worms, as well as the prevalent character of their organic remains, show that they must generally have been deposited in areas of slow subsidence, bordering continental or insular masses of land. From the character of the organisms preserved in them, the Palæozoic rocks, as far as the present evidence goes, may be grouped into two main divisions—an older and a newer:—the former, or Silurian facies (from the base of the Cambrian to the top of the Silurian system), distinguished more especially by the abundance of its graptolitic, trilobitic, and brachiopodous fauna, and by the absence of vertebrate remains; the latter, or Carboniferous facies (from the top of the Silurian to the top of the Permian system), marked by the number and variety of its fishes and amphibians, the disappearance of graptolites and trilobites, and the abundance of its cryptogamic terrestrial flora.

Section i. Cambrian (Primordial Silurian)

§ 1. General Characters

In those regions of the world where the relations of the pre-Cambrian to the oldest unmetamorphosed Palæozoic rocks are most clearly exposed and have been most carefully studied, it is seldom that any conformable passage can be traced between these two great rock-groups, though, as already stated, occasional examples of such a gradation occur. More usually a marked unconformability and strong lithological contrast have been observed between the two series, the younger frequently abounding in pebbles derived from the waste of the older. Such a break points to the lapse of a vast interval of time during which the pre-Cambrian rocks, after suffering much crumpling and metamorphism, were ridged up into land and were then laid open to