

# NOTES ON THE SIAMESE PROVINCES OF KOOWI, BANGTAPHAN, PATEEO AND CHAMPOON.

BY

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## *Their Position and Outstanding Features.*



IN that part of the Malay Peninsula lying between  $10^{\circ} 20'$  and  $12^{\circ}$  N. Latitude, the backbone range of hills almost skirts the East coast and thus between the hills and the sea lies a narrow strip of country, the northernmost part forming the province of Koowi; Bangtaphan, Pateeo and Champoon following in order towards the South. This backbone range, covered evenly over with deep jungle like the plain that lies between it and the sea, averages in height some 1,600 feet above the sea level, but at Khow Pra it reaches some 3,500 feet, while it attains 4,326 feet—its highest point—in Khow Luang, standing as the boundary wall between Burma and Siam. It is broken here and there by gaps, honoured by the name of passes, the best known of which perhaps is that of Kra, 250 feet above sea level, lying at the southern extremity of the piece of country of which I write, and frequented by the Siamese living in the Pak-chan valley when visiting their relatives in Champoon; while better known in former times and lying quite at the other extremity, the pass of Koowi, some 750 feet above sea level, affords the colony of Siamese living in the valley of the smaller Tenasserim River, a rude path to their native provinces on the East Coast. Between



these two lie ill-marked crossings at Krat, Paron and Bangta-phanoi, the last being used by the Siamese living in the Lenya valley; but the truth of the matter is that the numerous bands of dacoits that infest this region cross anywhere (*vide* map). To the seaward of the main ridge, and for the greater part running parallel to it, are numerous small ranges, while scattered hills rise with their burden of forest jungle over the plain and thickly skirt the coast, often standing into the sea as promontories offering their bluff side to the waves; and one can see that the same features characterise the seabottom—the hills rising from the water as numerous jungle-covered islands.

### *Prominent Geological Features.*

The basis of the backbone ridge is a rough-grained granite, rapidly decomposing when exposed to the atmosphere, and the streams flowing from it (as indeed is the case almost everywhere in the Peninsula) often carry *tin* and more frequently and more abundantly *titanic oxide of iron*. Lying on the granite and rising as the basis of the small ranges of hills is a semi-metamorphosed clay-slate much broken up, non-fossiliferous and probably of the Cambrian period, which forms the "country rock." To the seaward of this slate and lying on it, runs a great bed of conglomerate rock, composed of flat, water-worn slate pebbles and roughly rounded pieces of quartz welded together by a red clay containing much iron. Its stratification is much disturbed, and it sometimes rises into low hills. Where the slate and this conglomerate meet, one frequently finds great outcrops of a porphyritic rock evidently that of the Mergui series, and here also one finds large outcrops of gold-bearing quartz as in the concession of the Goldfields of Siam Company. Again it can be seen further South in Champoon where another mine has been opened out. (*Vide* Map.) In the beds of the streams running through these quartz-bearing parts, one finds gold, and sometimes for a mile or more inland from either bank alluvial gold occurs along its sides for long stretches, but from its comparatively even distribution and level deposition one has to look for



some means other than the river to account for its presence here and thus. Still proceeding seawards, and having crossed this land of conglomerate, one again comes to the "country rock"—metamorphosed clay slate. On the coast, laterite is abundant, often forming low cliffs, but the hills skirting the sea and most of the islands are of a limestone that gives forth a metallic ring when struck.

### *Limestone Hills and Caves.*

About a mile to the West of the village of Bangtaphan, raising its somewhat flattish top some five hundred feet above the surrounding alluvial plain with its old sea beaches, is a rather typical limestone hill with a sloping side to the land, and like others of its kind, a steepish side to the sea sheltering the mouths of numerous caves of various sorts and sizes. To gain the principal cave, one ascends some fifty feet to find the mouth as sharply cut as, and somewhat after the manner of, a cathedral door, and as the cave retreats from its mouth it increases in every dimension. The floor, running backwards for some 80 feet, mounts in three great tiers some 60 feet wide, the last and highest tier being sacred to a gilt Bhudda with a perfect myriad of leaden apostles round about him, for the cave is used as an occasional place of worship, as these caves commonly are in Siam. The roof rises in vaults, the highest of all rising to some forty feet and is pierced by what the Scottish people familiarly know as a "Hell's Lum." From the shape of the caves, from those "Hell's Lums," and from their situation on the steep side facing the sea, one naturally concludes they are the result of sea-action. One can see lines, more or less parallel to the surface slope of the hill running along the walls of those caves, as if they demarcated concentric layers which had been deposited by some spring that rose in the centre of the hill, overflowed, and laved its sides, and the not uncommon nearly concave top lends some support to such a guess. It seems highly probable that out of the solidified debris in the floors of those caves, animal remains, recent or otherwise, might be obtained, although a search made in those of Borneo (see the Society's Journal for



1879)—was practically negative, but the religious purposes to which these caves are put deters one from actively pursuing operations.

These limestone hills and caves seem fairly well distributed along either coast of the Peninsula—seldom I believe rising many hundred feet above sea level. On the West coast away as far North as Moulmein, one finds similar hills with famous caves—also used as temples; in the Lenya valley again there are said to be some remarkable specimens, and there are others in Selangor, Kedah and Pahang, besides in many of the islands lying along that coast. In the four Siamese provinces they are common, and at Pateeo a group of these limestone hills rises from the sea like a great set of decapitated sugar cones, while away much further North beyond these provinces, at Petcheburee, there is a famous cave containing a gigantic wooden image of Bhudda. Among the islands and shores along the Eastern side of the Gulf of Siam one comes across them, while they abound in North Borneo.

### *The Rising of the Land.*

Assuming then that these caves are the result of sea-action, as in all probability they are, and seeing that some of them are now high and dry some hundred feet or more, we may conclude that the land has at any rate risen that amount in recent times. A writer in this Journal for 1879, discussing those limestone hills and caves in North Borneo, concludes that that part of the island had risen about 500 feet in recent times, and before I saw that article I had concluded that at any rate the land in these four provinces lying three hundred feet above the sea level had emerged from the water in a recent era. MASON, in his work on Burma, gives it as his belief that the Burmese coast is rising, and states that the land on the other side of the Bay of Bengal is sinking. Probably the whole great tract of country—almost the whole of the Indo-China Peninsula—over which this limestone formation occurs is rising; at any rate that small part of which I write, I believe to be in course of elevation. In the great flat plain,



sloping from the hills to the sea, one finds extensive beds of clay almost of one level and sloping towards the sea, and over this again great beds of evidently sea-rolled gravel also comparatively at one level and of an even thickness, lying some 450 feet above the present sea level. The hills have their sloping sides to the mainland, and their steep sides—often sea-marked cliffs—to the sea. Then again (see vertical section across Province of Bangtaphan at lower right-hand corner of map) going towards and within two miles of the sea, one crosses undulating and wavy old sea beaches of sand following each other in rapid succession. Lem Tong Lan (*vide* section) is a hill standing out to the sea with the usual characteristic shape and joined to the land by a muddy isthmus, over which old inhabitants say it used to be possible to sail at high water with a boat, which is now impossible. The section running through Koh Yeu shows that island with its sloping side in very shallow water towards the land, while that towards the surf is steep and faces deep water. The shape of those islands and hills, this little tongue of land joining Lem Tong Lan to the mainland, these old sea beaches, the limestone caves, and the other recent geological formations even in the absence of recent marine remains, seem to point to the land having risen and still to be rising, but of course in this extension seawards of the land deposition has played a considerable part.

*The River System and the Effects of Deposition.*

In this narrow strip of country the rivulets from the main range and subsidiary hills meet on the plain below to form considerable streams which, running over beds of sand and gravel, make on the whole a straight course across the plain to the sea. One of those streams has seldom more than 150 square miles of a drainage area, but the river of Champoon, like the large streams draining the other side, and like the rivers of the Peninsula in general, runs parallel to the main range of hills for the greater part of its course until, near its termination, it turns outwards to end in the sea, and thus drains an area of about 450 square miles—three times that of



any of the other streams. On the West side, on the other hand, with an area almost three times as great to be drained, the place of those babbling small streams is taken by comparatively large rivers; the Pak Chan has a drainage area of 600 square miles, the Linya 800 square miles, and the smaller Tenasserim River has over 2,000 square miles of a drainage area. These rivers on the West side, with their large drainage areas, receiving a rainfall fully double that of those smaller ones on the East coast, and carrying an infinitely larger volume of water with its inherent properties of disintegration, denudation, transportation and deposition, represent powerful factors at work on the Burmese side almost absent in these four Siamese Provinces. Sandy beaches form the seaboard of these, with sand bars at the mouths of the streams, and with patches of mangrove in the narrow marshes and pools between the more recent of the old sea beaches. The Champoon River, however, partaking of the rainfall as well as of the character of these rivers on the West side, is surrounded at the mouth by great mud-banks, large mangrove swamps and tracts of rich alluvial soil. On the West coast these evidences of deposition are extremely extensive, for the islands lend a calm to the water round the mouths of the rivers favourable to the settling of suspended matter, and the mangrove trees stepping further and further into the water as subsidence goes on highly favour further deposition among the roots; so that deposition and extension of the mangrove swamps proceed *pari passu*. Knowing somewhat of the drainage area of a river one may roughly guess, from the extent of mangrove swamp surrounding its mouth, the rainfall of the district.

Lately, at the mouth of the Krat River, on the eastern shore of the Gulf of Siam, I came across some remarkable evidence of the rate of deposition. The Krat River, rising at the western side of the Battambang Hills, drains an area of some 250 square miles, with a rainfall of probably 200 inches per annum, and runs through a clay country, a considerable extent of which is cultivated, so that it carries a great deal of matter in suspension. In 1859 H. M. *Saracen* laid down the



islands at the mouth of this river showing wide channels between them and the mainland. Now those islands are almost in contact with the mainland; roughly guessing I should say some 500 acres have come above high-water mark since then.

*Meteorological.*

The main range of hills, although only 1,600 feet in height, determines the rainy season on the West side with the S.W. Monsoon, while in these four provinces on the East side with the N.E. Monsoon. But with the exception of some heavy downfalls in November and December, there is little of a rainy season, rain falling more or less all the year through.

*Rainfall at Paron, Bangtaphan, for 1890.*

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1.5	3.1	1.5	5.7	4.5	1.2	3.5	4.6	3.4	8.2	5.2	20.6

The total rainfall for 1890 at Bangtaphan was 63 inches, but at Mergui, on the other side of the Peninsula, it was over 200 inches. The change of the Monsoon always came gradually. Towards the end of April the wind veered towards the South and kept changing, so that May was half spent before it finally settled in the S.W. So again in October; for several days it may have blown from the N.E. and again returned to the S.W., so that November had well begun before we enjoyed those steady cold breezes from the N.E. that gave a piquancy to life.

In May, the hottest month of the year, the thermometer in the shade registered on an average  $84.5^{\circ}$  at 9 a.m. and  $91^{\circ}$  at midday, while at night it never sunk below  $75^{\circ}$ . But in December, I have seen the minimum thermometer register outside  $59^{\circ}$ , and in the shade  $65^{\circ}$  at night.



*The Jungle Covering.*

Jungle forest sweeps evenly over the Provinces of Koowi and Bangtaphan, but is interrupted in Pateeo by a large tract of grass country—of most interesting origin—but occurs again in Champoon although of a much less primitive nature than that in the two northern provinces. Rather stunted trees, surrounded by and supporting numerous twining and climbing shrubs, cover the hills with a thick, almost impenetrable undergrowth. In the valleys, near the backbone ridge, on the other hand, grow lofty trees affording valuable timber, shading a damp green undergrowth of sapling-like shrubs. In the plain, at the foot of the smaller hills, are large tracts of bamboo forest, while the jungle extending over the plain is much the same as that occurring in the valleys. Various species of figs are extremely common, and fine gum-dammar trees occurs all over these provinces and are farmed out for their oil. The oil exudes into small wells dug out of the trunk some four feet from the ground, and the exudation is at times stimulated by setting fire to the oil in the well. It is mostly used for making torches; bast is dipped in the oil, wrapt into a banana leaf, the whole tied up with pieces of rattan constituting a torch—one of the principal articles of export.

In the month of December, the leaves begin to fall, so that by the beginning of March, just before many of the trees burst into bloom, large tracts of the drier jungle are comparatively leafless. In many of these trees this shedding of the leaf is likely due to some physiological adaptation; in others that bloom while in this leafless condition, it may be to increase the display and attractiveness or facilitate the means for fertilization; and in some possibly it may be a bequest from some distant ancestor that grew in a temperate climate.

Competition for life is keen in the jungle, and although I have no statistics to offer, I believe there is a high rate of mortality amongst the jungle trees. Tottering trees infested with white ants abound, the fig trees are everywhere making victims, and after a slight gale many trunks lie prone with tons of soil upturned with their roots. When the trunk has



rotted away, this soil remains as if it were a broken piece of an earth-dyke by the side of a shallow trench—very puzzling until one knows their origin. In time the rain blots them out, but from their abundance one can see that this is one of nature's methods of ploughing the jungle ground and must play not an unimportant part among the more important factors in altering the face of the land.

The sappan-wood tree is abundant, so are many species of rattan, but these with the dammar oil are the only jungle products exported from those provinces.

*The Grass Country of Pateeo.*

The jungle suddenly ceases at Bangtaphannoi, and from there southwards to beyond the village of Pateeo where the jungle again appears in patches, stretches an undulating country waving with lalang grass some sixty square miles in extent. Some twenty-seven years ago, so the people say—people that saw what they tell—a great typhoon crossed the Peninsula here, levelling nearly every tree as it came and included villages in the ruin, so that not a few human lives were lost. A fire following completed the work and left an open, blackened country that speedily became covered with grass that took the place of the former thick jungle forest. Here and there still stand charred stumps, while heaps of ashes covered with grass and half buried fallen boles of trees through which one's foot sinks when walking, abound everywhere. Towards the confines of this open country, the hills have their slopes facing the S.W., denuded of jungle and grass-covered, while their slopes towards the N.E. still retain their thick covering of trees. Every year the grass is set on fire and burns its border line a little further into the jungle, so that steadily it increases. The edge of the jungle, like the border of an unhealthy wound, shows no robustness nor vitality, and falls an easy pray to the all-devouring annual flames.

The result of the action of these warring elements has been to totally alter the climatic conditions, the fauna and the flora of this small locality. A few species of grass have supplanted the numerous forms of jungle growth; the small



barking deer and the black leopard abound on it, with a few wild buffaloes. But there is not a human habitation upon it, notwithstanding the abundant pasture, for the Siamese keep cattle only as a means of transport and labour.

### *Old Paddy Fields.*

With the exception of the grass country of Pateeo all the other open spaces in the jungle, which although numerous seldom exceed forty acres in extent, are old paddy-fields cleared at one time for cultivation by man. When a piece of jungle has been cleared for hill-paddy and the crop reaped and carried away, the old tree stumps sprout, young saplings spring up, and the jungle soon regains its own; but in the low-lying level alluvial ground prepared for 'wet' paddy, and which is usually put under a course of crops, thick grass springs up, and being set on fire every dry season drives the jungle quite as far back as it is able to regain during the rains, so that it becomes a permanent opening in the jungle.

### *The Rice Crop.*

Although small patches of tobacco are grown, and one may see cotton trees, plantains, coco-nut and betel-nut palms in gardens surrounding the houses, yet rice is by far the chief crop of those four provinces. The rice-fields lie upon the flat, alluvial soil surrounding the villages, which are invariably situated upon the banks of a stream towards its mouth. In the end of July, low earthen walls are thrown up, dividing this land into plots containing about one square rood, and the soil turned over by means of a rude wooden plough. As soon as rain falls buffaloes are turned out to trample and soften the soil and to further prepare it for sowing, they are yoked to a log of wood set with wooden teeth and the ground thus harrowed. A small seed bed is prepared, and rice sown extremely thickly, and when the crowded plants have got their heads some six inches above the ground they are transplanted and set one by one some eight inches apart in the plots already prepared by ploughing and harrowing. By the end of November, the crop is ripe, the heads are cut and gathered by



the sickle, and the grain trampled out on the threshing-floor by buffaloes. The paddy is stored away in small raised bamboo houses specially made for the purpose.

An extremely small proportion of the land is under cultivation—less than 2%. Those four provinces include 2,200 square miles of the King of Siam's kingdom, and out of these 2,200 square miles about  $3\frac{3}{4}$  square miles only are under cultivation. An average crop produces about 1,000 lbs. of clean rice, so that in an average year the total production in these provinces would be about 2,300,000 lbs of rice. This has to feed a population of some 16,500 souls—rather less than one half pound per head per diem—for as far as I know, there is neither export nor import in this commodity. A man and his wife could with ease cultivate four acres of rice and produce 4,000 lbs of rice, but nearly everyone grows his own supply only, and very few cultivate that amount.

From passing through those provinces and residing in them, I believe their size, acreage under cultivation, and population are approximately what I here tabulate:—

<i>Province.</i>	<i>Total square mileage.</i>	<i>Acres cultivated.</i>	<i>Population.</i>
Champhoon, ...	740	800	6,000
Pateeo, ...	450	500	3,000
Bangtaphan, ...	480	300	2,500
Koowi, ...	560	700	5,000

#### *Fishing Industry.*

In the dietary of the Siamese, fish occupies almost as important a place as rice, and although every Siamese is partly an agriculturist, yet there are many that devote their lives entirely to either calling. All the villages have easy access



to the sea; along the shore are many small collections of fishermen's houses, and here and there are Chinese *kongsis*, from all of which at the break of day boats issue to prosecute the fishing close inshore. They use nets of every shape and size almost entirely, and return about 10 o'clock, commonly with good catches, which they dispose of at something like three cents per lb., and what is not bought for immediate consumption is salted and dried in the sun. The Chinamen living in those *kongsis* on the beach are engaged in catching prawns, which they do by dredging a very fine meshed net along the sands, for the production of "blachang." At night, too, one can see torches flitting about on the water, the fisherman spearing the fish that are attracted to the light. In the streams one comes across dams in which are set all sorts of ingenious bamboo traps for fish.

### *Means of Communication.*

The sea is the highway between these provincial towns and Bangkok the capital. Some twenty years ago Chinese junks and large boats of Siamese build crowded the Menam at Bangkok bringing in the produce from the coasts all round the gulf and carrying back products of civilization in return, but now, although two or three are always riding at anchor in the river at every village and town, they have been almost completely supplanted by small steamers flying at their stern the white elephant, having long since passed that condition of evidence required to carry the Union Jack.

On land, the towns and villages lying along the coast are connected by a path often winding along the beach, always rough and uneven, wending its way across morasses and soft miry paddy-fields, full of holes, crossing streams with neither bridge nor ford, so that it is laborious travelling indeed, and in the three southern Provinces fit for elephants only. Elephants abound in these Provinces and are used for transport, but in Koowi, where an elephant cannot be found, the roads are much better, being well adapted for buffalo drays, which are the sole means of transport.



Four years ago a telegraph line from Bangkok was carried through these provinces, and a station was opened at Bangtaphan, but so frequently was the wire broken and instruments out of order, that it was seldom of any practical use. Already there is scarcely a sound pole, and certainly not a perpendicular one, and in many places the wire has forsaken the insulators and takes its support directly from the ground.

*Location of Towns and Villages.*

Dacoity, or rather midnight robbery, is so rife in the district that the people, afraid to live in isolated and remote houses, congregate in towns and villages. These, surrounded by their paddy-fields, are situated upon the banks of a stream just so far from the mouth as a junk or big Siamese boat can reach at high water. In a small stream as that of Krat, the village is but a quarter of a mile from the sea; Bangtaphan, which stands upon a much larger stream, is two miles up the river, while Champoon, upon a much larger stream still, is nearly ten miles from the sea. The town occupying such a situation has the advantages of an ample supply of fresh water except at full tide, easy access to the sea for trade and fishing, and still in the midst of its paddy-fields. At the mouth of the river is commonly a small fishing hamlet known as the *Paknam*, but which as in Taiyang, at the mouth of the Champoon River, may wax bigger than the principal town situated higher up the river. The village of Paron upon the concession of "The Gold Fields of Siam Company," is a product of the mining industry there and is the only exception I know of in these provinces to the general situation upon the flat alluvial soil near the mouth of a river.

*Composition of a Village or Town.*

These villages or towns resemble each other as much as peas do; they agree in being an irregular row of bamboo houses covered with attaps, raised upon posts some five feet above the ground and usually about one hundred of them huddled upon one or both banks of the stream. Gardens surround the houses usually containing chilies, papaya trees,



cotton plants, and other vegetables, while round about are numerous groves of coco-nut and betel-net palms, plantains and jack fruit trees. A house rather larger than the others, but quite as dilapidated, proclaims the residence of the Governor, and an open shed near his Excellency's house serves as a court of justice by day and a *sala* or rest-house by night. At a little distance from the village, commonly in the healthiest and prettiest situation, always shaded by trees, stands the *wat* or pagoda, the centre of education and religion and which shelters a yellow-robed priest to every forty inhabitants in the town. Five or six houses of rather large dimensions, but, unlike all the other houses, not raised on posts, with numerous pigs feeding in front of them and with the doors pasted over with red posters, are the shops of the village, invariably owned and conducted by the Chinese. Here are sold dyes and calico prints, Manchester and Birmingham goods of very inferior quality, while buffalo hides and horns, dried fish, coco-nuts and betel-nuts are bought or exchanged. The opium farm, the gambling farm, and the spirit farm are always in the hands of the Chinese, and while waiting sometimes in the "grog-shop" I have been surprised to see men and women come straggling in, tendering their two cents and tossing off their *arrack* much as one sees in England.

### *The Inhabitants.*

Settling down at one of those villages, and taking a random hundred of the inhabitants, one would find them something like this:—6 Chinamen wedded to 6 Siamese women and having 13 children between them; 16 would be found Siamese-Chinese of a former generation. Of pure Siamese 10 men have wedded 10 Siamese women and 18 children have been the outcome, while 11 would be unmarried Siamese—male and female. Forty-one per cent. is a low estimate of the proportion of Chinese and Chinese descendants that still wear a queue, for in some towns such as Taiyong they constitute more than 70% of the population. Into the numerous villages lying along the 3,000 miles of coast between



Rangoon and Tonquin, Chinamen have been continually dropping for centuries, mixing and marrying with the natives, so that the wonder is not that they have affected the race along the shore, but that they have not affected it more. The children of a Chinese-Siamese marriage—unlike the weaklings produced by such a wide divergence as the Siamese and European—are robust, of larger stature, and more muscular than the native, comparatively dark in complexion, and wanting the business smartness and mental activity of the father, as well as lacking that peculiar mental subtlety commonly found in the Siamese. Very curious to state, while the female offspring of a Chinese-Burmese marriage is as a rule of very prepossessing appearance, yet her Siamese cousin is invariably very ugly. The Chinese-Siamese is often a man of great ability, as can be seen by the large numbers that have raised themselves to affluence by trade, and in the last century, when the Burmese had overrun Siam and were grinding her down, one PHAYA FAK (a Chinese-Siamese) arose, rallied his countrymen round him, led them from victory to victory, until Siam was again free. Those that know the dallying nature of the Siamese must recognize the Herculean task this man performed.

Each of these provinces has its Governor appointed by the King, that of Champoon occupying the highest rank, but without exception they are greedy, ignorant, narrow-minded men, who hate the foreigner, his trade and his habits. They form a marked contrast to the discreet Chinamen that preside over the destinies of the provinces lying South of these, who in every way offer inducements to the capitalist to invest and open out the resources of the country, either agricultural or mining. But these old Siamese Governors are conservative of all their rights, and desire nothing more urgently than to keep the bustle and activity of civilization as far away as possible, and to be allowed to tread their own way, and I, for one, do not blame them.

What the future of those provinces may be, I cannot say; no doubt they contain much latent mineral and agricultural wealth, but as long as the Siamese labourer can gain his



pound of rice for  $2\frac{1}{2}$  cents and his pound of fish at the same rate, he will wait a long time ere he will sweat himself to uncover their wealth. Besides the struggle of the native of these provinces is not for bread, it is for health, the high mortality leaving those that survive room enough and to spare to make an ample living.

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