

its faunal phenomena, its sedimentation by the Chaidu-gol, the deserts on its southern and eastern shores, and the occasions of their origination, the transverse valley of the Kontsche-darja, and the relations which exist between its erosion and the level of the lake — all these suggest fascinating problems that still await solution. And most of them are so intimately connected with the question I have just raised above, that any attempt to answer the latter, until we are possessed of fuller information, can hardly be more than a guess.

After the first glance at Roborovskij's map one is really tempted to make the lake answerable for the origin of the dunes that stand beside it, and so assign to them the same rank and causation as for the dunes that exist on the east side of the Caspian and the east side of the Lake of Aral. Indeed in certain respects one even fancies there is a resemblance between these dunes and the coast-dunes of Western Europe, which are also more especially affected by the prevailing south-westerly winds. But in the case of the Baghrasch-köl the relations are in point of fact quite different. The description which Roborovskij gives, both in word and illustration, is quite sufficient, not only to preclude the probability of any such intimate connection, but also to forbid the assumption, that these dunes owe their formation to material derived from lacustrine sedimentary deposits. The longer axis of each dune forms a right angle with the shore line. The steep leeward sides look towards the north-east, and plunge steeply down into the deep parts of the lake, leaving room however for a narrow strip of shore, that appears to be pretty level, and is overgrown with thick impenetrable reeds. This belt of kamisch forms consequently a sharp boundary between the lake and the dunes, and prevents the possibility of direct contact between the dunes and any sandy material there may be in the bottom of the lake. Roborovskij's estimations of altitude — 360 feet near the lake and 500 feet farther to the south — point evidently to an actual rise of the substratum in that direction; for the surface must indeed rise a good deal towards the northern foot of the Chara-teken-ula. And this is all the more probable, when we remember that the southern parts of the lake are deep. Hence it is conceivable, that on the contrary the dunes decrease in height in that direction, and that the loftiest dunes stand on the shore, close to the lake. The village of Kujdalik, at the northern foot of the range, must of course stand in a tract that is perfectly free from sand. If the prevailing winds do blow from the south-west, the dunes ought to increase in height towards the north-east, and the configuration of the shore-line as shown on the map renders it very probable that the direction indicated, the south-west, is indeed that of the prevailing winds. For, while coasts that are dune-beset are specially characterised by their regular outlines, either perfectly straight or slightly festooned, it is noteworthy that the portion of the southern shore of the Baghrasch-köl upon which the dunes abut is extremely irregular and capricious in outline. In fact, it consists of a succession of bays, projecting headlands, and islands, and some parts of the lake on that side are already entirely cut off by advancing dunes, which sometimes indeed quite encircle them, so that the water in them is salt. A shore-line of this character points unmistakably to an unequal advance of the different masses of sand, that gain ground at the expense of the lake. To judge from these phenomena, the lake on that side cannot be particularly deep; if it were, the ad-