



FIGURE 8.11.

Varied sedimentary formations rising over 45,000 feet in central East Greenland. These rocks date from the late Precambrian period.

THE MYSTERY OF THE CAMBRIAN EXPLOSION

There are several very important points that one must bear in mind with respect to the Cambrian explosion of marine life. The first point is its suddenness. All the major categories of marine invertebrates appear in the fossil record during the Cambrian period in geologic history.

The second point to be noted is that all these marine invertebrates appear in a fully formed condition. Further, they are essentially unchanged to the present time. While they are presently more modern in appearance than in Cambrian times, there have been no fundamentally new forms or structures introduced. Just as a child changes in appearance as he grows to adulthood, we recognize some changes, but not in basic form or structure. The marine invertebrates of today can be recognized from their ancestors of 500 million years ago.

The third point of importance is that there is no fossil record of any transitional forms between the invertebrate phyla. If Darwinian evolutionary theory is correct, we should expect to find fossils of a common ancestor for fossils of one or more differing types. These