

of chalk : it is described* as a calcareous bed, containing nodules and beds of variously coloured flints, resting on the oolites and white limestones, and dipping under the tertiary hills (i. e. those consisting of the formations more recent than the chalk); it re-appears against the volcanic groupe of the Euganean hills near the mouth of the Po, which appear to have forced it upwards.

In Spain, chalk is said to occur near Cervera, on the road from Barcelona to Lerida; gypsum abounds in the same neighbourhood, and at Pleacente two miles from Valencia, but the descriptions are too vague to be relied on; the gypsum mentioned seems to be rather that of the red sandstone, than of the formation above the chalk, and possibly a cretaceous marle may have been mistaken for the latter rock.

We have no precise information of the existence of chalk beyond the limits of Europe. It may be mentioned, however, that the maps accompanying Rennell's memoir on the retreat of the ten thousand, mark a chalky tract as existing on the south bank of the Euphrates, somewhat above the well known bitumen spring of Hit, and opposite the whole range of hills in that quarter which are denominated 'White'; in corroboration of this locality, Professor Buckland saw at Sir Joseph Banks's an amulet, found among the ruins of Babylon, evidently cut from a chalk-flint.

This rock is also said to have been observed in China, 20 miles north of Pekin, by Sir George Staunton (vol. ii. p. 172), but the description is too vague to be relied on.

Chalk has not been found in any part either of North or South America yet explored, and Mr. Macluren positively asserts that it does not exist on that continent.

Section II.

Particular account of this formation.

(a) *Chemical and external characters.* The nature and qualities of Chalk, generally speaking, are too well known to need description, but some varieties of it are found which may render it requisite. The purest and best chalk, commonly selected for economical purposes, is nearly of a pure white; it has an earthy fracture, is meagre to the touch, and adheres to

* See Ferber's Travels in Italy, Letter V.