

(composed of radiolarian, silicoflagellate, and diatom shells) and red and brown pelagic clays. However, neither of these types accumulates nearly as fast as does carbonate ooze near the equator.

There are of course localized areas where layers of volcanic ash, or of land-derived (terrigenous) sediments brought in by temporary ocean currents, accumulate much faster than the rates to which we have been referring. For example, many cores from the Deep Sea Drilling Project show rather thick layers of terrigenous sediments in the deposits of Pleistocene age. These are usually interpreted as being due to heavy erosion from the continents during periods of glaciation.²⁶ Some of these layers may represent the period of the Biblical Flood. One must remember, though, that the exceedingly fine nature of the carbonate and siliceous oozes, and of the marine clays eliminates all possibility of these having been deposited in anything like the short length of time required for coarse erosion sediments.

Chalk-Layer Records From Deep-Sea Drillings

One of the most useful parts of the deep-sea sedimentary record, for demonstrating the lengths of time represented by oceanic deposits, is that of the carbonate oozes and the hardened layers of chalk formed from them. The carbonate oozes (sometimes called chalk oozes) have been a subject of scientific investigation for nearly a century. However, the rates of deposition of these (cited above), and the thicknesses of ooze and chalk at various geographic locations, have been learned only during the last three decades. (The presence of the harder chalk layers beneath the softer oozes was practically unknown until the Deep Sea Drilling Project was begun in 1968.) We will now consider the nature and extent of some chalk-containing columns taken from the floor of the Pacific ocean by the scientists of the Deep Sea Drilling Project.

Several of the cruises of the Project were devoted to a study of the ocean floor in the Pacific along and near the equator. Lack of space prevents us from presenting detailed data from all of these cruises, but some of the more important ones will be considered. The seventh cruise, known as "Leg no. 7 of the Deep Sea Drilling Project," included deep drillings at three important sites (numbers 62, 63, and 64) north of the island of New Guinea. (See Figure 30 for a map of the area.) These cored test holes were made during the late summer of 1969 and are described in detail in Volume 7 of Initial Reports of the Deep Sea Drilling Project.²⁷

The drillings at Site 62 penetrated to a depth of 1,905 feet into the ocean floor, beneath a covering of 8,530 feet of water. The site was located on a relatively low, broad ridge in the ocean floor (the Eauripik Ridge), with water depths being considerably greater on each side of the ridge. The water depth of 8,530 feet on the ridge is shallow enough that the multitude of calcareous shells continuously falling on to the floor does not suffer serious dissolution or decomposition. Another important characteristic of this location is that it is high enough above the level of the