

## § 2. Local Development

The Cretaceous system, in many detached areas, covers a large extent of Europe. From the southwest of England it spreads across the north of France, up to the base of the ancient central plateau of that country. Eastward it ranges beneath the Tertiary and post-Tertiary deposits of the great plain, appearing on the north side at the southern end of Scandinavia and in Denmark, on the south side in Belgium and Hanover, round the flanks of the Harz, in Bohemia and Poland, eastward into Russia, where it covers many thousand square miles, up to the southern end of the Ural chain. To the south of the central axis in France, it underlies the great basin of the Garonne, flanks the chain of the Pyrenees on both sides, spreads out largely over the eastern side of the Spanish table-land, and reappears on the west side of the crystalline axis of that region along the coast of Portugal. It is seen at intervals along the north and south fronts of the Alps, extending down the valley of the Rhone to the Mediterranean, ranging along the chain of the Apennines into Sicily and the north of Africa, and widening out from the eastern shores of the Adriatic through Greece, and along the northern base of the Balkans to the Black Sea, round the southern shores of which it passes in its progress into Asia, where it again covers an enormous area.

A series of rocks covering so vast an extent of surface must needs present many differences of type, alike in their lithological characters and in their organic contents. They bring before us the records of a time when a continuous sea stretched over the centre and most of the south of Europe, covered the north of Africa, and swept eastward to the far east of Asia. There were doubtless many islands and ridges in this wide expanse of water, whereby its areas of deposit and biological provinces may have been more or less defined. Some of these barriers can still be traced, as will be immediately pointed out.

While there is sufficient palæontological similarity to allow a general parallelism to be drawn among the Cretaceous rocks of western Europe, there are yet strongly marked differences pointing to very distinct conditions of life, and probably, in many cases, to disconnected areas of deposit. Having regard to these geographical variations, a distinct northern and southern province, as above stated (p. 1518),