

For three years now I have been working intensely -- I should say: living intensely -- with the subject I am proposing to you today. And let me add: the longer I live with it, the more exciting I find it. I hope to convey some of this excitement to you.

Now, what is it I find so exciting in working on the law of the seas, on those new problems raised by the peaceful exploration and exploitation of the resources of the deep sea?

First of all, the oceans are charged with emotions. We all love the oceans. They are good for us esthetically; they are good for us hygienically. They fill our subconscious with dreams of ~~xxx~~ mermaids and sunken treasures. The poet Baudelaire said they mirror the romantic moods of our soul.

Second, the oceans are charged with economic potential. We all know the importance of fish and fish proteins for the nutrition of the rapidly growing world population. Today the world's total fish production has a value of ten billion dollars annually. Experts assure us that with wisdom and foresight this amount could be tripled and quadrupled during the next twenty-five years. This increase is -- or would be -- a consequence of a revolutionary transformation of the ancient, very ancient fishery craft which, under our eyes, is passing from the hunting stage, through a sort of phase-skipping, right into the industrial phase. This means a change in species utilized. The big, expensive ~~fish cannot be increased much beyond prese~~.

fish cannot be increased much beyond present yield, if we are lucky, but there has been, and there is going to be, a vast increase in small species, so called trash fish -- like antarctic krill -- which are used for the production of fish meal and fish protein concentrates. This requires a highly developed science and technology and large capital investments. Electronic devices for the detection of schools of fish, huge floating factories for the catching and processing at sea. Only the highly developed nations can participate in these processes.

I have, somewhat casually, used the term: revolutionary transformation of the fisheries. But it is not only the fisheries, at sea, which are undergoing this kind of transformation. The process is much more comprehensive. We may indeed speak today of a marine revolution. Nothing less than a marine revolution is in course today. This includes fisheries. It includes transportation: transportation of passengers: Bigger and better boats will take people across the ocean in less than half the time required now by the speediest ships -- and transportation of goods, especially with tankers. The giants are coming. Huge tankers are already being constructed in the United States, in Japan, in Western Europe, in the Soviet Union: tankers holding 500,000 to a million tons of oil (-- still fifteen years ago, 90,000 was the maximum load for the hugest freighter or tanker )  
This increase in capacity makes for enormous savings, up to

30 percent and more --of the cost of transport, but creates enormous problems of insurance, port facilities and adequate shipping lanes.

With this we move into another area of the marine revolution: the marine industrial revolution. This, again, has several ~~aspects~~. Oil is the best known <sup>aspect</sup> factor: You know that at present about 16 per cent of the world's total oil production comes from offshore. The demand for crude oil in the world is growing rapidly -- what with the industrialization of developing nations, etc. --and so is the supply. An ever increasing proportion of it comes from the oceans. Within the next decade it will be 35 percent of the total production. Soon perhaps more. Huge finds have just been made on the continental shelf of Norway. And, it seems, the Mediterranean has an unlimited supply. They are hitting it wherever they drill. All this may soon completely change the existing balance of industrial power.

At present it is uneconomical to exploit these resources beyond a depth of about 600 feet, but technology is advancing <sup>rapidly</sup>. At present, the cost rises at a geometric rate with depth, but after certain barriers have been <sup>crashed</sup> overcome, deep sea operations will be less costly than operations in shallow waters, given the absence of surface currents and waves. As one technologist put it, "deeper is cheaper." This is particularly relevant when we move into the next area of the revolution. The minerals.

Minerals. Metals. Managenese. Cobald, copper, nickel, zink. For the "nodules" of potentially attractive commercial value are to be found at very great depth of water, in the range from about twelve thousand to eighteen thousand feet.

It seems, there are about 1.7 trillion tons of nodules distributed over the deep ocean floor in the Pacific alone. The harvesting of only 236 square miles, representing only 1.7 ten thousandths of one percent of the total ocean area, would satisfy 100 percent of the world's need for cobalt in one year. One percent of the ocean bottom could satisfy the world's needs, at the present level, for manganese, nickel, copper and cobalt for about fifty years. This transcends the boundaries of the marine revolution. It would mean a revolution in the mining industry, worldwide, and would affect, in particular, a number of developing countries whose economy today depends almost entirely on the export of these metals.

We have not touched yet on desalination; the extraction of medical, chemical raw materials, the pharmaceutical industries are going into the oceans.

We have not touched yet on marine architecture -- the spreading of cities over ocean bays, and of human habitats on the ocean floor with all its fascination.

We have not touched yet on the enormous, purely scientific interest of the exploration of the mysteries of the deep seas, the continental drift, for example, with the revelations it holds regarding the origin and earliest evolution of our planet. The international decade of ocean exploration is a mind-blower for scientists.

If you keep all this present, I think you realise what we are talking about when we talk about the marine revolution and its impact on our life.

The oceans are charged with emotion.

They are charged with economic potential.

They are also fraught with terrible danger.

Each one of the potential developments, in fact, has its reverse side, its highly dangerous side.

If the industrial revolution has wrought havoc on the continents, its impact on the oceans is bound to be worse. First of all because the medium is less self-contained, more fluid, and pollution travels. Second because industrialization of the oceans starts -- must start: can only start -- at a very much higher level of technological development than the industrialization of the continents. And third, because the waste from land, atmosphere and the waste products of the marine revolution flow together, as it were, in the oceans. Think of the breakage of a half-million ton tanker!

The Skandinavian governments have prohibited fishing in certain areas of the Baltic, because fish is so polluted by chemical agents, such as lead and DDT, travelling through the atmosphere, that its consumption is hazardous to public health.

Captain Cousteau -- whom many of you may have seen on television -- just returned with his Calypso from an expedition. He found that the level of life in the Mediterranean has already today been reduced by 40 percent by pollution. The Mediterranean,

heavily invaded by the military, looking forward to ~~a~~ the development of a booming oil industry, may soon go the way of the Baltic or the Caspian or Lake Erie: with all life exterminated and the beautiful beaches and historic sites -- Venice! Dubrovnik! blackened by oil and tar.

[ In Western Europe and the United States we are fully aware of the danger. One might even say, it is over publicized. In other parts of the world the situation is different. In the developing nations, they don't believe in ~~it~~, or they don't care. Our warnings are rejected as propaganda tricks of the affluent society which wants ~~to~~ to conserve what it has achieved and stop the progress of the poor and undeveloped. A certain amount of pollution is the price the developing countries have to pay for their development -- and they are ~~going~~ going to pay it. Their attitude is much the same -- with its rights and its wrongs -- as was the attitude of our minorities and slum dwellers on ~~Earth~~ Earth Day.

In Eastern Europe, in the socialist countries, they use a double standard. Pollution is alleged to be an evil of capitalism. The communist parties in Western Europe is most alert in denouncing and combatting pollution. But in a socialist society pollution is not supposed to exist. Meanwhile, whenever a plan for a new factory or a new industrial development is discussed in the Soviet Union, and the budget is to be cut -- they too have to cut their budgets -- the first item that gets thrown out is the cost of antipollution and purification measures. And since nobody can argue, it happens

that the Caspian sea is dead. There is practically no life left. Black ships are plowing through a sea of oil. ]

The most dramatic and final of all pollutants, of course, is war. And the military are moving into the oceans with full force. It is no secret that the major impact of the strategy of the great powers is rapidly moving from land-based to sea-based. Because land-based missile systems are detectable, and vulnerable. The sea is an opaque medium. Ocean-based missile systems, furthermore, are movable. They need not be installed in fixed places but on slowly moving submerged platforms or submarines. There they are absolutely safe.

The destruction of continents and oceans from the deep seas is a real possibility -- a real nightmare.

What is to be done? The industrialization of the oceans will proceed. It cannot be halted. Luddism did not work on land, it won't work in the oceans either. Luddism, you remember, was the machine storming of the workers wanting to stop technological progress which, they thought, would take away their jobs. That was the Luddism of the poor. What we have today, is the Luddism of the rich. The poor want to conquer technology. It is the rich who want to stop it, to conserve their "amenities" "the quality of life." This is a curious reversal.

The only alternative is to harness and rationally direct the force of the marine revolution, minimizing its destructive side effects.

Now, there is one peculiar quality to the ocean environment, that we did not have to deal with when we are dealing with the continents - not since the last century anyway. And that is that the ocean ~~is~~, the ocean floor, and their resources don't belong to anybody. They are beyond the limit of national jurisdiction. The oceans are free -- they have been free since time immemorial. The freedom of the oceans, in fact, is one of the oldest of all international laws. The ocean floor, until quite recently, was unreachable, a dream-land. Now that technology is opening it up, it is no man's land. The law does not reach there. There is no law to govern the behavior of nations in this area. This peculiar fact may be its undoing, or it may be its salvation.

It will be its undoing if mankind embarks on the course of a competitive grab: if each nation claims vast extensions for its own selfish purposes, and then nations get into each other's hair down there, and fight colonial wars -- wars which would not be marginal wars like the ones now being waged in Vietnam or the Middle East, horrible as these are. Yet they are nevertheless marginal as far as the world at large is concerned. Wars fought in jungles with jungle knives and poisoned arrows -- at least on one side. The wars for the undersea empire, on the contrary, would, and could only be fought among the technologically most developed nations or empires, using, on both sides, or on all sides, the most sophisticated, the most formidable weaponry including atomic missiles whose fall-out would put a quick and dramatic end to all life in the oceans.



By the way, it might even happen -- if we want to stay with futurology for another moment -- it might even be that we would not have to face a full blown old-fashioned world war under sea. It might well be that the days of this sort of war are over -- even though the military have not got the message yet. But the new kind of warfare, the guerrilla world civil war of today, transferred and perfected under the oceans, would be at least as terrifying. Because the more complex and sophisticated a system is, the more vulnerable it is.

We know that by now. Now imagine the guerrillas of the Third World, cheated out of their fair share of the common heritage of mankind, hitting at the nerve centers of the marine ecosystem. A crack in a half-million ton oil tanker. Who will prevent it? We have been reminded painfully in these weeks, of the price of anarchy in the air. Think of this kind of situation in the deep seas: the billion dollar submersible highjacked and disappearing under the opaque cover of the sea. Hostages would be worse off under there than in the desert, with the deadlines for ransom not dictated, and extendable, by the negotiators, but fixed by the amount of oxygen available....

As the marine revolution proceeds, the lack of a legal regime for the oceans becomes more and more intolerable.

The alternative -- the only acceptable alternative thus is a cooperative effort, based on the principle that the ocean and its wealth belongs to all mankind and, therefore, must be managed

by mankind as a whole.

This sounds too beautiful to be true; but I believe that it is actually more realistic than the war alternative. For war among the Great powers today is a totally irreal, surrealististic prospect. It will not, and it cannot happen.

The establishment of an international ocean regime for the peaceful uses of the oceans and the ocean floor is now one of the major tasks before the United nations.

The proposition was introduced in 1967 by the Ambassador of Malta -- the second-smallest Nation in the United Nations. The Ambassador defended it in a three-hour speech before the Geneval Assembly on November 1, 1967 -- one of the greatest speeches ever heard by that Assembly -- a speech that will go down in history and be read by school children a few hundred years from now, if there will still be school children at that time, and if they still can read.

This address was followed by a lengthy debate. Then an ad hoc committee was appointed to study all its implications. This committee was then transformed into a permanent committee to study the peaceful uses of the ocean floor, the seabed, and the subsoil thereof beyond the limit of national jurisdiction. The General Assembly, advised by this Committee, has adopted already eight resolutions, developing, spelling out, supporting the original proposition. The Secretariat of the United Nations has produced volumes of very important background material, presenting scientific, techno-

logical, economic, and legal facts. In the meantime, the Geneva Disarmament Committee has come up with a draft treaty banning the installing or emplacement of atomic weapons or weapons of mass destruction on the ocean floor beyond a limit of twelve miles from shore. And scores of organizations, within and without the United Nations family of organizations are busy about this problem. The FAO, UNESCO, IOC, WMO, WHO, the International Atomic <sup>Ihco,</sup> ~~Agency~~ Energy Agency, ILO -- all are dealing with one or the other aspect of the ocean problem.

So it is not a pie in the sky. An enormous amount of work, at the highest level of politics, is being dedicated to the aim of establishing an international, perhaps supranational organization to control and manage the ocean environment and the rational and peaceful exploitation of its resources.

Now I should like to indicate briefly some of the major problems these discussions have run into -- problems which have not been solved and which have slowed down the work; problems which are frustrating and discouraging while you are dealing with them.

*new language* / After looking at some of these problems, I would like to give you an idea of what the new organization might look like, if these problems are solved -- or shelved -- and, in conclusion I would like to try to evaluate the importance of this new international organization for the evolution of international organization in general: that is, for the general chance of organizing an international peace system.

So: the problems. <sup>the</sup> *as defined by the text.* ~~If our~~ aim is to organize a regime for the

peaceful uses of the resources of the deep sea and the ocean floor, beyond the limits of national jurisdiction, for the benefit of mankind as a whole, with special regard for the needs of the developing nations, then each part of this long phrase poses a special problem. First of all, what is meant by the area beyond the limits of national jurisdiction? In other words: what is the area of jurisdiction of the international regime? Or: where is the boundary up to which national sovereignty extends?

You would be simply amazed how much ink has been spilled over this subject -- and with all this erudition we are no farther than we were when we started.

To make it quite brief: the problem must be divided. As far as the water is concerned, there simply is no agreement. There were two conferences on the law of the seas -- in 1958 and 1960 -- and they failed in agreeing on generally acceptable boundaries. A number of Nations claim three miles of territorial waters; some claim six, some claim twelve, and some claim two hundred. These are unilateral claims, which on the whole are respected by the international community, perhaps so long as they are not worth fighting for -- but there is no international law defining the width of the territorial sea.

Now when we come to the ocean floor and its landward prolongation, the continental shelf, there we have a different story.

We have to go back to 1945, when President Truman proclaimed this continental shelf theory, which established that the submerged lands, which form the prolongation of the coast, belong to the coastal state, are under federal jurisdiction, out to a depth of 200

meters/.

The curious fact was that this proclamation was not at all directed towards or against the international community. The intention was internal. Its purpose was to settle the squabble between the State governments and the Federal Government about the licensing of offshore oil operations: a purely domestic affair, which, however, immediately became an international issue. Because nation after nation followed the American example and claimed jurisdiction over its continental shelf to a depth of two hundred meters. So much so that this principle became the basis of the international continental shelf Convention of 1958.

So there was a law. National jurisdiction extended to a depth of two hundred meters. Which in some cases, where the coast was steep, was nothing. In other cases, where the coast was gently sloping, it went out for hundreds of miles. Not a very satisfactory solution, internationally. If you add the problem of island state or island possessions, the ocean floor really was turned into a crazy quilt.

But that was not the worst yet.

Nations, anxious not to give away anything, not to miss any chance, endeavored to make this agreed boundary of their jurisdiction over the continental shelf just a wee bit elastic by adding the so-called exploitability clause. National jurisdiction, they claim, extends to a limit of 200 meters depth, or beyond where existing technology allows the exploitation of the ocean floor and its subsoil.

In 1958, that was all right. It did not make the boundary too elastic; and nobody thought it would, in the foreseeable future.

But technology raced on: it outraced the law. In the foreseeable future any point on the ocean floor can be exploited, either by drilling or by dredging. The exploitability clause thus means the disintegration and the death of the Truman doctrine of the continental shelf. It is obsolete. It has no more reality.

Everybody, in fact, agrees that the continental shelf convention must be revised. Most people know, however, that there will be no agreement on a new boundary -- not for years to come.

The most diverse criteria are being proposed. A new depth limit. 200 meters. 500 meters. 3,500 meters. A horizontal limit: 50 miles. 100 miles. 200 miles. Combinations between depth and width: 200 meter depth or 50 miles out, whichever is farther. Then, there are the advocates of the geological boundary: <sup>to land margin - rise</sup> Find the point where the rock formation characteristic of the continents touches the deep ocean floor, typically formed by different rocks. The research necessary to draw that boundary would cost a few billions of dollars. Concepts no longer valid on the continents -- concepts left behind by advancing technology such as the geological boundary, the stratetic boundary, are automatically transferred into the new medium.

None of the boundaries proposed has anything to do with the ecologic reality of the ocean: with the control of pollution, with the conservation of fish stocks, with currents and waves. ~~Concepts of national boundaries, cut and dried on the continents -- weighed and found wanting there, are heedless transferred to the oceans and the ocean floor -- and expected to work.~~

The great maritime Nations are under conflicting internal pressures as to where to draw the boundary. The Navy, honoring the tradition of the Freedom of the Seas, in general wants a narrow territorial sea -- leaving the Navy free to operate as close as possible to other shores. Commercial interests -- especially oil, ~~and~~ <sup>are</sup> powerful<sup>ly</sup> lobbying in favor of the widest possible claim to the continental shelf. They are used to deal with national governments and they want to continue the way they know. They are afraid of international bureaucracies and the representatives of undeveloped nations who don't know the ways of the Big Corporations. These commercial pressures are quite possibly not serving their own best interest, inasmuch as the market no longer corresponds to the Nation State. The market is the world, and if business must be regulated, it must be regulated globally today. I really think the oil companies don't know what is good for them. They did not in 1945, for that matter. When, with the Truman declaration, the issue was a shift of jurisdiction from the State to the Federal Government, the oil companies desperately clung to the States, vindicating historical rights. They called the continental shelf act the greatest land grab in the history of the federal government. They said it was the end of free enterprise, of democracy, of private property, <sup>"the end of the oil industry as we know it", & our Corporations monopolize part of</sup> Then they adjusted to the facts of life -- and were no worse off for that.

Today they want national jurisdiction to extend as far out as possible. ~~Well, they will again adjust to the facts of life~~ They use the same arguments, the same language now against international jurisdiction that they used 25 years ago against federal jurisdiction. Such are the ways of the world. They'll adjust once more to the facts of life -- which evidently today

are different from what they were 25 years ago.

The developing Nations, on the other hand, are also extending their claims over ever wider expanses of territorial sea and continental shelf. This is their chance to enrich themselves, many of them seem to be thinking.

Deluded souls. As though it were territory or natural resources that the poor, developing nations were missing. They have them, galore. What they are missing is capital, technology and the social infrastructure to make use of their vast territories and their abundant resources.. By adding more territory and more resources, they solve nothing. All they do is to extend the surface of their vulnerability, of their exploitability by others.

~~Since no agreement on any sensible boundary is yet in sight,~~ international law is currently dealing with at least five different types or sets of boundaries simultaneously. There is the boundary of the territorial sea, the boundary for exclusive fishing rights, the boundary for disarmament and arms control on the ocean floor, the boundary for pollution control, and the boundary for for the sovereign right to explore and exploit mineral resources. A very, very complex system. Unless you allow me to describe it with a simpler term: it's a mess.

Now: there are many experts who claim that we cannot have an international regime for the ocean and the ocean floor until we settle this question of the boundaries. There are other experts, probably as many, who say: we cannot settle the boundary question unless we have a regime and know what is going on beyond the boundary.



Everybody agrees that the question of the regime and the question of the boundary are connected and that you cannot solve one without the other.

So I will now propose something very unorthodox: According to my opinion, the question of the boundaries will not be settled until such time as it will have lost all interest. Only when it will have lost all interest, will it be settled. We must have an international regime in spite of that. What is more: the problems the regime must deal with and solve have nothing to do with national boundaries. Pollution must be controlled on both sides of the national boundaries, no matter where you draw the boundary. It must be controlled <sup>in</sup> on the ocean environment as a whole. So therefore it does not really matter where the boundary is or whether there is any, for that matter. The same applies to the conservation of fish. Fishery conventions, as a matter of fact, are applied across boundaries. Obviously it would not make sense to conserve a fish stock in international waters when you can kill it off in your territorial sea.

What we are looking for, and what we must determine is not so much a geographical area beyond the limits of national jurisdiction as a functional area beyond the limits of national jurisdiction. In other words: what nations cannot do individually, competitively, such as the control of pollution, they must do internationally, cooperatively.

Let us now look at the second part of our goal, as established by the United Nations resolutions: the peaceful use of the ocean floor

What, exactly is meant by peaceful use.

For one thing, it means there must not be any warlike scramble, no military pressure, to get at these resources, which instead must be administered and distributed by common accord.

Second, it means that the ocean floor, this no-man's land, must not be used for military purposes. But what happens to all the scientific research which today is carried out under military auspices? Must the military be banned from the ocean floor? The Great Powers would never go along with such an interpretation. The Great Powers' interpretation of "peaceful" purposes is in fact alarmingly limited. It has been formulated now in a Russian-American Draft Treaty on the disarmament and arms control on the ocean floor, which was adopted unanimously by the Geneva disarmament Committee last month and will undoubtedly pass the General Assembly. The Treaty prohibits the implanting or emplacement of atomic weapons and other weapons of mass destruction on the ocean floor and the subsoil thereof in a seabed area commencing twelve miles from shore. This is as far as they got after two years of negotiating. This is as far as they could go, and it is not very far. The area to which disarmament is applied is meaningless: atomic weapons might be installed or implanted in the ocean floor within the twelve mile limit. Nobody wants to emplace or implant them anyway, however, inasmuch as it is far more advantageous to pack them on a slow moving platform -- the so called crawlers -- or on poseidons, and keep them moving and undetectable. The quality of the weapons that are proscribed is ill defined. What are weapons of mass destruction? Experts agree that there is no definition. It may mean anything from weapons used against the environment rather than men,

to "weapons systems expensive enough to warrant emplacement on the ocean floor." Measures for control in the Treaty are inadequate -- left to the initiative of individual nations. There are no provisions for the internationalization of controls -- which would have been the only constructive feature such a Treaty might have had. Detection devices, incidentally, will be increasingly inefficient anyway: Mostly they are based on sonar. Sound under water travels far; but as the industrialization of the ocean proceeds, the sound background becomes increasingly noisy and blurred, and detection will become ever more difficult.

At any rate, there are no adequate provisions for enforcement; on the contrary, Nations party to the Treaty may withdraw from the Treaty unilaterally, without any provision for compulsory arbitration.

The Draft Treaty thus is just one more illustration of the frustrations and failures of the struggle for disarmament, <sup>more than</sup> ~~over~~ fifty years old by now, and more remote from its goal than it was when it started.

We won't have effective disarmament on the ocean floor or in any other sector until we have it <sup>every</sup> ~~any~~where. We won't have general and total disarmament until we have peace: real peace: a peace system. In other words: Disarmament will not <sup>bring</sup> ~~bring~~ peace, but peace will bring disarmament. For the arms race is not a cause it is a symptom: it is the corollary of the war system in which we are living.

Now: the beautiful thing about the ocean and the ocean floor is that here -- for the first time in 25 years -- we have the occasion

to build a peace system. We did have this occasion twenty-five years ago, when the United Nations was built, but we missed it. The U.N. is not a peace system. It left the war system intact.

So: now we have this opportunity again. By agreeing on principles and setting up machinery for the cooperative exploration and exploitation of the ocean resources, the rational industrialization of the oceans, we may build a peace system. Disarmament will necessarily follow. For the military uses and the industrial/commercial uses of the oceans are conflicting. If one waxes the other will wane.

Our attitude toward the disarmament problem thus must be the same as our attitude toward the boundary problem. If the solution we have to live with is bad, or if there is no solution, we must go on just the same, with the positive task of designing a regime, based on the principle that the oceans and their resources are the common heritage of mankind.

And this leads us to the third big problem area, in which, up until now, there exists only a very limited agreement. What do we mean by "common heritage of mankind", what do we mean when we say that it must be used for the good of all mankind, with special regard for the needs of developing Nations?

*next page* > There are three schools of thought on this -- and anything in between.

The most radical point of view is -- don't be surprised -- not the socialist, or marxist or communist point of view. You will be amazed to realize that they represent the most conservative point of view. The most advanced and radical point of view is

represented by the developing Nations. To them it means that if coastal nations must not exercise a monopoly over ocean resources, technologically developed nations must not have any such monopoly either.

> Resources which are the common heritage of mankind cannot be appropriated by anybody. They must be managed cooperatively, that is, participation in decision-making and managing the ocean environment must be open to all, no matter whether rich or poor; and, third, the benefits must be shared by all.

A more "moderate" point of view is represented by American theorists. They recognize, they accept the concept of common heritage -- which, by the way, is a very old concept. So, for instance, the Russian Zar Ivan the Terrible was the first to formulate it, in his own way. The oceans, he is reported to have said, are "God's road." Queen Elizabeth of England (I), in disposing of the Spanish Ambassador's complaints on the depredations by Sir Francis Drake on the Spanish treasure fleet, is quoted as having said, "The use of the sea and the air is common to all. Neither can title to the oceans belong to any people or private persons forasmuch as neither nature nor public use or custom permitted any possession thereof." And President Johnson, in a famous statement, declared in 1966: "Under no circumstances, we believe, must we ~~xx~~ ever allow the prospects of rich harvests and mineral wealth to create a new form of colonial competition among the maritime nations. We must be careful to avoid a race to grab and to hold the lands under the high seas. We must ensure that the deep seas and the ocean bottom are, and remain, the legacy

of all human beings."

So, the Americans accept the concept of common heritage, but feel that the resources should be managed by those who are competent to manage them -- namely, the technologically developed Nations, who, however, should devolve part of their revenues to an international fund to aid the developing nations. So: they accept the implication of profit-sharing. They do not accept the implication of participation in decision-making and management. A proposal to this effect was introduced by the American delegation in the Seabed Committee last August: a full-blown draft treaty, spelling out in quite some detail the American interpretation of what is meant by common heritage. Even though this is a conservative and in many ways inadequate document it remains nevertheless quite remarkable that the American delegation should have been the first to give such a concrete and specific form to this difficult concept.

The Soviet Union, instead, claims there is no such thing as the common heritage of mankind. This, they say, is a rhetorical expression devoid of legal content. If the ocean resources were property managed collectively by an international organization, they say, it would really all be to the interest of the capitalist technocrats. This, however, seems to be a pretext rather than a very straightforward reasoning. The fact is that they are very property-minded and, in this as in many other things, more conservative than the Czars.

However, one must say that in this, as for that matter, in a growing area, the points of view of the Russians and of the

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Americans are not as far apart as Americans and Russians on one side, and the developing Nations on the other. There are, in fact, no real differences between the managerial requirements and commercial interests in the oceans between East and West. The behavior of ocean enterprises, whether capitalist or socialist, public or private, is exactly the same. The difference is between those who have the technology, and those who don't. The axis of the cold war is gyrating from East-West to North-South. That this is a very dangerous development, potentially a world revolutionary development, is obvious.

So, the first thing we have to keep in mind is that we must try to create an ocean regime that must satisfy the demands of efficiency of the technologically developed Nations and the demand for <sup>equity and</sup> participation of the developing nations; the emphasis on conservation of the rich countries, the emphasis on development of the poor. The regime must contribute -- not merely financially, but politically, constitutionally, with new ideas, new forms of cooperation, to narrow the gap between the South and the North, the developed and the developing Nations. This gap is the greatest political problem in the U.N. today. And no particular problem can be solved unless it advances the solution of this general one.

So: we have already two tasks the ocean regime must fulfil, if it is to be viable.

It must create a peace system.

It must make a contribution to the bridging of the gap between developed and developing nations.

Let's see what else it must do:

It must safeguard the ocean environment as an essential reservoir of life and it must transmit this common heritage of mankind intact and viable to future generations.

It must seek to harmonize the activities of science, industry and politics in the exploration and use of ocean space, and to this end, it must develop and enhance research and exploration of ocean space, and the contribution of ocean resources to the world economy; <sup>governments - how</sup> it must coordinate the activities and plans of all <sup>gov - manage</sup> United Nations special agencies and other intergovernmental <sup>and - fund and</sup> and nongovernmental international organizations engaged in the exploration and exploitation of ocean space and resources. It must seek to harmonize the interests of all nations, regardless of their ideology or state of development, by increasing the participation of all people in the management of the ocean environment and its resources, and to this end, it must take appropriate measures to protect developing nations against the danger that might arise from a sudden drop of prices of minerals and metals consequent on progress in ocean-space technology.

It must see to it that conditions are maintained that will encourage enterprises to expand and increase their ability to produce and to promote a policy of rational development of ocean resources, avoiding inconsiderate exhaustion of such resources or pollution of ocean space..

These, by and large, are the big goals and functions of an ocean regime which must be spelled out in great detail.

The Treaty Organization that must be created to do the job, must, of course emanate from the United nations, and must be



legitimized by it, but it cannot be the United Nations itself. The structure of the United Nations is, in fact, obsolete, reflecting the historical reality of twenty-five years -- and more -- ago. An international organization today cannot be based on the same principles as an organization built 25 years ago. For this reason, there is no real model for the ocean regime to copy and take over. The ocean regime, built on new principles, must be sui generis. It must not be a huge bureaucracy, but it must be as comprehensive and as complex as the environment that it must manage.

At the Center for the Study of Democratic Institutions, we worked two years to build a model for the ocean regime: last year we published a model draft statute which, I think, would cover the ground rather thoroughly. It is not a very long, nor a very complicated document: no longer nor more complicated than the statutes of the specialized agencies; much less complicated and much shorter than, e.g., the Treaty establishing the European Coal and Steel Community (from all of which we have drawn elements)..

We have spent the last year discussing and improving this model. These discussions culminated in a big international conference, *Pacem in Maribus* -- which means Peace in the Seas and, so to speak, is an analogy to the famous *Pacem in Terris*, Peace on Earth, which, as you of course know, was the title of a famous Encyclical of Pope John XXIII. Well, the conference was attended by over 250 diplomats, Ministers of state, industrialists, fishery experts, and ocean scientists. [ The new thing about it was that the conference itself was organized on the basis of the same principles on which

the model was built: that is, the model statute provides for a Maritime Assembly as the basic, decision making body which ~~is~~ consists of four such groups: a political chamber, a chamber of industries, a chamber of fisheries, and a chamber of scientists. That is its most innovating part: because it breaks away from the traditional principle according to which you have only States represented in international assemblies, and this <sup>is</sup> where you now run into insoluble problems of representation, <sup>and voting</sup> because the difference between the sizes of the States is so enormous, and because there is such a proliferation of States and mini-States. So, in a way, we acted out our model at the Pacem in Maribus Convocation -- which took place in Malta. Malta, having the merit of having introduced the whole idea in the United Nations, should really become, so to speak, the capital of the ocean regime.

The Convocation was a very interesting and exciting experiment. It was so successful that it already has become an institution. We'll do it again <sup>next</sup> ~~next~~ year. Also: we set up a skeleton organization in Malta: a Pacem in Maribus Institute at the University of Malta, governed by an international, interdisciplinary Pacem in Maribus Continuing Group for Policy Research, of which I have the honor of being the Secretary General.

We have launched a new research program for the period between now and the next convocation. Two of our projects are quite exciting: one is the establishment of an ocean development tax of one percent on all ocean produce (oil, fish, minerals, shipping, cables, using the oceans as a dumping ground, etc.). We are making now a very detailed, multinational study of all the facts and figures and economic and political implications of this proposal

which will be introduced officially in the United Nations next <sup>summer</sup> ~~spring~~. Quite roughly, we expect that the tax will yield something between 150 million and 300 million dollars yearly: a handsome amount to promote ocean development and stall pollution, with a lot in it that will be attractive both to developed and developing nations.

Another one of our current projects deals with the pollution of the Mediterranean. This too, I think, will attract a lot of attention.

Well, my time is about up. In conclusion I only want to ~~say this~~ make two points: I would like to indicate quite succinctly what are the areas where, if we find new solutions with regard to the oceans, we can apply them later -- we must apply them later to the world as a whole, to the evolution of the United nations:

- the systemic accommodation of the ~~ink~~ effects of the scientific and technological revolution on political institutions; the participation of science and scientists in policy making;

- the systemic accommodation of the interaction between science, industry, and politics;

- the adjustment to the continuum (rather than the dichotomy) national-international; governmental-nongovernmental; political-functional;

- representation and voting in decision-making bodies;

- the structuring of decision-making on the basis of consensus rather than on a majority-minority division;

- the effects of the environmental approach on the concept of property;

- the common heritage as the social property of mankind;
- development on the basis of participation in the common heritage of mankind rather than of "aid" or "foreign aid."

- the effects of the ecological approach on our vision of man;

- the adjustment to the continuum (rather than dichotomy\_ between man and his environment (natural and man-made, physical and social));

My second point derives from the first. A mere glance at these areas of dramatic change reveals the degree of institutional innovation requires, first in the oceans --this being the strange path history seems to have chosen --later in the world at large. X

The Pacem in Maribus program was based on the concept of the Marine Revolution which cannot be stopped and which will be destructive, unless we harness and rationally direct its forces to minimize its harmful effects. But a revolution it is. Our choice is not between a "moderate" status quo oriented regime, and a radical, utopian one. The status quo is the most unreal of all unrealities. Those who aim timidly at a "moderate" regime simply will not be able to sway the <sup>forces</sup>~~forces~~ of inertia.

There will either be no regime at all, or there will be a comprehensive one; comprehensive in every sense of the word, and based on the necessary political and intellectual courage and passion.