

THE WORLDS OF TOMORROW

NEPTUNE, THE SOLAR SYSTEM'S OCEAN WORLD

NEPTUNE, the eighth planet outward from the sun, is known far and wide as the "ocean world" of the Solar System. For no other of the System's planets is blanketed by a great planetary sea as is Neptune. Land on Neptune is the rare exception, not the rule.

The reason for this is that Neptune apparently never went through long periods of diastrophism such as the other planets experienced. Hence, no great inequalities of its surface were produced. Therefore, the ocean covers the whole planet, just as would be the case with Earth and other worlds if their spheres were as smooth as Neptune's.

NEPTUNE	
DISTANCE FROM SUN	2,792,000,000 MILES.
DIAMETER	31,250 MILES.
VOLUME	60 TIMES THAT OF EARTH.
LENGTH OF YEAR	~ ~ ~ ~ 164.7 EARTH YEARS
LENGTH OF DAY	~ ~ ~ ~ 16 EARTH HOURS
NEPTUNE HAS 1 MOON	
TRITON ~ <i>Neptune's Moon</i>	
DIAMETER	~ ~ ~ ~ 2,000 MILES
DISTANCE FROM NEPTUNE	222,000 MILES
REVOLVES AROUND NEPTUNE IN	5 DAYS, 21 HOURS, ~ ~ ~ ~ IN
RETROGRADE DIRECTION.	

Astro-geologists now say that originally there was no spot of land on Neptune, not even the islands which are now scattered in its planetary ocean. Those islands grew up from the sea-floor through the ages in the same way that stalagmites grow, by crystalline accretion of certain dissolved minerals in the sea.

The first interplanetary explorer to visit Neptune was the famous Mark Carew, second of the great space-

pioneers, and the inventor of the gravitation-equalizers.

NEPTUNE'S FIRST EXPLORERS

Carew's expedition left Earth in 1991, hoping to reach Saturn, Uranus and Neptune and Pluto. On February 28, 1993, Carew succeeded in reaching Neptune.

"We feared at first that there was no land at all upon this ocean planet," wrote Carew in his book, *SPACEWARD TO GLORY* (1994). "As far as the eye could reach rolled an illimitable wilderness of waters. We had previously during this voyage looked with awe upon the great plains of Saturn and the mighty mountains of Uranus, but this world-stretching ocean was the most stupefying sight of all."

Carew and his men finally sighted land in the form of a small group of islands. They landed upon it, but hastily discovered that they could not have chosen a worse place. For upon these islands existed ferocious spiderlike arachnids of huge size.

"We felt lucky to escape without loss of any of our number from that fearful place," Carew wrote. "Nevertheless, we were heartened to find that at least there were some islands in Neptune's sea. Naming them the Spider Islands, we cruised eastward."

Carew and his men discovered soon after the Rock Isles. And on this archipelago they found a race of semi-civilized, native Neptunians.

The Earthmen were amazed to discover this race. For the Neptunians, though their gray skins, queer-peaked skulls and other features made them a little grotesque, were undoubtedly human!

"It was too much for us," Mark Carew wrote. "When Gorham Johnson and I found near-human people on Venus and Mercury, we could not credit our eyes. Then we had found other humanlike races on Mars and Jupiter. Saturn and Uranus had people, and now even Neptune!"

RETURN TO EARTH

Carew and his crew heard the Neptunians' stories of floating islands far in the southwest, of terrible monsters and strange sea-devils in the vast ocean, of awful storms and tides.

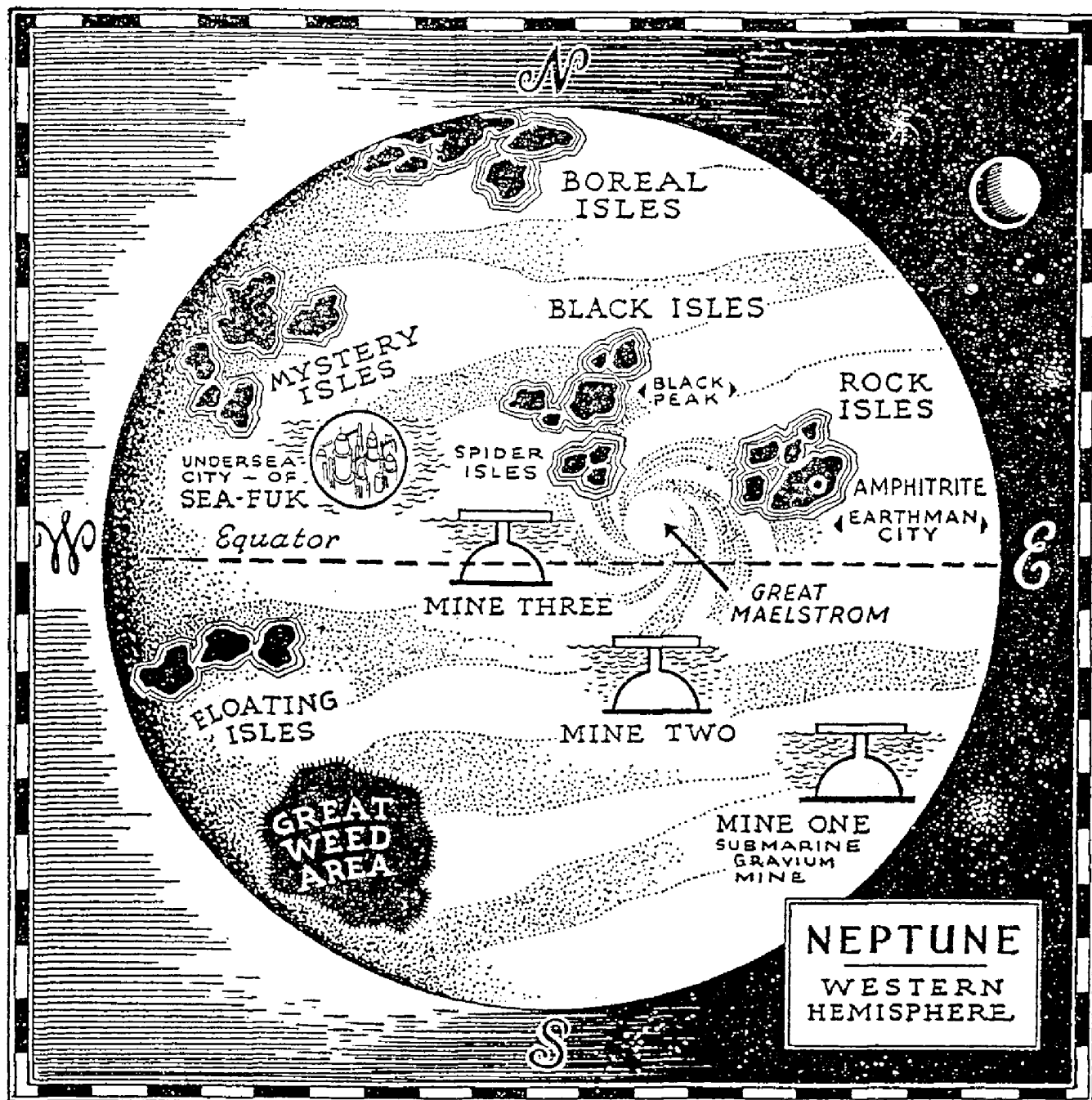
It had been Mark Carew's hope to go on to Pluto, to swing out as far as the orbit of that farthest planet. But his ship's rocket-motors were badly strained, the hull had been battered, the men were worn and sick, from months of voyaging through these vast solar spaces. Carew had to abandon the idea of making Pluto on this trip.

In his book, Carew writes, that, as they left Neptune,

to.

It was some time before Neptune received much attention in the rush of interplanetary travel and colonization that followed the first pioneering voyages. There seemed scant reason for other planetary people to travel to Neptune, which was almost all ocean and had only a scanty people clinging to a few rocky islands.

In the year 2005, a scientific commission of the Sys-



he looked back out into space at the dim spark of Pluto and vowed that he would come back again and reach that world.

And indeed, Mark Carew did sail from Earth again in 1994, bound for Pluto. But he never reached it. We know now he was lost in the Saragosso Sea of Space beyond Jupiter. It was reserved for another pioneer, old Jan Wenzl, to be the first of all men to walk on far Plu-

tem Government visited the planet. Using sea-suits, they conducted some submarine explorations, and discovered rich deposits of gold, platinum and other precious ores. More important still, they discovered heavy deposits of the rare metal gravium.

THE GRAVIUM RUSH

There was instantly a feverish "gravium rush" to

Neptune, from worlds all over the System. For gravium, a vital element in manufacture of the gravitation-equalizers, was the most valuable metal known. Miners, adventurers, criminals flocked to Neptune.

The city Amphitrite was built upon one of the Rock Isles. Submarine prospectors in sea-suits went out searching for gravium deposits under the sea. Many of these men, inexperienced in the dangers of Neptunian seas, fell victim to the ferocious water-creatures. Only a few located gravium deposits.

In time, a single gravium corporation was formed which was given concession to conduct all mining operations on Neptune, by the System Government. The mining itself could not be done in sea-suits. So submarine mines were built – an epic of engineering daring. They consisted of great caissons which were built, floated out to the desired location, then lowered to the bottom, and the water pumped out.

Besides the lure of gravium and other metals, the teeming life of the Neptunian sea attracted other planetary people. The vast ocean was crowded with edible fish. Fishermen from all over the System came and dared the storms and maelstroms and monsters of the Neptunian sea for a rich catch. The fish caught by them is shipped all over the System, in spaceships constructed so that the vacuum of the void pervades all cargo-compartments. Thus the sea-food freezes while en route.

Also, living sea-monsters are sometimes caught and transported, though not without considerable difficulty, from Neptune to other worlds, to be shown in aquariums. There are few people today who have not seen in some such collection one of the awesome "swallowers" or giant sea-snakes from the eighth planet.

The city Amphitrite has grown rather slowly, depending on the gravium and fisheries trade mostly. Of course, Neptune has so little land that it will never be colonized very much, though there have been suggestions of metal cities floating on pontoons proposed for the future.

NEPTUNE'S SATELLITE

Few interplanetary travelers today, however, feel that a trip around the System is complete without a stop at the ocean world.

Neptune's moon, Triton, remains almost completely

unknown. There have been many rumors of a strange, grotesque race of weird powers who dwell there. But such amazing, experiences have overtaken the few venturesome souls who dared land there, that the moon is shunned.

It is worthy of note that the Neptunians themselves travel in the System perhaps less than any other planetary race. No matter to what world they go, the gray natives seem homesick for their own far, watery planet.

We have already quoted Mark Carew's amazed account of his first contact with the Neptunians, his surprise at finding there were humans on Neptune, as on the other System worlds. It is a fact that before the first space voyages were made, back in the 20th century, scientists believed that there was no chance whatever of humans being found on any other world. Conditions, they said, were too different – evolution could not take the same course on different worlds.

The surprise of those scientists when humans were discovered on every world of the System, was tremendous. It seemed inconceivable to them that all these different planetary races, all human or nearly human, could have evolved simultaneously on isolated and far-distant worlds.

THE LOST RACE

Only with the gradual progress of astro-archaeology did the answer to this riddle show itself. Certain ruins on Mars and on Tethys, moon of Saturn, gave the first clue. And archaeological discoveries elsewhere in the System soon corroborated it.

These discoveries showed that the presence of human races on all the System worlds was not just accident. Sometime in the dim past, millenniums of years ago, a civilized and super-scientific human people had existed who had colonized every world.

Then that great race had fallen, and disappeared – no one knows just what caused their decay, as yet. But the colonists left by them on the different worlds, though lacking the great science and civilization of their ancestors, and in time losing all memory even of those ancestors, remained human races. The differing environments of their worlds made them different, which is why Martians, Earthmen, Venusians and all the other races differ in many points from each other, though all are basically human.