

the matters to which it unites. The heat of the body of animals, and even vegetables, is sufficiently powerful to produce this effect. The degrees of heat are different in different kinds of animals : birds are the hottest, from which we pass successively to quadrupeds, man, cetaceous animals, reptiles, fish, insects, and, lastly, to vegetables, whose heat is so trifling as to have made some naturalists declare they had not any, although it is very apparent, and in winter surpasses that of the atmosphere. I have frequently observed in trees that were cut in cold weather, that their internal part was sensibly warm, and that this heat remained for many minutes. This heat is only moderate while the tree is young and sound, but as soon as it grows old the heart heats by the fermentation of the pith, which no longer circulates there with the same freedom ; and as soon as this heat begins the centre receives a red tint, which is the first index of the perishing state of the tree, and the disorganization of the wood. The reason naturalists have not found there was a difference between the temperature of the air, and the heat of vegetables is, because they have made their observations at a bad time of the year, and not paid attention, that in the summer the heat of the air exceeds
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