numerous test holes were drilled in this area. We have already described or at least mentioned 8 of the sites drilled in the western part of this carbonate belt. Most of the test holes of Cruises eight and nine were drilled in the broad plain of the ocean floor, far from islands or other sharp topographic features which would appreciably affect the accumulation of sediments. (See Figures 32 and 33 for the locations of these sites.) When the stratigraphic columns at these sites are considered we find a thick sediment cover made up primarily of the skeletal remains of the microscopic, mineral-secreting plants and animals which live in the open sea. The greater proportion of these organisms were the chalk-producing types which we have been considering, but where the water depth is greater than 15,000 feet the radiolarians and other organisms which have shells of silicon dioxide predominate. (In water of this depth the carbonate shells rapidly dissolve, leaving the more durable siliceous shells as the dominating component of the ooze.) At these greater water depths the surface of the sea floor is covered with siliceous ooze, often to a depth of 60 feet, and sometimes much deeper. Beneath the siliceous ooze practically all drill holes revealed thick sections of chalk ooze, chalk, or limestone. Most of these carbonate layers are from a time when the ocean floor at that site was higher, with a correspondingly decreased water depth.

When taken together, all the stratigraphic columns revealed by the drillings in the equatorial belt form an important body of information concerning the past. The average thickness of highly fossiliferous ooze, plus the hardened chalk and limestone, found in these columns was approximately 370 meters (1,210 feet). We should remember that all of this is practically pure, biologically-produced ("biogenic") sediment, and that most of it is chalk ooze and chalk.[40]

So, the Deep Sea Drilling Project has provided abundant verification of the data collected by earlier scientific explorations, concerning the extent and nature of the sediments in the open ocean. There is no longer any doubt that the thick covering over major parts of the ocean floor is composed primarily of biologically-produced components which accumulated as a slow, natural buildup of pelagic organisms.

## Total Quantities of Biologically-Produced Sediments in the Deep Sea

We will not attempt to state the total quantities of these sediments in tons, cubic miles, or similar units; but we do wish to ponder the significance of the great quantity of biogenic sediments which cover most ocean bottom. In the open ocean, any covering of even a few feet of Foraminifera shells or the skeletal parts of coccolithophores, Radiolaria, diatoms, or silicoflagellates means that the waters above had to be teeming with these creatures for over one hundred thousand years. The accumulation of their skeletal structures has produced a natural buildup of almost inconceivably great breadth and volume.

It may be that some persons will be tempted to postulate that