

was great, the face of nature in the inland country, says Captain Macmurdo, was not visibly altered. In the hills some large masses only of rock and soil were detached from the precipices; but the eastern and almost deserted channel of the Indus, which bounds the province of Cutch, was greatly changed. This estuary, or inlet of the sea, was, before the earthquake, fordable at Luckput, being only about a foot deep when the tide was at ebb, and at flood tide never more than six feet; but it was deepened at the fort of Luckput, after the shock, to more than *eighteen feet at low water*.* On sounding other parts of the channel, it was found, that where previously the depth of the water at flood never exceeded one or two feet, it had become from four to ten feet deep. By these and other remarkable changes of level, a part of the inland navigation of that country, which had been closed for centuries, became again practicable.

Fort and village submerged.† — The fort and village of Sindree, on the eastern arm of the Indus, above Luckput, are stated by the same writer to have been overflowed; and, after the shock, the tops of the houses and wall were alone to be seen above the water, for the houses, although submerged, were not cast down. Had they been situated, therefore, in the interior, where so many forts were levelled to the ground, their site would, perhaps, have been regarded as having remained comparatively unmoved. Hence we may suspect that great permanent upheavings and depressions of soil may be the result of earthquakes, without the inhabitants being in the least degree conscious of any change of level.

A more recent survey of Cutch by Sir A. Burnes, who was not in communication with Capt. Macmurdo, confirms the facts above enumerated, and adds many important details.‡ That officer examined the delta of the Indus in 1826 and 1828, and from his account it appears that, when Sindree subsided in June, 1819, the sea flowed in by the eastern mouth of the Indus, and in a few hours converted a tract of land, 2000 square miles in area, into an inland sea, or lagoon. Neither the rush of the sea into this new depression, nor the movement of the earthquake, threw down entirely the small fort of Sindree, one of the four towers, the north-western, still continuing to stand; and the day after the earthquake, the inhabitants, who had ascended to the top of this tower, saved themselves in boats.§

Elevation of the Ullah Bund. — Immediately after the shock, the inhabitants of Sindree saw, at the distance of five miles and a half

* Macmurdo, Ed. Phil. Journ. vol. iv. p. 106.

† I was indebted to my lamented friend the late Sir Alexander Burnes for the accompanying engraving (Plate XI.) of the Fort of Sindree, as it appeared eleven years before the earthquake; but I am assured by Captain Grant, and others well acquainted with the scene, that the land introduced by the artist in the back-ground is ideal. The flat plain of the Runn could alone be seen in that

direction as far as the eye can reach. The mirage so common there may have caused the apparent inequalities which have been introduced as rising ground into the sketch.

‡ This Memoir is now in the Library of the Royal Asiatic Society of London.

§ Several particulars not given in the earlier edition were afterwards obtained by me from personal communication with Sir A. Burnes in London.