

singular appendages to the vascular system of the earth-worm, separated from their attachments, and viewed in connexion only with the dorsal and abdominal trunks in which they terminate. The abdominal vessel, (Λ , Λ ,) on arriving near the œsophagus, is dilated at the point B , into a globular bulb (c ,) which is followed, at equal intervals, by four others (c , c ,) From each of these bulbs, or *ventricles*, as they are termed by Morren, a vessel (d) is sent off at right angles, on each side; this vessel also enlarges into several nearly globular dilatations (e ,) followed by a still larger, and more elongated oval receptacle (f ,) which completes the semicircular sweep taken by the vessel in bending round the sides of the body, in order to join the dorsal vessel (g , g ,) in which all the other four communicating vessels, presenting similar dilatations, terminate. Sir E. Home is of opinion that these dilated portions of the vessel are useful as reservoirs of blood, for supplying it in greater quantity to the neighbouring organs, as occasion may require: but Morren ascribes to them the more important office of accelerating, by their muscular action, the current of circulating blood. If the latter of these views be correct, which the strong pulsations, constantly visible in these bulbs, render extremely probable, this structure would offer the first rudiments of the organ which, in all the superior classes of animals, performs so important an office in the circulation of the blood, namely, the *heart*: and this name, indeed, is given by Cuvier, Morren, and others, to these dilated portions of the vascular systems of the higher orders of Annelida.

Here, also, the statements of different anatomists are at variance, with regard to the direction taken by the blood while circulating in the vessels: Home and Dugès represent it as proceeding forwards in the dorsal, and backwards in the abdominal vessels; a course which implies its descent along the lateral communicating vessels just described; while De Blainville and Morren ascribe to it a course precisely the reverse. Amidst these conflicting testimonies, it is extreme-