

in parties of four or five men, they could complete an average Karez within half-a-year at a cost rarely exceeding twenty pounds.

The land which a single Karez could irrigate might be purchased originally for about fifty pounds; but so rich is the return for this outlay, the cost of the annual cleaning of the Karez notwithstanding, that such newly cultivated land would within a few years sell for three times the money originally invested. I was told that since the re-establishment of Chinese rule not less than seventy new Karez had been dug by the people of Lukchun. But, characteristically enough, the lands thus irrigated were all situated within an area which had before been under cultivation, but where, owing to the deficiency of the canal water then used, the fields were sown only every third year in rotation. Whereas cultivation here under the older system had been precarious, and often failed through inadequacy of canal water in years of diminished snow-fall in the mountains, the Karez-served fields could be kept under intensive cultivation year after year.

The change taking place was connected by my informants with the great increase in the population of Turfan, following the re-establishment of peace and prosperity after the Chinese reconquest. At the same time it was generally acknowledged that the Karez construction was an innovation dating back only a century or so, and introduced from Iran. In agreement with this was the fact that none of the old Chinese accounts of Turfan, which are numerous and often detailed, ever alludes to the Karez system, though nowadays it is famous throughout Eastern Turkestan as the most characteristic feature of the district.

All these observations combined strongly impressed me as signs that the difficulties about irrigation must have increased in this region, and I may add that what I subsequently saw of the ruined towns of Turfan strengthened my belief that the district must have been able to maintain in ancient times a far larger population than now. I had not to wait long for definite evidence that desiccation had played a great share in this change. A seven miles' ride from our Lukchun quarters brought