

becomes sessile, this part is excluded from taking in nourishing matter, while the opposite surface alone remains, or becomes more, fit for this function. Thus, a simple variation and adaptation has been produced, and if the same organism continues in this position, its bottom cells will estrange themselves from their original function, while those on the top will convey the food into the interior, where a cavity will be formed, ultimately with a permanent opening, the primitive gut and mouth, both very different from the 'foot.'

Thus, by adaptation and variation the organism acquires new functions, organs, features, and it gives up and eventually loses others. Its offspring is like it. Like produces like. This is the principle of *heredity*. Adaptation, when going on generation after generation on the same lines in the same direction, becomes continuous, and has an intensifying, *cumulative* effect. By always weeding out from a flock of pigeons those birds