

This verse is not free from difficulties, and in some parts my translation may be questioned. But it is clear in the main that the poet in praising the Sindhu (the river Indus), mentions its tributaries. The first tributaries which join the Indus before its meeting with the *Kubhâ* or the Kabul river cannot be determined. All travellers in these northern countries complain of the continual changes in the names of the rivers, and we can hardly hope to find traces of the Vedic names in existence there after the lapse of three or four thousand years. The rivers intended may be the Shauyook, Ladak, Abba Seen, and Burrindoo, but one of the four rivers, the Rasâ, has assumed an almost fabulous character in the Veda. After the Indus has joined the *Kubhâ* or the Kabul river, two names occur, the *Gomatî* and *Krumu*, which I believe I was the first to identify with the modern rivers the *Gomal* and *Kurru*. (Roth, Nirukta, Erläuterungen, p. 43, Anm.) The *Gomal* falls into the Indus, between Dera Ismael Khan and Paharpore, and although Elphinstone calls it a river only during the rainy season, Klaproth (Foe. koue ki, p. 23) describes its upper course as far more considerable, and adds: Un peu à l'est de Sirmâgha, le *Gomal* traverse la chaîne de montagnes de Solimân, passe devant Raghzi, et fertilise le pays habité par les tribus de Daultekhail et de Gandehpour. Il se dessèche au défilé de Pezou, et son lit ne se remplit plus d'eau que dans la saison des pluies; alors seulement il rejoint la droite de l'Indus, au sud-est du bourg de Paharpour." The *Kurru* falls into the Indus North of the *Gomal*, while, according to the poet, we should expect it South. It might be urged that poets are not bound by the same rules as geographers, as we see, for instance, in the verse immediately preceding. But if it should be taken as a serious objection, it will be better to give up the *Gomatî* than the *Krumu*, the latter being the larger of the two, and we might then take *Gomatî*, "rich in cattle," as an adjective belonging to *Krumu*.

I have dwelt longer on this point in order to show how much has to be considered before we decide on the Aryan or non-Aryan character of local names in India. General Cunningham writes:—

"The name of *Kophes* is as old as the time of the Vedas, in which the *Kubhâ* river is mentioned as an affluent of the Indus; and as it is not an Arian word, I infer that the name must have been applied to the Kabul river before the Arian occupation, or, at least, as early as B.C. 2500. In the classical writers we find the *Khoes*, *Kophes*, and *Khoaspes* rivers, to the west of the Indus, and at the present day we have the *Kunar*, the *Kuram*, and the *Gomal* rivers to the west, and the *Kunhar* river to the east of the Indus, all of which are derived from the Scythian *Ku* 'water.' It is the guttural form of the Assyrian *ku* in *Euphrates* and *Eulæus*, and of the Turki *su* and the Tibetan *chu*, all of which mean water or river."

The *Ku* in *Kubhâ* admits, as we saw, of a far easier interpretation. The *Go* of *Gomal* is the Sanskrit *go*, "cow," and the *Ku* of *Kuram* or *Kurru* is the first syllable of *Krumu*, which is derived from "*kram*," to stride.

Although on minor points like these, and particularly on linguistic questions, some of General Cunningham's statements are open to criticism, the book as a whole is a valuable contribution to our knowledge of the ancient geography of India, and we hope that this first volume will soon be followed by others.

MAX MÜLLER

OUR BOOK SHELF

Epilogo della Briologia Italiana. Del Dottore G. de Notaris, Professore di Botanica e Direttore dell'Orto Botanico della R. Università di Geneva. (Geneva, 1869; London: Williams and Norgate.)

DR. DE NOTARIS is so well known in this country by his numerous works on mosses and microscopic fungi, as well as by his liberality to correspondents, that it was with great pleasure that we received the noble volume before us, published at the request and expense of the Commonalty of Geneva. It was not to be expected that a country like Italy, where the borders of the Mediterranean are not rich in mosses, should present much novelty, the more Alpine parts yielding very much the same species as the Alpine or more temperate parts of the European districts. It is, however, always interesting to compare the floras of different countries, even where species are so widely spread as the lower Cryptogams, and it is no matter of surprise to find that there are here very few genera which are not amply represented in our own flora. The only genera which have not at present occurred in this country are *Lescuræa*, *Habrodon*, *Anacamprodon*, *Fabronia*, which is essentially a genus of warmer climates, *Dubyelia*, *Oreas*, *Pyramidium*, *Conomitrium*, *Oreoweisia*, *Septodontium*, *Angstrœmia*, *Trematodon*, *Braunia*, *Coscinodon*, *Bruchia*. Most of these are genera either containing one or very few species. The following European genera, excluding those found in the British Isles, seem not to occur in Italy: *Voitia*, *Sporckera*, *Pharomitrium*, *Eusichium*, *Pyramidula*, *Psilopitium*, *Anisodon*, *Platygyrium*, *Thedenia*, most of which contain only a single species. The only genera of the British Isles which do not occur in Italy, are *Daltonia*, the single species, *D. splachnodes*, being confined to one or two localities in Ireland, *Cedipodium*, *Disceium*, *Bartramidula*, *Anomobryum*, *Tetradontium*, *Glyphomitrium*, *Hedwigium*, *Anodus*, which again are genera for the most part of one species only, so that Italian muscology cannot be considered as essentially different from that of other European districts. There are undoubtedly many good species which do not occur in this country, but it is probable that the number of these will be much reduced, one of the most curious, *Buxbaumia indusiata*, having been found by Dr Dickie at Aboyne in Aberdeenshire. It is much to be wished that some Italian botanist would give a similar work on Italian fungi. The truffles and puffballs of Italy have been admirably worked out by Vittadini, and something has been done for the more noble fungi by Viviani and others, but we ought to look to Italian mycologists for the identification of the fungi of Micheli. There is no doubt that any skilled mycologist would be well rewarded by the investigation of the Italian woods, which doubtless contain numerous interesting species. We must, however, look to the Italians themselves for information, as many difficulties would stand in the way of a person not intimately acquainted with the language of the peasantry. We see no reason why as perfect an enumeration of the fungi should not be given, as that of the Italian mosses now before us.

M. J. BERKELEY

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his Correspondents. No notice is taken of anonymous communications.]

Thickness of the Crust of the Earth

ARCHDEACON PRATT has given just the answer I expected to my remarks on his defence of Mr. Hopkins. As I said at the time, I scarcely thought it possible that he could have fallen into the mistake of supposing that the disturbing forces to which precision and mutation are due act by fits and starts. But note what follows from this. His whole defence of Mr. Hopkins's method