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tions." "The unquietude," says another author, "which they manifest might in case of need serve as an almanack." "The shepherds must then exert all their vigilance to prevent them escaping," " for it is a known truth that they would go to the very place where they had been born." Many cases have occurred of three or four sheep having started and performed the journey by themselves, though generally these wanderers are destroyed by the wolves. It is very doubtful whether these migratory sheep are aborigines of the country; and it is certain that within a comparatively recent period their migrations have been widely extended: this being the case, I think there can hardly be a doubt that this "natural instinct," as one author calls it, to migrate at one particular season in one direction has been acquired during domestication, based no doubt on that passionate desire to return to their birthplace which, as we have seen, is common to many breeds of sheep. The whole case seems to me strictly parallel to the migrations of wild animals.

Let us now consider how the more remarkable migrations could possibly have originated. Take the case of a bird being driven each year, by cold or want of food, slowly to travel northward, as is the case with some birds; and in time we may well believe that this compulsory travelling would become an instinctive passion, as with the sheep in Sy un. Now during the long course of ages, let valleys become converted into estuaries, and then into wider and wider arms of the sea; and still I can well believe that the impulse which leads the pinioned goose to scramble northward would lead our bird over the trackless waters; and that, by the aid of the unknown power by which many animals (and savage men) can retain a true course, it would safely cross the sea now covering the submerged path of its ancient land

journey.\*

<sup>\*</sup> I do not suppose that the line of migration of birds always marks the line of formerly continuous land. It is possible that a bird accidentally blown to a distant land or island, after staying some time and breeding there, might be induced by its innate instinct to fly away, and again to return there in the breeding season. But I know of no facts to countenance the idea; and I have been much struck in the case of oceanic islands, lying at no excessive distance from the mainland, but which from reasons to be given in a future chapter I do not believe have ever been joined to the mainland, with the fact that they seem most rarely to have any migratory birds. Mr. E. V. Harcourt, who has written on the birds of Madeira, informs me that there are none in that island; so, I am informed by Mr. Carew Hunt, it is in the