which form one of the most ancient breeds in the world. With plants, we have seen that tropical varieties of maize lose their proper character in the course of two or three generations, when cultivated in Europe; and conversely so it is with European varieties cultivated in Brazil. Our cabbages, which here come so true by seed, cannot form heads in hot countries. According to Carrière,[62] the purple-leafed beech and barberry transmit their character by seed far less truly in certain districts than in others. Under changed circumstances, periodical habits of life soon fail to be transmitted, as the period of maturity in summer and winter wheat, barley, and vetches. So it is with animals: for instance, a person, whose statement I can trust, procured eggs of Aylesbury ducks from that town, where they are kept in houses and are reared as early as possible for the London market; the ducks bred from these eggs in a distant part of England, hatched their first brood on January 24th, whilst common ducks, kept in the same yard and treated in the same manner, did not hatch till the end of March; and this shows that the period of hatching was inherited. But the grandchildren of these Aylesbury ducks completely lost their habit of early incubation, and hatched their eggs at the same time with the common ducks of the same place.

Many cases of non-inheritance apparently result from the conditions of life continually inducing fresh variability. We have seen that when the seeds of pears, plums, apples, &c., are sown, the seedlings generally inherit some degree of family likeness. Mingled with these seedlings, a few, and sometimes many, worthless, wild-looking plants commonly appear, and their appearance may be attributed to the principle of reversion. But scarcely a single seedling will be found perfectly to resemble the parent-form; and this may be accounted for by constantly recurring variability induced by the conditions of life. I believe in this, because it has been observed that certain fruit-trees truly propagate their kind whilst growing on their own roots; but when grafted on other stocks, and by this process their natural state is manifestly affected, they produce seedlings which vary greatly,

[62] 'Production et Fixation des Variétés,' 1865, p. 72.