

III.

NOTES ON THE CONTENTS OF SHELL-HEAPS RECENTLY EXPOSED IN
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Having, in the course of my ordinary work, arrived at Coll, whose character I had known only from the crude descriptions of stray travellers, I met with several surprises, one of which may be of some interest and value to archæologists.

The island is, when viewed from the sea, a dark brown mass of gneiss, passing in some places into an exceedingly coarse granite, highly charged with large flakes of mica. Above this on the north-west there is, over a wide area, a vast deposit of sand, in many places 100 feet in depth. These sand *dunes* are not unlike the *landes* on the shore of the Bay of Biscay. They are composed mainly, and in several parts almost entirely, of the remains of recent land shells, along with a small and varying proportion of pounded gneiss. I fancy that the bulk of the mass is simply the crumbled remains of such shells as *Bulimus acutus* and *Helix caperata*; and though it is unsafe to make a general statement from only partial evidence, I am inclined to think that only a limited number of species enters into the composition of the mass. But, in any case, the quantity of disguised lime is very large; and this in view of our enquiry is a very important element. Whilst in some places the sand is fine and friable, in other parts of the area extensive layers of the sand have been consolidated into a kind of incipient rock, which has for centuries apparently arrested the progress of the drift. Other agencies also have tended to check the drifting; such as the long-rooted bent, the deposit of sea-weed, and the growths of various plants, which all unite in permanently covering and protecting the *dunes*. At the bottom of a large sand valley the objects now referred to were found. The storm of the 28th December 1879 was very severe in Coll, and helped to expose a large number of middens, remains of oval-shaped dwellings, and the like. But the process of

exposure has gradually been going on for years, and probably for many centuries. The whole area scooped out by the action of wind and storm cannot be much less than a quarter of a mile ; and when all the agencies, such as the force and direction of the wind, the climate, the quality of the sand itself, and the nature and extent of the protection given both by the gneiss rocks around and the covering of shell, are taken into account, an indefinite period of time may reasonably be required to produce the result. At the place where the objects displayed were discovered, probably 100 feet of perpendicular sand has been removed. I think an examination of the locality proves conclusively that the objects now exhumed were found in the site where they were originally deposited. Near each group of dwellings there were massive heaps composed of the shells of limpets, periwinkles, and ordinary littoral shell-fish, split bones, fragments of flint, teeth of various animals, and fragments of rude unglazed pottery. Along with these were found the pin and the penannular ring or brooch now exhibited. Whether a part of these remains that I have seen are those described in the "Proceedings" of the Society for 1878. I do not know. In digging into the heaps we were met by a foul, heavy, and offensive odour.

From the character—the rudeness or the fineness—of the objects discovered no inference can safely be drawn. For in Tyree, which is in weekly communication with the outer world, and in whose cabins products of high art may be seen, pottery as rude as that discovered in Coll is manufactured to this day, and I have found proof upon proof in the western isles that the common brooch worn by the peasantry is a falling off from a more artistic type.

[The brooch and pin referred to in this paper were exhibited at the January Meeting of the Society by J. L. Stewart of Coll, and are described and engraved at p. 79 of the present volume.]