

made its way into botany; and last of all into zoology. The herbarium or collection of dead plants was much sooner superseded by the "jardin des plantes" than the zoological museum with its skeletons, stuffed animals, and specimens in alcohol has been supplanted by any scientific collection of living animals. Marine stations, which study plant and animal life *in situ*, are quite a recent invention.¹ The study of the forms of nature or morphology in the earlier or more limited sense, referred thus more exclu-

¹ M. Yves Delage distinguishes four great periods in the study of living things. The first, culminating in Linnæus and Buffon, studies living objects in the great outlines of their external forms, of the habits of plants and the customs of animals. Detailed examination by dissection is resorted to, but only as a secondary method and in order to supplement the intuitive discovery of natural affinities. Then comes the second period, that of Cuvier and his followers, relying mainly on anatomical dissection. The third period begins with the marine stations. "Je ne crains pas de dire que la fondation des laboratoires maritimes a marqué une troisième période et constitué une nouvelle méthode aussi importante que les précédentes. Si l'on songe que plus des trois quarts des types d'invertébrés appartiennent au monde de la mer, que le plus grand nombre ne pouvaient parvenir dans les centres scientifiques dans un état convenable pour l'examen microscopique, si l'on songe que tout ce qui concerne leurs mœurs et leur embryogénie ne peut s'étudier loin de la mer, on comprend l'importance de ces créations. Faut-il rappeler que l'introduction de cette méthode est due à H. de Lacaze-Duthiers? . . . Aussi la fondation du labora-

toire de Roscoff a-t-elle été le signal de la création d'une multitude d'établissements plus ou moins similaires sur les côtes de tous les pays" ('L'Hérédité et les grands problèmes de la Biologie,' p. 3). The fourth period is marked by microscopic anatomy, and this—according to M. Delage—has its home mainly in Germany. "The study of marine zoology has, since the publication of the 'Origin of Species,' been found to require more complete arrangements in the form of laboratories and aquaria than the isolated vacation student could bring with him to the seaside. Seaside laboratories have come into existence: the first was founded in France by Coste (1859) at Concarneau (Brittany) with a practical end in view—viz., the study of food-fishes, with an aim to pisciculture. . . . The largest and best-supported pecuniarily is that founded at Naples by Anton Dohrn in 1872; others exist at Trieste, Villefranche, Cette, and at New Haven and Beaufort in the United States; whilst a large laboratory, on a scale to compare with that at Naples, has been (1888) opened at Plymouth by the Marine Biological Association of the United Kingdom" (Ray Lankester, art. "Zoology" in 'Encyclop. Brit.,' vol. xxiv. p. 814).