

could not possibly be used now for landing and storing merchandise or for habitations. There is clear evidence at this point that here at least the level of the present shore-line is lower than it was in the thirteenth century, when Old Hormuz was still frequented as an important port of Fārs and Kermān.⁷ Dr. K. Washington Gray, a geologist of wide experience in Southern Persia, to whom I took the opportunity of referring this observation when at Fasā in January 1934, has been kind enough to furnish me with the following interesting note:

With regard to the Post-Medieval rise of the sea level which you noted at Mīnāb, I have found the following in the paper entitled 'Stratigraphy and Tectonics of the South West Iranian ranges' by de Böckh, Lees, and Richardson which is included in Gregory's compilation, *The Structure of Asia*, p. 118: '... in the Kuh-i-Mund and near Tāhirī the Pleistocene raised beaches, which overlies the folded Bakhtiari, *are tilted down towards the Gulf.*' The downward tilting is presumed to be due to compression of the Gulf basin. Your observation at Mīnāb shows that part of this Post-Pleistocene downward tilting has taken place in the last 600 years. We do not know when the movement started, but if a cycle of downward warping followed directly on the last Pleistocene breakdown which raised the beaches, it would be in operation considerably before 4000 B.C. The amount of downward movement accomplished between 4000 B.C. and the present would probably be much greater than that accomplished in the last 600 years, and may well have drowned all chalcolithic coastal settlements. How far these movements are local only, I can't say. Evidence in Oman suggested that this was so.

This assumed Post-Pleistocene downward tilting need not have affected all parts of the coast uniformly. Hence the fact that the quay walls of Sīrāf, which can scarcely be later than the eleventh century, still rise at their base some feet above the sea (Fig. 69), need not be taken as definite evidence to the contrary. It is also possible to assume that a wider stretch of foreshore had there been intentionally left unprotected to facilitate landing and loading operations from boats used in the shallow water. So much, however, is clear that until very careful geological observations become available for all points of the coast-line which might have served for anchorages or fishing settlements in prehistoric periods, this 'drowning' of chalcolithic remains may well afford an adequate explanation for the negative evidence I had noted.

I am not aware of any definite indication being available on the Bushire peninsula as to changes within historical times in levels relative to the sea. The height of the ridge composed of layers of calcareous rock overlying clay which stretches all along the peninsula, and accounts for its formation, was bound in any case to preserve the chalcolithic mound on its top, while other remains of the same period situated close to the flat parts of the sea-shore might well have become submerged. But that changes affecting the surface of higher portions of the

⁷ Cf. above, pp. 184 sq.