

PART I. PRE-CAMBRIAN

§ i. General Characters

In the classification of the materials of the earth's crust enunciated by Werner the term "transition rocks" was applied to a large series of stratified formations, which, underlying the well-known fossiliferous or Secondary deposits, and overlying the various crystalline masses which were regarded as the most ancient or Primary part of the earth's surface, were believed to record an intermediate period of terrestrial history, between the time when any such crystalline materials as granite were laid down from a supposed universal ocean and the time when ordinary sediment accumulated and entombed the remains of the earliest animal life. Long after the theoretical considerations that led to its adoption had been proved to be fallacious, this term "transition" continued to maintain its ground as the designation of the most ancient stratified rocks underlying the Old Red Sandstone, and containing the earliest known organic remains. The researches of Murchison and Sedgwick eventually showed that these venerable formations contained a well-marked succession of organic types, whereby, as in the case of the Secondary rocks, so admirably made out by William Smith, they could be grouped into separate systems and formations, and could be identified in all parts of the world. The terms Cambrian and Silurian (which will be explained in later pages) were proposed by these illustrious pioneers to denote the oldest known fossiliferous formations, and soon entirely supplanted the older names "transition" and "grauwacke." The Cambrian system, as