

examination of no less than 54 species of fossil shells found at that great elevation.

6thly. By reference to newly-published Admiralty Surveys and a map of the soundings in the North Sea, recently published by Mr. Murray, C. E., I have been able to give an improved map of the North-West of Europe, as it would appear after an upheaval of 600 feet, in correction of that which I had borrowed from Sir Henry De la Beche's 'Theoretical Researches,' published in 1834. The various changes, now for the first time introduced, are explained in Appendix I.

7thly. When speculating on the probable causes of the intense cold in parts of Central Europe, especially the Alps, during the glacial period, I omitted in former editions to allude to the submergence of the great desert of the Sahara, during the early part of the post-pliocene period, and the effect of that submergence in moderating the temperature of the Sirocco, or Föhn, as it is called in Switzerland, and the consequent augmentation of the Alpine glaciers. The proofs derived from marine fossil shells, and from the present distribution of animals, in favour of the long sojourn of a sea on the site of the Sahara, and the names of some of the authors who have treated of this subject, are now given for the first time.

In conclusion, I wish it to be understood that the present work makes no pretensions to give a complete analysis of all even the most important memoirs lately published on the coexistence of man with many species of extinct animals. I have thought it best, for the sake of brevity, and sufficient for the object of my work, to treat of those instances which I had been able to verify by personal examination of