

THE UNITY OF NATURE

God, that effects the changes of organic forms by a mutual action of the laws of heredity and adaptation. And there is no more trace of "design" in the embryology of the individual plant, animal, or man. This *ontogeny* is but a brief epitome of *phylogeny*, an abbreviated and condensed recapitulation of it, determined by the physiological laws of heredity.

Baer ended the preface to his classical *Evolution of Animals* (1828) with these words: "The palm will be awarded to the fortunate scientist who succeeds in reducing the constructive forces of the animal body to the general forces or life-processes of the entire world. The tree has not yet been planted which is to make his cradle." The great embryologist erred once more. That very year, 1828, witnessed the arrival of Charles Darwin at Cambridge University (for the purpose of studying theology!)—the "fortunate scientist" who richly earned the palm thirty years afterwards by his theory of selection.

In the philosophy of history—that is, in the general reflections which historians make on the destinies of nations and the complicated course of political evolution—there still prevails the notion of a "moral order of the universe." Historians seek in the vivid drama of history a leading design, an ideal purpose, which has ordained one or other race or state to a special triumph, and to dominion over the others. This teleological view of history has recently become more strongly contrasted with our monistic view in proportion as monism has proved to be the only possible interpretation of inorganic nature. Throughout the whole of astronomy, geology, physics, and chemistry there is no question to-day of a "moral order," or a personal God, whose "hand hath disposed all things in wisdom and