalo, and make a feast near the grave, offering certain parts of the victim to the person who lies within. The same things are done at the graves of Mahomedan saints such as 'Toh Panjang. 'Toh Ni, however, was so very great that his grave is not very much more revered than any other place connected with him, at least so I was told on the Patani River, but my informants did not appear to know where the grave was. At Kota Bharu, Rhaman, the cemetery of the other rajas of that state is regarded as a sacred place, and it is said that sick persons are sometimes laid on the graves for a night.

Any manufactured object habitually used in magical ceremonies is *kramat*, and in many cases is rendered so by a ceremony of sanctification ; while other objects, the possession or presence of which has been fortuitously accompanied by good luck, have the same term applied to them, though, perhaps, not quite in the same sense. Objects² also of any peculiar form supposed to be lucky are occasionally described in the same way ; thus certain kinds of flaws in the blade of a knife are, in Rhaman, considered sufficient to ensure good fortune

1. These flags are made of fresh cotton cloth, not old rags, and the sticks to which they are attached, in the Patani States, are tipped with a conical piece of cocoanut husk—perhaps a degenerate phallic emblem ; while in Perak they appear to have no such termination. The Malay name of these flags is *panji-panji* ; occasionally they have an elephant drawn upon them.

2. Such objects are also said to 'have luck' (*ada tuah*), the quality being evidently considered as individual and not as common. Indeed, it is difficult to say, exactly, how far this luck is a mere quality, or how far something of the nature of a degenerate guardian daemon. I have never heard any numeral co-efficient applied to the word, and it expresses something possessed by the spirits themselves, but when I was asking Patani Malays which animals had a *badi*—an actual spirit reckoned by the same co-efficient as other spirits and as animals—I often got the answer, 'No, but it has luck.' Thus the ground dove has luck, while the turtle dove has not ; the cow and the ox have luck, while the buffalo has not. The luck of human beings is said to be greater than that of spirits, and this is why the latter generally disappear when a man approaches them.

to the person who wears it, and the knife is said to be *kramat*. In Patani a knife was sold to me by a Malay, who asserted that it was extremely lucky because the sheath was made out of a piece of cane on which there were natural markings somewhat resembling the word 'Allah' in Arabic characters, but this possibly was 'saint-sacred,' though I failed to ascertain precisely the light in which it was held. It was lent or hired out to persons starting on the Mecca pilgrimage, and was said to have invariably brought pilgrims who took it with them back in safety from Arabia.

To return to the more usual sense of the word under discussion, the special clothes worn by medicine-men¹ and women during their ceremonies of incantation, the fiddles used in calling spirits, whether in dramatic performances or in magical ceremonies, the bowl which acts as a censer on similiar occasions, the magic rods used in divination and in expelling spirits, and all other 'apparatus' (*perkakas*) of the kind, are *kramat*, not because in themselves they impel or coerce the spirits, but because, when associated with the proper ritual music and words, they attract any wandering spirit which may be passing, as a female story-teller in Patani explained to me. But if a medicine-man (or woman) does not hand on his art to a pupil before dying, the actual apparatus which he used will become or generate a spirit (*jadi hantu*), which will be very savage. Objects included in the magic paraphernalia are specially sanctified before they can be used, and are, as it were, introduced to the spirits' notice by a ceremony at which the *hantu* are induced to assemble by being offered representative morsels of a sheep or goat, upon the rest of which the medicine-man and his friends feast at the same time.

In the foregoing pages I have attempted to describe, so far as my knowledge and the space at my disposal permit me, the ideas that circle round the word *kramat* in the Patani States. It is evident, I think, that these ideas do not form a system, being rather a jumble of confused and sometimes incongruous superstitions, some of which have been influenced by Arabic thought while others recall the pagan times before Mahommedanism reached Malaya, suggesting that in those early days—not so very early in actual time—a mixture of animal-worship and hero-worship was widely spread, tinged on the one hand with pure idolatry and on the other with phallic rites, both possibly derived from intercourse with Hindu culture. Though the particular form which the reverence for the tombs of departed heroes assumes in this district may be

1. Story-telling is regarded as a branch of magic in the Patani States, because the person who tells the story, if it be one of the recognized tales told in the fashion known as *Main Putri*, or Princess Play, must first be inspired by becoming possessed by a spirit. The story-tellers in Patani town are mostly women, and, seeing that the profession is one that taxes the constitution, owing to the convulsions and acrobatic feats inseparably connected with possession, they are rarely past the prime of life. When they get too old to practice themselves, they make a certain amount of money by hiring out their magical apparatus to younger women. Fifty cents an evening is the usual fee paid by the borrower, but a very famous performer may charge more.

characteristically Mahommedan, there is reason to believe that here, as in so many other countries, the system itself is a primitive one, and that just as in our own university towns all stories of some particular type become periodically fathered on some personage notorious for wit or the reverse, so it is probable that among semi-civilized tribes like the Patani Malays all stories of supernatural power that may be floating in popular tradition periodically settle round the name of some great magician like 'Toh Ni, until a greater than 'Toh Ni shall arise.

INDEPENDENT SPIRITS

The Malay word that I have translated 'independent spirits' is *bantu*. Many beliefs regarding these beings have been mentioned already, but it will be necessary, before dealing with the genera and species into which they are divided by the Patani Malays, to consider what conception these people have of a spirit in the abstract, and to enquire what, in their opinion, is the origin of spirits. To the majority of the persons I questioned, most of whom were men, a spirit was evidently an individual, possessed of certain powers to which it was quite conceivable that a living man might attain; the chief of these being the power to remain invisible to human eyes, the 'great science,' as it is frequently called, and the power of change of form and size. Though my informants said that a spirit had no body, yet they regarded it as material thing, which, even when they could not see it, might be detected by the ear or by the nose, or even by the sense of touch; they declared that the passage of a spirit could be heard, that it brushed aside the foliage through which it made its way, that contact with it caused a shiver to pass through the limbs, that it 'stunk like a civet-cat'—no empty metaphor, seeing that the half putrid, half aromatic odours which frequently assail the sense of smell in the Malay jungle are actually regarded as evidence of the presence of a *hantu*. If a visible spirit is wounded it bleeds profusely, but both it and the blood disappear immediately; it can be actually killed by being stabbed with a dagger made from the midrib of the leaf of a *nipa* palm, in which case a stick or a stone remains.¹ A spirit, moreover, except in respect of its peculiar powers, is not superior to a human being, but inferior; it is less 'lucky,' more akin to a wild beast, nearest akin, perhaps, to a member of one of the aboriginal tribes, which, as I have already pointed out, are hardly considered human. Yet, in a way, it is lower still than even a Semang, who is colloquially reckoned as a 'person' (*orang*), and frequently names himself 'the man.' It is well known that the use of numeral co-efficients is far more extensive in the Malay

¹ This idea is probably Arabic, Cf. the stories of Jinn in the *Arabian Nights*.

language than in our own, and that the Malays reckon all animals, even frogs and slugs, by the tail, just as we reckon cattle by the head ; but the Patani Malays go further, reckoning spirits¹ in the same way as beasts. Spirits, in their opinion, are not reasonable beings—they cannot think ; they believe what they are told ; being in a way mere essences themselves, they cannot distinguish between a shadow and a reality, between a picture and its model. If a promise is made to a spirit it is sufficient to fulfil it by any subterfuge, to substitute a sham offering for a real one, an effigy for a true victim ; I have even known a case where a spirit was promised two wives, and was given two little female figures modelled in dough, apparently quite to its satisfaction. Similarly, under certain circumstances, with which I will deal later, a human soul cannot distinguish between its own body and a conventional image thereof. The lie, too, may be spoken. The hunter cows the spirit of his prey by telling it that he, the slayer, is King Solomon, Alexander the Great, the Archangel Gabriel, any great man or being - he may tell it in the same breath that he is several totally different persons, for even consistency of statement is unnecessary—the spirit believes, trembles, and submits, and the offence of killing does not lie at the slayer's door. The majority of spirits are regarded as utterly non-moral ; they are certainly not good, they are only 'vicious' (*jabat*) in self-defence ; for, unlike the mermaid of Teutonic legend, who sought for a soul, they continually seek for a body, and if they find a man whose soul is weak they drive it out and take its place ; they are never wicked in the sense that the Christian Satan is wicked, for they neither tempt mankind to evil nor are conscious of evil in themselves.

Such, in brief, are the views held by the Patani Malays as a people regarding souls, ghosts, and wandering spirits, but a small minority of my informants, composed of a few elderly peasants in Jalor, seemed rather imbued with a kind of primitive pantheism, or, more accurately, pandaemonism, believing that all mundane spirits, whether they were called by Arabic or by native names, were really one, pervading the whole world, only called by different names according to the environment in which the universal spirit of evil was considered for the moment—Hantu Laut if it were at sea ; Hantu Raya in the jungle ; Saitan in religious works ; Jinn, Pelesit, or whatever else, in different circumstances. As one old man expressed it in my hearing, 'It may be hot here and at Mecca at the same time, and the heat is the same ; so

1. This is only the case in the colloquial dialect of the Patani Malays, for spirits are reckoned as 'persons' even in conversation among the Malays of Perak and in the written charms used by Patani *bámar*. Too much stress must not be laid on the point, interesting as it is, for if a Patani man is asked how many children he has, he often replies, jokingly, 'I feed so many tail,' as if he were talking of his cattle or sheep ; but his phraseology may be partly due to the reticence with which Malays sometimes speak of their families, fearing to bring ill-luck upon them. The expression 'five tails of Chinese' is also a scornful jest.

the spirit may be here and at Mecca at the same time, and the spirit is the same.' Nor was this old man an educated person, or even a particularly good Mahomedan. He went on to explain that the spirit could break itself into one hundred and ninety parts, and that the great *bômor* was the person who could cause it to do this and could keep all the different parts under his control. I asked him whether the spirits of dead men were also part of the universal spirit, but he said that they were different. Several other old men in Jalor afterwards corroborated this view of the spirit of evil, which, they said, was subordinate to Tuhan Allah, but when I chanced to mention it to an intelligent Kelantan Malay, he looked at me in surprise and remarked, 'Those who know the origin of things are very strong,' so that I am inclined to regard it as a kind of esoteric knowledge which only old men, whose souls are stronger than those of 'new men,' as youths are often called, would dare to mention. It certainly is not a view peculiar to the *bômor*, as my informants in Jalor laid no claim to any knowledge of magical art.

With regard to the origin of spirits I usually got such answers as the following :—'We don't know.' 'They are the slaves of the Lord Allah, who made them.' 'Ask the medicine-men²; they know the origin of the spirits, we do not.' Some supposed that spirits generated their kind like human beings, pointing out the Hantu Parai, which, in Jalor, are said to be spirits of the cliffs, conducted marriage processions from one cave to another. Others replied that spirits, especially these same Hantu Parai, had been known, in the days of old, to marry human beings and to have children by human husbands; while others, again, said that many spirits originated from the magical apparatus of medicine-men who had died without instructing a pupil in their art. The old man who first told me that the spirit of evil was universal also told me that this same spirit was, originally, the Earth Spirit (*Hantu Tanah*, *Jimbalam Bumi*, or *Siriku Bumi*—he used the three names indifferently), and that the Earth Spirit again was the son of another, whose name was Jinn Semujan. An actor at Ban Sai Kau gave me the following legend regarding the origin of the Earth Spirit, which he described as a female 'in form like the shadow of a person,' but it is doubtful whether he spoke of the same Earth Spirit as the Jalor man :—'The Earth Spirit, which actors fear, is the daughter of Seretang Bogoh, who sits in the sun and guides the winds, and Sang Siuh, the mother of the earth, who sits at the navel of the world (*Pusat Bumi*). Seretang Bogoh visits Sang Siuh in wind and thick darkness, and then there is storm and fog, with thunder and lightning : of these he is the cause. Sang Siuh brought forth four children to Seretang Bogoh, of whom the one

1. Cf. Virgil's '*Felix qui potuit rerum cognoscere causas*.'

2. The *bômor*'s explanations are mere equivocations, mostly derived from Hindu legends.

that actors fear is named Hahlipah, the names of the others are unknown. Seretang Bogoh cannot be seen of men, and Sang Siuh cannot be seen of men.' This story is evidently connected with the incantation used by a theatrical company in the magical overture with which they commence their performance, to which I will allude again in connexion with the Earth Spirits; it is hinted at in an invocation of the same kind quoted by Skeat.¹

It is very difficult to describe the different kinds of spirits recognized by the Patani Malays, both because the names are often extremely local, and because native beliefs are mingled with Arabic ones to a different extent in the minds of different individuals. One man I questioned regarding the number of the spirits, replied that he supposed there were as many different kinds of *bantu* as there were races of men; others said, simply, that they were many exceedingly; others thought that there were two kinds, *hantu* proper and *jinn*, which were the more powerful—so powerful, a Patani man said, that if a man had a tame *jinn* he could cause the meat from another man's cooking pot to come to him. A few old men, as already noted, believed that there was, in reality, only one universal *bantu*. A Jalor midwife said that every person had one hundred and ninety spirits in him, each of which was the cause of some particular disease, and each of which, if it gained the mastery over the rest, could bring about the disease it represented; while several persons in Jalor told me there were three genera of spirits—*Hantu Raya* (Great Spirits), spirits of the jungle; *Hantu Tanab* or *Jimbalam Bumi* (Earth Spirits), spirits of the earth and of the villages; and *Jinn Puteb* (White Jinn), also called Mahommed's Parrots (*Nuri Mahommed*). This classification may be adopted for the sake of clearness, but it does not include the Sea Spirits, and, while in Jalor the *Hantu Raya* are 'great' in the sense of being powerful, and are said never to come into the village of their own accord, in Patani town they are little more than bogeys with which to frighten children who will not come home at night, being described as enormous negro giants, with their mouth slit vertically, who wander about the town at night; while, curiously enough, Si Raya, the Great One, is in Selangor the sea name of Batara Guru, the Hindu Kala.²

The White Jinn. These spirits are not much regarded by the Malays, because, as a Jalor man remarked to me, they cannot be forced to do anything bad. They are also called *Jinn Islam*, and are good spirits, being, in fact, the only mundane spirits that can be said to have any moral character. One

1. *Malay Magic*, p. 505. 'Peace be unto thee, whose mother is from the earth, and whose father has ascended to the heavens!'

2. Skeat, *Malay Magic*, p. 90.

of them takes up its abode in the heart of every Mahommedan and prevents him from becoming wicked. My informants were sure that white men must also have a *jinn* in their hearts, but did not know whether it would be one of Mahommed's Parrots or some other kind.

The Earth Spirits. The Earth Spirits are also called *Jinn Itam* (Black Jinn) or *Jinn Kappir* (Infidel Jinn); by medicine-men they are addressed as *Siriku Bumi*, and they are known to midwives as *Chinei*. They are those spirits which have the closest connexion with men, as they are believed to live in the ground below human habitations, and to attempt, as *Chinei*, to substitute changelings for newly-born children, especially in rich families. They are connected with the ghosts that wear the red caps which confer the power of invisibility, but I have heard it denied that they are identical with them. As *Jinn Kappir* they take the proper form of dogs and are regarded as the guardians of hidden treasure, especially round Patani town, where it is believed, very possibly with truth, that during the Siamese invasions of the seventeenth, eighteenth and nineteenth centuries many rich Malays concealed their valuables and were killed or taken away as prisoners of war before they could recover them. The Jinn sometimes reveal these treasures to persons to whom they take a fancy, appearing as little old men with sacks of gold on their backs. These they put down on the ground, and their favourite can take what he will away; but if any one else attempts to do so the treasure sinks into the earth. It is said that a Patani Malay found a treasure of the kind a few years ago and agreed to give a friend, who was passing, half, on condition that he helped him to remove it and said nothing about it, for secrecy was necessary lest the raja should claim it. The two had stowed the treasure away under a tree, and had gone down to the river to wash their hands, when the temptation to murder his friend, and so to obtain the whole instead of a half, proved too much for the second man. After throwing the body into the river he returned to the tree, only to find that the gold had disappeared. I was told that he was afterwards convicted of the murder and executed. One of our own men, a fisherman by trade, assured me that near the same spot he had met an old man one moonlight night. He had recognized that the old man was not human, because he floated in the air and did not always remain the same size, so he said some charm and the apparition disappeared. The same thing happened three times, and at last our man in desperation lifted up his own *sarong*, thus exposing his person and so causing the spirit to retire ashamed.' 'I was a fool,' he remarked in telling the story, 'for certainly the spirit had taken a liking to me, and I might have gained the

1. He told me the same story six months later, omitting to mention how he got rid of the spirit. I may say that he was a habitual opium smoker.

great science.' On my questioning him how this might be, he told me that if a man met a spirit he should grasp it firmly without being afraid. It would turn all manner of shapes, but he must not let it go; it would offer silver, gold, and gorgeous apparel for its release, but the silver would turn to sand,¹ the gold to sawdust, and the clothes to filthy rags. At last it would ask what its captor desired, and he should then demand the great science, and would thus obtain the power to walk invisible.

The Earth Spirits are also regarded in Patani as being the cause of night-mare,² amusing themselves by sitting on the chests of sleeping men and women and pretending to throttle them; if a person so treated tells anyone else, they are very angry with him and cause him some further annoyance. They are much dreaded by actors and actresses, and all theatrical performances commence with a ceremony, called 'opening the earth,' in which they are propitiated. There is no stage in the Malay theatre (which is usually a shed built of the flimsiest materials) except a mat laid on the ground, and apparently it is feared that the noise of the orchestra, which is very considerable, would alarm or irritate the Earth Spirits, and that they would retaliate upon the performers. They generally appear in the form of small creeping things, such as ants or scorpions, but can assume any shape they please.

The Great Spirits. The Great Spirits in Jalor are essentially the spirits of primeval jungle, only approaching the abodes of men when they are summoned by a medicine-man, who may address them either as *Datoh Sa Tanjong Bitang* or as *Dob Jenaw Barw Jenaw*. Their chief is called Dewa Sa Alang Sungei, and the following prayer is said to him by those who have to sleep in the jungle :—

Hei, Dewa Sa Alang Sungei !

Mahu tidor. Aku jaga !

Mahu tidor. Aku jaga !

(Ho, Dewa Sa Allang Sungei ! I am going to sleep. Guard me ! I am going to sleep. Guard me !)

The formula is of a sort rare among the conjurations addressed by Malays to the *hantu* as being a prayer pure and simple, quite devoid of any

1. A modern story, illustrating the same principle, is current among the Malays of Singapore; it was told me at Patani by a man who had lived in the Straits for some years. He said that a gharry driver passing near the European cemetery at night is often hailed by a European lady and gentlemen, who tell him to take them a drive and give him some cigars. At the end of the drive he finds that they have disappeared and that the cigars have become dead men's bones. Altogether, the Singapore *hantu* appear to be more immoral than their Patani congeners, for the same man told me of another spirit which amused itself by bribing the orderly in charge of the Raffles Museum at night to leave his post, giving him a five-dollar note, which turned out next morning to be only a piece of dirty paper. There are many objects of some value in this museum, and it is quite probable that an artifice of the kind may have been practiced by a would-be thief, but I never heard that it succeeded, and my informant was quite indignant when I suggested this explanation of his ghost story.

2. One night at Jambu, after we had been talking of the *kambing gurun*, or mountain antelope (*Nemorhaedus swettenhami*), a Kelantan youth in our service was troubled by bad dreams. Next morning he told me confidentially that a spirit in the form of a *kambing gurun* had been playing with him and had nearly choked him; he added that the spirit would be angry that he told me. The house in which we were staying was believed by our men to be haunted, because of noises heard at night.

threat or subterfuge, but it is interesting to notice that the only pronoun which appears in it, namely, *aku*, me (or I), is one which would not be used in conversation with a superior, and I think I am right in saying that in all parts of the Malay Peninsula the pronouns used in summoning the spirits are of a familiar, and not a ceremonious nature.

The Great Spirits are not nearly so homogeneous as the Earth Spirits, and a few of the species into which they are divided in Jalor may be enumerated. They include the *Hantu Telok* (Cape Spirits), spirits of the river, which, like the 'Cape Sakais' of Upper Perak, live in the pieces of land that are half surrounded by the stream, frequently taking on the form of elephants; the *Hantu Parai*,¹ whose name is said to be identical with that of the Peris of the *Arabian Nights*, who are described as being exceedingly beautiful women, as small as children, and are regarded as the spirits of the limestone cliffs so common in Jalor; the Will-o'-the-wisp, whose name I could not discover, but who was said to be a spirit like the flame of a lamp in form, and to feed on frogs, which he transfixed with a beak like that of a stork; and there are many others of diverse forms and peculiarities. Some people include the *badi* of wild beasts among the Great Spirits; but the majority of my informants said that they were the slaves (*bamba*) of the *Hantu Raya*, as the evil spirits of the deer are called as they are being dismissed, and certainly the hunter asks leave of the Great Spirits before pursuing his quarry in their domain. The Great Spirits, like the Earth Spirits, can assume any form they please, but generally appear like men or like elephants, being only distinguishable from real men or elephants by the fact that they vanish when approached. Their luck is stronger than that of the Earth Spirits, but weaker than that of men.

FAMILIARS

Familiars are individual spirits which have entered into definite relations with individual men or women, whom they serve in return for some definite payment. The great difference, in the Patani States, between the cult of such spirits and that of all others consists in the belief that they cannot be deceived; every promise made them must be fulfilled to the letter, and no subterfuge is possible. They have acquired such intimate sympathy with their human 'mothers' or 'fathers,' as the persons who 'feed' them are called, that they have gained something very like the limited reason of a dog or other domestic animal and, at the same time, have become imbued with a very human desire to be avenged on those who have failed to do their duty towards them. I

¹ These spirits are believed to make the Buddhist tablets found in many of the Jalor caves. They are said to feed on rice planted near the base of their cliffs, leaving the chaff intact for the cultivator.

heard at Jambu, where such practices are very common, of a woman who had had a familiar. It sat on the top step of her house-ladder, and she had promised to feed it every Friday with her own blood. One Friday she forgot to do so, and as she put her foot on the ladder she fell down dead. I cannot say, exactly, what kind of spirit it was that she neglected to feed, for the Malays of the Patani States generally recognize two kinds of familiars, the acquisition of one of which is easy and not particularly wicked, while it is, practically, a criminal offence to keep the other. The more venial familiar is simply called a 'tame spirit' (*bantu jina*); its services are obtained by calling together the spirits to the sacrifice of a white buffalo, and by promising certain offerings, either periodically or on the occasion of any special undertaking, to a definite number of individuals. Six is the usual number contracted for, for it is difficult to feed seven. In Jalor it is customary to regard these six spirits as consisting of three pairs, each of which includes an Earth Spirit and a Great Spirit. At Jambu offerings are sometimes made to spirits of the kind in such a way that both the Earth Spirits and the Great Spirits may enjoy them conveniently. A bamboopole, the top of which is formed into a kind of funnel-shaped basket, is stuck into the ground in an upright position, generally in some waste place; a platform is formed round it, some way below the terminal funnel, by weaving split cane or bamboo between pieces of the latter material, which are stuck into the pole in a circle; the offerings for the Earth Spirits are placed upon this platform, while those for the Great Spirits are laid above in the funnel. Round Patani town such offerings are usually made in the cemetery or its vicinity and I have not seen any of the poles with the lower platform, the whole sacrifice consisting of a cocoanut, carefully freed of its outer husk, opened and placed in the funnel, and of a wax taper fixed to the side of the bamboo. At Biserat the Siamese commissioner was kind enough to put at our disposal, as hewer of wood and drawer of water, a convict there in prison, a native of Jalor, whose family had produced many living shrines—an eminence which the convict himself, whose name was 'Che 'Teh, hoped in time to attain. He was not a professional medicine-man, but claimed to keep three pairs of tame spirits, concerning which he gave me the following particulars, offering at the same time to teach me how to obtain spiritual slaves myself, if I would sacrifice a white buffalo and study the 'science' under him for six weeks:—He said that he had promised to feed his familiars once a week on eggs, and after he had done so for a month, during which they only consumed the smell or savour of his offering, they commenced to appear to him in the form of ants, and to devour the eggs bodily; but he could not tell me how he distinguished them from ordinary ants—

he just knew. He had given them three female names, each Earth Spirit sharing one with a Great Spirit, and explained that the first pair on the list, which has the commonest and most homely name, was his favourite ; the names were—Meh 'Teh (the female equivalent of his own), Sri Bunga (Madame Flower), and Siti Manang. When he made them an offering, he called out, 'Ho, Sri Bunga, Siti Manang, Meh 'Teh ! Come here ! Eat my offering ! Take you care that my body is not affected, that the flow of my blood is not stayed ! Likewise with the bodies of my wife and children. (If not), I'll turn the earth and the sky the wrong way round !' This formula is far more typical of those used by Patani medicine-men than the prayer quoted above, ending as it does in a ridiculous threat which any being but a spirit would see to be ridiculous. Nevertheless, 'Che 'Teh laughed my proposal to scorn, that he should offer his tame spirits stones like eggs instead of real eggs ; he said that they would know at once, would be very angry, and would cause him to become ill. 'Che 'Teh was a very low and ignorant Malay, even for the Patani States, and had a considerable amount of animal cunning ; he was a highway robber, who spent the greater part of his time in prison and had done so for many years, but I am convinced that he thoroughly believed in his tame spirits. He would not mention their names by night, though he made no scruple in telling me them by day. They appeared to be very little use to him, for they were not sufficiently strong to do much injury to his enemies ; but he was certain that their possession brought him much good fortune. Apparently he practiced divination by their aid, watching the manner in which they consumed the eggs, and the exact way in which they appeared.

The other kind of familiar recognized in the Patani States is a very much more formidable being, which has to be actually made by its 'mother' or 'father' ; when kept by a woman it is called *pelesit* (or, more rarely, *polong*),¹ when kept by a man, *putah rengas*. The great moral temptation which assails those who study magic is believed to be the temptation to make one of these spirits, but the ceremony is so horrible that comparatively few have the courage to undertake it ; its exact nature is a secret which I could not discover, but very possibly it resembles one with a similar object described by SKEAT, in which the exhumation of a corpse plays a prominent part. Women more frequently keep *pelesit* than men do *putah rengas*, and I have not personally come across a case of a male witch of the kind. While we were travelling between Kampong Jalor and Mabek, however, we spent a night at a Malay village called Petai, where we slept in a praying-room belonging to the headman, who was a very

1. Skeat makes a distinction between the *pelesit* and the *polong* (*Malay Magic*, p. 329) ; but I doubt how far it is valid in the Patani States.

good Mahomedan; and when we began to write in our diaries at this place our host became very alarmed, and begged a Siamese official who was travelling with us to ask us to desist. With some trouble I found out what was the matter—the man was afraid that we were writing charms to attract the *pelesit* of a woman who lived in the district, and he believed that the mere fact that anyone in any house was writing Siamese, Chinese, or any ‘science’ (*bilmu*)—in which category he evidently included English—would attract *pelesit* to that house and cause them to devour the liver, or the soul, of its inmates. Our own followers told us that the witch to whom he alluded was notorious, and that she was then living at Kampong Jalor as the wife of the Chinese opium-farmer. She had been the daughter of a Bangkok Siamese of high rank and had married a former *raja mudab* of Jalor, but had studied magic in order to make herself beautiful, and had finally made a familiar. This familiar she had sent to feed on a child, as a *bômor* had discovered, and the raja had ordered his heir to divorce her, had sent a famous medicine-man to free her of her familiar without success, and had finally banished her from his state. The establishment of Siamese power in Jalor had permitted her to return, and she had married again several times, each of her husbands divorcing her in turn because of her witchcraft, until she had sunk so low that she was glad to marry a Chinaman. On our return to Kampong Jalor we sent a message inviting her to visit us. She replied that she had often wished to do so, as she had some things which she thought we would like to buy, but had been afraid that we would cause our men to drive her away. Next day she came, accompanied by a young woman to whom it was said that she had taught her evil arts, bringing some magnificent neolithic implements, which we purchased from her. She was a stately woman of middle age, dressed in a robe of purple silk, with golden hairpins in her well-oiled hair; but the most noticeable thing about her was a peculiar cast in both eyes that gave her the appearance of attempting to look at the ground and up to the person she was addressing at the same time. This was said to be proof positive that she kept a *pelesit*. The burden of her conversation was pathetic—‘I was a raja once.’ We did not question her about her familiars, for she was said to utterly deny having anything to do with such things, and we were warned not to speak of them.

People who keep familiars of this kind must send them to feed on the souls of others, in addition to giving them of their own blood, drawn from the middle finger; and if they are ill their familiars run riot, ‘just like naughty children,’ eating the souls of all they meet. By this means witches can revenge them on their enemies, and when a person is possessed of a spirit, the medicine-man generally proceeds on the presumption that the spirit is a

familiar. These familiars will also bring their 'mothers' the food that their neighbours are cooking, or will prevent a neighbour's snares or traps from catching game. If a snare or a trap does not work when the quarry has entered it, the hunter takes for granted that someone has sent a familiar to prevent it doing so, and submits it to a ceremony of exorcism, brushing out the evil spirit from it with the branch of a tree.

A very intimate sympathy exists between the *pelesit* and its 'mother,' who becomes pale and ill if it has not sufficient people's souls to devour and feels in her own person anything that the medicine-man, who is summoned to cast it forth from a victim, may inflict upon it. When a person becomes possessed, the medicine-man 'locks up' the spirit in the patient's body, causing it to materialize in the form of a hard nodule under the skin of the arm. He then tortures it, by pinching and hitting it, until it confesses the name of its 'mother' or 'father.' He has no guarantee, however, that it may not be lying, and so he shaves off half the patient's hair, with the result that the corresponding hair falls off the witch's head. When the familiar of a Siamese witch enters a Malay who knows no Siamese, the possessed man immediately begins to speak that language, and similarly if the nationalities are reversed: a Chinese familiar would cause its victim to speak Chinese, or a Kling familiar, Tamil.

The modern Siamese law forbids the persecution of witches, but a stronger safeguard for their personal inviolability is the belief that if they are sick or wounded their control over their familiars is at an end. A woman may feed many *pelesit*, and she may leave them at different places with any garment she has worn herself, bidding them to possess people in her absence.'

'MEDICINE'

I have refrained from heading this section of the paper 'Magic,' because it does not seem to me to be possible to draw any satisfactory distinction between magic and religion among a people even so advanced as the Patani Malays. Indeed, if magic be an attempt to coerce the forces of nature by means of cunning, combined with a skilful application of knowledge of the supposed laws to which the spiritual essences, or 'souls,' of things are subject; if religion consists in reverence for spiritual beings superior to man, and in the performance of rites whereby such spirits may be gratified or appeased; then it is impossible to say to which of the two systems of thought and practice many of the beliefs and actions already described most properly belong.

In the first place, the Patani Malays, in many instances, draw no clear line between an elemental force and a spirit, or rather they so often personify, one might almost say materialize, the former in their minds that it becomes indistinguishable from a spirit. Thus they believe that the magnetic needle of the compass is actually animated by a spirit, while they conceive of the energy by means of which a telephonic message is transmitted as a being of the same order, for they are no more able to understand so abstract an idea as a form of energy than is the Englishman who talks of the 'electric fluid.'

Again, we often find, side by side in the same ceremony or formula, an attempt to propitiate and an attempt to deceive or coerce spirits. Take, for example, the simple formula, already given, by means of which a Jalor robber summoned his six familiars; it commences with an invitation to a sacrifice and a prayer for the safety of the offerer and his family, but it ends with a threat to revolutionize the universe if the prayer is not granted, this threat being used as a means of coercing the very beings to whom the prayer and sacrifice have just been made.

By medicine I mean no more than the theory and practice of doctoring material bodies, whether by means of material drugs or through spiritualistic agencies. I use the word practically as a translation of the Malay *ubat*, a term which is usually translated 'drug' or 'drugs,' but which is applied equally, at any rate in the Patani States, to all remedies, poisons, and witchcraft. As we have seen in the first part of the paper, the Patani Malays make no fundamental distinction between men and animals, or, indeed, between animals and highly organized inanimate objects, and I think, therefore, that it gives a truer idea of the theories which underlie the religious and magical ceremonies by means of which these Malays attempt to rectify what is wrong, or to injure and disorganize what is right, in the different kinds of organized bodies, if we do not attempt to make distinctions which, however obvious and necessary they may appear to us, do not at all appeal to primitive Malay minds. The fact must not be forgotten that the 'medicine-man,' as I have translated the Malay *bômor*¹ and the Siamese *môr*, whatever may be his knowledge of herbs and other simples, is primarily a person who has learnt how to control spirits without their injuring himself or working extraneous mischief when he summons them; he is greater than one who keeps familiars, because his control is not confined to a few individuals, but to a whole species or a whole class, as the case may be; his remedies, however efficacious *as a matter of practice* they may chance to be, depend for their efficacy, *according to his theories*, not upon the material constitution of the drugs he uses, or the material results of such simple operations as he performs, but on symbolical or suggestive

1. In the Patani States the word *parwang*, which is more common in the Federated Malay States, is barely known.

resemblances, often of a far-fetched or superficial nature, or upon influences which we educated white men can only call mysterious, though to the medicine-man himself, if he takes his profession seriously, they are as much a part of the ordinary course of nature as heat, light or sound, even when they act in the first instance on a soul and only indirectly on a body.

Medicine, then, as I have defined the term, consists largely in influencing spirits, whether those inherent in organized bodies or those which, having no bodies of their own, are perpetually attempting to attain one by ousting its proper soul, whose place they take. But in order to have control of spirits it is necessary to understand that the natural laws to which they are subject are not quite the same as those which govern organized bodies, for they are attracted or repelled by many objects and influences, such as verbal and arithmetical formulae, colours, odours, the mere presence of certain substances, and, above all, images, which have little or no direct effect, as even Malays acknowledge, on human beings, animals, plants, minerals, houses, and boats, however striking may be their compelling power in the case of the souls of these very organisms. I do not propose to deal with magical formulae,¹ whether verbal or mathematical, for such matters need a very special study and are of no very great interest in the present enquiry, except in the case of one kind of verbal formulae, which is merely a threat, generally combined with a lie. We have a good instance of this kind of formula in the threat to turn the heavens and the earth upside down, which occurs repeatedly, in identical words, in charms and incantations. Another variety is to tell a spirit that one will reveal its name or origin if it makes itself unpleasant, for the man who knows the true name or origin of any being gains power thereby which may be directed against that being, while spirits have no means of knowing whether what a man says is true or a lie, and therefore obey him when he pretends to be in a position to reveal such terrifying secrets.

With regard to colours, those which attract spirits are yellow and, in a less powerful degree, red ; white is rather the colour of Mahommedanism, of purity and of the righteous dead. For this reason medicine-men when conjuring spirits frequently wear a yellow veil over their heads, while the charms preserved with the 'rice-soul' are wrapped in yellow cloth. When a person is suffering from smallpox he frequently asks, in the name of the spirit which is the direct cause of this disease, for a red or yellow mosquito net and for hanging of the same colour for his bed, and these are at once supplied, though of course the Malays of Patani are quite ignorant of the science of phototherapy, their knowledge that red or yellow light—for that is what it comes to—benefits a smallpox patient being quite empirical and wholly

1. They are mostly the dregs of some highly organized and philosophical culture.

based on superstition. Where innumerable remedies are in use, some must chance to be really beneficial, whatever their theoretical basis may be.

Of odours the most attractive to spirits are those of incense and of sacrifices, while they are repelled by limes and peppercorns, especially by the latter ; indeed, a Patani man told me that he had once driven out a spirit, by which a person had become possessed, merely by pretending that he held a peppercorn in his hand, though he was ignorant of the very rudiments of the *bômor's* art. The substance that is most repellent to spirits is iron, of the use of which several instances have already been recorded ; the following is another—when we were travelling to Senggora from Nawngchik we noticed that our porters were most particular never to go out without their jungle knives, and when we pointed out that our route lay along the sea-shore where there would be no need of jungle knives, they said that they were afraid of spirits if they travelled without their 'iron.' They told us, moreover, that although they were accustomed to carry jungles knives to keep themselves safe, iron in any other form would be equally efficacious.

The question of the coercion of spirits by the use of images is a very wide one, which the space at my disposal will only permit me to deal with in outline. Perhaps the commonest form that the practice takes is the offering of sham sacrifices, which deceive spirits other than familiars as infallibly as sham threats. In the Patani States sacrifices are of several kinds, there are offerings made on the graves of saints or living shrines (who, of course, are not really dead), those made to spirits still in the flesh (for example, the weekly offering of 'turmeric rice' to the boat souls), and those made to familiars. None of these need detain us, as they are all real ; for a mortal body claims mortal food : the sacrifices which are of importance in medicine are those made in fulfilment of a promise to a wild spirit, and those by means of which sickness or misfortune is cast away, the offerings being in both cases at least partly of a counterfeit nature. I have given an extreme instance of the former kind of sacrifice above, in the case where a spirit was promised wives and was given little female figures modelled in dough. At the same time it was presented with a complete set of domestic utensils and a number of animals, both wild and tame, all of which were represented in the same fashion, the whole collection being laid out for its delectation on the embankment of a rice-field just outside the village. At the same time, however, a tray containing the bodies of several newly-hatched chickens, parts of them raw and parts roasted over the fire, and little heaps of real rice of different colours, was also suspended from a tree, the miserable fledglings being represented as fat capons.¹ The spirit to which these offerings were made

1. The art of caponizing fowls is frequently practised by the Patani Malays.

had been called down by a woman learned in medicine, and had inspired her in healing the sick children of the village and in foretelling the future.

Sacrifices to cast away diseases are very frequently made, especially at Jambu, and are, so far as I am aware, always sham. Commonly, they take one of two forms, that of a spirit ship or that of a spirit audience-hall (*balei*), both being known as *anchak*. Until the last few years a very elaborate *anchak* was made annually at Jambu, but now this is only done in times of epidemic or other public disaster; one of the last, if not the very last, of these annual ceremonies was witnessed in the summer of 1899 by Mr. W. W. SKEAT, who has not yet published a full account of what he saw. Private persons, however, still resort very freely to the practice when they are ill, on a more or less extravagant scale according to their means. At Tapah, in South Perak, we saw a full-sized model of a steam-launch¹ about to be set adrift on the river for a similar purpose, though here the spirit-ship was said to be an offering to a saint buried in a shrine by the water's edge, while at Jambu the idea appears to rather be that the 'mother of the disease,' that is to say, the spirit which causes the disease, actually goes away in the ship or deserts the sick person to take up its abode in the audience-hall erected for it. There can be little doubt, from what we heard, that when an epidemic of smallpox raged in Jambu at the end of 1899, many children, including, we were told, some of the Raja's own, were set adrift on drafts, in order that they might take the sickness with them, strict orders being given by the Raja that no one who might find them stranded was to harbour them. The victims chosen were suffering from the disease and not likely to recover, but smallpox being one of the few purely physical diseases always associated with a spirit's actual presence, they would be all the more likely to carry the sickness with them out to sea, though, doubtless, the fear of infection had also something to do with their choice. Spirits boats, even in the Patani States, are of every size and of every degree of complexity, being, when most sumptuous, provided with every necessity for a real ship in counterfeit, including sailors, who are represented by little wooden figures. The ships, however, could rarely sail by themselves, unless they belong to the cheapest kind (which is roughly made out of very light wood), but are, as a rule, mounted on rafts. Their furniture may include a few real articles of little value, such as one or two tin coins and a cockle-shell full of sweet-scented oil. Slip-knots tied in strips of cocoanut leaf are often put in the boats, some of them having been ceremonially pulled undone in contact with the patient's forehead, to loose the disease from him, and some of them still untied, probably to keep the spirit fast in the ship. At Patani children commonly play at sending off

1. It was said that this was a device for smuggling opium; but I am not aware that the suspicion was confirmed.

spirit-ships, using segments of cocoanut husks. When an audience-hall is made instead of a ship it is built in some waste place, generally by the side of the river, and is furnished as a real house would be, except that all the furniture consists of roughly made models in miniature. It has a ladder by means of which the spirit may mount into it, and is itself a small copy of the large audience-chamber attached to every raja's house, but constructed of paper and other flimsy materials; I have never seen one more than two or three feet square. Models of fruit, birds, fish, and prawns, ingeniously plaited out of strips of palm leaf, are often suspended within to give the hall a festive appearance, similar objects being frequently hung up in a room in which spirits are being conjured, in order to make them think that they are summoned to a pleasure garden.¹

Just as spirits may be deceived by sham offerings, and seemingly nourished by them, so they can be prevented from entering places where they are not wanted by the use of sham traps in which they might be caught. For this purpose the stems of creepers that have naturally tied themselves into a knot are suspended over the doors of houses, while the roots of trees that have bifurcated and then anastomosed are sometimes placed in the same position, both among the Samsams of Trang and the Malays and Siamese of the Patani States. At Ban Kassôt we obtained part of a liaña stem (*Bauhinea anguina*) that had had a similar employment, being naturally pitted with deep depressions and raised into corresponding elevations alternating along each side, the elevations being co-extensive with the depressions opposite. The spirits which encountered a creeper of the kind would get lost among the pits, and so would be prevented from entering the house it protected. The talons of the serpent eagle (*Spiornis*) are also hung over house doors and over hearths to frighten spirits away, and although their use for this purpose is said to be due to the fact that all spirits fear the cry of this bird, yet it is probable that they too have something of the trap in their theory. All such objects are called *tangkal rumah*, and many peculiarly shaped twigs and roots, the theory of which is not so comprehensible as that of those described, are also included in the term, while certain very complicated specimens have also the reputation of being powerful tonics, or perhaps rather aphrodisiacs, if powdered and swallowed with water; their excellence consisting in their form and not in the species of the tree or creeper from which they are derived.

The practices already described in this section are considered legitimate; for no man's soul is always strong, and every man must protect himself and his possessions against the entry of spirits; but, as was noted in the introduction to the paper, they are not regarded as quite consistent with Mahomedan

1. Cf. *Antea*, part I, p. 51.

saintliness. There are other practices, of the nature of black magic, which are looked upon universally as wrong and morally indefensible. Under this category fall not only matters connected with the making and keeping of familiars, but also attempts to injure another person by the use of images or pictures, in other words, by sympathetic magic. Seeing that a man's soul does not differ in character from any other spirit, free or embodied, and that spirits are incapable of distinguishing between an object and its counterfeit, it naturally follows that, provided only the soul is weak, or can be weakened, much harm may be wrought, directly on the soul and indirectly on the body, by the use of images. Thus, as in this country and elsewhere, a man can be caused to suffer pain if pins are stuck into a wax image of him in which hairs, nail-pairings, or the like from his body have been enclosed. As a rule it is not sufficient to make the image in his likeness and then to use pins; but a form of exorcism must also be employed by means of which his soul is rendered 'soft' and, therefore, sick. Another common practice in Patani is for a jealous wife to have images made of her husband and her rival and to bury them, arranged back to back, at the foot of her rival's house-ladder, having had the proper formula uttered over them. The husband and the rival will then part and go their diverse ways. Many Patani men refuse to put a face upon the dolls they make for their children, not solely because of the Mahommedan prohibition against images, but also in the fear that the face might chance to resemble someone, and the doll might, therefore, be used to work magic against this person, or might even, were it injured or did it become decayed, produce, as it were automatically, a similar effect upon him.

I have already mentioned a charm used at Cape Patani to steal a woman's soul and make her mad, and I now propose to note one or two extremely interesting points with regard to it. It is reproduced in facsimile in the plate accompanying this section of the paper.

The principle of the charm would appear to be as follows:—It represents the soul of the woman, which is drawn, as a soul should be, without feet, joined to the person of her enemy or of the magician who is acting as his agent. The man is depicted in royal attire, with the name of a powerful personage written on his brow, and a number of little signs seem to indicate that the direction of motion is from the soul towards him. His internal anatomy and that of the woman, or rather of her soul—for the soul pervades the whole body—is indicated in a diagrammatic fashion generally adopted by Malay doctors. Had the woman trodden upon the charm, her soul would have gone out of her body to the magician, who would, doubtless, have caught it and preserved it in safety, or else dismissed it to some safe place.

There can be no doubt that the royal attire and the name of the prophet with which his picture are embellished have their purpose, viz., to terrify the soul, which had probably been weakened in other ways, and so to render it easy of dislodgment. If this be so, it would appear that the soul, alarmed and weak, would be unable to distinguish between the body it inhabited and the picture of itself, and would forsake the body, being powerfully attracted to the magician, who was represented as a powerful personage.

Black magic, however, only deals with known individuals, and it is not considered wrong to protect one's goods against thieves on a similar principle. This may be done in several ways, of which I have come across three ; but in each case the charm depends for its proper working on the representation in a symbolical manner of some part of a man's anatomy injured or diseased in some particular, and it is believed that the injury thus pictorially rendered will be transferred to the corresponding part of the thief who eats of the fruit or other food with which the image is connected. Objects used in this way are usually suspended from fruit trees or at the edge of plantations. Their position is always conspicuous, so that they act, practically, as a protection against marauders, no one doubting that their magical action will be effective. The headman at Kampong Jalor, indeed, told us that they did not always succeed from a magical point of view, but the instance he gave proved that he really had a very strong faith in them, even from this point of view. He said that he had once gone into a melon field, and, not noticing that there was a charm suspended in it, had eaten a melon. After the deed was done, and only then, he saw it. In great fear he went home, took a strong dose of purgative medicine, to rid him of the remains of the melon, and summoned a magician to recite over him counter-charms to those with which the dread object had been rendered potent. The object in this case was a bamboo cylinder, into the surface of which a large number of splinters of bamboo had been stuck and on which magic symbols, chiefly the sign¹ (&), had been scrawled in white lime. The cylinder was held to represent a man's alimentary canal (*prut orang*), and was believed to have the effect of causing a thief's stomach or intestines to rupture.

This form of charm is usually employed with reference to cachew nuts or melons ; another form, very commonly hung up on orange trees and the like, consists either of a half cocoanut-shell or of an old water-bucket made of areca flower-spathe (*upik*). The effect of this on a thief is to make his abdomen swell out until it takes the form of a half cocoanut-shell or bucket. The lime marks upon it are different from those on the bamboo ; but I hope to describe the objects in more detail on a future occasion and can only deal with their

1. Called *ali' lah* at Jalor. Charms of the kind are called *pachah*.

principle at present. The third form with which I am acquainted consists of a living toad¹ tied up in a half cocoanut-shell ; it is believed to cause the body of a thief to swell up like that of a toad.

So far as I could discover, the formula with which the various kinds of charms are prepared only render them potent against the thief himself, and not against any innocent person to whom he may give or sell the fruit. Their interest lies in the fact that they are not directed against known individuals, but against persons who, subsequent to their manufacture, shall assimilate the objects in connexion with which they have been prepared.

Such charms must be distinguished carefully from the road-side signs so common in the Patani States, though the ideas underlying them have certainly become to some extent confused. The road-side signs, which are frequently suspended from trees, are rather instances of picture language ; they include models of elephant hobbles, meaning that no elephant may pass that way, models of the bamboo yoke formerly placed on convicts' necks, meaning 'Trespassers will be prosecuted,' and models of spears, *kris*, and rattan rods, with a similar significance. I have seen a model of the yoke and a bamboo stuck full of splinters hanging side by side on a cachew tree, one showing that the tree was private property and menacing a thief with the law, the other, in case the threat should be insufficient, ready to punish him more directly.

The number of objects which are used by the Patani Malays in protective and curative medicine, even using the word medicine in its restricted sense, is very great. To begin with, as a Malay in Patani remarked to us, 'all animals become medicine.' This is because it is believed that it is possible to transfer the qualities of an animal, which it displays in life or after death, to the human body by administering either its flesh or some other part of it internally or externally. One of the simplest instances of this kind that I know of is the practice of rubbing the ashes of a crow's feathers on the head to prevent the hair from becoming white. This is commonly done in Patani, while in South Perak oil in which the feathers have been boiled takes the place of ashes. In Upper Perak and in parts of Rhaman a black worm of the family *Gordiidae* is used in making a hair-wash for similar reasons ; at Patani the flesh of sparrows and of the 'walking' fish (*Periophthalmus* and *Boleophthalmus*) is eaten raw as a tonic or aphrodisiac, on account of the great vigour of these animals ; while the left eye of an owl is sometimes carried in their belts by people of the same town to prevent sleeplessness, the owl being able to sleep all day.

1. Perhaps the proverbial phrase used of a man who is only acquainted with his immediate surroundings, viz., *sarupa 'katak dibawah tempurong* (like a toad beneath a half cocoa-nutshell) is derived from this practice.

To carry the principle a little further, the bones of the serow (*Nemorbaedus swettenhami*), one of the most sure-footed of mammals, are believed to protect a man from falling, and, should he fall despite them, are rubbed on the injured limb or body to heal it. The tongue is considered even more powerful both as a preventative and as a cure, and it is said that were a man to fall from the top of a mountain and then rub himself with the tongue of the serow he would be whole forthwith. The serow itself is said to lick itself whole should it meet with an accident.

Medicine of the kind is not necessarily of an animal nature, for many plants and even stones are used in the same way. A native of Patani showed me a belt which he wore to render himself invulnerable. It contained a number of waterworn pebbles bearing a more or less fanciful resemblance to different parts of the human body. The man believed that they actually were specimens of these parts 'become stone' (*jadi batu*). By contact with the belt his body would become as impenetrable as stone.

These instances, which are only a few out of many which might be adduced, are all examples of allopathic treatment, the quality desired being transferred from an object which possesses it in an eminent degree to a body which is, or may be, lacking in it; but Malay medicine is just as frequently homoeopathic, a cure or immunity being brought about by contact with or assimilation of an object resembling the cause of the disease. Thus the simple bangles and anklets of brass or silver wire that Malay children generally wear are really made in the likeness of worms, to protect them against internal parasites. Roots which have the natural form of a snake are preserved as charms against snakes, and also, by an extension of the same theory, against scorpions and centipedes. Moreover, they are also administered internally as a cure for the bites or stings of all these animals, a portion being scraped off and taken with or without other drugs. There is a fine specimen of such a root, collected among the Samsams of Trang, now in the Pitt Rivers Museum.

The theory of all these charms and drugs is too obvious to need comment, chiefly because they deal with an object with which we are well acquainted, namely, the human body; but it is not only the human body which is so doctored. We have seen how the wind can be called by imitating its whistle, and Patani sailors sometimes carry a living specimen of the slow lemur (*Nycticebus tardigradus*) with them, because its cry, probably for the same reason, is said to summon a favourable breeze. The musical windmills used to call the wind¹ have a similar function, and it would not be difficult to find other instances of a cognate nature; indeed, many are given in Mr. SKEAT's valuable work on

1. *Antea*, p. 8

Malay Magic. I will call attention to one—the use of neoliths (believed to be thunder bolts) as charms against lightning.

The following is an extract from my diary relating to a celt purchased at Jarum in Rhaman :—‘ A man brought a very fine stone adze blade for sale. He said that he had dug it up at Betong, it having risen to near the surface after heavy rain. He advised me not to keep it in the house during a thunder storm, as it would leap about in a very terrifying manner after every peal. On such occasions he himself always buried it in the ground under his house, where it acted as a protection for the house and all it contained.’

Of course the theory of some charms and drugs is obscure, partly because the resemblances between the object and the image are, to our understanding, frequently far-fetched and fanciful, and partly because they have been invented quite fortuitously in many cases. For example, small silver pieces of the Straits coinage are now used as charms to make the rice grow in parts of Rhaman, the origin of the usage being a chance remark made by one of the followers of the ‘ Skeat ’ expedition, to the effect that these coins were strong medicine. To give another instance, I procured at Jarum a waterworn pebble of rather peculiar shape, something like that of a kidney, which was also a rice charm. The following story was told regarding it :—

Some years ago a man came into the village and said that he lost a black stone, which was a valuable rice charm, on his way from Patani. One of the villagers went out and searched all along the track for some miles until he found a black stone, which, from its peculiar shape and polished surface, he concluded to be the lost charm. Every year since he found it he had sprinkled his rice-fields with water in which it had been soaked, and was quite satisfied that this had increased their fertility.

We must remember, too, that, keen observers of nature as the Malays are, likenesses and differences which are only noticeable to town-bred Europeans after a very careful examination often strike them at once, while, on the other hand, concentrated as their minds often are on matters of trifling import, resemblances of a very superficial nature may mean more to them than those of fundamental importance. It is not obvious, for instance, to a European naturalist, especially to one who has spent his life in a museum or a laboratory, why the Malays should classify the gibbons as squirrels rather than monkeys ; but, on the other hand, I have seen a Malay pointing out to his friends the anatomical differences between a tree-shrew and a squirrel which so nearly resembled it that I have known the mimicry to deceive a very competent British zoologist, until he had made a careful examination of both animals.

CONCLUSIONS

I do not propose to occupy valuable space by weaving ethnological theories out of the threads of convergent development and genetic relationship that run through the records I have made. These records, however, throw light on certain points in comparative religion which should not be passed over in silence.

It is clear from them, in the first place, that the Malays of the Patani States have been profoundly influenced by a culture higher than that to which they have attained themselves. We can strip away Mahommedanism from them and leave their magic and practical religion almost intact, their folk-lore merely derived of certain names and references; but we cannot rid them so easily of the relics of Hindu teaching that permeate all their beliefs—the superstitions of ignorant peasants as well as the theories of the medicine-men. To take one or two instances of this Hindu influence—the story, told me in Patani town, of a man whose soul got accidentally shut up in a jar of water is but a corrupt version of a tale current in different parts of India,¹ whence also comes the belief that spirits have extra power on Friday, with many of the popular names of ghosts and spirits.

In spite of this highly cultured influence, much remains among the Patani Malays of what may be regarded as the common heritage of primitive man, namely, the faith in a materialistic animism, which attributes to all natural and many artificial objects a very definite personality. This personality seems to us mysterious only because we have not been brought up to regard it as a natural fact, a kind of potential energy individualized and almost rendered concrete, what we call a soul. In all things, therefore, soul as well as body must be considered. Souls are spirits, akin to those which have no body, or even recruited from their ranks. Spirits and bodies alike are subject to some barely imagined Necessity or Law, the existence of which is half realized in practice, if not in theory, by the savage, although he cannot give his ideas a name or a form. Primitive man, with the superior cunning which experience teaches him that he possesses as regards the powerful brutes that often form his prey, thinks that he, 'a tiny little thing which can give orders to an elephant,' as I once heard a Siamese youth exclaim, can bend even Necessity to serve his ends. Under the influence of Mahommedanism, Necessity itself has become personified—Tuhan Allah, the Lord God Omnipotent, who reigns in the Heavens far away.

Hence, too, we get magic becoming religion, so that it is impossible to draw an exact line between them. Hindus, Buddhists, and Mahommedans

1. Frazer, *The Golden Bough*, 2nd ed., vol. i, p. 256 *et passim*.

have taught the Malays to worship, not only to personify and dread, the natural forces into contact with which they come, without teaching their pupils to forego the primitive belief that the very objects of their reverence act in a blind and unreasoning way that proves them readily deceived.

Granted that all organized things have a spirit or soul which pervades their substance and preserves from premature decay, and that this spirit is not a reasonable being but merely a personified vital or preservative force, much of primitive magic is not absurd, as we are often inclined to think, but logical, even inevitable, founded on a philosophical system. If a soul pervades the whole substance of a body, it is natural to regard it as being influenced by the form of that body, and seeing that it is not an integral part of the body but something which enters it subsequent to, or during, its formation, it is obvious that it must become, as it were, adapted by use to the outward form of its material shell.

From these premises sympathetic magic and even the doctrine of signatures can be logically deduced.

The soul is ever liable to escape ; in the case of man it escapes every night when he falls asleep. If only it can be induced to leave its proper body and enter another which resembles it in form, an image of the body to which it properly belongs may be employed by those who know how to coerce spirits in effecting a transference of the kind. Spirits judge, if they do not rather obey laws than judge, solely by external form and appearance, and by the coercive qualities which certain materials possess. Seeing that the soul pervades the body, when a piece of the body—even a hair, or the paring of a finger nail—is removed, a portion of the soul goes with it, enabling the transference from the proper body to one which contains a portion of it to be performed more readily.

Soul and body are evidently regarded as interacting on one another. If something is lacking in the body, something must also be lacking in the soul ; and the converse is true. If it is possible to transfer a portion of the soul of a healthy body to a sick one, it is possible to heal the sickness. As we have seen in the present paper, and as is well known from other sources, many animals are used in the medicine of primitive races because they possess in an eminent degree the qualities which are apt to be deficient in persons, animals, plants or things to which these qualities are of importance. This principle, if correctly applied, is a strictly scientific one, as when a person suffering from the results of deficiency of the thyroid gland is given the extract of the thyroid of some animal to eat. But of course the Malay does not see the matter in this light. If the actual substance on which the qualities depend cannot be

transferred, may not, in the philosophy of primitive races, the spiritual energy bound up with this substance be used to effect a bodily cure or to prevent a bodily want? In order that a man's heart may be invulnerable it must be hard, in order that his hair may not turn white it must remain black, in order his body may remain healthy it must be vigorous. May not it be possible in the belief of the savage who thinks—as many savages undoubtedly do—to transfer the hardness of a heart-shaped stone to his heart, the blackness of a crow's feather to his hair, the vigour of a sparrow to his body, through the spiritual essence which pervades the stone, the feathers, and the sparrow, and that which pervades every part of the man himself. These are obvious cases, and we are so accustomed to speak of a man's soul that it is easier for us to conceive its existence than to realize that a stone, a feather, a plant, and even a house may be regarded by persons less scientific than ourselves as possessing some equivalent spirit, differing in kind and in form but not absolutely different. That the lower races of mankind believe in such equivalents has been amply proved, and the idea that has just been put forward with several notes of interrogation is, I think, capable of explaining a very much wider set of beliefs and customs than that to which the space at my disposal permits me to apply it. How far it is in accordance with certain schools of thought which claim to be philosophical in modern America and Europe, this is not the place to discuss.

My indebtedness, in these and other Anthropological studies, to Professor TYLOR's *Primitive Culture* and Mr. FRAZER's *Golden Bough* is very great, and it is to the personal influence of the former writer that the assumption of such studies is due. I cannot say how much I owe to his ever ready and kind advice, and to the discussions I have had with him.

CUSTOMS OF THE MALAYO-SIAMESE

BY

NELSON ANNANDALE, B.A.

CUSTOMS OF THE MALAYO-SIAMESE¹

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UNDER the above heading I propose to put on record the notes obtained by Mr. ROBINSON and myself regarding the practices that centre in birth, death, circumcision, marriage and the social system, among the mixed Malay and Siamese population of the Patani States and Senggora. As we spent nine months among these people (for whom we have coined the name Malayo-Siamese to distinguish them from the true Malays of the southern half of the Peninsula on the one hand and from the Samsams of the West Coast on the other) we were able to obtain fuller information about their customs and ideas than was the case with any other tribe whose ethnography we investigated ; but it is natural, seeing that we spoke Malay and not Siamese, that we should regard these customs and ideas from the Malay (*i.e.*, the Mahommedan) rather than the Siamese (*i.e.*, the Buddhist) point of view, and it would need a very much longer stay and a far more intimate relationship with the people to know their customs thoroughly and in detail. I can merely offer an imperfect, but I trust an accurate, outline.

BIRTH CUSTOMS

Our information about birth customs was chiefly obtained at Kampong Jalor from the statements, made to Mr. ROBINSON and myself, of two rival *bidan*, or midwives, both Malays, but both in practice among Siamese women as well as those of their own religion. There is reason to believe that in many details these customs are very local, and that what is true of the country districts of Jalor is not necessarily true of the town of Patani. On main principles our informants agreed, but they differed in minor details, having had different teachers (*guru*). We did not find it possible to be sure that they were telling us the truth with regard to the plants they used as drugs, such knowledge being a jealously-guarded trade secret. I have, therefore, omitted such information of dubious accuracy as we were able to obtain

1. This paper must be regarded as a section of Part IV of our 'Contributions to the Ethnography of the Malay Peninsula.' My colleague's absence in Malaya has rendered a sub-division of labour necessary. He will deal with our series of measurements on the living Malayo-Siamese, and also with their dwellings, etc. ; while, in addition to the present paper, I propose to describe the collection of skulls and skeletons.

regarding their pharmacopoeia, only noting that it appeared to be chiefly vegetable, and that they acknowledged that the Semang tribes were far more skilful than they in this respect. To avoid misunderstandings, we interrogated each of them several times over, and put the same questions in slightly different ways on different occasions.

When a birth is expected in a Malay or a Siamese house in Jalor, large quantities of firewood are collected on the platform and various substances regarded as obnoxious to the Earth Spirits are suspended beneath the floor, as it is these spirits which are believed to be dangerous to parturient females and young children. These substances include a variety of prickly leaves, on which the spirits might be supposed to scratch themselves, and the calcined shell of the king crab, *Limulus rotundicauda*, to the smell of which spirits object. (Curiously enough, the shell of the closely similar *Limulus moluccanus*, which differs somewhat in habits, is not used). An arrangement is made at the same time with a midwife (or, in the case of a rich family, with several) to whom a retaining fee is paid in money or kind.

During pregnancy a woman is not allowed to eat cold rice or to drink cocoanut water, as these substances are believed to render the head of the foetus hard and incompressible, like a cocoanut, and so to make labour difficult. Especially during the first six months, her husband must not kill or main any living thing, or even cut a creeper with his jungle-knife, lest a similar mutilation should be brought about in the unborn child.¹

At the same period many different drugs are administered as tonics ; for example (among both Malay and Siamese women), a kind of earth dug out of the banks of the river at certain places and roasted, and (among the Siamese only) the flesh of monkeys, especially of *Presbytes* (*Semnopithecus*) *obscurus*.

Professor B. MOORE has been kind enough to examine specimens of this earth. The following are the results of his analysis :—

‘The earth was finely powdered and examined, chiefly for organic matter. The total organic matter, as shown by incineration of a weighed quantity of dried and powdered earth, is very small, amounting to less than five per cent. The inorganic matter consists almost entirely of silicates and aluminates, there being no effervescence when the powdered earth is treated with a dilute mineral acid.

‘The search for nutrient organic matter was conducted by making extracts with cold and warm water, and with dilute acid and alkali, both in the cold and at boiling temperature. The extracts were afterwards tested for proteid and carbohydrate by the usual tests, but the results were in all cases of a negative character.

‘Dilute alkalies give a brown-coloured extract, turning darker on boiling and demonstrating the presence of humous substances. The presence of such humous material is also shown by the presence of minute rootlets in the earth. Traces of iron are also present.

‘The results of the examination incline one to believe that the earth is nothing more than a silicious river mud, containing nothing of a nutritive character.’

The specimens examined were bought in the Malay market in Patani town. Men, and also women who are not pregnant, sometimes eat the earth.

The birth takes place inside the house, and only the *bīdan* (who may, in rare cases, be a man) and her attendants are present, unless the woman is moribund, in which case her husband is summoned to bid her farewell. A difference appears to exist in the attitude of parturition in Jalor and Perak, for though in both states the woman squats on the floor, in the Siamese one her hands are held behind her back by an attendant, while in Perak she clutches a ring suspended from the roof of the house and provided with a number of imitation weapons of wood and bamboo, which dangle from it. They are believed to scare away evil spirits. There is a specimen of this contrivance in the Perak State Museum, and I am indebted to Mr. LEONARD WRAY for calling my attention to it and explaining its use. As a rule, the chief duties of the *bīdan*, in Jalor at any rate, consist in reciting charms to scare away the Earth Spirits, and in treating the mother and the baby after parturition; but, should labour be difficult, she applies external pressure to the abdomen. After delivery the mother has plasters of various herbs applied to her breasts and forehead, to prevent fever or delirium, and a large stone, generally of an oblong or oval shape, is wrapped in cloths soaked in hot water and pressed against her abdomen just above the pelvis, first on one side and then on the other. She is then placed on the kitchen platform of the house, in front of a large wood fire, and thus ‘roasted’ for a longer or shorter period, the process being repeated at intervals during her forty days’ seclusion.

During this period she is not allowed to leave the house, and its conclusion is marked by a special ceremony of purification, after which she may resume intercourse with her husband and go about the village.

Three, five, or seven days after its birth the child, which is suckled from the beginning, is ‘taught to eat,’ a mixture of honey and certain other substances being smeared on its lips. Suckling very often goes on for some years or until the birth of another baby, but in some cases bitter drugs are smeared on the breast in order to induce a child which is not shortly followed

by a brother or sister to desist. The milk from the left breast is supposed to be more nourishing than that from the right, the former being compared to water and the latter to rice.

Labour, according to our informants, is frequently very difficult, lasting not infrequently for a whole day. The death-rate, too, seems, from their accounts, to be enormous. One of them told us that she had attended eighteen births herself in the preceding year, and that three of them had proved fatal; she added the remark, that 'some *bîdan* were very careless, and lost a great many of their patients,' evidently not meaning the reflection to apply to herself. She said that the deaths usually occurred some hours or days after parturition. Madness or delirium at this period is known as *gîla meriyang*, and is believed to be caused by a spirit called Jinn Mensiah.

Twins appear to be rare. They are not regarded with any suspicion, but are considered lucky rather than the reverse. It is otherwise with triplets, which are 'accursed' (*chelâka*). A case had occurred, at which both our informants were present, some years previously in a Malay family in Jalor. The Earth Spirits had been very strong during the birth, and had possessed the younger of the two midwives, who had become delirious. The 'roasting' ceremony had been performed under the house instead of in the kitchen, and the woman had been forced to spend her forty days' seclusion in this ignominious position on a mat on the ground; she was said to be 'just like a dog'—a phrase which, curiously enough, is applied to the mothers of twins in certain parts of Africa. The three children all survived and grew up healthy; their father has been known, since their birth, as Pa Tiga, 'Father of Three.' It is believed in Rhaman that in a case of the kind one of the triplets will become raja of the country, his two brothers being his chief ministers. Hence, under the old *régime*, triplets were always killed by the reigning raja, as being a menace to his throne, even if they did not all chance to be boys.

One of our informants had had two cases of monstrous births—a child with a face like a pig and another with a face like a monkey. The mother of the latter had also been the mother of the triplets. Such abnormalities are believed to be changelings, substituted for the true child by the Earth Spirits, which are also called *Chinei* in this connexion, and many *bîdan* claim the power to bring them back to their proper form by 'science' (*bilmu*), i.e., magic incantations, in the event of their being alive; but if they are born dead, nothing can be done.

Should a boy be born with a caul, he is considered very lucky, and the membrane is carefully preserved. Later on, when the fortunate individual is circumcised, he is given a piece of it to eat in a banana. The afterbirth is also, in some families, preserved with salt and pepper, wrapped in a cloth and buried in a waste place, while in others it is buried under a banana tree, the condition of which, flourishing or the reverse, is regarded as ominous of the child's fate. The umbilical cord is always bound with a black cotton thread before it is severed, this operation being performed with a peculiar bamboo knife, known as *pisau sembíláb* and formed of a narrow slip cut from one side of an internode.

Should a child be born with a long head or a 'high' (by which is probably meant a protuberant) forehead, it is the duty of the *bídan* to mould it morning and evening, with her hands, into the short-headed type regarded as the ideal one by both Malays and Siamese.¹ This is done 'lest the child's companions should mock him.' It should be noted that the type of the head which is thus treated is that of the aboriginal races of the Malay Peninsula, whom the Malays and Siamese regard as barely human. The occurrence of this practice in the Patani States makes the seeming paradox become a literal truth, that in considering skulls from this district one must be prepared to believe that the shortest crania are, in some cases, those which would naturally have displayed the highest degree of dolichocephaly. It is difficult to see why an occasional moulding of the head, which is not confined permanently, should have this result, but an examination of skulls from Nawngchik, in the opinion of Sir WILLIAM TURNER as well as myself, shows that some of them have been artificially shortened during life.

Artificial abortion is extremely common throughout the Patani States, chiefly among unmarried girls; it is said to be produced invariably by means of vegetable drugs. If brought about before the third month of pregnancy it is not looked upon as morally wrong, because the foetus is still regarded as part of its mother's blood, and because there is little danger to the mother's life. After this date, it is considered a sin (*dôsa*) and is believed to entail a curious punishment, on the Day of Judgment, both to the mother and to the person who has given the drug; they will be forced to eat the foetus between them with 'salt' or 'bitter water,' each being given a knife, compelled to cut off pieces, dip them in the 'bitter water,' and devour them in turn. The idea is very probably an Arabic one. Drugs are also taken, occasionally, to prevent conception, but the practice is said to be very rare and to be regarded with considerable disgust. It is generally the case that only one or two of the

1. In Selangor, however, a cap is used for the purpose (Skeat, *Malay Magic*, pp. 336, 337).

wives or concubines of a raja are allowed to have children, but among the peasants children are greatly desired, especially by their fathers and consequently artificial reduction of the population is only brought about, as a rule, in order to conceal the results of immorality.

CIRCUMCISION

Circumcision is practised among the Malays of the Peninsula, but not among the Siamese or jungle tribes: its obligation is not considered so essential in Perak (where *Kulup* (Uncircumcised) is a common personal name, conveying no reproach) as it is in the Patani States. Mr. LEONARD WRAY tells us that it is considered positively wrong by those Mahomedan tribes of Negri Sembilan which are of mixed Malay and Sakai descent.

As a rule, the operation is performed upon both sexes; but in the case of females it is largely ceremonial, all that is necessary being the drawing of blood from the genital organs, or the cutting away of an almost invisible piece of skin. In Perak and Patani girls are circumcised between the age of ten or twelve, but in Jalor the operation is usually performed by the *bīdan* shortly after birth. Any sharp knife is used, but in Perak a special pair of iron pliers are employed to hold the parts during the operation.

An official of the mosque, known by the Arabic title of *mudim*, operates in the case of males, reserving a special knife, very often a razor of European make, for the purpose. In the country districts of Jalor youths are often circumcised in the nineteenth or twenty-first year, never in the eighteenth or sixteenth, which are regarded as unlucky; but the operation is rarely delayed so long in the more civilized part of the Peninsula, as it naturally becomes a far more serious one at this age. In Perak and at Patani the usual age is about twelve or fourteen, while some families, who claim Arabic descent, practise the rite on the eighth day from birth. In Patani, however, it is often delayed till the sixteenth or seventeenth year in the case of rajas' sons, partly because of the expense entailed, and partly because it is regarded, in some families, as almost part of the marriage ceremony, a man not being considered 'complete' (*cbukup*) until he has been circumcised, and his marriage not being legal. The operation is said to be more severe in the Patani than in the Federated Malay States, a far larger piece of skin being severed. The boy is seated astride a banana trunk, and, after he has been drenched with cold water, the foreskin is pegged down in front onto the soft trunk by means of a cleft stick, and then the operation is performed. As a rule the foreskin is buried in the banana trunk, which is thrown away in some waste place; but occasionally it is preserved as an amulet. At the moment of the operation a gun or cannon is fired to keep away evil spirits.

The ritual of the ceremony differs considerably according to the rank and the family to which the boy or youth belongs, but as a rule the proceedings commence with a procession, in which he is carried round the village or town, in some families on a man's back and in some on an image borne on men's shoulders. Sham weapons of wood are carried in front of him. In the case of rajas' families a number of 'sons of princes' 'enter the vernacular' (*masok jawi*)—as the ceremony is termed in polite phraseology—together, with all their companions and followers who are of the correct age. An important circumcision of the kind occurred at Patani while we were in the country, and though we were not ourselves able to be present, we arranged with the master of the ceremonies, a Malacca Malay in our service, that he should write us a daily account of what occurred. Unfortunately, his account was never completely rendered, and the part which we received showed considerable trace of Oriental hyperbole; but the following facts were substantiated by independent witnesses:—The chief person to be operated upon was a step-son of the Raja Mudah (heir apparent) of Jhering, whose wife, a sister of the raja of Patani, had formerly been married to an important, though non-regnant, raja of the Kelantan family, and the expenses were borne partly by the Raja Mudah of Jhering, partly by his wife, who had inherited much wealth from her first husband, and partly by the Raja Mudah¹ of Patani, the elder brother of the Raja of that state.

For many weeks previous to the ceremony a number of Malays were busy in the Raja Mudah's compound at Jambu constructing a huge figure of a bird, which we saw both in the course of its making and after completion; its designer called it a 'peacock-lion bird' (*burong singa merah*), but the Raja Mudah told us that his desire was that the bird should be more beautiful than any one kind of existing bird, and that his workmen had picked out the peculiar beauties of many species and had combined them in one. The body of the figure, which was about thirty feet in length with the tail, was made of thin strips of bamboo, neatly lashed together with split cane and covered with cheap European wall-paper; the tail and wings were of the same materials, the former being painted so as to represent a somewhat conventional peacock's train. But the glory of the bird was its head, carved solidly and delicately in wood, with the trunk of an elephant, a pair of peg-like teeth (said to represent those of a lion) an ox's horns, a buffalo's ears, and a highly elaborate floral ornament sprouting from the top of its forehead. The execution of this monstrous head was very fine, and the whole was brilliant with gilt and paint of various colours. Between the wings, which were small and not very

1. His physical infirmities had caused him to be passed over in the direct succession, but he had inherited the greater part of the family estate.

conspicuous, was a platform, on which the 'sons of princes' were to sit, while their companions of humbler rank squatted on a staging below. We were told that five hundred bearers were necessary during the ceremonial progresses in which the bird played a part, but this was probably an exaggeration.

Similar figures are often preserved for generations among the petty royalties of the Patani States, and it is believed that after a time they acquire a spirit, which will 'devour' (that is to say, possess) any person not of the blood royal who attempts to mount upon their backs. A Malay of the town of Nawngchik kept a similar, but less elaborate, bird for hire, calling it *burong singa chrandawasir*, or 'bird of paradise lion bird,' and asserting that it too was endowed with a living spirit, which would cause any person who approached it without its owner's leave to be possessed and lose his senses. At Ban Sai Kau it appears to be the custom for friends of the family to bring to a circumcision somewhat smaller figures, constructed in a similar manner but representing deer and other animals. One which we saw, dismantled, in this village had its body formed of one of the long openwork cane baskets in which pigs and poultry are carried in the Patani States, while the head was modelled over the skull of a real stag, the horns of which remained in position.

The great ceremony at Patani commenced by the persons who were to be circumcised being borne on the bird from Jambu to that town, a distance of some six miles, and lasted for many days, during which a variety of entertainments were provided for the people and numerous processions took place. The following is the account of one day's ceremonies, literally translated from our Malay's diary :—'On the thirteenth morning of the month, at nine of the white men's time¹, the Raja of the country took the matter in hand, and there was a noise of gongs, and of drums, and of tambourines, and all the wrestling schools (*skola bersilat*) wrestled,² and there was moreover a noise of cannon, for four-and-twenty cannon were fired, and the noise thereof lasted for the space of an hour. Then the Raja of the country and all the sons of rajas and of great men feasted on all manner of meats in the audience hall of the Raja, and all the plays were played, and while they eat the four-and-twenty cannon were fired again, slowly, one by one. Then a man of the Abyssinian kind³, Abu

1. The Siamese day commences at sunrise, and the twelfth hour is about sunset, after which comes the first hour of the night. The Patani Malays do not reckon by hours, but have certain vague divisions of the day and night.

2. The performance taught in these schools, which are numerous in Patani, is really a war dance. The two performers in each bout do, however, come to grips in some cases—always to slow music—and their manoeuvres more closely resemble those of catch-as-catch-can wrestlers than any other athletic exercise with which we are acquainted in this country. The schools are generally organized by some famous 'wrestler' too old to perform himself. The pupils, until they are sufficiently advanced to perform on their own account, pay all expenses, especially those connected with lighting up the arena, which is generally an open field. In return they receive instruction from the master, at whose house a practice is held every evening. Competitions between rival schools are frequently held, bets being freely given and taken. On the occasion of marriages or other festivities the wrestling master (*guru*) is paid to exhibit his pupils.

3. That is, a Soudanese. He had been brought as a slave from Mecca and then given his freedom.

Jehal by name, wrestled, and his wrestling was finer than that of the men of Patani, and he overcame many, and all the people praised him. There were present about five thousand persons, both men and women, from the seaside, and from the country, and from the town. But the plays ceased at six of the evening.

'Then, at eight of the evening, the sons of rajas who would enter the vernacular came together in the compound of Raja Mudah Phra Si,¹ and on that night all the players were assembled there also, and they all played at one time. Then the Raja of Patani and the Raja of Jambu gave gifts to the youths and bade them wear the ceremonial caps that had been the emblems of rank of their fathers before them, and after this they all marched in procession round the hall. Twenty virgins, carrying nothing, went first, dressed in Malay attire of the ceremonial kind, and twenty-six women followed, carrying betel-cases, then sixteen married women bore candles, and two bore spittoons, and two bore the krises of the Rajas. Next came eight men, carrying Japanese lanterns slung two and two on poles, and the four sons of rajas followed who would enter the vernacular. Four *datob* walked on either side of them, and men held over their heads the umbrellas to which their rank entitled them, and while they marched Arabian fiddles were played and two men sang Malay songs after the Patani fashion and three men chanted in the vernacular. At midnight they stayed.'

Similar ceremonies went on for some days, and then the youths were carried on the bird to to a sacred well² (situated midway between Patani and Jambu), in which they bathed. On another day they were borne up to the gateway of the Raja Mudah of Patani's compound, where men awaited them with drawn swords; the bearers of the bird were obliged to retire three times, and the 'sons of rajas' were forced to exhibit their ceremonial caps, thus establishing their rank, before they were permitted to enter. (This custom, evidently a ceremonial representation of a fight or struggle, has very probably been transferred from the marriage ceremony). At last the boys were seated on the platform on which the operation was to be performed, and, after they had been clothed in yellow, the people were permitted to throw water over them, 'until they sat shivering like men affected by ague.'

One of the 'sons of rajas' was to have been married as soon he had recovered from the operation, but political events occurred which made it necessary to defer his wedding.

1. The Malay rajas of the Patani States are generally known by their Siamese titles.

2. The wives and concubines of the raja who had been accused of adultery were formerly drowned in this well.

During the process of recovery from circumcision boys wear a stiff loop of rattan with an outward flexure ; this is fastened to a short stick, which is secured below the clothes under the belt, and prevents anything coming in contact with the wound. At night they sleep with their legs passed through loops of cane fixed, some little way apart from one another, in a bamboo, which is suspended from the rafters by a string of just sufficient length to keep it an inch or two above their sleeping mat.

Until circumcision, the Patani Malays, and also those of Upper Perak, shave the head, except for a single lock on or near the vertex. It is believed that if this were cut before a youth had 'entered the vernacular' he would suffer from fever. Although just such a lock is retained throughout life by certain Semang and bastard Semang tribes, the custom among the Malays is possibly derived from the Siamese, seeing that it is only occasionally practiced in those parts of the Peninsula which have not been subject to continued Siamese influence. Among the Siamese, children of both sexes wear a lock of hair on the top of their head until they reach the age of twelve or fourteen, when it is shaved off with much ceremony, in which the monks from the nearest monastery, and, if possible, one or more *Pram* or 'Brahmins' are invited to take part. (There are no members of this sacred caste in the Patani States, but in Senggora and Patalung their presence at the rite of cutting the topknot is regarded as obligatory, at any rate among the upper classes). The Malays regard this ceremony as in some way analogous to circumcision, and talk of it as '*masok Siam*,' i.e., 'entering Siamese,' just as they often talk of circumcision as '*masok Malayu*' or '*masok Islam*.' A little son of the ex-raja of Patani, a devout Mahommedan, wore two locks of hair instead of one, very much in the fashion of Chinese children, but this may have been because the present royal family of Patani rather boasts of Chinese descent, probably without historical justification, because a famous queen of that state, who withstood the Siamese with great vigour in the seventeenth century, was a Chinese woman converted to Mahommedanism.

MARRIAGE

The age of marriage differs very much, both among the Malays and among the Siamese, according to economic conditions, family and local custom. Among the Mahommedan inhabitants of the country a girl's marriage is not legal before the age of twelve, though parturition is said to have occurred at ten,¹ or a boy's before he is circumcised, though this ceremony rarely takes place, at any rate in the Patani States, until some years after puberty. Among

1. *Man*, 1902, Art. No. 86, p. 119.

the Malays of Nawngchik boys frequently marry at fifteen or sixteen, in Jalor rarely before they are twenty, and in Jhering, where the peasants are poor and idle, often not before thirty. The early marriages in Nawngchik are very probably due to Siamese influence, as this race is very prone to youthful unions, while Malays hold views far more closely approximating to those of Europeans on the subject. If a Siamese marries young, however, he generally divorces his wife after a few years, as it is customary for Buddhist youths to enter celibate orders, for a period of longer or shorter duration, on reaching the age of twenty-one.

The question of marriage is probably the one which induces more conversions from Mahommedanism to Buddhism than any other, as the Malays invariably refuse to marry an infidel (*orang kappir*); indeed, such a union is, under Siamese and Mahommedan law, illegal. If the woman refuses to become a Mahommedan, there is nothing for it but for the man to become a Buddhist, and it must be remembered that Buddhists and Mahommedans live together in the same village on perfectly friendly terms. A Malay woman who has cohabited with an infidel has to undergo a ceremony of purification before she can marry a Malay. Hence it comes about that there is very little or no intermarriage between the Malay and the Chinese, or half-caste Chinese, population of the Patani States, while such intermixture is extremely common among the Siamese, who are bound by no such scruples; as it is extremely rare for a Chinaman to bring his wife with him from his own country. The following statistics regarding the intermarriage of the two races were obtained for me at Biserat by an official in the Government offices, who assured me that every Chinese household in the village was noted in them, though there were several other Chinamen there at Biserat who were not married and had no house of their own. Biserat is the headquarters of the Chinese community in Jalor, though Chinamen are certainly more numerous in the mining district round Bendang Stah.

The last three men mentioned in the table were not pure-bred Chinamen, but had had Siamese mothers. while the ancestry of the 'Chinese' woman was probably similar. All these families had settled at Biserat within the last ten years, and seemed to regard it as their home; the children were reckoned as Chinese. Not a single Malay woman was living openly with a Chinaman in the village.

Marriages are generally arranged, both in Malay and in Siamese families, by a go-between instructed by the bridegroom or his family, but widows or divorced women often make their own arrangements. Marriage is not legal, with the exception of women in one of these positions, without the consent of

the bride's parents or guardians, even should she have become another person's bondslave; but when the parents refuse consent the girl not infrequently elopes, elopement being regarded as a form of marriage necessitating the legalizing ceremony, but hardly valid in itself.

CHINESE FAMILIES SETTLED AT BISERAT

Name of Householder	Birthplace	Race of Wife	Number of Children
1. Chai	South China	Siamese	2 ♂, 2 ♀
2. Lau	South China	Siamese	3 ♀
3. Toat	South China	Siamese	1 ♂
4. Toh Woh	South China	Siamese	1 ♂, 3 ♀
5. Tuat	South China	Siamese	1 ♂
6. Hong	South China	Siamese	2 ♀
7. Boon Pin	South China	Siamese	Newly married
8. Tun	South China	Siamese	2 ♀
9. Ing Hong	South China	Unmarried	— —
10. Kau Siu	South China	Chinese	No children
11. Kin (Kih) Dam ...	Patani	Siamese	1 ♂, 1 ♀
12. Sing	Patani	Siamese	2 ♀
13. Eh Lai	Patani States	Siamese	1 ♀

The union of first cousins is not permitted, cousins being regarded as brothers or sisters (*sudâra*), and uncles and aunts as mothers and fathers, so that if a Malay is asked what is the relationship between himself and his uncle he will frequently answer, 'He is my father' (*Dia bapa sabaya*), and if further questioned as to what sort of a father, he says, '*Bapa sudâra*,' that is 'brother-father.'

Polygamy, in the sense of having more than one wife at a time, is extremely rare among the Malayo-Siamese peasantry, partly for economic reasons and partly because it is recognized that double unions lead to friction in the family. By law, an ordinary Malay may have three wives, while the Siamese is not restricted as to numbers; but it is generally believed that a reigning raja may have as many as seven, without sinning against Mahomedan tenets. It is not considered correct, however, that he should keep a

large number of concubines, and as a rule he has only one wife, a lady of rank, who would brook no rival to her position, and not more than five or six other occupants of his *barîm*. For a raja to make concubines of the maidservants of his household is considered most unfitting, and the social position of a raja's concubine is lower and less enviable than that of a commoner's, because the raja, not being subject in the same degree to popular opinion as an ordinary man, may cast her off at any moment and often neglects to provide for her even while she is in his house, so that she may become, at first secretly and then openly, a common prostitute—a condition regarded as reflecting on her male relatives rather than herself. Among the lower classes, outside towns like Patani, concubinage, though a recognized institution, is even rarer than polygamy, and the children of such unions are regarded as of inferior social status to those born in lawful wedlock. Perhaps the least uncommon form of polygamy among the rice-cultivators is the simultaneous marriage of two sisters to one man—a family arrangement which is regarded as less conducive to discord than the keeping of two wives unrelated to one another. A man who has more than one wife is not bound either by law or by public opinion to provide a separate establishment for each of them, but it is considered prudent of him to do so.

Divorce is very frequent, and although we found that a large proportion of the men whom we questioned had been content to forgo the privilege, others boasted that they made it a practice to cast off their wives at not very infrequent intervals. The Mahommedan rule prevails amongst the Malays, that a man may not re-marry a woman whom he has divorced three times, unless she has been married to someone else in the interval. A man may divorce his wife for any reason, or for none at all, but unless she has deserted him, proved barren or unfaithful, he loses the present that he made to her parents before marriage. A woman can also divorce her husband at will, provided that she pays him this gift back threefold; but she generally prefers to induce him to divorce her, which he may do in a perfectly friendly manner, without attaching any stigma either to himself or to her. If a husband is absent for six months on land, or for nine months by sea, his wife has the right to divorce him free, provided that he has not sent her money with which to support herself in the interval.

The independent position held by women in the Patani States is not without its influence on married life, for a wife, by custom if not by law, is permitted to manage her own property, whether gained by her own exertions or inherited. Consequently it is considered by many young men a misfortune to marry a rich wife, as such a one is apt to be of a domineering nature. A

Patani fisherman in our service had married a rich woman who owned a tenth share in a fishing boat. Although he was apparently quite willing to share her wealth, he was otherwise of an independent nature, and was so worried by the restrictions she put upon his goings and comings that, after taking to opium (just for a joke, he explained, not as a business), he finally departed from her into another village, whence he sent her a letter of divorce, not venturing to cast her off in person.

In the Patani States, Malay society is divided into numerous families (*kaum*), which are so far endogamous that they prefer that their girls should marry within the limits of the family. Each family has its own customs and sets a definite and unalterable price on all its maidens, whether they be beautiful or ugly, skilful or the reverse; this price having been fixed by long-established custom. Conventionally, however, the price is considered not as payment but rather as a free gift presented by the bridegroom to the bride's parents, and even the Patani Malays consider frank marriage by purchase, as practised among the jungle tribes, a barbarous and ridiculous custom. The marriage gift varies in different families from eight to thirty dollars, being higher in the town of Patani than in the country districts, where it is often paid in kind—in cattle, fish or the like.

Such, in outline, are the customs that regulate marriage among the Malays of the Patani States, but though the principles of the Mahommedan law are the same in all parts of the Malay Peninsula, it is probable that the conditions of its application have always been rather different in Perak, seeing that the civilization of that state has had a somewhat different character, having been less influenced by Indo-Chinese factors and, probably, more influenced by communication with Arabia, the Persian Gulf and Achin. Though the women are far from undergoing the isolation customary in many Mahommedan countries, they do not appear to have enjoyed the extremely independent position of their sisters under Siamese rule, who, while theoretically under the absolute dominance of the male, are permitted to carry on their own business and even to make journeys away from home in its prosecution. Moreover, British protection has increased the cost of living in the Federated Malay States tremendously, partly by raising the standard of comfort and more especially by encouraging the immigration of Chinese miners and Indian agricultural labourers. Consequently the age of marriage is much retarded, the marriage expenses of even a poor man amounting to three or four hundred dollars (which he usually borrows from a money-lender), while concubinage is more frequent as being less expensive and divorce far less frequent, the man having paid a large price for his wife. On the other hand, the comparatively

few rich Malays in Perak can afford a greater degree of luxury than their compeers of the Siamese States, and so far are the Malays from respecting the celibate ideals of the Buddhists that they regard multiple marriage as a virtue rather than a vice, saying that a man who has many wives is 'as brave as a tiger;' while they stigmatize the monks of the yellow robe as 'lazy beasts, who do no work and will not marry.' A large proportion of the few polygamists among the peasantry are pilgrims who have sealed their piety by a journey to Mecca, whence also they may bring home a Soudanese or Arabian concubine.

Before the wedding takes place the bride is sometimes submitted to a *bidan*, who reports on her virginity, pretending to base the diagnosis on the way in which the girl's hair grows on her forehead and the shape of her breasts, but probably having other means of investigation. The woman also foretells whether the marriage will be prolific by means of palmistry, and, in the case of the bridegroom, discovers, by the same method, whether sterility will ever be due to him. After the ceremony the bride and bridegroom are supposed to lie together for at least three nights without intercourse, but this restriction is not necessary in the case of old men who are not married for the first time.

I do not propose to deal with the marriage ceremony at length, seeing that I have not had the opportunity myself of seeing a complete wedding, which differs, so far as we could learn, in no important detail from those described by Mr. W. W. SKEAT and others in different parts of the Peninsula. Both among the Malays and the Siamese of the Patani States the essential part of the ceremony, from a symbolical standpoint, is the performance in common by the bride and bridegroom of certain domestic actions, such as eating rice. In many marriages the act instanced is the only one performed in public, while in others the couple bathe together, or rather are drenched with water by their friends, are seated on the same couch, and have their finger nails stained with henna. To make the marriage legal the presence of an *imam* or *kali* is necessary in the case of Mahommedans, while the Siamese, whose ceremony has otherwise become assimilated to the Malay, visit the nearest *wât*, or monastery, to receive the blessings of the monks on their union.

In Jalor neither Malay nor Siamese bridegrooms wear silk or gold at their wedding.

After the wedding the bride and bridegroom are expected to take up their abode in the house of the bride's parents; but the custom has now become largely ceremonial and, as a rule, they only stay a fortnight, after which they are

conducted in procession by the bridegroom's parents to his old home, where they live until he can afford to have a house of his own. The bridegroom, however, cannot force the bride to leave her parents, though her refusal to do so is considered a valid ground for regular divorce, the man receiving back the wedding present.

These customs refer more particularly to the peasants, and among the nobility weddings are very much more elaborate affairs, especially when both parties are of royal blood. A reigning raja cannot marry a commoner in person, but sends a proxy wearing the royal *kris*, who conducts the bride to the royal residence and hands her over to her husband. The royal *kris*, sent to a commoner who has a daughter, means that the raja demands the said daughter as a kind of secondary wife (she is called *bini*—the ordinary term for 'wife'), who occupies a higher position than an ordinary concubine (*gondi*) but is not called *istri*, or consort, and it is to this kind of secondary wife that the limitation of seven, noted above, properly belongs.

Good Mahommedans refrain from intercourse with women on the eve of the first day of the month of fasting, which is otherwise very little observed in the Patani States, and on the eves of certain other Mahommedan 'great days' (*hari raya*). Otherwise, restrictions of the kind only apply to persons whose occupation entails upon them an elaborate series of 'prohibitions' (*pantang*), except that a man may not approach a woman during her menses (in Jalor Malay, *bulan bitan*, or, more politely, *hari yang paya*, 'the difficult days'). In the case of a pregnant woman it is believed that coition between the fortieth day, at about which date it is said that pregnancy can first be diagnosed, and the fifth month would cause the embryo to be 'spoilt' (*rôsak*).

In some families in the Patani States, notably in that of the rajas of Jalor (which is said to be of recent Siamese origin, though it is now Mahommedan), the men exhibit a certain diffidence in the presence of their mothers-in-law and wives' sisters, never speaking to them except on important matters or when politeness requires a brief answer to a question, and often leaving the apartment which they enter. A man is said to be 'ashamed in the presence of his mother-in-law' (*malu didapan mentuab*). The position that the mother-in-law holds towards her daughter's husband in Malay folklore is well illustrated by the Jalor legend of the mouse deer.¹

FUNERAL CUSTOMS

The modes of disposing of the dead are most varied among the Malayo-Siamese of the Patani States, including interment, tree-burial and cremation ;

1. Both the *bidan* at Jalor assured us that menstruation rarely occurred before the age of fifteen, never before that of fourteen.

1. *Antea*, part I, p. 101.

and as they differ considerably even in the same community, it will be well to deal with the two peoples separately.

Among the Malays, interment is the universal rule at present ; but it is said that until recently people who had died a 'bad' or unlucky death were frequently cast out to be eaten by dogs and vultures. Persons whose deaths are considered normal lie in state before burial, their relations and acquaintances visiting the body, the face of which is exposed, and taking farewell of their departed friend. Whether this is done in the case of women I do not know. The jaw is bound up, and until burial a piece of iron, generally a knife or *kris*, is laid upon the breast of the corpse, 'to frighten Satan.' It is apparently removed at the funeral, before which the body must be washed seven times. The corpse, wrapped in a white shroud, is carried to the grave on a stretcher, covered with a bottomless coffin-shaped bier of bamboo or light wood, which is buried with it, as the Malays consider it a great crime to permit the earth to fall upon a dead person but think a coffin wrong, as likely to interfere with the resurrection of the body on the Day of Judgment. In Senggora, where the Malays are chiefly the descendants of prisoners of war brought from Kedah in the first half of the nineteenth century, and more rarely in the Patani States, an elaborate tent-shaped frame of white cotton threads, stretched over twigs, is carried above the bier and deposited on the grave (Fig. 4). A stick is stuck into the ground to mark the position of the head and feet of the corpse. The grave itself is dug in the ordinary Mahommedan fashion, being a recess formed in one side of a fairly deep trench. In the case of men a rounded post of wood or stone (Fig. 2), carved more or less elaborately, is usually placed at the head and the foot of the grave, while women have a flattened slab, bulging out at the sides in the centre and constricted above and below (Fig. 3) ; but in some parts of the Patani States a mass of natural crystals is used in the case of either sex, while in Senggora upright tombstones (Fig. 1), rounded above and recalling the less elaborate specimens to be seen in any country churchyard in this country, sometimes mark the head of a man's grave. Very rich or pious persons occasionally have an oblong tent-shaped tomb built up with bricks and mortar, a few sticks being generally thrown across such graves, for what purpose I am ignorant. Probably both the sticks and the cotton framework have the same object, either to keep the dead man's ghost from walking or to prevent the entry of evil spirits from without, for neither would serve as the slightest protection against porcupines or other carrion-eaters. Possibly, however, they are mere scarecrows.

In the case of Malays who have 'died of being killed,' as the phrase is, that is to say, have died in any violent, sudden or unusual way (as by murder,

FIG. 1. Female Grave Post. Malay. FIG. 2. Male Grave Post. Malay.
Cemetery near Old Senggora. Cemetery near Old Senggora.

FIG. 3. Grave Stone. Malay Cemetery near Old Senggora.
(The inscription appears to mean 'This is the grave of Adam'; but is by no means clear.
I have to thank Dr. A. S. Cumming and Mr. R. Bell for examining it).

FIG. 4. Network of white cotton threads on new grave. Malay Cemetery, near Old Senggora.
(The branches stuck into the ground at the head and the foot indicate the position of the grave posts which will be erected later).

accident, cholera or smallpox) the body is generally interred in a waste place, a few planks or bamboos being placed above it to prevent the earth falling on it. In the town of Patani, however, a part of the cemetery is reserved for the burial of such persons in a more orthodox fashion.

Among the Siamese of the Patani States, Senggora and Patalung, a body may be either cremated, buried, or exposed (permanently or for a time) suspended between the branches of a tree or between poles fixed in the ground ; the first being the orthodox, and the last the indigenous, method. Cremation, sometimes preceded by temporary interment, is the only mode of disposing of the dead officially recognized by the Siamese of Siam proper, except in the case of persons who have perished through cholera, smallpox or other epidemic diseases, the spirit or principle of which, it is believed, would be disseminated abroad by burning the body, which is preserved in a chest or jar in a monastery. The bodies of persons of high rank are always kept in this way for some time before cremation. Among the Siamese of the Patani States, however, burial is almost as common as cremation, though in some cases the bones are subsequently disinterred and burnt, the ashes being deposited behind the altar in a temple. Even when cremation has been decided upon, a shower of rain, by postponing the ceremony for half an hour, may cause the friends to bury the body, as they are always anxious to get rid of it as soon as possible. Unlike the Malays, they dread to look on the face of a corpse, lest it should haunt them in their dreams.

The following is an account of the preliminary ceremonies in a case, that of a poor woman, in which the body was cremated ; they were witnessed by Mr. ROBINSON and myself at Ban Kassôt, on the Rhaman-Jalor boundary. (At the moment of the woman's death a sudden gust of wind, which was noted by our Siamese servant, swept through the village, and was believed to be the result of the spirit's passage). That evening we heard a monotonous chant or dirge proceeding from the house in which the body lay, the solos being taken by the village medicine-man (called *môr* in the local dialect of Siamese), who officiated in the absence of the monks, the nearest monastery being at Bayu, nearly two days' journey distant ; the dead woman's family and friends acted as chorus. We were afterwards told that they had been reading ' the scriptures of the Prophet Moses,' that is to say, of Buddha, the particular work chosen on such occasions being an account of the various countries—among them Ligor or Nakawn Sitamarat—to which the ashes of Buddha were distributed after his cremation. We heard the chanting again after the funeral, but were informed that on this occasion the friends were merely consoling

themselves by reading an amusing story—all reading in this district being invariably aloud—because they could not afford to hire a theatrical company as rich people would have done.

At first it was proposed that the *môr* should preserve the body by art magic until the monks could be summoned from Bayu, but, seeing that the family was very poor, it was finally decided that cremation should be performed on the following day, the *môr* officiating. We offered to contribute towards the expenses of the funeral on condition that we were permitted to see the preliminary ceremony, and the medicine-man told us that we would make great merit by so doing. One of the woman's sons was inclined to object, and we were unwilling to offend by pressing our offer; but the medicine-man explained to us and to him that a corpse was a mere 'log of wood,' and persuaded the young man to withdraw his objections. Early on the morning after the death a number of men went off into the jungle, returning with a supply of light bamboos and of the leaves of a particular kind of palm which reach a great length, springing from a very short stem. Taking these leaves, cutting off the leaflets down each side, and stripping off the outer surface above and below, they were provided with as many light rods, which could easily be skewered together on strips of bamboo but had sufficient consistency, owing to the outer surface remaining on the two sides, not to break loose. With such materials, and with a few split bamboos to form the bottom, a light coffin was soon constructed, narrowing from the head to the foot; during construction its shape was kept accurate by means of two pairs of poles (stuck into the earth near the head and near the foot respectively), between which it was fastened. Finally, an iron nail was driven in, instead of one of the bamboo skewers, as it was said that no coffin could be kept together unless iron entered into the composition. During the process of manufacture this nail was kept in a brass bowl full of water, in which several pieces of tumeric root and a few grains of rice had also been placed, and from time to time the workmen dipped into the water the few tools they used—simple iron augurs and the little, crooked long-handled knives, called *pisau raut* or 'peeling knives' by the Malays—believing that if they did not do so while making a coffin they would be taken ill of fever. When the coffin was ready it was taken up the ladder of the house in which the woman lay dead and left on the platform while the ceremony of washing the body, for which women had been bringing water in bamboos and earthen jars all the morning, was conducted inside. Taking a bowl of water in his hand, and putting in it some leaves and pieces of bark, the *môr* dashed it on the corpse, the face and loins of which were covered with white cloths. Then the different members of the family, including

a young child, came forward and threw water over the body in turn, the women present being evidently affected, though they made no noisy demonstration of grief. When all had performed the rite, the medicine-man placed the dead woman's hands in an attitude of prayer similar to that often given to recumbent effigies at home, insinuated between them a spray of the flowers of the Indian Shot (*Canna indica*), and bound the two together by means of a hank of cotton thread plaited in between the fingers. The jaw was tied up with a white cloth, the coffin was brought into the house and the body lifted into it by the *môr*, who then placed the clothing worn by the dead woman on it as a covering. A chew of betel was placed by her side. The coffin was carried off by two bearers, who shouldered a pole passed through ropes tied round it, to the place of cremation, which was some miles distant from the village. Rain threatening, a noisy discussion arose as to whether the corpse should be buried or cremated, and the mourners joked, in what seemed a most heartless way, about its lightness; but all of this talking and jesting was probably mere drama, to prove that their souls were unaffected by emotion and therefore strong enough to withstand the ghost. In the end cremation was decided upon and the body was burnt in the coffin, the remains being then interred until such time as the monks might visit the village, when a further ceremony would be performed. No ceremonial impurity attached to those who had assisted in the rites, and in the case of a rather richer funeral, which took place in the same village a few days later, the planks of which the coffin was made were rescued from the flames to be used for other purposes. In each case the house where the death had occurred was carefully cleaned as soon as the corpse had been removed.

During the last century several different kings of Siam have promulgated edicts againsts the practice of 'tree-burial' in Lower Siam, and it has nominally ceased to be; but when a governor who is ignorant of local usages is appointed in any of the Siamese Malay States, and often on other occasions, a revival of the practice takes place. We found it common both at Nawngchik and at Lampam, though Mr. SKEAT and I had great difficulty in seeing a case in the neighbourhood of the latter place in 1899. In Patalung, and probably in Senggora, the Buddhists appear to practice it whenever an opportunity offers, while in the Patani States it seems to be resorted to chiefly in the case of fatal epidemics; so far as we could discover, it is wholly a Buddhist practice in the East Coast districts, but it is said to be common among the mixed Mahommedan population of Trang. As the methods employed are most complicated, and probably less degenerate, in the more northerly states, I will first describe them as they exist in Patalung. In this state two types

of 'tree-burial' are recognized, the one permanent, the other only temporary; the latter being followed in the case of persons who are regarded as having died a normal death. In this case (Fig. 5) the body, after being washed, is placed on an inclined platform, the head being lower than the feet, within a

FIG. 5. Temporary Aërial Coffin. Patalung.

rectangular wooden chest, which is raised on poles some ten or twelve feet above the ground, either immediately behind the village temple or somewhere else in its vicinity. Properly the head should be directed towards Aiyuthia, the old capital of Siam; but this rule is frequently neglected. It is left in the chest for some months, until a lucky day occurs and the relations have sufficient money to pay for the subsequent ceremony and the feast that accompanies it. Should white ants eat the poles or the chest before this date, the bones are collected in a rice-bag of plaited *Pandanus*-leaf and placed either behind the altar in the temple, or in little huts erected within sacred ground outside. Finally, what remains of the body is cremated, and the ashes, in glass or stone bottles or earthenware cooking-pots, are either deposited in the temple or else are kept at home, in the latter case being frequently preserved in urns of carved wood elaborately gilded and decorated with pendant spangles and pieces of looking-glass, or, sometimes, in vases of ancient Siamese earthenware.

The other type of 'tree-burial' (Fig. 6) more properly deserves the name. In Patalung it is generally reserved for those who have died a bad

death, but in the Patani States we were told that the bodies of people who had 'died well' were frequently disposed of in this way. The corpse is rolled up in a mat and then in a casing of split bamboos, so as to form a cigar-shaped

FIG. 6. Permanent 'Tree-burial.' Patalung.

(The corpse is usually rather higher above the ground than it is represented).

bundle, which is suspended between two trees in a waste place or hung up in the fork between two branches. Poles stuck upright in the ground take the place of the trees, if there are no trees of a convenient size. Properly speaking, the head should be towards the East (*i.e.*, the direction of Aiyuthia) and the feet towards the West; but this rule is not more strictly observed than in the preceding type. In Patalung a body thus suspended is permitted to decay without further ceremony, but we have seen a case at Nawngchik in which the bones, after their casing had rotted, had been collected into a kerosene-oil tin, which had been replaced in the tree whence they had fallen. We were told that both in this state and in Jalor the monks collected all the skeletons they could find every few years and cremated them. The bodies of children are frequently buried, at any rate in Patalung, beneath the trees in which those of older persons are suspended, but they are sometimes treated in the same way as those of their elders. No distinction appears to be made as regards

sex. We found in at least one instance that the skull had been removed from a body hung up in a tree, probably for some magical purpose, as a Malay told us at Jalor that he had once been employed by a Chinaman to collect human skulls for making medicine.

SOCIOLOGY

Practically every man in the Patani States is either a rice-cultivator or a fisherman, or else combines the two trades ; but the Siamese, at rate where there are Malays, confine themselves to agriculture, leaving all seamanship to their neighbours. Fishing and rice-planting only occupy a part of each year, and many of the Malays of this district cross over to the other side of the Peninsula during the stormy season (in our own winter months), either to take part in the fishing off the coast of Kedah or drive cattle and buffaloes over into Perak for sale. Others occupy their spare time as blacksmiths, cattle-breeders, medicine-men or public entertainers. The elephant mahouts (*gambâla gajab*) form a very distinct class, which is often, though not necessarily, hereditary ; they are incorporated in a kind of a guild under a chief, who is known as 'Toh 'Ku Chang, *chang* being Siamese for elephant. There is a 'Ku Chang in each state in which many elephants are kept. Petty trading, salting fish, dyeing, weaving, cooking and bringing up water from the stream or well are women's occupations, and women also take part in reaping the rice and in transplanting the young plants from the nurseries in which it is sown to the flooded fields in which it reaches maturity, the men doing all the harder work, such as sowing, ploughing and harrowing. Occasionally, women also take part in the fishing, and a few men become expert weavers.

Three professions are considered disgraceful :—(1) That of the actor or other public entertainer, 'because he is not ashamed' (*sebab dia ti'da malu*) ; (2) That of the policeman (*orang mata-mata*, the man who is all eyes), 'because he does not recognize his mother or his father' (*sebab dia ti'da kenal ma atau bapa dia*) ; and (3) That of the sailor (*orang k'lasi*), that is to say the man who hires himself out to go long voyages, 'because he curses his own body' (*sebab dia sumpah badang sendiri*), having but one chance in three of returning home alive. It is curious to find such an estimate of the sailor's profession among any branch of a stock so essentially maritime as the Malays, but there exists an old man's saw in Patani to the effect that a man should beg from five houses before he becomes a sailor.

There is, properly speaking, no servile class among the Malayo-Siamese, the only form of slavery now extant in any considerable degree being a very

mild debt slavery, to which even persons of the raja class frequently submit, finding it less irksome than an independent existence. Formerly, if a person owed two dollars which he could not pay, he was obliged to work for his creditor until he could so, and if he died insolvent, the obligation was distributed in equal shares between his children of both sexes. We heard that the Siamese were trying to abolish this system, but their methods of so doing were not explained, and in any case it appears to do little harm beyond encouraging improvidence ; for strict laws, and, what is more important, a consistent public opinion, regulate the relationship between masters and servants, who, besides being fed and clothed, are generally provided with tobacco and the like. Immoral relations between a master and a female slave, at any rate among the Malays, are heavily punished, unless it can be proved that she has consented freely.

The Siamese recognize no hereditary nobility among themselves, except in the blood royal, which does not exist in Lower Siam ; but the Patani Malays have four titles which descend in the male line. The highest is that of *raja*, which is correctly applied to all persons of both sexes who can claim an unbroken descent on both sides from the mythical founder of the Malay race, but which, owing to Siamese influence, has now a very much more general use. It is even granted to certain persons by the King of Siam, but the Malays hardly recognize the validity of such creations. Persons whose fathers belong to the raja class but whose mothers do not, and their descendants, are called *ni*. The next title is that of *wan*, which is said to have its origin in an ancient salutation given to persons met within a house ; while *inche*, frequently abbreviated to *'che*, the lowest hereditary title, is believed to have been the ancient greeting given to persons met on the road. Though properly a hereditary title, however, this last appellation is frequently bestowed by popular consent on persons of respectability who have no legitimate claim to it. *Datoh*, grandfather or lord, is a term of respect given to all persons of any age who hold official positions among the Malays, while *tuan*, master, is the correct way of addressing European men—white women are called *mem*—Mecca pilgrims, or *baji*, of both sexes and the wives of high Siamese officials, the officials themselves generally preferring to be called *Tuanku*, Your Highness !

The customs of fosterage and adoption are very common among the Patani Malays, well-to-do people very frequently giving their children to be brought up by poorer neighbours, with whose children they live as equals. Friends often exchange children, childless people adopt those of those who have many, divorced women and widows bring the offspring of former marriages

into the family, and as all of these are reckoned as the children of its head, it is often difficult to discover whether a child is his own or merely a 'taken child' (*anak angkat*) or a step-child (*anak tiri*). Nevertheless, Malays are jealous of their birth, and some kind of record is generally kept. The laws of inheritance we did not investigate; they are said to be based on the universal Mahommedan code, and the *kadi* or *kali* of each state is recognized by the Siamese Government as the judge in disputes about such matters among Mahommedans.

The rudiments of a system comparable to that of the village-houses in some parts of Borneo exist at Sai Kau, where we found that frequently the children of the head of the family, and even those of his dependents, took up their abode when they married and had children of their own in annexes to the paternal home. These annexes were often built in an irregular way, in order to avoid interfering with fruit trees that chanced to be growing round the original house; but in one or two instances the composite buildings had evidently been rebuilt, having a regular verandah extending along in front common to all the families which inhabited them.

It would be out of place in the present paper to deal with the system of administration recently introduced into the Patani States, seeing that the Siamese have based it entirely on modern Dutch and British models, as far as its major issues are concerned; but a few words on the local government may be of interest, as it appears to be at least partially a native growth: the particulars given refer more particularly to the district of Jarum, in Hulu Rhaman, but though details may be different in other districts, the principles of the system are the same throughout the Patani States. About every ten households are under a headman, who is called *nai-ban*, that is, in Siamese, 'master of the village'; he is usually chosen from among the householders in his district because of his ability to write either Malay or Siamese, and his election is in the hands of either the Siamese commissioner or the nearest resident magistrate (*bakim*), who is generally a Siamese but may be an educated Malay. Over every ten *nai-ban*, approximately, a *kem-nan* is appointed in the same way, being always a peasant of substance. The *nai-ban* and the *kem-nan* have to keep a record of all the people resident or travelling in their district, of all cattle and elephants, and of all weapons other than the *kris*, which is considered too obsolete to be of any account as a weapon. Formerly, and, as a matter of practice in the remoter districts at the present day, the regulation of forced labour was in the hands of these headmen, who received no pay for their services. Forced labour, however, has been abolished, to a great extent, by the Siamese, direct taxation having taken its place in most districts. In the old days

every man was bound to put in two months' work in the year on behalf of the raja of the state, and it was the *nai-ban's* and the *kem-nan's* business to see that he did so. He could not be forced, however, to work beyond the limits of the district in which he was resident, and was only obliged to work for a short period at a time. The period was regulated by a fixed measure of rice, which he had to bring with him and which was supposed to last for about ten days. When the rice was finished he went to his *nai-ban*, who, if satisfied that it had not been eaten too fast, gave him leave to return home. Bachelors and foreigners not married to native women were exempt from all such impositions. Native householders have the right to clear as much jungle as they can keep in cultivation, the cultivated land descending to their widows and children, on condition of obtaining leave from their *kem-nan* and of paying a fixed proportion of the produce (differing in different districts, but as high as ten per cent. at Sai Kau) to the raja, that is to say, practically, to the Siamese Government. Foreigners who have not taken a native wife pay nothing on the land they have cleared, and for this reason a small number of Bugis men and Malays from other parts of the Peninsula are still attracted to the Patani States.

CONCLUSIONS

It is obvious that the majority of the customs recorded in this paper have been deeply tinged by Mahomedan, that is to say Arabian, culture, but traces still remain, amidst much comparatively modern, of beliefs which may be regarded as having an extreme antiquity. Such we may consider the induction of sympathy between the life of a child and that of a tree by burying the after-birth at its roots. What is probably a similar practice, with regard to the same tree, prevails among the Baganda of Central Africa. The disgust evinced by Jalor Malays when triplets are born, and, especially, the phrase in which this disgust is expressed, are equally suggestive, and the diffidence felt in the presence of a mother-in-law is a wide-spread feeling among primitive races.

The question whether similarities of belief, feeling or ritual of the kind just indicated point to a date when all mankind was a single tribe—a theory opposed by grave anatomical difficulties, such as the difference in the mode in which an upright carriage is maintained in European races and in some others—or whether, on the other hand, they do not rather indicate a logical identity in the human 'species'—a convenient word, which may be either singular or plural—is too wide for discussion in the present strictly local contribution to ethnography, but it seems almost impossible to waive aside

such similarities in detail as mere coincidences, even if we grant the existence of a general similarity in the conception of ideas to all savages. Surely some more intimate connexion, whether of descent (perhaps even before mankind was man) or social intercourse, is necessary.

Of ancient systems, if not so ancient, relics of matriarchy, still prevalent among several primitive tribes of the Malay Archipelago, may be sought in the ceremonial return of the bride and bridegroom to her parents' home, in the independent state of women, and, possibly, in the fact that royal rank cannot be transmitted in the male line only—a theory of descent certainly not Mahomedan, though occurring among Iranian peoples. As regards circumcision, its association with the idea of fitness for marriage becomes the more interesting when it is considered together with the greater importance of the former rite in the districts where Mahomedanism has gained the slighter hold. Have we here evidence of the origin of circumcision among the Malays independently of Mahomedan influence? Perhaps the curious custom prevalent among the Japanese, believed by Adachi¹ to be a survival of what once was circumcision, may have its bearing on this question, which must remain for the present *sub judice*. There are many other points of interest in the customs of the Malayo-Siamese, such as the restrictions put on young men married for the first time and the prohibition against a bridegroom wearing silk or gold, which might be dealt with at length; but space forbids, and now that these customs are put on record, others more learned than myself can see their bearing on ethnology and the history of mankind.

My thanks are due, as regards the present paper, to Dr. A. S. CUMMING, who has gone through the manuscript. The illustrations are reproductions of careful drawings from photographs taken by myself during the SKEAT Expedition. Their object is, in the case of the Malay tombstones, merely to put on record certain forms which might well be discussed at some length.

1. *Zeitsch. für Morph. und Anthrop.*, vol. V., 1902, p. 351.

SKELETONS OF THE MALAYO-SIAMESE

BY

NELSON ANNANDALE, B.A.

CONTRIBUTIONS TO THE PHYSICAL ANTHROPOLOGY OF THE MALAY PENINSULA

SECTION II.—OBSERVATIONS ON THE SKELETON

PART III. MALAYO-SIAMESE

By NELSON ANNANDALE, B.A.

THE specimens described under this heading were obtained by Mr. ROBINSON and myself in the states of Jhering, Patani and Nawngchik.

They comprise two Malay skulls (one of which is accompanied by an imperfect skeleton) and a jaw bone of the same race; five adult Siamese skulls, with long bones and pelves, a Siamese lower jaw and imperfect skeleton, and two immature skulls, one of them that of an infant and the other that of a youth, the former being in a fragmentary condition but having a few of the limb bones associated with it. There is also the skull of a Siamese child about eleven years old, which was obtained by myself in the state of Patalung: it has with it an incomplete set of limb bones.

(A) MALAY SKULLS

Of the two complete Malay skulls in our collection one, which is accompanied by an incomplete skeleton, was obtained at Jambu, Jhering, in the waste ground where the bodies of persons who have died a violent death are hastily interred. The lower jaw, representing a second skull, is from the same locality. Both the individuals represented were said to have been natives of Jhering, the skeleton being that of a man who had recently been murdered by his wife's lover, while the lower jaw was all that remained of the body of a second murdered Malay, which had been washed out of the sand and carried away in a flood; a friend had rescued this one bone and had hung it up upon the branch of a small tree, where we found it. The other Malay skull was obtained on the outskirts of the town of Patani, and was reported to be that of a Kelantan Malay whom the ex-raja of Patani had murdered¹ some years previously.

1. It is very much easier to obtain the remains of those who 'have died of being killed' in the Patani States than of those who have died naturally.

The two skulls present great differences, and I have thought it best to describe them separately, although it is quite possible, indeed probable, that their diversity is not due to a difference in geographical origin ; for it is evident that they are extreme examples of two different types of head which we know to occur together in the Patani States.

Skull No. 21, Jambu Malay.

Though the skull is fairly heavy, its smooth outlines, the prominence of its frontal eminences and its vertical forehead give it a somewhat feminine aspect, with which its low cubic capacity (1,330 c.cm.) agrees ; but the structure of the rest of the skeleton and its history prove it male. Synostosis has commenced in the coronal sutures in both tables of the bone and also at several other points, indicating that the individual had past his first youth, and I do not think that the absence of any external trace of the third molars in the lower jaw and on the left side of the upper jaw can, in this case, be taken as indicative of youth.

The lower jaw from the same locality also appears, judging from its size and from the muscular impressions, to have belonged to an adult male.

Norma verticalis.

The skull, in this aspect, approaches the square in outline, but is very asymmetrical, the whole of the left side of the cranial box and also, to a lesser extent, of the face having been pushed forward in front of the right half. The skull is cryptozygous, although it closely approaches the phaenozygous condition. Though it does not exhibit numerical prognathism as defined by FLOWER, the protrusion of the mandible beyond the line of the face is very conspicuous from above ; but, as Sir WILLIAM TURNER¹ has recently pointed out, in skulls in which the nasion is much depressed below the level of the forehead, as is the case in this specimen, FLOWER's gnathic, or 'alveolar,' index does not give an altogether true indication of the degree to which prognathism is present. The cranial vault is flat, and shows no tendency to be roof-shaped. The parietal longitudinal arc is considerably longer than either the frontal or the occipital. The side walls of the cranium are almost vertical, and only a very small proportion of the post-parietal slope is visible from above. The frontal region is well developed, and there is no marked protrusion of the parietal on either side. There is little indication of the longitudinal post-parietal depression so common in the crania of the wild tribes of the Malay Peninsula, but a band-shaped depression, more noticeable on the left side than on the right, runs across the skull behind the coronal suture. The cephalic index is 85.9 ; decidedly brachycephalic.

1. *Trans. Roy. Soc. Edinburgh*, vol. XL, pt. 3, p. 602, 1903.

Norma lateralis.

The most remarkable feature of the skull in this view is its abrupt posterior termination. The post-parietal slope commences about midway between the bregma and the lambda and is gradual from its anterior commencement as far as the obelion ; from the level of the parietal foramina as far as the inion it is almost a vertical straight line. The plane of the nuchal part of the occipital bone also approaches the vertical, forming a very wide angle with that of the squama. The squama itself is quite flat, the external protuberance has a splayed or flattened appearance, and the cerebellar part of the occiput is relatively of small extent, exhibiting no outward convexity. The longitudinal arc of the cranium is moderately flat above ; the nasion is considerably depressed ; the nasal bones are not very prominent (though far from being so flat as in the case of several of the skulls described in a former part of this paper), and there is a marked prognathism (though the gnathic index does not quite reach 103), associated with a low angle of the entire face and not altogether subnasal. The zygomata are moderately stout, but the mastoid is very feebly developed. The skull rests behind on the posterior border of the foramen magnum, but the condyles very nearly touch the surface. The height of the cranium is slightly less than the breadth, the vertical index being 85.2 ; the height index obtained from Sir WILLIAM TURNER'S formula,

$$\frac{\text{Basi-bregmatic height} \times 100}{\text{Parieto-squamosal breadth}} \text{ is } 99.3.$$

Norma facialis.

As already indicated, the forehead is high and vertical and the glabella and supraorbital ridges are feebly developed. The orbits are microseme, the orbital index being 81.1. The nasal bones are long and rather narrow ; the nasal cavity is cordiform, being divided from the mandible below by a well-defined ridge, as in the higher types of human crania. The nasal index is only 45.8, that is to say, leptorhine. The complete facial index is 83.8, and the maxillo-facial index 50.7, so that, taking KOLLMAN'S definitions, the skull is chamaeoprosopic considered as a whole but leptoprosopic if the lower jaw be left out of account, the body of this bone being rather slight and the teeth of no great vertical length.

Norma occipitalis.

The outline of the skull is pentagonal from behind. The surface seen in this view is nearly flat and the opisthion is almost within the plane of vision, the foramen magnum, which is of medium size, being directed almost vertically

downwards. The condition of the nuchal part of the occipital bone, considered in connexion with the flatness of the whole occipital region and the asymmetry of the skull, goes far to prove that the cranium has been subjected to artificial treatment, and, seeing that we know that such treatment is common among the Malayo-Siamese in the case of unusually *long* heads, doubts may be expressed whether even this very short skull would have been brachycephalic, had it been permitted to develop normally.

Jaws and Teeth.

The palate is tongue-shaped and long in comparison with its breadth, the palato-maxillary index being 105.3.

Although the body of the lower maxilla is slight and the elevation of the ascending ramus low, the latter region has a considerable area, its lower border being depressed below the level of the base of the body. The sigmoid notch is shallow, the mental prominence is less strongly developed than in the majority of male European skulls, and the mental spines are little more than small roughened areas.

The condition of the teeth in this skull is interesting in connexion with the question of the age at which the wisdom teeth are developed and their comparative morphology in the different races of mankind. The crowns of the two anterior molars are very large in both jaws, but the only one of the four third molars which is visible, that on the right side of the upper jaw, is not only very small and simple but is pushed to one side of the dentary arcade. It appears that the length of the crowns of the other teeth, combined with the shortness of the dentary arc, has made it impossible for the last tooth that is developed to develop normally, for the posterior border of the crown of the second molar is practically at the extremity of the alveolar border. The skull has reached a stage of equilibrium, as indicated by the closing sutures, that would have prevented any great increase in the size, or change in the shape, of the bones. I have reason to believe that this is a common condition in the skulls of Mongoloid, or partially Mongoloid, races, but must defer a full discussion of the question until another occasion.

The separate lower jaw from Jambu is too much worn and broken to permit accurate measurement. It appears to have been larger than that of the above specimen, and to have had normally developed third molars on both sides; the crown of the only molar that remains, the second on the right side, is comparatively small. The mental prominence is feebly developed, but the elevation of the ascending ramus appears to have been rather greater than in No. 21.

Skull No. 22, Kelantan Malay.

This skull has well-defined male characteristics, the bony ridges being strongly developed, the forehead comparatively low, and the contours generally massive. The development of the bones points to middle age, but synostosis of the sutures is not visible at any point upon the outer table. The third molar is fully formed on both sides of both jaws.

Norma verticalis.

The outline in this aspect is ovoid, somewhat flattened at the posterior extremity. The skull is conspicuously phaenozygous, and only a small proportion of the mandible can be seen from above. The abruptness with which the supraorbital ridges jut out from the base of the forehead and the narrowness of the latter are very marked. The post-parietal slope is visible from above as far down as the lambda. The side walls of the cranium are not so vertical as in No. 21, and the cranial vault shows a tendency to be roof-shaped. There are no marked local depressions on the bone. The occipital longitudinal arc is slightly longer than either the frontal or the parietal, the two latter being approximately equal. The cephalic index is 79, in the upper limits of mesaticephaly.

Norma lateralis.

The post-parietal slope commences at a point about two-thirds the distance from the bregma to the lambda. As far as the lambda it is not excessively abrupt; from this point to the inion it is vertical but slightly arched; the angle formed by the plane of the occipital squama with that of the nuchal plate, though very considerable, is not so wide as in No. 21. The longitudinal arc of the skull is flat above, the forehead is low and retreating, strongly marked off from the supraorbital ridges. The nasion is not much depressed; the nasal bones are moderately prominent, and though the angle of the face is low as a whole, the degree of subnasal prognathism is slight. The zygomata are stout, but the mastoid, though massive and strongly grooved, is short. The skull rests behind on the posterior border of the foramen magnum, which is large (37 mm. by 33 mm.), but the plane of the foramen approaching the horizontal at least as closely as in No. 21. The cranium is broader than it is high, the vertical index being 75.5, and the height index, calculated by the same formula as in the case of No. 21, is 95.7.

Norma facialis.

The orbits are large and rectangular; they are mesoseme, the index being 85. The nasal bones are somewhat irregular in shape, and their inferior

extremities form a well-marked process ; they are of medium prominence. The floor of the nasal cavity is separated from the mandible by distinct pre-nasal fossae, the form of which is not quite that of the extreme Negroid¹ type, as they are somewhat more shallow. The prominence of the nasal spine is slight, but the nasal index is leptorhine, being only 46·2. The canine fossae are very deeply depressed. The face is not so flat as in the preceding specimen, but it also is chamaeoprosopic if the complete facial index (85·7) be considered, and leptoprosopic considering the maxillo-facial index of 53·4.

Norma occipitalis.

The outline from behind is pentagonal. The surface seen in this aspect is slightly arched, though approximating to the flat, and the plane of the nuchal plate slopes inwards gradually, so that the whole of its length is well within the plain of vision ; but it forms a smaller angle with the squama than in No. 21. It is impossible to say that the skull has been artificially deformed, the condition of the occipital region differing in no important respect from that common in normal brachycephalic skulls.

Jaws and Teeth.

The palate is still dolichuranic, though somewhat broader than in No. 21, its index being 108·8. The internal nares are directed backwards and downwards at a more acute angle than is common.

The conditions of the lower jaw resemble those in the preceding specimen, but the bone is stouter and the elevation of the ascending ramus rather higher ; the mental spines are more strongly developed.

The crowns of the anterior molars and premolars are smaller than in No. 21, permitting, although the dentary arc is rather shorter, full development to the third molar in both jaws. Indeed, this tooth is unusually well developed, its crown being very little smaller than that of the second molar ; on both sides of the upper jaw it has three distinct fangs, each fitting into a separate locus.

The skull is mesocephalic, its index being 1,390 c.cm.

The following is a brief summary of the resemblances and differences exhibited *inter se* by the two Malay skulls, omitting such differences as appear to be due to artificial distortion of the cranium :—Both have narrow faces if the lower jaw be left out of account, and in both the addition of this factor makes the face appear broader ; both are leptorhine ; both have long narrow palates ; in both the plane of the foramen magnum is nearly horizontal. On the other hand, in No. 21 the bony ridges are feeble, the forehead vertical, the

1. See Hovorka, *Die Aeussere Nase*, p. 38, fig. 96, Vienna, 1893

nose divided from the palate by a definite ridge ; while No. 22 presents the opposite conditions, exhibits a very much slighter degree of prognathism and a different condition of the teeth.

(B) SIAMESE SKULLS

The Siamese skulls in the collection were procured, with the exception of one specimen (which will be dealt with separately), from the state of Nawngchik, two of them having been obtained at the village of Ban Sai Kau and the remainder in the environs of the town of Nawngchik or Tojan. The Sai Kau specimens are male and female, the former being the skull of a man who had been murdered by a jealous husband, while the woman had died of 'fever' believed to be of artificial origin.

The Nawngchik specimens were obtained from the branches of trees in which they had been suspended ; we are not acquainted with their individual histories, but it is probable that they represent the victims of an epidemic of smallpox. 'Tree-burial' is characteristic of the indigenous Siamese, as distinct from the Malays on the one hand and from the Bangkok officials and from Chinamen on the other, throughout the Patani States. The skulls from Sai Kau belong to a different type from those collected at Nawngchik, but, seeing that the two places are only a few miles apart, no great stress must be laid upon the fact, except in so far that it goes to prove the population of the state, even within the limits of one so-called race, to be a very mixed one. As before, when dealing with the Malay specimens, I will describe the two types separately.

Skulls No. 23 and 24, Nawngchik Siamese, Ban Sai Kau.

The sexual characters are well marked in the two skulls, the male specimen being altogether more massive than the female, and having a cubic capacity almost exactly one-tenth greater. Both skulls are those of fully adult persons, the condition of the sutures showing that early youth was past in both cases. Probably the male was rather older than the female. Both are more massive than any specimen representing the other type from the same state.

Norma verticalis.

The outline of both skulls in this aspect is ovoid, the male specimen being very much broader than the female, and also more asymmetrical. In neither does any part of the parietal region bulge out suddenly at either side. Both skulls are phaenozygous, the male specimen more so than the female.

The mandible is not visible from above in either. The cranial vault is flattened, especially in No. 23. The parietal longitudinal arc is the longest of the three in No. 24, while the frontal is the longest in No. 23; in both cases the occipital arc is considerably shorter than either the frontal or the parietal. Only a very small proportion of the post-parietal slope is visible from above in the male specimen, but in the female skull a point some millimetres below the lambda is within the plane of vision. There are no marked local depressions upon the surface of either skull. The cephalic index of No. 23 is 87·2, that of No. 24, 78·7.

Norma lateralis.

The posterior termination of the cranium approaches the condition described in the Malay skull from Jambu (No. 21), but the abruptness of its slope is not quite so excessive; in the female specimen the slope is that of a normal sub-brachycephalic skull and the occipital squama is decidedly convex outwards; in both, the angle between the plane of the squama and that of the nuchal part of the bone is wide. The longitudinal arc of both crania is inclined to flatness above; the forehead is fairly vertical in the female specimen, low and retreating in the male. Though the supra-orbital ridges are well developed in the latter, they do not jut out from the base of the forehead, but emerge from it gradually. The nasion is not much depressed; the nasal bones are moderately prominent, being slightly recurved at their inferior extremity in the female skull. Prognathism is quite absent, the gnathic indices of the male and female skulls being respectively 95·2 and 94. The zygomata are stout and expanded, especially in the male skull; but the mastoids are only moderately strong. The skulls rest behind on the posterior border of the foramen magnum, which is very large in No. 23; but the plane of the foramen approximates to the horizontal. The left styloid process of No. 24 measures 26 mm.; the right, 19 mm. The height of the cranium is, in both cases, less than the breadth, and in the male skull the difference between the two measurements is very marked; the vertical indices are 78·4 and 77·5, and the height indices 90 and 98·5. Exactly how far this condition is correlated with what appears to be artificial distortion in the male cranium, it is impossible to say.

Norma facialis.

The orbits are mesoseme in No. 23 and microseme in No. 24, the two orbital indices being 87·8 and 80. The nasal aperture in No. 24 is cordiform, while in No. 23 it is rather longer and narrower; the floor of the nasal cavity

has an intermediate character in both, being separated from the mandible neither by a definite ridge nor by fossae, and not sloping outwards and downwards in any very definite manner ; both specimens are platyrrhine, their nasal indices being 55·7 and 53·2 ; the nasal spine is very prominent in No. 23. The faces give the impression of being flatter than those of the two Malay skulls ; the maxillo-facial index of No. 23 is 55, while that of No. 24, in which the alveolar point is slightly broken, is approximately 54 ; so that both specimens, taking this index, are leptoprosopic. The complete facial index of the male specimen, however, is, like that of the two Malays, chamaeoprosopic, being only 85·7.

Norma occipitalis.

Viewed from behind, both specimens are pentagonal in outline. The flatness apparent in No. 23 is probably due to artificial treatment during infancy, though the inward slope of the nuchal plate is approximately equal in the two skulls and there are no indications of such treatment in No. 24.

Jaws and Teeth.

The palates are very much broader and shorter than in the Malay skulls, the two palatal indices being both brachyuranic ; they are 126·8 and 123·1. The condition of the body of the lower jaws is similar to that of the specimens described above ; but in No. 23 the elevation of the ramus is considerable, while in No. 24 the angle which it makes with the body is so open as to be quite infantile.

In the male specimen the condition of the teeth approximates to that in the Malay skull from Jambu ; in the upper jaw two third molars are present, but they are small and ill-developed, having each two fangs, which are only partially separated from one another ; in the lower jaw the wisdom tooth is only visible to the right side and has there been so crowded that it has grown in sideways, the direction of its growth being midway between the vertical and the horizontal. In No. 24 the crowns of the anterior teeth are smaller, and the third molar has been allowed to develop on both sides of both jaws, being large and well formed in the lower jaw but, apparently, dwarfed and peg-like in the upper.

The male skull, No. 23, is megacephalic, its cubic capacity being 1,475 c.cm., while the female specimen is microcephalic, having a capacity of 1,325 c.cm.

These two skulls from Ban Sai Kau are typically Mongoloid in the majority of their characters, showing many resemblances to a series of Siamese

skulls from Bangkok with which I have compared them. Their differences from the Malay specimens from the Patani States may not be altogether fortuitous, though I believe that the latter are both extreme types, while the present specimens probably approximate more nearly to the mean allowances being made for the artificial treatment which one of them has probably undergone. Their differences *inter se* appear to be due partly to this artificial treatment, and partly to sex.

Nos. 25-30, Siamese, Nawngchik Town, Nawngchik.

Of the four perfect skulls from this locality three are female and adult, while the fourth is that of a person too young to admit of a diagnosis of sex; judging from the size of the cranium and the weight of the skull, I am inclined to regard it as male. Of the adult specimens No. 25, though fully adult, is evidently young; the bones are remarkably light and translucent, and the sutures are all open, but the junction between the basilar part of the occipital and the body of the sphenoid is quite obliterated. No. 26, judging from the condition of the lower jaw, represents an elderly person, while No. 27 is probably the skull of an individual in middle life. No. 29 has the second molar just appearing on both sides of the upper jaw. In all the bones are thin.

Norma verticalis.

In the four specimens the outline in this aspect is ovoid, somewhat truncated behind in No. 27. Nos. 25, 27, and 29 are phaenozygous, No. 26 cryptozygous; in No. 25 part of the mandible is visible from above, but it is completely concealed in the other skulls. The lambda cannot be seen in the norma verticalis except in No. 29, though it is very nearly within the plane of vision in the other specimens. The cranial vault is nearly flat in No. 27, and but feebly arched in Nos. 25, 26, and 29. In Nos. 26 and 29 the frontal longitudinal arc is the longest; in No. 27 the parietal; while the presence of Wormian bones in the lambda of No. 25 renders it impossible to separate the parietal from the occipital arc, but these two arcs taken together are considerably shorter than twice the frontal. The cephalic index in the three adult specimens only varies from 78.8 to 80, while that of the young specimen is also 80.

Norma lateralis.

The post-parietal and occipital slopes are those of normal sub-brachycephalic skulls, except in No. 27, in which it is strictly of a true brachycephalic nature. In all four specimens, and especially in Nos. 25 and 27, the occipital squama is markedly convex outwards, and in the three adult skulls the nuchal

part of the bone is relatively of large extent, and is so protuberant that great outward convexity of the cerebellar lobes is indicated; the condition recalls that in the Orang Laut skulls, described in a former part of this paper, and is made the more conspicuous by the fact that in both races a broad band-like depression runs transversely across the occiput, separating the two parts of the occipital bone. The angle formed by the plane of the squama and that of the nuchal plate is, especially in the young skull, far less wide than in the other Malayo-Siamese skulls described. The forehead is vertical in the four specimens, and the ridges in this region are feebly developed. The nasion is very little depressed, and the nasal bones are not prominent, being least so in the young skull. There is a slight subnasal prognathism in No. 25, in which the gnathic index is 100; Nos. 26 and 27 are practically orthognathous, their respective indices being 95 and 93.7. The young skull has a gnathic index of 101.1, chiefly due to a general protrusion of the face beyond the line of the forehead. The zygomata are moderately stout, but the mastoids are feebly developed, especially in No. 26, in which their condition is almost infantile. Their condition in the young skull is even more child-like than in most European specimens of the same age. In No. 25 the skull rests behind both on the posterior border of the foramen magnum and on the condyles, while in the remaining three specimens it rests only on the former point; but in all cases the plane of the foramen approaches the horizontal. Except in No. 25, the height of the cranium is less than the breadth; in No. 26 the vertical index is 77.6, and the height index 97.1; in No. 27 the vertical index is 78.3 and the height index 99.2; in No. 29 the two indices are respectively 76.4 and 95.5; while in No. 25 they are 79.4 and 100.7.

Norma facialis.

The orbital index of the four specimens is mesoseme, varying from 85.7 to 88.9 in the adult skulls. The nasal bones are rather wide in the female skulls, somewhat wider and flatter in the young specimen; in the former the nasal aperture is cordiform, narrower in No. 26 than in the other two; but in the young skull it is very short and approaches the square in shape. The nasal index of the adult skulls varies from platyrrhine to leptorrhine, being 56.8 in No. 25, 53.5 in No. 27, and 44.7 in No. 26; in No. 29 it is mesorrhine, 51.1. The condition of the nasal floor in the adult specimens resembles that in No. 23, while in the young specimen there is a definite outward and downward slope¹ at the point of junction with the jaw. The maxillo-facial index of two of the adult specimens (Nos. 25 and 27) is chamaeoprosopic, being 54.5 in one

1. As in Hovorka's *Affenrinne* (t.c. p. 38, fig. 9d), rather than in his *Forma infantilis* (fig. 9c).

and 50 in the other ; in No. 26 it is leptoprosopic, being 46·3. The complete facial index of No. 25 is also chamaeprosopic, being 94·3.

Norma occipitalis.

The outline of the four skulls is in this view pentagonal. It is in the norma occipitalis that the difference between these specimens and the skulls from Sai Kau is most apparent, owing to the way in which the occipital squama bulges out and the nuchal plate, also bulging out but in a different curve, retreats gradually towards the foramen magnum.

Jaws and teeth.

The palate in No. 25 is of medium diameter, very highly arched above ; its index is 114·5 : in the other two adult specimens it is broad, their indices being 130 and 122·3. As might be expected, in the young it is very broad, having an index of 131·2.

Allowing for differences in age and sex, the four adult lower jaws from Nawngchik town are very similar to one another, and are of the same type as those described above.

In the adult specimens the teeth are smaller than those of No. 21. In No. 25 the third molar is moderately large on both sides of both jaws, its condition in the lower jaw showing that its appearance is quite recent, more so than in the upper jaw of the same specimen. A similar condition prevails in the male lower jaw, No. 28 ; but in No. 26 there is no trace of a third molar on either side of the upper jaw, and no room for one in the alveolar border : on the left side of the lower jaw a small, but well-formed, wisdom tooth exists on the right side. It is, however, so far back in the jaw that if the bone be viewed in profile most of it is concealed behind the ascending ramus. In this case the suppression of the latest in development of the teeth does not appear to be due to the growth of the preceding teeth, which are of no great size, so much as to the shortness of the dentary arc itself. This is the only specimen in the Malayo-Siamese series in which any teeth appear to have been lost during life, and in it only the first molar on the right side seems to have suffered.

In No. 27 the third molar has been developed on both sides of both jaws, being small in the upper jaw but of fair size in the lower.

Two of the adult female skulls from Nawngchik town are microcephalic, the cubic capacity of No. 27 being only 1,215 c.cm., and that of No. 26, 1,310 c.cm. ; the third specimen is mesocephalic, with a capacity of 1,360 c.cm.

Taking them as a whole, the Malayo-Siamese crania from the Patani

States appear to represent a population near the lower limits of brachycephaly, which is sometimes exaggerated by artificial deformation, not of an extreme character, practised on the heads of infants. The skulls are generally broader than they are high, the nasal index varies within wide limits; the face is moderately broad, but the lower jaw is small, though strong. Prognathism is occasionally present, often absent. It is a remarkable fact that in three skulls out of seven, which appear to have reached their permanent condition, the third molar is absent on one or both sides of one or both jaws, either because the other teeth have been so large, or because the arc of the alveolar border has been so short, that outward growth of the wisdom tooth has been interfered with, though it is very possible that a dissection of the bone might demonstrate that it has not been entirely suppressed.

It is very evident, I think, that though these skulls, with the possible exception of the Malay specimen from Patani, exhibit certain Mongoloid characters, they afford very strong evidence of the existence of a non-Mongoloid, primitive element in the settled population of the Patani States. The series is too small and the types are too varied within each 'race' for it to be possible to draw up any definite distinction between 'Malays' and 'Siamese,' but the whole of our work in this district goes to prove, as might be expected from its geographical position, that we are here dealing with an ethnical border-land, where the races of Siam and of Malaya have become utterly confounded, and where it is probable that earlier races have been almost entirely absorbed; while the history of Patani, in the seventeenth century the chief port of Siam and the adjacent countries, points to further admixture in the past with several alien Oriental races: nor must the fact be lost sight of, that, even at the present day, the introduction of alien concubines from Africa and Arabia has by no means altogether ceased.

(C) CHILDREN'S SKULLS

The juvenile characters in the two skulls described under this heading are so strongly marked that they mask the racial characters, as these are generally understood, and, therefore, it will be best to describe them separately, laying stress on those points in which they differ from the skulls of the adults of the same race. Both specimens were obtained in trees, the infant's at Nawngchik and the other at Lampam, the capital of the state of Patalung, and both probably represent the victims of smallpox. There is no reason to suspect any very great difference between the Siamese of Patalung and those of Nawngchik, though certain minor distinctions undoubtedly exist.

1. See Anderson, *English Intercourse with Siam in the Seventeenth Century*, pp. 42-44, etc.; London, 1890.

The Nawngchik specimen, judging from the condition of the teeth, represents an infant of less than two years old, the first molar (milk dentition) having not yet completely pierced the surface of the jaw. Unfortunately, the specimen is very imperfect, in a fragmentary condition; the bones have become separated from one another, some of them have disappeared, and they are so distorted, probably owing to the processes of decomposition, that it is impossible to fit them together again. Nevertheless, they show some interesting features.

In the first place, the occipital bone is very nearly vertical, and, undoubtedly, points to a very high degree of brachycephaly, while the parietals have evidently bulged out considerably on each side of the head almost at its posterior termination, arguing a wedge-shaped form in the *norma verticalis* and also pointing to brachycephaly. The floor of the nasal aperture, which hardly differs from that in the Siamese youth's skull from the same locality, is of the true infantile type. The degree of prognathism present and the height of the body of the lower jaw, in which the symphysis is almost complete, probably differ less from the conditions of the adult jaw of the same race than would be the case in Europeans.

The child's skull from Patalung appears to represent an individual of between eight and ten years old. The skull is fully ossified, with the exception of the occipital condyles and the junction between the basilar process of the occipital and the body of the sphenoid; the second molar is just commencing to appear, but has not yet completely made its way through the bone to the surface.

In the *norma verticalis* the skull has a very characteristic wedge-like form, very different from that of the adult Siamese skulls, but probably resembling that of the infant from Nawngchik; the outline is practically a broad-based isosceles triangle, truncated at the apex in the front, and the cephalic index is very high, 89.7, considerably higher than that of any other specimen in the whole of our collection, though there is no trace of artificial distortion. The parietal eminences are strongly developed, as might be expected, and the post-parietal slope is abrupt. The occipital squama is convex outwards, but its arc has a long radius; the nuchal plate is bent on itself at an angle approaching a right angle, and more than half of its length ascends above the point at which the skull commences to slope inwards towards the foramen magnum, the plane of which is less horizontal than the adult skulls. The mastoids are very little more feeble than in an adult female skull, No. 26. The nose is extremely flat, the alae are broadly expanded, and the floor of the cavity has the ape-like outward and downward slope, noted in the youth's skull from

Nawngchik, even more distinctly marked. The orbits resemble those of adult skulls. The angle of the ascending ramus of the lower jaw is practically the same as that persisting in an adult female skull, No. 27, and the symphysial height is no less than in the jaw of No. 24, an adult female too young to have been affected by senile atrophy.

On the whole, the inference to be drawn from these two children's skulls is that, while in certain characters, notably in the lower jaw, they depart less widely from the adult type of their race than would be the case among Europeans, they are distinguished from the skulls of older persons of their race in certain very definite ways, chiefly in displaying a very much more marked tendency to brachycephaly.

In the Patalung specimen the parietal longitudinal arc is proportionately very much longer than either the frontal or the occipital than in any other complete skull in the collection, and though in the fragmentary specimen from Nawngchik the necessary measurements cannot be taken, there are indications that the same state of affairs prevailed in this younger skull also; in the youth's skull (No. 29), however, the frontal arc is very much the longest of the three.

	Cephalic Index	Vertical Index	Gnathic Index	Facial Index	Nasal Index	Orbital Index	Bigonial Index	Cubic capacity
Jungle tribes ..	74.6 (XI)	78.8 (X)	98.8 ap.(VII)	47.3 (VII)	55.3 (IX)	85.6 (IX)	74.6 (IV)	Males, 1,338 (III). Females, 1,228 (V)
Orang Laut ..	77.0 (VIII)	76.0 (II)	96.0 (one)	..	52.0 (III)	75.2 (V)	..	Male, 1,440 (one). Female, 1170 (one)
Malayo-Siamese	81.1 (VII)	78.8 (VII)	96.7 (VII)	51.6 (VI)	50.7 (VII)	85.0 (VII)	75.4 (VII)	Males, 1,398 (III). Females, 1,302 (IV)

In a future Fasciculus I hope to discuss the racial features of our collection of skulls and skeletons from the Malay Peninsula, but the above table shows roughly some of the principal differences between the adult crania of the different races investigated, as far as the condition of the material and the limitations of the present systems of craniometry will permit. The Arabic numerals give the mean, while the Roman figures following them in brackets indicate the number of skulls from which that mean was calculated. The facial index noted is, of course, the maxillo-facial. I have been obliged to group the Semangs, the 'Sakais' (or, more correctly, the bastard Semangs) of Upper Perak, and the true Sakais of South Perak together as 'jungle tribes,' for our series of skulls is too small for it to be possible to draw any distinction between them, and it is obvious, I think, that far less difference exists between the bony structures of these tribes than the appearance of living individuals would

suggest. The Semangs have, to some extent, the features, the hair, and the stature of Negritos, but their skulls show decided relationships to those of the dolichocephalic Indonesians ; while the Sakais are so mixed a race that their true affinities must be discussed at length to be elucidated.

(D) MALAYO-SIAMESE SKELETONS

It will not be necessary to describe the skeletons in such detail as the skulls, and the tables of measurements indicate with sufficient clearness which bones have been preserved in the case of each individual, the collection numbers referring to the same individuals as in the description of the skulls.

Upper Limb.

In five of the six adults in which the upper limb is represented, the scapulae and clavicles are remarkably small and light, but in the male skeleton from Sai Kau they reach moderate dimensions. In every case the supra-scapular notch is fairly deep, and in No. 23 its narrowness gives it a pronounced character. The axillary border of the scapula is nearly straight, and the mean scapular index is distinctly lower than that of the jungle tribes, as may be seen by reference to the comparative table of indices at the end of the present part of this paper. There is an intercondylar foramen in both humeri of No. 26 and in the left humerus of No. 23. The mean radio-humeral index is approximately the same as in the case of the four Semang and Sakai specimens, but it would very possibly have been somewhat higher in the latter, had it not been for the inclusion of one individual in whom this index was apparently abnormal.

Lower Limb.

The lower limb, and especially the tibia, exhibits in almost every particular those modifications associated with the squatting attitude by Professors A. THOMSON¹ and HAVELOCK CHARLES.² Apart from these, the pilastered condition of the femur is present in a more or less pronounced degree in each of the seven adult skeletons in which the bone is represented, while in the child's femur from Lampam (No. 31) there are indications that it would have been strongly developed in adult life ; in the infant's skeleton (No. 30) there is no trace of it. It is most pronounced in a female (No. 24), being feeble in a Malay male (No. 21) and a Siamese female (No. 26). Platymery is fairly well marked in Nos. 26 and 27, distinctly less so in Nos. 23 and 24, and barely indicated in the other specimens, including the two children. I have not given the measurements that are believed by many anthropologists

1. *Journ. Anat. and Phys.*, vol. XXIII, pp. 616-639, 1889.
2. *Ibid.*, vol. XXVIII, pp. 1-18, 272-280, 1893.

to indicate the degree to which these two peculiarities of the femur are developed, because I find that the measurements often depend on the relative breadth and depth of the main body of the shaft, irrespective of any local ridge or flattening. In the upper extremity of the bone, the extensor area of the neck is not strongly marked in any specimen; a third trochanter is present in Nos. 23, 24, and 27, and the anterior intertrochanteric line, while strong in Nos. 23 and 24, and fairly strong in Nos. 26, 27 and 28, is feeble, except in the upper third of its length, in Nos. 21 and 25.

The tibiae of the seven adults show a fine gradation from well-marked platycnemy to almost the opposite condition, for in Nos. 23 and 24 the shaft of this bone is definitely sabre-shaped in the anterior view, though there is no great lateral compression on the posterior surface; while in the other individuals this character is less and less marked, until in No. 26 it is practically absent; the measurements and indices are given in the general table. In the young skeleton from Lampam the cross-section of the tibia more closely approaches the circular than in that of any adult specimen in our series, but owing to the action of the weather on the surface of the bone exact measurements cannot be given; the retroversion of the head of this bone, though patent, is not so strongly marked as in the adults, in which it is very pronounced.

Pelvis.

There are three adult male and four adult female pelves in our series. With the exception of two specimens (Nos. 23 and 24), which only reach moderate dimensions, they are extremely small and compact, barely equalling those of the jungle tribes in size. This fact, taken in connexion with the shortness of the limb bones in all the skeletons but those of these same two individuals, would seem to indicate that the remaining five persons represented in the collection were below the average stature of the Malayo-Siamese, as one of the most noticeable differences of figure between this race and the jungle tribes is the superior breadth of the hips in the former and the extent to which the upper part of the body is developed, relatively to the hips, in the latter.

Considering first the three male pelves, the most remarkable features they present are the straightness of the sacra and the great variation in the shape of the brim, and consequently in the pelvic or brim index. A Malay specimen (No. 21) and a Siamese specimen from Sai Kau (No. 23) agree in being dolichopellic, while No. 28 from Nawngchik town is very highly platypellic indeed, its index being well below 70. The breadth-height index, however, only varies from 76.2 to 80.9, with a moderately high mean of 78.7.

The sacral index, both measurements being taken with the callipers, has a mean of 98, the extremes being 96.1 and 100, while if the length is measured along the curve with a tape, the variation is practically the same, the extremes being 90.0 and 94.2, and the mean is 92.3.

The mean of the four female pelves is just mesatipellic, being 90.7, while the extremes run neither so high nor so low as in the other sex, being 85.9 and 94.7. The mean breadth-height index is also lower than in the case of the male specimens; for it is only 75.4, while the extremes are 68.7 and 79.4. The former index belongs to the female specimen from Ban Sai Kau, which corresponds in several particulars with the male pelvis from the same locality, especially in having the alae less vertical than the other specimens of the same sex. The sub-pubic angle in this female individual, however, does not resemble that of the male quite so closely as the measurement, taken with GARSON'S goniometer, would seem to indicate, for its comparative lowness is due partly to a distinct inward recurvature of the inferior rami which prevents the true angle being registered, though in any case it would be low.

In one pelvis of each sex, namely in Nos. 28 and 25, there are only four vertebrae included in the sacrum, and only two take part in the articulation of the pelvis. This reduction in the number of the bones anchylosed together is not accompanied by any great reduction in the length of the sacrum, the individual vertebrae having become correspondingly long; it is due to the inclusion of the first sacral vertebra in the lumbar series, not to the separation of the fifth and its inclusion in the coccyx. The lateral masses appear to have been developed in each case in the vertebra which was morphologically the first of the sacral series, and to have articulated on both sides with the lateral masses of the bone which was, from the same point of view, the second of the series. Unfortunately, the lumbar vertebrae have not been preserved in either specimen.

In the pelvis of No. 27 there is considerable lateral asymmetry, the sacrum being twisted forward on the right side, and the rest of the pelvis having been distorted in a corresponding manner. The fifth sacral vertebra of this specimen has been broken after death, so that the sacral index cannot be given.

MEASUREMENTS AND INDICES OF THE PELVIS

Collection Number	21	23	28	24	25	26	27
Sex	♂	♂	♂	♀	♀	♀	♀
Breadth	227	257	233	262	236	231	214
Height	173	208	185	180	176	183	170
Between Ant. Sup. Iliac Spines	203	240	204	230	202	206	174
Do. Post. Sup. Iliac Spines	73	74	58	97	84	105	74
Do. Ischial Tubera	118	150	114	142	134	142	143
Vertical Diameter of Obturator Foramen .	49	55	47	49	47	42	42
Transverse Diameter of Obturator Foramen	30	34	30	37	34	30	29
Subpubic Angle	60	74	61	76	80	101	97
Transverse Diameter of Brim	100	118	108	128	114	113	114
Conjugate Diameter of Brim	98	110	75	110	102	105	108
Intertuberal Diameter	70	100	73	99	91	109	114
Depth of Pubic Cavity	100	116	99	97	94	100	90
Length of Sacrum (direct)	102	108	100	94	80	100	..
Do. do. (along curve)	110	120	104	99	96	106	..
Breadth of Sacrum	98	108	98	103	100	106	..
INDICES							
Pelvic Index	98'0	95'2	69'4	85'9	89'4	92'9	94'7
Breadth-Height Index	76'2	80'9	78'9	68'7	74'5	79'2	79'4
Obturator Index	61'2	61'8	63'8	77'5	72'3	71'4	69'0
Sacral Index	96'1	100'0	98'0	109'5	96	106'0	..

Vertebral column.

The cervical vertebrae of Nos. 21, 23 and 24 have been preserved, and their spines are more markedly bifid than in the case of the Semang and Sakai specimens (Nos. 1, 3 and 9), in which this condition is feebly indicated but not altogether absent.

The lumbar vertebrae have been preserved—with the exception of the third in No. 21—in Nos. 21, 23, 24 and 26; in none of these four skeletons is the lamina of the fifth lumbar vertebra separated from the rest of the bone. The lumbar indices and the measurements on which they are based are given in the following table :—

HEIGHTS AND INDICES OF LUMBAR VERTEBRAE

	No. 21	No. 23	No. 24	No. 26
1st :—				
Anterior Height ...	22	26	20	22
Posterior Height ...	23	29	23	25
Index	104'5	111'5	115'0	113'6
2nd :—				
Anterior Height ...	23	26	23	22
Posterior Height ...	24	28	26	26
Index	104'3	107'4	113'0	118'2
3rd :—				
Anterior Height ...	...	26	23	23
Posterior Height ...	...	26	24	26
Index	...	100	104'3	113'0
4th :—				
Anterior Height ...	23	26	24	23
Posterior Height ...	21	26	22	24
Index	91'3	100	91'7	104'3
5th :—				
Anterior Height ...	27	26	24	22
Posterior Height ...	22	22	20	23
Index	81'4	84'6	83'3	91'8
Mean Lumbar Index ...	...	100'7	101'5	108'2

To show some of the differences in proportion which the measurements of the limb bones of the Malayo-Siamese series would seem to indicate from the corresponding measurements in the jungle tribes (though the number of individuals examined is in each case too small to allow dogmatic assertions), I have appended a comparative table, showing the means and extremes of the more important indices in each case :—

MEANS AND EXTREMES OF INDICES OF LIMB BONES

				Number of Skeletons	Mean	Extremes
Tibio-femoral Index						
Jungle Tribes	...	...		Four	81·0	77·6—85·8
Malayo-Siamese	...	...		Seven	80·8	78·2—84·0
Humero-femoral Index						
Jungle Tribes	...	...		Five	69·6	68·6—71·0
Malayo-Siamese	...	...		Six	71·9	70·3—73·7
Radio-humeral Index						
Jungle Tribes	...	...		Four	78·4	73·5—81·8
Malayo-Siamese	...	...		Six	78·7	76·1—81·8
Intermembral Index						
Jungle Tribes	...	...		Four	68·2	67·2—69·4
Malayo-Siamese	...	...		Six	70·4	69·6—72·1
Scapular Index						
Jungle Tribes	...	...		Four	71·5	70·4—72·9
Malayo-Siamese	...	...		Six	69·3	66·4—71·9

My thanks are due to Professor D. J. CUNNINGHAM, in whose department in the University of Edinburgh the greater part of the work of describing our Malayo-Siamese skulls and skeletons has been done, and who has kindly suggested to me several points of interest for discussion.

ERRATA IN PART I

Part I, p. 158, table ; *for* '**Pelvic Index**' *read* '**Breadth-height Index.**'

Part I, p. 165, line XIX ; *for* 'first lumbar vertebra' *read* 'fifth lumbar vertebra.'

Part I, p. 174, table VIII, total longitudinal circumference ; *for* '567' *read* '506.'

Part I, p. 175, lines XXIII and XXIV ; *for* 'is the same as the **tibio-femoral**, viz., **74·3**' *read* 'approaches the **tibio-femoral**, being **73·8.**'

Part I, plate XVIII ; *for* 'Fig. 1' *read* 'Fig. 4' ; *for* 'Fig. 2' *read* 'Fig. 5' ; *for* 'Fig. 3' *read* 'Fig. 6' ; *and conversely throughout.*

TABLE VIII

MALAYO-SIAMESE (CRANIAL MEASUREMENTS AND INDICES)

Collection Number	21	22	23	24	25	26	27	28	29	30	31
Age	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult	15 years	18 mths.	10 years
Sex	♂	♂	♂	♀	♀	♀	♀	♂	?	?	?
Cubic Capacity	1330	1390	1475	1325	1360	1310	1215	..	1300	..	1190
Glabella-occipital Length	163	176	172	174	170	170	166	..	170	..	156
Basi-bregmatic Height	139	133	135	135	135	132	130	..	130	..	120
Vertical Index	85'2	75'5	78'4	77'5	79'4	77'6	78'3	..	76'4	..	76'9
Minimum Frontal Diameter	107	94	96	88	89	90	91	..	94	..	88
Stephanic Diameter	116	110	108	110	116	104	108	..	116	..	106
Asterionic Diameter	105	117	108	105	100	102	105	..	109	..	102
Greatest Parieto-squamous Breadth	140	139	150	137	134	136	131	..	136	..	140
Cephalic Index	85'9	79'0	87'2	78'7	78'8	80'0	78'9	..	80'0	..	89'7
Horizontal Circumference	490	494	513	492	479	490	477	..	480	..	462
Frontal Longitudinal Arc	121	116	120	123	128	128	120	..	121	..	104
Parietal " "	130	115	118	126	222	118	122	..	113	..	123
Occipital " "	100	118	111	107		111	110	..	117	..	115
Total " "	351	349	349	356	350	357	352	..	351	..	332
Vertical Transverse Arc	308	294	315	302	300	298	294	..	298	..	276
Basal Transverse Diameter	116	124	138	118	118	119	123	..	112	..	105
Vertical Transverse Circumference	424	418	453	420	418	417	417	..	410	..	381
Length of Foramen Magnum	32	37	40	37	37	35	31	..	35	..	32
Basi-nasal Length	98	107	104	100	96	100	96	..	92	..	82
Basi-alveolar Length	100	104	99	94	96	95	90	..	93	..	81
Gnathic Index	102'0	97'2	95'2	94'0	100'0	95'0	93'7	..	101'1	..	98'8
Total Longitudinal Circumference	481	493	493	493	483	492	479	..	478	..	446
Interzygomatic Breadth	130	133	140	122	123	121	116	..	112	..	106
Nasio-mental Length	109	114	120	108	116	..	..	..	97	..	86
Nasio-mental Complete Facial Index	83'8	85'7	85'7	88'5	94'3	..	..	..	86'6	..	81'1
Nasio-alveolar Length	83	71	77	..	67	56	58	..	55	..	51
Maxillo-facial Index	50'7	53'4	55'0	54'x	54'5	46'3	50'0	..	49'1	..	48'1
Nasal Height	48	53	52	47	47'5	47	43	..	42'5	..	37
Nasal Width	22	24'5	28	25	27	21	23	..	22	..	18
Nasal Index	45'8	46'2	55'7	53'2	56'8	44'7	53'5	..	51'1	..	48'7
Orbital Width	37	40	41	40	38	36	35	..	34	..	35
Orbital Height	30	34	36	32	33	32	30	..	29	..	28
Orbital Index	81'1	85'0	87'8	80'0	84'2	88'8	85'7	..	85'3	..	80'0
Palato-maxillary Length	57	57	56	52	55	47	50	..	43	32	45
Palato-maxillary Breadth	60	62	71	64	63	58	65	..	62	42	55
Palato-maxillary Index	105'3	108'8	126'8	123'1	114'5	123'4	130'0	..	144'2	131'2	122'2
LOWER JAW	Symphysial Height	28	30	33	30	28	24	..	33	26	24
	Coronoid " "	60	64	70	57	58	50	56	56	54	46
	Condylod " "	59	60	72	59	56	59	72	62	55	48
	Gonio-symphysial Length	80	93	86	84	80	82	77	80	74	70
	Inter-gonial Width	103	103	105	95	92	87	88	99	85	79
	Breadth of Ascending Ramus	37	42	35	35	35	37	35	37	32	30

TABLE IX
MALAYO-SIAMESE (MEASUREMENTS AND INDICES OF LIMB BONES)

Collection Number	21		23		24		25		26		27		28	
Sex	♂		♂		♀		♀		♀		♀		♂	
FEMUR—	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
Maximum Length	401	400	448	455	390	394	421	419	..	376	365	362	393	393
Oblique Length	396	397	446	453	387	391	416	416	..	375	359	357	387	387
TIBIA—														
Maximum Length (without spine)	..	321	381	380	314	319	339	339	..	326	305	305	317	321
Condylø-astragalar Length	..	315	370	370	304	307	331	331	..	315	295	296	305	307
FIBULA	..	325	373	372	310	316	332	333	322	323	..	..	315	312
HUMERUS	285	290	328	328	276	276	..	..	267	270	268	268	280	285
RADIUS—														
To Tip of Styloid	230	230	252	251	222	220	..	..	219	221	204	201+x	221	220
To Articular Surface	223	223	247	245	218	217	..	..	215	216	200	200	217	214
ULNA—														
To Tip of Styloid	242	242	..	270	235	237	..	..	..	237	225	225	233	251
To Articular Surface	240	241	..	266	233	235	..	..	235	235	222	221	230	227
CLAVICLE	..	..	..	170	121	125	..	..	..	..	120	120	..	..
SCAPULA—														
Height	135	..	165	163	132	133	..	..	124	128	118	119+x	131	133
Breadth	92	..	108	110	93	90	..	..	88	87	86	85	95	95
Infra-spinous Height	105	..	124	126	102	104	..	..	98	101	88	89	107	104
Supra-spinous Height	45	..	52	54	44	43	..	..	44	44	43	45	41	40
TIBIA (extra measurements)—														
‘A.P.’ Diameter	..	27.5	32	30.5	26	25	25	23	..	21	dis- eased	dis- eased	26	25
Breadth of Shaft	..	20.0	19	19	17	16	16	16	..	16	dis- eased	dis- eased	18	16
INDICES														
Tibio-femoral Index	..	78.7	82.9	81.6	78.5	77.9	79.5	80.0	..	84.0	82.2	82.9	78.8	79.3
Humero-femoral Index	71.1	72.5	73.2	72.1	70.7	70.0	..	..	..	71.1	73.4	74.0	71.2	72.7
Radio-humeral Index	80.7	79.6	76.7	76.5	80.4	79.7	..	..	82.0	81.8	76.1	..	78.9	77.2
Intermembral Index	..	72.1	69.9	69.3	70.7	69.6	..	..	..	69.9	70.4	..	70.6	70.7
Scapular Index	68.1	..	68.4	67.4	70.4	67.6	..	..	71.0	68.0	72.8	70.8ap.	72.5	71.3
Platycnemic Index	..	72.7	59.4	62.8	65.3	64.0	64.0	69.5	..	76.2	..	..	69.2	64.0

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