



April 16, 1979

International Ocean Institute
P.O. Box 4716
Santa Barbara, California 93103

Gentlemen:

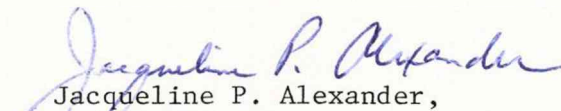
In a recent issue of the Development Forum (March 1979) there was an article about the programme on marine nodule management course that your group will make available to nationals of developing countries. There are a large number of students in the marine programs here at U.R.I. who are from the developing countries and I feel they would be interested in your programme. We would appreciate your sending material concerning the course to us so that we might keep it on file. In addition, if you have available a recent List of Publications we would like to have a copy.

Our mailing address is:

Library, International Center for Marine
Resource Development
Main Library Building
University of Rhode Island
Kingston, RI 02881

Thank you.

Very truly yours,


Jacqueline P. Alexander,
Technical Assistant



USSR

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Mrs. Elisabeth Mann-Borgese

12 March, 1980

Dear Mrs. Mann-Borgese,

As you probably know we are going to publish the Russian translation of your book The Drama of the Oceans. We believe that with your preface it would be a greater success with our readers who are mostly the specialists in shipbuilding and navigation. So we are taking the liberty of asking you to write for us such preface (about 2 or 3 typewritten pages) adressed to our readership.

We hope we are not putting you to too much trouble and thank you in advance.

With kind regards,

Yours sincerely,

V. Iv. Lapin
Managing Director

A. ...
Bey - ...

Beyne

Centenarij

Pecci

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Sank Graaf

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Lepaxe

Louis ...

Ginstag

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Bender

Album

La ...

Ruine

Barnaby

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Buys

Harde

Dalder

Kezaak

V. Lapin, Managing Director
Publishing House Shipbuilding
Gogolla Street 8
191065 Leningrad USSR

Please advise whether I am still in time to send introduction to
Russian translation of Drama of the Oceans. Sorry about my
delay regards

Elisabeth Mann Borgese
Department Political Science
Dalhousie University
Halifax, N.S. Canada

Department of Political Science

Dalhousie University, Halifax, Nova Scotia, B3H 4H6, (902) 424-2396

INTRODUCTION

It is a pleasure to present my book The Drama of the Oceans to readers in the Soviet Union in Russian language. During my repeated visits to the Soviet Union I have always found a deep understanding of the issues relating to the oceans and a sincere concern for the future of ocean uses. Soviet oceanography is indeed among the best in the world today; Soviet marine biologists are leading in various sectors of aquaculture and mariculture, and the Soviet Navy is second to none. The role of the Soviet Union in the establishment of such progressive international instruments as INMARSAT or the International Code of Conduct for Liner Conferences is known to all.

In The Drama of the Ocean I have tried to join all these issues. This may appear a somewhat ambitious undertaking and lead to some superficiality in presenting complex matters on which there is such technical expertise in your country -- including shipbuilding and navigation, which is the specialty of this publishing house. On the other hand, I have taken the cue from the spirit of the Preamble of the Draft Convention on the Law of the Sea, which says: "Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole..."

If I should try to summarize the essence of the book in two sentences, I would say: the drama of the oceans is a drama within a drama within a drama: the widest "drama" being the genesis and transformation of ocean basins on a geological time scale; within the parameters of this widest drama, we see the unfolding of life in the oceans, from the oceans, and returning to the oceans; and within this second drama, as one brief episode, the third drama: that is, the evolution of homo sapiens and his relation to the sea.

Brief though it may be, this third drama is intense, and the actors -- the various users of ocean space and resources -- are now at a significant crossroads: or, perhaps, to stay within the imagery of the sea, I should say: a significant

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traffic separation scheme: One "lane" is a collision course, where users and users conflict, and the end result, not far in the distance, may be irreversible pollution and atomic holocaust (the worst of all pollutants being war). The other "lane" directs us towards a new order for the oceans, initially embodied in the Draft Convention on the Law of the Sea: a new order which must be considered as part of, and model for, a new international order in general.

This book was completed five years ago. Far from invalidating the book's thesis, the intervening half decade has further confirmed its validity.

The potential of ocean space and ocean resources for improving the human condition is enormous. If the last five years can be considered as an indicator, progress over the remaining years of this century may be expected particularly in three areas: aquaculture and mariculture; the mining of metals and minerals from the oceans, and the generation of energy from sea water through various technologies.

The transformation of a hunting and gathering economy in the oceans into an economy of culturing aquatic plants and husbanding aquatic animals may signify a change in human civilization no less important than the advent of agriculture ten thousand years ago. The fact that about 30 percent of the world's annual salmon catch is now hatchery reared -- with the Soviet Union and Japan releasing almost 2 billion hatchery-reared salmon per year!; or that, in the Soviet Union, 9.7 billion sturgeon fry are hatchery-reared and released each year into the Caspian and Black Sea; that whole eco-systems can now be created, through the construction of artificial habitats, such as reefs of re-inforced concrete, steel and plastic, or through the introduction of new strains of phytoplankton in an ocean area to increase its biological productivity; or through the creation of artificial upwellings to bring the nutrient-rich deep layers to up the sun-lit surface; the perfection of cage cultures; the improvement of technologies for induced spawning; the advancements in fish genetics and the study of fish behavior: all this forebodes the coming of the "blue revolution," the transformation of the world's fisheries, making "capture" increasingly a phase of "culture." Clearly, this could make a significant contribution towards the elimination of hunger from the world.

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The mining of manganese nodules from the deep ocean floor has been proven technically feasible during this quin~~cent~~^{cent}ennium. Most companies have completed the first phase of research and development with pilot mining tests, showing that it is feasible, for one mining operation, to lift as much as 10,000 tons of nodules per day from the depth of the abyssal ocean floor: and this would be necessary to reach the target of three million tons per year, below which the mining operation would not be economical. The problems holding back ocean mining at the present time are not technical: they are intrinsic in the general economic situation, the depression of metal markets, the oversupply of land-based resources, ~~fact~~. This situation undoubtedly will change again, one way or another. The technologies to extract minerals and metals from the ocean exist now and will be used when the world economy gets on a sounder footing.

As shown in the Drama, the energy potential of the oceans -- the tides, waves, currents, temperature differentials, salinity gradients -- is simply enormous. Solid progress has been made, during the last five years, particularly in one sector of ocean energy generation, and that is OTEC (Ocean Thermal Energy Conversion). A "Mini-OTEC" plant was installed in the off-shore waters of Hawaii, by the State of Hawaii, the Lockheed Missiles and Space Corporation and Dillingham Corporation. Its efficiency exceeded the most daring hopes. Publicity announcements had to be rewritten in great haste: for, written in advance, they had considerably underestimated the potential of this technology. Mini-OTEC produced 50,000 watts per hour; but bigger and better things are on their way. In 1980 the much larger OTEC I was installed by Global Marine Development Inc. The construction cost is 25.4 million dollars. Lockheed now has a plant-ship on the drawing board, with ^{several} ~~general~~ OTEC generators producing as much as 400 megawatt, that is, almost half of a full-size nuclear reactor plant.

Also Japan is rapidly advancing in OTEC technology. The Japanese Ministry of International Trade and Industry has announced the construction of a 100 megawatt OTEC power plant. The total cost for the construction is nearly 50,000 million yen; annual costs for operation and maintenance are 366 million yen. Worldwide interest in the development of OTEC is indicated by the publication of an OTEC Liaison International Newsletter.

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The importance of producing renewable, pollution-free, and economical energy from the ocean is manifold. First, it can contribute to solving the energy problem of small island States in the tropical and subtropical zone, a problem that is high on the agenda for a development strategy for the '80s. Secondly, it could be decisive for the solution of one of the major problems to which the U.N. has dedicated the decade of the '80s, and that is the availability of drinking water in developing countries. There is not enough fresh water to go around in a world that is rapidly becoming industrialized and urbanized. Desalination of ocean water may be the only solution. Desalination, in fact, had been advancing at a rate of 30 percent per annum -- until the rise of fuel prices made it economically impractical. Renewable energy, drawn from the oceans themselves and independent of fuel costs, is the answer. Desalination will be a rapidly growing industry -- with a by-product of concentrated brines, from which valuable minerals may be extracted economically.

The third advantage of OTEC and OTEC-related processes is that it will make it possible to process seabed metals and minerals at sea, on artificial islands, which will reduce over-all costs as well as pollution problems. It is certainly no co-incidence that the companies investing heavily in OTEC today are the same that have invested in the seabed mining industry.

The fourth advantage is that excess electricity engendered by OTEC could be applied to ~~hydrolysis~~ hydrogen out of sea water: one of the most promising energy resources of the future. Hydrogen can be conveniently transported to where energy is needed, and used as fuel or reconverted into electricity through fuel cells.

generate

Another form of ocean energy that has been given much attention during the current quinquennium is tidal energy. The Soviet Union has been contributing substantially to this development. The Drama describes a plan, developed in the 1930s, for as huge tidal plant in the Bay of Fundy in Canada. This plan is currently being re-exhumed. The Government of Nova Scotia has budgeted \$43-\$47 million Dollars for a pilot project on the Nova Scotia Anapolis River, to test a plant, the so-called Stra-flo plant. After completion of this feasibility study, the full-scale Bay of Fundy plant should be constructed at a cost of 6.5 billion dollars.

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As pointed out in the Drama, there are not many places in the world where tidal plants can be built: and often these places are in regions where energy consumption is still so low that the plant would be uneconomical. Linkage to a hydrogen-energy network, however, would solve this problem and make developing countries net exporters of energy.

In the meantime, and to bring the Drama to a happy ending, at least for the spectators of our generation, the international community appears to be opting for a new order rather than total chaos in the oceans. The Draft Convention released by the Ninth Session of the Third U.N. Conference on the Law of the Sea -- with all its defects and contradictions -- is a major landmark in the history of international organization and cooperation. It marks the transition from a laissez-faire system in the oceans to one of ocean management. No matter whether it is ever formally ratified, it provides the guidelines for the new order of the oceans: guidelines already today followed and implemented by individual States. And no matter what happens, and even in the best hypothesis, the Convention, in spite of the great detail with which certain of its parts are burdened, cannot provide more than a broad, global framework for the new order. Within its perimeters, States will have to concretize its terms, with reference to regional differences and realities. National legislation will have to be brought up to date with the new economic and technological development, and brought into line with the international framework convention. The U.N. family of organizations will have to be enabled to face the new tasks and responsibilities entailed by the intensified uses of the oceans. This act of the Drama may take several decades. It may be a joyous act, challenging human imagination and creativeness, enhancing cooperation and human solidarity. The foundations have been laid, in technological, managerial, and legal concepts. The young generation which will have to interpret and implement the new concepts, will be authors and actors of this new act of the Drama of the Oceans.

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MANN-BORGESE DEPT POLITICAL SCIENCE
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PLEASE SEND INTRODUCTION IN WHICH DISCUSS DEVELOPMENTS
TOOK PLACE IN THE FIELD SINCE EDITION

REGARDS SUDOSTROENIE EDITOR-IN-CHIEF MITROFANOV

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FROM HENRY USBORNE
TELEPHONE EVESHAM 6476

*provisionally answer
Oct. 11*

TOTTERDOWN
THE PARKS
EVESHAM, WORCS.

Elizabeth Mann Borgese,
c/o Austrian Permanent ^{Message} to the U.N.
809 First Ave.
New York, N.Y. 10017. U.S.A.

April 2nd 1980

*Harris held back this
letter till the book was
printed. Here it is. At last.
Sept 16 1980.*

Dear Elizabeth,

For the last dozen years, on and off, I have been writing out my ideas on MINIFED. I have had little enthusiasm for it because the world ^{seems} so determined on its own destruction, no one in authority has any idea how to save it, and most of the politicians are uninterested in anything beyond the tip of their noses.

However, several of my friends, having seen my notes, have been insisting that even tho' the book is'nt yet quite finished, and certainly needs a lot of rewriting, what I have so far written needs to be printed. So the other day I agreed to let Leslie Harris, who has been my most devoted and determined goad, make a hundred copies of the enclosed, on condition that it is privately circulated and off the record, to get some feed-back before I can decide whether to go on with it. I have been so buried in this theme ~~now~~ for so long that I cant judge whether the proposition will have any political impact.

You will see that I have followed up our original Dialogue that you first published in Common Cause in August 1949. Indeed, with your permission, I intended to include much of what you and I wrote then as a prelude to my present chapter. But I wonder now whether there is much point in recounting the early history of the Crusade - what you called the P.W.C. because what we did and said in those early post-war years has made no appreciable impact on events whatever. The trap we all fell into, I suspect, was to assume that the Third War, if it happened, would be the contest between Marxist-Leninism and Western Capitalism. Whereas the ^{Third} War had already begun; it was between the Russian and Chinese empires; it had nothing whatever to do with Europe, or with what Lenin had predicted. It was a straight clash of neighbouring ~~national~~ ^{we} sovereignties. And ~~the~~ ^{all} federalists should ~~have~~ ^{have} seen it coming.

But by the time we ~~all~~ realised what was ^{going} on, the three 'world integrating systems' were already too far gone in ~~their~~ collective paranoia to be capable of listening to reason. The Pekin-Washington-NATO axis had been formed.

Hence the argument for Minifed.

I wish I could think of a better name for it; but I cant. Anyway I'm convinced that if my idea is ever taken up - and frankly I dont believe it will be - it can only emerge in and from the Middle East and the Third World. And if they take hold of it, they will then give it a proper title. It is not for us to name it.

It is my hope that Sir James Pitman, my co-President of the British Parl. Group for World Government, will write the introduction to my book. He has seen most of my earlier notes, and is one of the people insisting that there must be some immediate publication. I have just sent him this draft edition and have invited him to give it his imprimatur. The new Chairman of the Group is John Silkin, who was a Cabinet Minister in the Callaghan Government. I am sending him a copy too and shall be pleased and not a little surprised, if he also would put his name to it. But nothing would delight me more than to learn that you too would subscribe to it. Minifed cant possibly 'march' unless one or two influential Americans will back it.

He has.
He hasn't found time to read it!
Jim Seading
Copies to Edith Wynnan and Georgia Lloyd; also Francis Heisler.

I shall wait with intense anxiety to hear your considered reaction. But for the time being please keep this off the record till the final edition of the book is completed. Remember this is only a draft, subject to corrections, and will only be made into a final version ^{for general publication} if the reactions I now get seem to justify the effort.

As far as I am personally concerned by printing this I will have got it out of my system!

I trust that you and yours flourish. With kind regards,

Yours sincerely

I wrote this in April
The printers took till now, Sept 16th, to
finish the 100 copies!
Henry Osborne