

THE MIRACULOUS SEA

Below the surface of the sea is a world that is in many ways similar to the earth's land areas. There are great mountain ranges, long valleys and an amazing variety of life. But many undersea mountains are higher than those above, longer and wider, and many of the creatures living in the oceans are more vividly colorful and exotic than most forms of life on land. Down there, at the base of a continental slope, seadevils, quill worms, viperfish, sea cucumbers and jellyfish glide through the silent, lightless world searching for food—and escaping other sea creatures also in search of food. Because there is no light there is no plant life comparable to the forests on land. Only a few small, primitive marine plants grow at this dark depth. For the creatures living here there is nothing but a continuing battle for survival. Surprisingly, life is abundant and may, someday soon, give

man positive proof of his origin.

THE SEA IS A MIRACLE. The feature that sets the earth apart in the universe is the great glistening sheath of water that envelops our globe.

No other planet in man's range of vision has a sea. Some other planets have ice caps, moisture, perhaps vegetation, but no sea. Yet our earth is nearly drowned in water. The seas engulf 71 percent of the world's area.

How did the earth acquire this great cover of water? Scientists believe the earth began as a ball of whirling gas freshly torn from the sun. Gradually, over millions of years, the ball of flaming gases cooled. As the earth's outer layers cooled, the earth became enveloped in heavy layers of clouds. This cloud cover contained much of the water of the new planet. As soon as the

earth's crust cooled sufficiently, the rains began to fall. Scientists believe it rained for centuries. The water fell into waiting ocean basins, or, falling upon the higher land masses, drained away to become the sea.

So the ocean floor contains records of the millions of years of development that took place. What does this uncharted, hidden world look like? Scientists agree that very high mountains and deep valleys run along the bottom of the peaks of a 1,600 mile long range that divides the Central Pacific Basin. Through the center of the Atlantic Ocean, too, runs a long chain of high mountains. Strange trenches go deep down. Cliffs and canyons mark the bottom of the sea, just as they do on land. And because the ocean water constantly scours the bottom, the mountains and valleys are always changing.

Studies reveal three great provinces of the sea: continental shelves, continental slopes, and the floor of the ocean. The continental shelf resembles land. Sunlight penetrates to it, plants drift in waters above it, and the fish in abundance there make it the meeting place of the great fisheries of the world.

But once beyond the edge of the shelf, the mystery of the

deep sea begins. Darkness gathers, pressure grows, and plant life disappears. In this world creatures prey on one another in brute survival. Much farther down, after miles and miles, lies the ocean floor, the most awesome part of the ocean. Flat-topped, extinct volcanoes dot the floor of the Pacific and here and there side pressures from the earth's center have wedged up mountains, some of them volcanically active.

Only in the last few years has man been able to go down into the ocean to see things for himself. Lately, bathyscaphs, deep-diving manned ocean observatories, have gone down to the very deepest part of our ocean—seven and a half miles. These new explorations will be of great importance to the world. We know now that we are dependent on the sea for many parts of our existence. The entity called life emerged from the sea, and man's whole environment is governed by it. Further knowledge of the sea can help us solve some of the problems of civilization.

Toward this further knowledge, the study of the sea has developed. Last September oceanographers—men who have devoted their lives to the study of the sea—met from all over the world at the United Nations in New York City.

Their reports showed vast new worlds awaiting man in the oceans. Fishing, they predict, will be replaced by fish farming, enabling man to reap enough food to feed the world many times over. The ocean depths also hold great quantities of valuable minerals which

man will eventually mine just as he does the land. The knowledge we obtain from the ocean will help us understand the weather. And finally, as man goes back into the sea around him, he may be able to find clues to another great miracle, the origin of life itself.

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Why is the "funny bone" so called?

ACTUALLY, *it isn't the bone that hurts. The bone (to be precise, the medial condyle of the humerus bone) simply serves as an anvil on which we strike the ulnar nerve which lies above it. Some authorities believe that funny bone was originally a pun on the two words humerus and humorous. The word first appeared in The Ingoldsby Legends (18-40), by the Reverend Richard Harris Barham, who seems to have been a mighty punner.*

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