

IMAGE

SOUND

LOGO

NARRATOR:

A series of programs about this planet and what people are doing to it.

OPEN SEA

The sea! Storehouse of primeval memories and legends. Receptacle of our dreams. Sometimes violent and forbidding, yet endlessly romantic.

VARIOUS UNDERSEA LIFE

From the surface it may seem a barren desert. But beneath lies a second world teeming with fantastic shapes ... curious, eerie, awesome... reaching from the microscopic to the gigantic.

DEEP UNLIT SEA

No one knows exactly how the sea came to be, only that it is almost as old as the earth, itself. Few men have journeyed to the secret depths where seasons have no meaning, sunlight is left behind, and eternal darkness envelopes like the coils of some mythical sea monster.

SURF

This vastness that covers three-quarters of the planet's surface and provides 70% of its oxygen is the home of all waters. For most of the world's history, as the continents lay silent and barren, the sea was generating the creatures that would eventually conquer them. When life finally did come upon the shores, it brought the sea in its

MAN JOGGING ON BEACH

veins. To this day the blood of all land animals carries sodium, potassium and calcium in much the same proportions as the sea.

SEA TURTLE

Eventually some land animals, finding the sea an easier place to live, returned. Many shuttle back and forth between two worlds, like this giant sea turtle which is still drawn to the beach to hide her eggs as they hatch unattended.

HATCHING TURTLES SCURRY TOWARD SEA

But as these newly hatched turtles must scurry for the sea to have a chance at life, so man is finding increasingly that he must return also. He cannot physically re-enter it the way sea lions, seals, and whales did eons ago, but he has his mind and his famous ingenuity to help him get from the sea what he needs, as his land resources run out. What man does with the sea, how he conducts himself in gathering its riches, will not only determine the fate of its creatures, but his own as well.

UNDERWATER RESEARCH CRAFT

TITLE: "HOME TO THE SEA"

(MUSIC)

FISHERMEN IN PRIMITIVE BOAT

Once, no one quite knows when, men set to sea. Their boats were small, but their courage great. At first they went because there was food out there, and because they needed to know what lay

behind the horizon. As their confidence increased, so did the length of their journeys and their understanding of other people. Men reached out over the seas to exchange ideas as well as goods.

But the world is not a simple place anymore and neither is the sea. Whole economies rise and fall on intercontinental trade. To carry it modern leviathans dwarfing the men who build them take shape each day.

The bustle of modern harbors is a far cry from the days when rum, tobacco and salt pork were shipped in wooden casks.

When the ships are ready, they wait at dockside to swallow the backs of trucks already dismantled and piled high like giant egg crates bound for a world supermarket.

Some ships are hunters instead of carriers. More than ever the world needs protein, and fishing is big business. Wherever tuna, haddock, lobster and cod are sighted, vast fleets rake the water bare with their nets.

And now, closer to shore, there's a new kind of vessel, one that stands permanently in place. The drilling

SHIPBUILDING

DOCKS

CONTAINER LOADING

FISHING SCENES

SEA OIL RIG

platform sends its probe deep into the ocean floor. Its catch is not fish, but oil for the lamps of the world.

FROG MEN

The sea's new horizon lies beneath its surface, where knowledge is fast being gathered to help search for all the things... food, medicine, energy... which man will need to sustain himself.

We think of seafood now as mostly fish. But algae, plankton, and kelp may one day be part of our daily bread.

In early times, people cured themselves with herbs, and roots. Now the forests of the sea must help provide the medicine of tomorrow.

Its conceivable too that the sea will someday provide an infinite source of energy if we can successfully harness the rise and fall of its tides to turn our electric generators. Perhaps ocean hydrogen will even provide fuel for atomic fusion, matching the sun's heat.

A more immediate prospect is the use of sea water as a coolant for off-shore nuclear reactors. But this has already raised controversy over the all-too-familiar problem of environmental damage, from heedless sea pollution and marine accidents.

PENGUINE ROOKERY

POLLUTION

PROTESTERS CARRYING BANNERS

YOUNG GIRL BEING CARRIED

FIST FIGHTS IN CROWD

PROCESSION ENTERS BUILDING

OPEN SEA

Some regard pollution's effect on sea life as an early warning-system of danger to man. Traces of DDT have been found far from civilization in the tissue of Antarctic seals and in Penguin eggs that fail to hatch. Regardless of how such facts are interpreted regarding man's future, there are moments when the terrors of a contaminated sea are unmistakably real.

Minamata, Japan... 1971. A chemical fertilizer plant accidentally poisoned the nearby bay with organic mercury. Those who ate the local fish were stricken with horrible nervous disorders. The lucky ones died. Others became human vegetables.

Carrying a young sufferer, people vented their rage at company headquarters. Though indemnity was eventually paid to the victims, nothing could undo the nightmare.

The rage felt at Minamata was one of horror and frustration. People living with the sea had always known its dangers. But this time it was man who'd made it a killer.

Safety of the sea has become a key issue for the world. But so has a fair distribution of its wealth.

BATTLE PAINTINGS

For over 360 years the guiding principle of the Law of the Sea has been freedom.. freedom for maritime countries to protect trade and communications, and move their ships at will on the open sea. Of course the lion's share of freedom often went to countries with the most naval muscle. Still it was generally agreed everyone had equal right to sea lanes beyond the three miles from shore which was the effective range of a 17th Century cannon.

CAR FERRY DOCKING

But cannon shoot a lot further now and there are a lot more countries by the sea, 110 of them sharing 200,000 miles of coast. Most important, the new economic potential of the sea has meaning for all men wherever they may live. For developing countries it could be an aid to economic independence. For countries running out of land resources, it provides hope for a second chance.

PEOPLE STREAM FROM FERRY

SURF AGAINST ROCKS

As countries dicker over who has the right of way to ocean riches, the traditional freedom of the sea is breaking down. The first change came with the 1945 Truman Proclamation, which established that geography had a lot to do with who got what. The sea is most productive at depths less than 600 ft. This is the water over the

MAP--CONTINENTAL SHELF

AFRICAN CROWD

LONDON CROWD

AERIAL SHOT OF UN HEADQUARTERS

INTERIOR OF GENERAL ASSEMBLY HALL

ROTTERDAM HARBOR

continental shelves which bracket each coastline. The United States claimed jurisdiction over the natural resources of its continental shelves, and most countries adjacent to shelves, eventually followed suit.

There's perhaps already been too much optimism about the sea's potential. Looking to the sea for deliverance from poverty or from the sins of pollution and waste could be asking too much. For contrary to popular notion, the sea's resources are not boundless, but finite, and have already been heavily borrowed from against the future.

The United Nations is increasingly concerned that the situation at sea will get out of hand. Determined to forestall a colonial race in which rich maritime nations would have the advantage, the U.N. has designated the sea the common heritage of mankind. Areas beyond national jurisdiction would not be appropriated by any country, but rather should be internationally administered, giving everyone including landlocked states access to their profits.

But for now ocean profits are found mostly close to shore. So the problem is: unless nations are willing to somehow pool the resources of their continental shelves, the U.N.'s

international sea concept could be left high and dry from the start.

EXTERIOR - CARACAS
MEETING HALL

In June of 1974, the United Nations Law of the Sea Conference met in Caracas Venezuela. On its agenda were such critical tasks as defining an international area of the sea, regulating fishing rights and conservation, providing guidelines for preservation of the marine environment, and setting up the administrative machinery to get it all done.

INTERIOR OF HALL

Despite the urgency of the issues, insuring the safety of the sea and apportioning its wealth, won't be quick and easy. One complications is that people who haven't ever seen the sea may come increasingly to depend on it.

ANDES MOUNTAINS

High in the Andes Mountains of Peru live the descendants of the Inca's. In order to increase the protein in their diet, the Peruvian government has sent a team of nutritionists to explain the advantages of fish and to demonstrate some tasty ways of preparing it.

VILLAGE PEOPLE LISTENING TO
NUTRITIONIST AND EATING FISH

Lake or river fish are not uncommon up here. But not since the ancient Inca empire dried and distributed ocean

fish has the sea reached these people. For the moment at least, the children and even the adults of the village probably find this ocean variety more fascinating for its origin than for its food value.

But if these people decide they like the new treat they are going to demand more of it, and it will take a healthy Peruvian fishing industry to provide it.

MEN ON BOAT

The problem here is not boats. There are a lot of those around, the product of a crash building program to exploit anchovetta, a sardine-like fish that once abounded in these waters by the billions and were valued as fishmeal and fertilizer exports.

FISHING AT SEA

Several explanations are offered for the anchovettas' rather sudden and possibly temporary disappearance in the early 70's. But what counts is that because the fishermen didn't find them anymore, there were a lot of fishing boats rusting in Peruvian harbors and a lot of unemployed fishermen on the beach.

The industry is trying for a comeback by forming cooperatives and this time going after food fish which could mean a new lease on life in both cash and much needed protein.

When the anchovetta were running, Peru's government enforced not a 3 or a 12, but a 200 mile off-shore territorial limit to keep profits in Peruvian hands. The limit is just as important now in protecting food fisheries from foreign trawler competition.

Setting a territorial limit isn't always so simple. Sometimes interests within a national fishing industry conflict, as in the case of the United States. California tuna boats working off South America's west coast have ignored Peru's 200 mile boundary as hindering their catch. Yet New England fishermen are pushing for just such a limit because ultra-modern fleets from Japan, Eastern Europe, and Scandinavia are beating out obsolete American boats in their traditional fishing grounds.

LOADING AND SORTING FISH

In settling territorial limits, the UN must reconcile antagonistic national fishing interests. On one side are nations with far-ranging fleets which want to go in as close to foreign shores as possible. Opposing them are countries with smaller industries which want a big monopoly of the fisheries off their own coasts.

PELICANS ON DOCK

A constant loiterer on the docks of Peru is the quizzical pelican whose beak,

these days, doesn't hold nearly as much as his belly would like. His numbers much reduced by the departure of the anchovetta on which he fed, he's become a vagrant dependent on handouts from the boats. With many of our own food species being overfished to extinction, unless we resolve our fishing problems quickly, we may not have enough to feed even ourselves.

JAPANESE WORKER ROWING

A possible hedge against fish famine is what's come to be known as mariculture, or fish farming.

BOAT ACTIVITY AROUND NETS

Mariculture is to deep sea fishing, what livestock raising is to hunting. Instead of taking the time and expense of hunting the animal, you keep it close at hand; control its life cycle; protect it from predators; and harvest it only as needed, just at the most profitable moment in its development.

FEEDING WITH SHOVEL FISH THRASHING ABOUT CAPTURING FOOD

These pens off the Japanese Island of Honshu's southern coast contain plump yellowtails. The pampered fish don't have much to do but wait around for their meals which get rowed out to them. About the only thing here that resembles the natural state of affairs at sea is that small fish end up as lunch for bigger ones.

MEN PULLING IN HEAVY NETS BRINGING
FISH CLOSER TOGETHER IN SMALL SPACE

The Japanese have long practiced fish farming and developed it to a fine art. Now it is being tried in many places around the world, including the Gulf of Mexico where sea beds for shrimp-raising are kept at proper temperature with the help of warm water effluent from an electrical generating plant.

THRASHING FISH SPILLING ONTO GREEN CANVAS

The work these men do is hard, but it's still a far cry from the 'round the clock cruelties of the open sea and the uncertainty of landing a profitable catch. Japanese experts are confident that with fish factories like this, they will be able to provide most of their country's protein needs in the not-too-distant future.

HUGE JAPANESE SWIMMING POOL

Recent census figures indicate about half the world's population now lives within 200 miles of seacoast, and the proportion is constantly growing. It's even been suggested that we think of ourselves not as part of continental heartlands, but as members of sea communities. A lot of people are literally doing just that by building homes on the sea. A man's home may be his castle, but the castle's moat is all too often a tidal wetland.

AERIAL SHOT OF FLORIDA HOUSING

AERIAL SHOT - WETLAND

SOUTHERN N.J. - WETLANDS

The wetlands act as sponges soaking up incoming water when the tides run high. But they do more than that.

The sea depends on the wetlands as an incubator, in the form of sheltered spawning grounds for all manner of marine life. Most of all, here is the breadbasket of the sea, a place where much of the ocean's plant and animal nutrients are generated.

SUMMER HOMES

As each new real estate development crowds the sea, the wetlands fill in, and the sea starves just a little more. If we were purposely waging war on the sea, there could be no more devastating second front to over-fishing and pollution than this mindless destruction of its important food factories close to land.

TRAVELING BOAT TO OPEN SEA

OPEN SEA

Further out on the continental shelves is the sea's greatest untapped asset... minerals! Gold off Alaska and Nova Scotia. Diamonds beyond a bucaneer's wildest dreams off the coast of Africa. Most of all, billions worth of nickel, copper, and manganese in nodules strewn everywhere over the ocean floor.

OCEAN FLOOR

Mineral prospecting at sea is both experimental and expensive. Enormous capital has to be invested before any profit is shown. Only wealthy countries

can gamble and the stakes couldn't be higher.

Perhaps on the question of mineral rights more than anywhere else, the race for riches is most intense. To forestall a private gold rush, developing countries are pushing hard for solid U.N. authority in this field.

OIL RIG AT SEA

VARIOUS SHOTS OF ACTIVITY

Right now the biggest mineral of all is the one which produces energy. That of course is oil. Here too the prospecting costs are enormous, the risks great. But the sea is where they're finding more and more oil these days, so men go out for weeks at a time to wrestle with drills and chains and lengths of pipe.

From the Carribean to the North Sea to the Persian Gulf, the steel bits reach down into the inky darkness where the petroleum has been sleeping since the sea was young.

UNDERSEA CRAFT

The future of oil seems obvious. We need it and we will use it for however long it lasts. But what about the sea? What will the next century bring besides oil and manganese? Scott Carpenter, one of the few men to glimpse the future both from outer space and the ocean's depths, comments:

ANIMATION OF FUTURE BENEATH THE SEA

V.O. SCOTT CARPENTER:

It is now possible for men to live permanently where once they could not even venture for a second. Advancing technology opens up vast new lands and resources and knowledge which has been there waiting for us for centuries.

I think we will one day have hotels, restaurants, perhaps homes where people can vacation, and the panorama from the window will be instead of trees and sky and clouds and sun and birds, it will be corral and seaweed and water and fish.

NARRATOR:

What the sea will be like in the future very much depends on how we treat it today. It is probably the last physical frontier left on earth for mankind to conquer, a sort of "challenge of inner space". Because that challenge obviously includes exploitation, we are going to be confronted with some hard choices.

CHILD AND FATHER WALK

The sea can be a great force for peace and the enrichment of all peoples, or it may become a vast battleground for future wars. Our approach to distributing its wealth can be piecemeal

and chaotic, or it can be equitably organized. But if people are able to practice the United Nations concept that the sea belongs to all mankind, they will have taken a dramatic step towards both the viability of world cooperation and the possibility of returning home to the sea.

SUPER END CREDITS