

The relief also of the salt lake indicates that the whole of it evaporates every year, the salt becoming crystallised on its bottom. In the north, where the lake is shallowest, the water-line will slowly retire from the base of the hills; and the island and the little archipelago will become connected permanently with the shore. The water will remain longest in the south, where the depth is greatest, and will there assume the shape of a long, narrow strip. As this process is repeated annually, the effect of the crystallisation of the salt is, in the course of the centuries, to fill up the lake-basin more and more. It is only in this way that we can explain the fact, that for several score square kilometers the saline crust is almost as smooth and level as the surface of a mill-pond. The greater variation in the depth along the southern shore may possibly point to the actual continuance of water in that locality during the winter, and suggests that this is augmented, though it will be to only an extremely small extent, from the upper lake. The more the lake shrinks, the larger is the quantity of salt deposited, because the limit of saturation becomes more and more exceeded. Hence the thickness of the salt deposit increases steadily from north to south. In the spring, when the inflow is increased in proportion as the snow and the glaciers melt at an accelerated rate, and the rain begins to fall, so does the lake swell again, its northern shore-line advances once more towards the north, passing the island, until finally it reaches the base of the hills, and the salt that has been concentrated during the preceding winter is once more gradually covered with water. The water that manages to survive the winter in the southern part of the lake becomes at the same time charged with salt; but when the spring freshets grow stronger and their supply more copious, this water becomes intermingled with larger and larger quantities of fresh water, and so the point of saturation is departed from, at any rate for a time. But since the salt crust is covered during the summer, and the temperature of the covering water is, as we have seen, raised to 17° , it is pretty certain that some portion of the crystallized salt will be again dissolved; though, when the following winter comes, it will once more be concentrated. Simultaneously with this its quantity and thickness are being continually increased by the salts in solution, which are brought down by the rivers and brooks from every part of the self-contained drainage area. Were one in a position to visit this lake in winter, one would probably be able to confirm, not only the correctness of the inferences I have drawn, but also the fact that the deposit of salt, which for centuries has been accumulating in the central parts of the lake, has already attained to a great thickness, and that we have here going on before our very eyes the lithogenetic process of the formation of rock-salt. All the salts which are set free throughout the whole of that drainage basin by the agency of water must eventually find their way down into this lake and reservoir, which is indeed being steadily filled up by them. The corrugations and ribbings which I have already mentioned as diversifying the surface of the salt crust also appear to indicate that the lake dries up, giving rise to changes in the consistency of the salt-crust.

If now we suppose, that, while the inflow remains constant, the deposit of salt at the bottom of the lake rises higher and higher, then the area of the lake ought to increase and its level to rise in proportion to the area and level of the upper lake; but if the area increases, so too will the evaporation. When finally the basin