supposition of local stability within a surrounding region of depression, can to-day be regarded as established for the Tian Shan.

It may, however, be pointed out that Suess's view as to the stability of horsts involves extreme measures of the diminution of terrestrial volume. When the highland of the Bural-bas-tau is recognized as a fragment of a central Asiatic peneplain, it must be recognized as having once stood not much above sea level; and if 8,000 or 10,000 feet out of its present total altitude of 12,000 or 13,000 feet result from the depression of the Siberian part of the Asiatic peneplain, then all the oceans and all the continents of the world must have gone down with the Siberian area, except for such highlands, if any, that held their own with the Bural-bas-tau. This seems to call upon a very large mechanism to produce a relatively small result. Not only so. The plateau of northern Arizona, in which the young canyon of the Colorado River is cut, owes its altitude, by Suess's theory, to the depression of the Great Basin region to the west of the plateau; but this plateau is also a peneplain, as Dutton has shown, hence not only the lower land to the west of it went down, but again all the oceans and all the continents as well, and this time the Bural-bas-tau with the rest—unless, indeed, the depressions of the surrounding regions, by which the Bural-bas-tau and the plateaus of northern Arizona were left in relief, both occurred at the same time. In the latter case we have only to consider one of the many other more or less dissected peneplains, that of southern New England, for example; all of these can not possibly have been left standing by a single movement of depression, because their present stage of dissection is so unlike. It thus appears that, according to Suess's theory, the diminution of the the terrestrial radius at any point may be measured (if we neglect the altitude above sea level at which peneplains are formed) by

the sum of all the non-synchronous depressions by which the horsts of peneplains have been left in relief,
minus the altitude that a peneplain (if one occurs) happens to have at the point of measurement.

As said above, there may be no evidence by which the theory that leads to this conclusion can be absolutely proved or disproved, but the conclusion is a curious one, and as long as it is based chiefly on our ignorance of the earth's internal mechanism, it can hardly have general acceptance. It does not appear clearly from Suess's work whether he recognizes the necessity of this conclusion or not, for he does not seem to take account of the altitude that the surfaces of horsts had with respect to sea level before they were isolated by dislocation. Indeed, his study of the Face of the Earth takes relatively little account of erosion. One finds, however, an indication of the acceptance of great changes in sea level in such sentences as the following: "I hope to be able to show that there is ground for correcting more than one generally accepted opinion as to the position of the level of the sea at epochs anterior to ours" (1897, i, 782). It will be a matter of interest to see how far problems of this sort are treated in the final volume of Das Antlitz der Erde.