ash-coloured sand formerly described: here, therefore, the transition from the chalk to the more recent formations appears to have been abrupt, not gradual; in a few instances however a bed of intermediate character, a cretaceous marle* is interposed at the junction, which may seem to countenance this idea,—that where the series of deposits was permitted, from the circumstances under which they were formed, to proceed quietly, such a gradation may have taken place.† (C.)

The result of these repeated destructions of the chalk, has probably reduced the extent actually occupied by this formation to much narrower limits than those which it formerly possessed. On the north of Northamptonshire, and borders of Rutland and Leicestershire, and in the vale of Shipston in Warwickshire, extensive accumulations of chalk-flints, mixed with rounded fragments of hard chalk, occur in such quantities as almost to warrant the inference that this formation once existed in situ on these spots, now nearly 50 miles from its nearest point. In the fields on the south of Sywell in Northamptonshire, the fragments of chalk are so abundant as to give the appearance of a regular substratum of that substance, turned up by the plough. In the Philosophical Transactions for 1791, is an account of a chalk pit found at Redlington in Rutland; which, if correct, must be considered as a relict of this destroyed tract. The account is very precise, indicates a sufficient knowledge of the general nature and localities of the formation, and is such as to render the testimony very respectable; but the point is so important that further inquiries are desirable. The chalk is described as regularly interstratified with flints; and the surrounding district being entirely occupied by the ferruginous sands of the inferior oolite, it is not easy to conceive that it could have afforded any rock which could have been mistaken for chalk. Another detached patch of chalk is said, in the same place, to exist near Stukely in Huntingdonshire on the banks of the Turnpike road, but no particulars are given, and here soft varieties of other calcareous beds might be confounded with this substance. (C.)

* A chalk-marle without flints, is the stratum which in Alum Bay in the Isle of Wight, lies immediately next on the flinty chalk. It pulverizes with the frost, and as the rains have washed it down, its situation is marked by a deep hollow. (G. T. vol. ii. p. 178.) There appears also to be indications of its existence in the same position in other parts of the chalk basin of the Isle of Wight (hereafter to be described); for in many parts of Sussex, south of the South Downs, as at Emsworth, Lavant, Siddlesham, South and North Bersted, Middleton, &c. there are pits of a marle without flints, which is evidently over the chalk: the same marle has also been found in Dorsetshire on the west of Corfe castle: but it has not been discovered upon it in the London basin. (G. T. vol. ii. p. 178.)

† On the Continent, the calcareous beds which repose on the chalk at Maestricht, though they cannot properly be classed as a portion of the chalk formation (an attempt which has been made by some foreign writers, and can only tend to confusion), yet they certainly approach much more nearly to it than any other of the superior formations, and their organic remains seem to indicate a greater antiquity than belongs to any of the upper beds in England. (C.)