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JOURNALS OF TRAVELS

IN

ASSAM, BURMA, BOOTAN, AFFGHANISTAN AND THE
NEIGHBOURING COUNTRIES.

BY THE LATE

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CHAPTER IV.

Journey from Upper Assam towards Hookhoom, Ava, and Rangoon, Lat. 27° 25' to 16° 45' N., Long. 96° to 96° 20' E.

We left Suddiya on the 7th of February 1837, and reached Keding on the 10th; stayed there one day, and reached Kamroop Putar, where I found Major White and Lieut. Bigge on the 12th. The jungle to this place was similar to the usual jungle of the Singpho country, very generally low, and intersected by ravines. We crossed *en route* the Karam river, the Noa Dihing, or Dihing branch of the Booree Dihing, on which the Beesa's old village was situated; and lastly the Kamroop. Kamroop Putar is close to the Naga hills; it is a cultivated rice tract, on the river Kamroop. This river is fordable, with frequent rapids. The only curious things about it are the petroleum wells, which are confined to three situations. The wells are most numerous towards the summits of the range; and the place where they occur is free from shrubs. The petroleum is of all colours, from green to bluish white; this last is the strongest, partaking of the character of Naptha, it looks like bluish or greyish clay and water. The vegetation of the open places in which the wells are found, consists of grass, *Stellaria*, *Hypericum*, *Polygonum*, *Cyperaceæ*, *Mazus rugosus*, *Plantago media*, etc., all of which are found on the plains. One of the wells is found on the Putar, or cultivated ground; the petroleum in this is grey. The Kamroop river above this Putar, strikes off to the eastward, and the Kamtee-chick, a tributary, falls into it from the south; this last is a good deal the smaller; the banks of the Kamroop are in many places precipitous. About two miles from the Putar, a fine seam of excellent coal has been exposed by a slip:* the beds are at an inclination of 45°, and their direction is, I think, nearly the same with that of the left bank of the river in which they occur; immediately over the seam there is a small ravine, where three of the veins are still farther exposed. *Coricea*, a new *Dicranum*, *Alsophila ferruginea*, *Polytrichum aloides*, *Bartramea subulosa*, and *Jungermannia* are common near this spot.

* See Reports of the Coal Committee, 1841, p. 3.

an extensive view is obtained of Hookhoom valley, bounding which occurs a range of hills stretching E. S. E. and W. N. W. These in the centre present a gap in which a river is seen running S. The view to the E. is impeded by the trees on that face of the hill. The valley is as usual one mass of jungle, with here and there clear patches occurring, especially to the W. of S., but whether from cultivation or not, I am unable to say. The Namlunai river is visible; winding excessively, especially to the E. S. E., it appears a considerable stream with much sand: it passes out towards the gap above alluded to, winding round the corner of the hills.

During the 16th, my attention was particularly directed towards Tea, which was said positively to exist. I obtained some of the bitter sort, or *Bunfullup*, but the plant which was pointed out to me as tea certainly was not, although resembling it a good deal. There is no reason for supposing, that it exists on these hills, and if *tea* is brought hence, it is I should think a spurious preparation. The soil is in many places yellow, in many brick-dust coloured. If the Tea existed in abundance, I must have seen it.

The hills which confine the valley, at least those which are obvious outliers of the Patkaye range, are characterised by conical peaks, and there is a bluff rock of good elevation to the W. S. W. $\frac{1}{2}$ S.

March 17th.—Boiled water at 206°. Fahr. Thermometer in the air 61°. Elevation 3270. Commenced the descent, which continued without interruption to the Loon-karankha, where we breakfasted. The bed of this, which is a mere mountain torrent, is of sandstone. Here *Ceratostemma variegatum* is very common, and has larger, broader and more obovate leaves, than before observed; *Polypodium Wallichianum*, a *Begonia* and *Orchideæ* are common on its boulders. Continued our course at first up a considerable ascent, thence it was nearly an uniform descent. Crossed the Namtuwa, along which our course lay for a short time. The latter part was through low wet jungle, along small water-courses, till we reached the Panglai Kha, along which we continued for some time. Reached our halting place on the Namtuseek about 2 P.M. General direction E. S. E.; distance about ten miles. Noticed *Podostemon Griffithianum*, on rocks on the Namtuwa. My collector gathered one *Daphne*. *Acanthus Solanacea* occurred very abundantly, corinfundib. lab super postico, infer reflexo, laciniis bifidis. Low down observed the usual *Dipterocarpus*, *Uncaria* and *Kaulfussia asamica*, *Dracæna*. *Mesua ferrea* occurred during the first part of the march. Noticed the

tracks of a Rhinoceros. At 5 P.M. water boiled at 210°. Temperature 69°. Elevation 1099 feet.

The most interesting plants were an Arum, an undescribed *Ceratostemma*, and a *Celastrinea*.

The collection formed between this place and Suddiya now amount to about 500 species. The vegetation of the lower portions is the same, or nearly so, on either side of the hills; but I did not observe near this the *Polypodium ferrugineum arboreum*, although there is a small arborescent species of this genus. On either side, the lower ranges are clothed with heavy wet tree jungle, the undershrubs consisting of *Acanthaceæ*, *Rubiaceæ*, *Filices*, *Aroideæ*, and *Urticeæ*; *Kaulfussia* does not ascend so high on this side. *Acanthacea solanacea* appears peculiar to this side, although there is a species of the genus on the Kammiroan.

The plants indicating the greatest elevation are *Acer*, *Ceratostemma miniatum*, and *angulatum*, *Vacciniaceæ*; *Daphne*, particularly the Patkaye one, and *D. struthioloides*, most of the *Smilacineæ*, *Berberis*, etc. etc. *Bucklandia Crawfordii*, *Begoniæ*, some *Viburnia*, *Cyathea*, etc. of *Ceratostemma* (*Gay Lussacium*?) several, perhaps not less than seven species occur; all have the same habit, and the same depot of nourishment in the thick portion near the *collet*. No *Coniferæ* exist, although the elevation is more than sufficient to determine their appearance. In *Orchideæ* the flora is certainly very rich, but few species are in flower.

[*Memo.* To compare these elevational plants with those from the Mishmee hills, on which, speaking from memory, they are more abundant.]

March 18th.—Left at half-past 6, and arrived (after halting about one hour and a half) at 3 P.M. The road was very circuitous, for the first part E. by S., subsequently for some time N. N. E., and even N. E.; the general direction is perhaps E.; the distance certainly 18 miles. The greater part of the route lay through heavy but dryish tree jungle; but during the latter half, and especially towards Nempen, Putars or cultivated fields increased in number, and extent. We crossed one stream only. The soil is yellow and deep, occasionally inclining to brick-red; it is apparently much the same as that of Muttack. The low spots were uncommon. We saw only two paths diverging from ours; one of these led to Bone, which is about two miles from our path, in a south direction, and at no great distance from the Namtuseek.