evident, then, that the maintenance of the lake shore at A in a lake without outlet involves an extremely improbable correlation of two independent processes—a balancing or tilting of the region and an external climatic change. Hence a lake in which the shoreline remains nearly fixed at A, while it sinks to D (E) and rises to G (H), must in all probability be unlike the lake here postulated; that is, it must be provided with an outlet, instead of being without one.

It is plain enough that an overflowing lake will keep its shoreline fixed at the outlet, however much it may change elsewhere on account of a tilting of its basin. Hence there can be no question that the recent valley erosion and valley drowning around Issik Kul are better accounted for by the example of a lake with, and not without, an outlet; and it therefore seems reasonable to conclude that the present relations of the Chu to Issik Kul is exceptional, and that the river has generally flowed into and out from the lake. Under such conditions it may well be that the overflowing river was a comparatively small one; and it is possible that the heavy valley deposits, now dissected, in the Chu Valley for the first 20 miles west of Issik Kul were accumulated there at a time when the river was too weak to sweep them away, as well as because of the block faulting of the neighboring ranges, as suggested in an earlier section. Indeed, there is a point about 5 miles west of Issik Kul where the fans from the range on the north would close the outlet valley, or raise its floor 100 or 150 feet over the present lake, if their slope were continued forward from their now dissected mass; and it may be that when these fans were formed Issik Kul temporarily had no overflow.

We are thus led to think that Issik Kul has generally had a water supply sufficient to cause overflow during the subrecent time of the erosion and the drowning of the valleys in its surrounding slopes of piedmont waste, and that the Chu has frequently or usually been an affluent of the lake; also, that the fall of the lake from its 25-foot shoreline to its present level may be explained, in good part at least, by the diversion of the Chu past the west end of the lake, as well as by climatic change. It might be possible, by means of soundings, to extend the time to which these inferences apply, so as to include the earlier period in which the piedmont slopes and the eastern plain were aggraded.

It is, on the other hand, probable that the outlet of the lake may often have been of so small a volume that it ceased to overflow during arid epochs of secular duration, as well as during dry seasons. It is quite possible that the present era of desiccation may be of the former character, and in this connection it is noteworthy that, according to Schwarz, the level of Issik Kul was lowered by 2 meters from 1867 to 1877 (1900, 581). It should not, however, be forgotten that the inferences here offered are tentative. The history of the lake is evidently too complicated to be deciphered in a week's visit to part of its shores. It is a most inviting field for further study, and all the more so when its relation to human settlement is considered, as will appear in a later section.