Marine Deposits and Ocean Sediments

Why have geologists found marine sediments all over the continents? Shouldn't fossilized sea life only be found in the sea and along the shores?

A perfectly preserved fossil fish.

One theory on how these sediments ended up on mountaintops says that at various points throughout the earth's history, the continents have been submerged by the ocean. Considering the vastness of these deposits, this scenario is difficult to envision. Also problematic is the fact that marine fossils are often found with other fossils as well.

Another possible explanation for marine deposits is a worldwide Flood. The Biblical description of this Flood says that oceanwater, subterranean water, and rainwater were all involved in the flooding (see Genesis 7:11-12; Exodus 15:8; Psalm 33:7, 104:6). This would suggest a major geological upheaval and could explain many of the features which are apparent in the earth's topography today.

If oceans were involved, then it would be normal to expect marine sediments on the continents in large quantities.

Young Sediments

While many scientists propose *ad hoc* explanations for the hide the lack of evidence to support their theories, there are other ways to view the data. For example, It is significant that we find only young sediments in the sea. The ocean floor reveals no evidence of great age—the older layers such as the Paleozoic are missing.

However, vast land deposits of marine material are found on our continents. These could have been formed by water and sediments from the sea being poured over the land, as the Biblical Flood suggests. It is possible that this could have been achieved by upraising the sea bed.

Since much material is found on all the continents, the evidence suggests that the contents of the oceans were simply dumped on the land and the accompanying underwater mud flows, or turbidites, buried the animals to form the fossils we find in the strata today.

If this event was followed by a series of major upheavals, the surface topography would have been reformed, resulting in surface material being washed back into the sea as "young" sediments.

This theory is just as possible as any of the theories proposed by evolutionists. In fact, this theory matches the data much better than the evolution—based suggestions.

Missing Sediment?

Today we find a massive geological column on the land areas, but very little sediment beneath the sea. Considering that at least three quarters of this planet is covered by water, this is indeed remarkable.

Earth's continents are comprised of granitic-type rocks that, being lighter, float on the heavier basalt and schists beneath. Covering the continents, there is an abundance of sediments containing marine fossils such as fish, corals, and clams.

The geologist J.S. Shelton described this conundrum as follows:

Marine sedimentary rocks are far more common and widespread on land today than all other kinds of sedimentary rocks combined. This is one of those simple facts that fairly cry out for explanation and that lie at the heart of man's continuing effort to understand more fully the changing geography of the geologic past.[i]

What if the words of divine inspiration were true and God did at some stage intervene in the affairs of Earth and destroy the antediluvian world with a Flood? Well, if we refuse to acknowledge the truth, then even if the facts "cry out for explanation," there would be no answer forthcoming.

Seismic methods used to determine the thickness of ocean sediments—which were once considered up to 22 kilometers thick—reveal that the majority of the ocean floor's sediment layers are less than 100 meters thick, with a very small fraction being larger than 1 kilometer thick.

The average depth of ocean sediments works out to 400 meters, of which half would be red clay and the other half carbonate oozes such as coccolith and foramineral skeletons. Given the rate at which erosional sediment flows into the the oceans today and the rate of production of algae and unicellular organisms, which would produce the oozes, the Biblical timeframe is more than adequate to account for all

the ocean sediments, particularly if we allow for greater sedimentation during the Flood.[ii]

In order to provide an explanation for the missing sediment, there is a suggestion that the sediments are being absorbed under the tectonic plates, as the continents move apart. However, the rates of subduction are much lower than the rates of erosion, so this absorptions could not account for all the missing sediment. Estimates of sediments flowing into the ocean range from 8 to 64 billion tons per year. Subduction rates are only estimated at 2.5 billion tons per year.[iii]

Erosion and Drift

The immensely long periods suggested by science today do not fit the observed rates of change even under current circumstances, let alone catastrophic ones.

In order to account for the present position of the continents, the rate of continental drift is estimated to be 2 centimeters per year. However, at the rate at which sediment is being washed from the continents into the sea, the crack between the continents could not have opened up. It would instead have been filled more than 2 times faster than it formed.

White Cliffs of Dover

Also, the rate at which erosion is changing the continental coastal features makes it unlikely that the continental fit could have been maintained as well as it has if the planet is millions of years old. Even in historic times, coastal features have changed so rapidly that, if extrapolated, would mean that thousands of kilometers of coastal material would be added or subtracted—drastically changing the landscape.

The coastal features of the white cliffs of Dover are a prime example. Marine snails are whittling away the coastline at an extremely rapid rate of up to 2 meters per year. In fact, over the past 800 years, the sea has claimed over a mile of land, including the entire medieval city of Dunwich. The last of that city's twelve churches toppled over the cliffs in 1919.

It is conceivable, therefore, that the earth is much younger than many suggest, and that the continents separated very rapidly after the Flood.

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i. J. S. Shelton, *Geology Illustrated* (San Francisco and London: WH Freeman and Co., 1966): 28.
ii. Ariel A. Roth, *Origins: Linking Science and Scripture* (Review and Herald Publishing Association, 1998).
iii. Ibid.