

more arid than the present may have existed in still earlier time; indeed, we have seen that throughout the Pamir and its border ranges glaciers had receded back of where they are now, apparently having been subjected to a reaction of extreme dryness after the glacial period came to an end. The Murg-ab delta was then very likely south of its present position; and although the delta is the most favored spot, it is possible that some town of importance may have been upstream. This, however, appears unlikely, for by tilt or warp its channel has long been cut beneath the plain and dunes have drifted to its banks where no water can be led now. It seems most likely that, if there were oases of importance to the south, they were of its delta there, and now cut through by its channel, since then prolonged. We have seen what a various existence the Murg-ab must have led through the long past, and shall therefore refrain from too much conjecturing as to the exact whereabouts of its more ancient oases.

IRREGULARITIES OF THE DELTA SURFACE WROUGHT BY MAN'S DEBRIS OF OCCUPATION  
AND HIS CONTROL OF ALLUVIAL DEPOSITIONS.

Turning to the ruins found upon the present delta and beyond, we find a field of great interest. Nowhere else in all Central Asia are ruins so abundant or so vast. In preservation they rank from Bairam Ali's state of brick-robbed walls and still-standing battlements, with gates and inner streets that may yet be ridden through, to the round-worn mounds of far more ancient cities. In size they rank from mounds that count square miles and rise as platforms of stratified debris, one to five score feet above the plain, to low clay heaps that mark the ruins of past monuments and tombs.

In all there are perhaps more than a hundred traceable towns and cities, some as much as 20 miles beyond the gardens of to-day; but for the most part they lie so far out on barren clay that only shepherd Turkomans know of them or wander among their heaps. Only Bairam Ali, Sultan Kala, and Ghiaur Kala are much visited or dug into by treasure hunters. They lie within the reach of cultivation, and through Ghiaur Kala's outer walls, now trenched, water is led to irrigate a wide depression, which may once have been a market-place. Round the ruins of these three cities and Iskendar Kala the native romance dwells.

Nearly a thousand square miles of the Murg-ab's delta are still bare of sand and ruins are seen over all this wide expanse of clay. It is a field so vast of surface problems, mounds, depressions, walls half buried, and canals long since abandoned, that years of study might be carried on without digging. One ride of a few miles leaves the rider at a loss for explanations; he finds areas that stand 5 to 10 feet higher than the plain in general, as though irrigation had been carried on a long time there with the rest around left barren; others in irregularity resembling the mere tops of silt-buried towns; and low areas somewhat irregular in surface with small holes where water has leaked down as though to fill the loose debris of buried ruins. Towards the delta margin he may come to a canal 5 to 10 feet deep and in the section thus exposed discover silt-buried dunes and find much sand has drifted, interlapping with alluvium. And the horizon round about