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The Ageless And Eternal Sea

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MCMLIV

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By

EMILY BRIDGERS



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Program I

THE ALL-ENCIRCLING SEA

"In the artificial world of his cities and towns, [man] often forgets the true nature of his planet and the long vistas of its history, in which the existence of the race of men has occupied a mere moment of time. The sense of all these things comes to him most clearly in the course of a long ocean voyage, when he watches day after day the receding rim of the horizon, ridged and furrowed by waves; when at night he becomes aware of the earth's rotation as the stars pass overhead; or when, alone in this world of water and sky, he feels the loneliness of his earth in space. And then, as never on land, he knows the truth that his world is a water world, a planet dominated by its covering mantle of ocean, in which the continents are but transient intrusions of land above the surface of the all-encircling sea."—Rachel Carson

This outline is designed to explore both the fascination for mankind of the sea and ships, and the life and potentialities of the marvelous world beneath the surface of the salt waters. No books could better serve as introduction than Joseph Conrad's The Mirror of the Sea, Rachel Carson's The Sea Around Us, and R. E. Coker's This Great and Wide Sea. Conrad gives superbly articulate and stirring expression to man's relation to the waters of the sea and to the ships that sail upon them. The Carson and Coker books supplement each other. With the scientist's precision of statement and the poet's imaginative phrasing, Miss Carson explains the natural history of the sea, the power of its waters, the laws, insofar as they are understood today, which govern them, and the life, beauty and infinite possibilities of the underwater world. Dr. Coker's book, which Miss Carson describes as a "scholarly treatment of the subject of oceanography, recommended for serious students," contains valuable and specific information for the general reader, particularly about the life of the sea, and notably about the plankton which is today the subject of so much curiosity and study as to its food value to human beings.

Rachel Carson is a marine biologist who was formerly editorin-chief of the Fish and Wildlife Service. Before going into government service, she did graduate work in biology at John Hopkins University and the Marine Biological Laboratory at Woods Hole, Massachusetts, and taught at John Hopkins and at the University of Maryland. Her first book, *Under the Sea Wind*, was published in 1941, five years after she joined the Bureau of Fisheries. The idea for *The Sea Around Us* developed from material which passed through her hands when the Navy, to solve pressing problems in World War II, went into marine research, and the timely value of such a book became evident to her. She is now working on her third book, an interpretation of seashore life.

Dr. R. E. Coker, Kenan Professor of Zoology, Emeritus, of the University of North Carolina at Chapel Hill, a South Carolinian by birth, for many years taught general zoology and aquatic biology at the University of North Carolina. His practical experience included a special investigation of the fisheries and the guano industry of Peru, and direction for several years of the Division of Scientific Inquiry for the United States Bureau of Fisheries. In 1950 he became the recipient of the second annual O. Max Gardner Award—an honor presented "to that member of the faculty of the University of North Carolina, who, during the current scholastic year, has made the greatest contribution to the welfare of the human race...Fifty years of distinguished labors in the classroom, in the laboratory and in the publication of This Great and Wide Sea bring to a teacher rewards that are far richer than any award that might be bestowed upon him"... said the citation accompanying the award.

Joseph Conrad (1857-1924) was born in the Ukraine of a Polish family by the name of Korzeniowski. Before he was seventeen years of age he learned to speak and write French fluently and acquainted himself with great French writing in the original, and with English in Polish translations, notably of Shakespeare and Dickens. At seventeen, romantically interested in the sea through the works of Victor Hugo, Marryat, and James Fenimore Cooper, he went to Marseilles and for two years sailed in French vessels. Then, speaking scarcely a word of English, he went to England, where he qualified as an able seaman. In 1884, a master in the British merchant service, he became a British subject. He started his first novel in 1889 while ill with Congo fever. It was published in 1895. Other books followed and eventually he left the sea and settled in England, to take his place as one of the great masters of sea tales and of English prose.

1. GREAT MOTHER OF LIFE

"For the wise men of very long ago have said, and it is true, that out of the salt water all things came. The sea is the matrix of creation, and we have the memory of it in our blood."

-Hilaire Belloc

The Sea Around Us, by Rachel Carson This Great and Wide Sea, by R. E. Coker

Since the sea is every day taking on added scientific, economic and political significance, the informative content of these books is extremely important. The most rewarding approach to so admirably organized a book as Miss Carson's would seem to be through summaries of the subject matter and ideas of each chapter, at the same time drawing on This Great and Wide Sea for the clarifying details in which it is so rich. Generous quotation from such fascinating chapters in The Sea Around Us as The Gray Beginnings, The Pattern of the Surface, The Long Snowfall, Birth of an Island, and Wealth from the Salt Seas, would greatly enrich the summaries.

In a review of Miss Carson's book, Olive Deane Hormel remarked that Miss Carson "has given us a textbook that is a work of art, simple, sparse of verbiage, as lucid as certain crystal waters she herself describes..." Do you find this tribute justified?

Additional Reading:

The Ocean River, by Henry Chapin and F. G. Walton Smith. (Story of the Gulf Stream)

The Sea and Its Mysteries, by John S. Colman.

The Sea and Its Wonders, by Cyril Hall.

Westward Ho With the Albatross, by Hans Pettersson.

Legendary Islands of the Atlantic, by William H. Babcock. American Geographical Society. (A study in medieval geography.)

Hurricanes: Their Nature and History, Particularly Those of the West Indies and the Southern Coasts of the United States, by Ivan Roy Tannehill.

Magazine:

Life: "The Earth Is Born," by Lincoln Barnett, December 8, 1952.
"The Miracle of the Sea," by Lincoln Barnett, Febuary 9, 1953.
"Creatures of the Sea," by Lincoln Barnett, November 30, 1953.

2. SEA, SHIPS, AND MEN

"... to the imperishable sea, to the ships that are no more, and to the simple men who have had their day." —Joseph Conrad

The Mirror of the Sea, by Joseph Conrad

Discuss Conrad's magnificent evocation of the unchangeableness and majesty of the earth's oceans, "where the soul of the world has

plenty of room to turn over with a mighty sigh"; his evocation of those waters too great for common virtues, devoid of compassion, faith, law, memory — faithful to no race, mysterious, impenetrable, heartless. Note here his discussion of the character and temperament of the two mighty winds which share the sea's dominions.

Tell of some of those audacious men of "supreme and alive excellence" who in sailing vessels dared "the stern and impartial sea." Drawing examples from the book, discuss the variety of temperament and character among these men, their mastery of the fine art of their vocation, and the varying degrees of serenity, fierceness, or certitude with which they met the unyielding demands made upon them by sea and ship.

It was in "the laborious, absorbing practice of an art whose ultimate result remains on the knees of the gods" that such men spent their lives. Like themselves, the sailing ships they loved are gone. With examples, discuss the sound characteristics of those ships, tender creatures, Conrad says, and faithful souls in their familiarity with "the violence of the ocean and the exacting love of man." Note the fine descriptions of ships, at liberty on a dangerous sea, becalmed on windless waters, lying asleep upon their irons, running with white full sails before the generous West Wind. Reading such descriptions, do you find a ship truly "a thing of beauty in its own right"?

Chaper XXXVI gives moving expression to the whole subtle relationship of men, sea, and ships. Read aloud as much of it as you have time for.

Additional Reading:

Two Years Before the Mast, by Richard Henry Dana, Jr.

The Great Iron Ship, by James Dugan.

Pictorial History of American Ships, by John and Alice Durant.

The Wreck of the Maid of Athens: Being the Journal of Emily Wooldridge 1869-1870, edited by Lawrence Irving.

Clipper Ship Men, by Alexander K. Laing.

The Romance of Clipper Ships, by Basil Lubbock.

The Law of the Sea, by William McFee

In the First Watch, by William McFee.

Sea Lanes: Man's Conquest of the Oceans, by Martin D. Stevers.

The Face of the Earth, by H. M. Tomlinson.

By Way of Cape Horn; Falmouth for Orders; Cruise of the Conrad; The Quest of the Schooner Argus; The Set of the Sails; and The Way of a Ship, by Alan Villiers.

PROGRAM II

SEAS THE SIRENS SANG

Of the translation of Homer's *Odyssey* by T. E. Shaw (Lawrence of Arabia), one dares to say that in no other of the more than twenty-eight English translations are the windows of the mind opened wider on legendary lands, gods, and heroes, and more especially on the "swelling horizon" of that classic sea which held so much of magic and of terror for its mariners. To his prose translation of this great epic poem, Shaw brought not alone his rich scholarship and civilized mind but a luminous imagination and a sensuous appreciation which surely recreate for the reader the very world of which Homer sang.

Whether any portion of this world ever existed in fact is of no consequence. The English classical scholar, Gilbert Murray, thinks that "It is quite likely that there are hard nuggets of history preserved unchanged" in both the *Iliad* and the *Odyssey*, "but it is impossible," he believes, "to distinguish history from myth, folk-lore and fiction in such a slowly grown and beautifully welded whole" as the Homeric tradition. For purposes of pure enjoyment it is with the "beautifully welded whole" of *The Odyssey* of *Homer* that the reader is here concerned.

Born in Wales of a Leicestershire family, Thomas Edward Lawrence (1888-1935) was educated at Oxford high school and at Jesus College, Oxford. Groundwork for his later fabulous leadership in the Arab world was apparently laid when he toured Syria on foot in 1910, and in frequent trips through Syria and Mesopotamia in native company between the years 1911 and 1914. He also served intermittently, under a postgraduate grant from Magdalen College, with an archeological expedition to the valley of the Euphrates. His role in rousing the Arabs, in organizing and sometimes even actually leading them in person to victories over the Turks in World War I, has of course become legend, as has, too, his frustration and eventual retirement to the anonymity of a mechanic in the R.A.F. when the Allies failed to meet what he considered their moral obligations to the Arab world. His brilliant account of his experiences in the desert, The Seven Pillars of Wisdom, was published in 1926, followed in 1927 by an abridged edition under the title of Revolt in the Desert and in 1932 by the translation of the Odyssey.

Because of the greatness and beauty of the *Odyssey* the entire program is given to it.

1. THE WINE DARK SEA

The Odyssey of Homer, translated into English prose by T. E. Shaw

Explain briefly just what this story is about, and reading from the text, recreate this wondrous civilization. People it, including its gods and goddesses. Tell of the nature of wealth, of the opulence and beauty of palaces and furnishings, of customs (particularly with reference to hospitality), of the love of war and song, and of the dignity granted omens and portents, the over-all power of the guileful gods, and the submission of men, each to his destined fate.

Reading generously from the text, follow the story of the myriad-minded, the resourceful Odysseus, whose fame reached heaven but whom, "even from his mother's womb calamity had marked...for her own."

Picture that "fearful, boundless sea" over which Odysseus was driven, "a sea so vast and dread that not even in a twelve month could a bird hope to wing its way out of it." Tell of the "swift-going ships" which served men "as horses to ride the salt waves" even to "Earth's verge and its girdling river of Ocean," there to see the "shambling legion of the dead"; and describe some of the various lands and islands lying green and luxuriant on the bosom of "the lovely waters" or rising rock-like and forbidding from "the desolate sea." Read of the dangers which lay in wait for the traveller on this "shadow-haunted main"; that "nymph and very Goddess," subtle fair-haired Calypso; those "winged Scavengers of the Wind," the Harpies; wily Circe "of the luxuriant tresses"; violent-handed Cicones, "arrogant iniquitous" Cyclopes, maneating giant Laestrygons; Lotos-eaters, the Skurries, dread Scylla and Charybdis, and the honey-sweet music of the Sirens. In such desperate waters, was there place for any but heroes?

Throughout the book, note particularly the graphic phrases descriptive of the sea in all its moods. Incidentally, do you enjoy equally the many references to sleep's bounty—"happy sleep which comes so graciously to man"—and to the beautiful color of wine, that "stuff with the glint of sunlight in it"?

Does this tale live for you, as the poet would wish? Does it live not alone as a supreme adventure story of another world and another day but as a supreme evocation of the sea in its beauty and its terror, and so in its fascination for mankind? Comment.

Additional Reading:

George Gilbert Aimé Murray's article on "Homer" in the Encyclopaedia Britannica, Fourteenth Edition, 1929-1932.

The Story of Odysseus, translated by W. H. D. Rouse. A translation which the author, regretting the "affectations and attempts at poetic language" in his predecessors, hopes will be judged simply as a story. "Homer," he remarks, "speaks naturally, and we must do the same."

Program III

CHARTING THE UNKNOWN

"In the old days there were fears worth having, reasons for an almost heroic terror. Men believed in a vast, unfriendly world, filled with vengeful, incomprehensible powers, and in a dark sea peopled with insatiable Things, lurking at the edge of a horizon beyond which were the sickening abysses of the unknowable. And so their ventures into that world, upon that sea, were deeds of god-like bravery for which we pampered moderns can furnish no comparison."

-William Beebe

Scholar and historian, Samuel Eliot Morison (1887-) based his life of Columbus not alone on an examination of available documents but on a "living commentary" afforded when he himself actually sailed in the tracks of Columbus' various voyages. The resultant biography is alive, completely fascinating and witty, both in the ordinarily accepted sense of the latter word and in that which the woodsman had in mind when he said of a bear which had thought always one jump ahead of him that it was a "witty" bear.

Beyond Horizons, Carleton Mitchell's book of edited selections from the accounts of participants in early adventure and discovery, leaves with the reader an indelible impression of the vast reaches of seas not then explored and of the almost unbelievable recklessness and persistence of the men who sailed them. Today, when far-flung waters no longer separate a known world from an unknown, and navigational aids have rendered the seas comparatively safe, the effect of accounts such as these of courage on wild wastes of ocean can be compared only to the impact on the imagination of speed in space and of men bound on "some chill invisible adventure" toward new planets.

Born in Boston, Morison is a distinguished alumnus of Harvard University where for many years he has served on the history faculty. Mitchell, sailor, sportsman, and author, draws on the sea and sail for his subjects.

1. THE GREAT MARINER

"That art [of navigation] inclines him who follows it to want to know the secrets of this world."

—Christopher Columbus

Admiral of the Ocean Sea: A Life of Christopher Columbus, by Samuel Eliot Morison

A good atlas

Discuss the widespread geographical misinformation of Columbus' day, taking especial note of the boundaries of the known world prior to his first voyage, of the fears and superstitions concerning the unknown, of the fact that the idea of reaching the East by sailing West was not original with Columbus (some even spoke of a westward voyage by the Queen of Sheba!), of the universal admission of that day that the world was a sphere, and of the discoverer's error in the theory of a narrow ocean between Spain and India and, therefore, a short passage to Marco Polo's great golden-crowned Cipangu.

Giving some idea of the field work and the chief documentary sources on which Morison drew, review briefly Columbus' life. In the years to 1492, note particularly the stimulating opportunities for self-education and sailing experience which Portugal afforded, the effect of the opening of the eastern sea route to India on Columbus' prospects, and the ridicule to which he was subjected by some of the experts of his day. Comparison of the maps supplied in the biography with those in a good atlas will be of great assistance in following the probable route of each of his voyages.

Introduce Niña, Pinta and Santa María, and tell of them what you consider most interesting; assemble the crews, commenting on the duties of captains and masters and of certain landsmen who were aboard; and puncture that most famous of the Columbian myths—of an obscure navigator sustaining against flat-earth churchmen his own thesis of a spherical globe—and others equally widespread, such as that Isabella pawned her jewels to finance the expedition, and that the three boats were armed cockleshells, their crews composed of criminals and jailbirds. Do you find more likely than the traditional one this picture of an expedition well fitted, equipped and manned, and grounded in the best nautical knowledge of the day? Comment.

Quoting from Morison's lively and remarkably inclusive account, picture the day by day life on board, drawing especial attention to religious practices, and, with reference to possible mutiny, not omitting mention of the monotony on the first voyage of generally peaceful waters, favorable winds, and eternally empty sea. Incidentally, are you amazed at the variety and tastiness in Columbus' suggestions (in letter to his sovereigns, 1498-1500) for victualling vessels on an American voyage?

Describe the miracle of landfall on that night of October 11-12, the "most momentous [night] ever experienced aboard any ship in any sea." At this moment do you agree with Morison that Columbus had to a remarkable degree "le sens marin, that intangible and unteachable Godgiven gift of knowing how to direct and plot 'the way of a ship in the midst of the sea'"? Draw notable examples from his other voyages, including his handling of ships in foul weather and hurricane.

Consider just what manner of man, in fact, Columbus must have been, in appearance and bearing, in character and ability and purpose. Do you find credible the perspective in which Morison places the man's personal weaknesses, his treatment of the Indians, and his failure as an administrator, in contrast to the strength of his character in notable aspects, his religious aspirations, his prophetic sense, and his remarkable achievements, not least of which was the steady nerve with which he met the challenge of mysterious and uncharted waters?

Are you struck with the great irony of the man's fate: to sail the Caribbean in search of oriental evidence, of gold and spices and Chinese junks, while practically under his hand lay a vast new continent and he, rather than Balboa, might possibly first have gazed "with wild surmise" on the Pacific? Discuss some of the evidence which Columbus, with mental agility and remarkable stubbornness, interpreted to suit his own desires.

Morison says in his preface that in this biography he has tried with modesty to do for Columbus what Parkman did for the New World: to tell a story which creates afresh in three dimensions. Does his succeed? Do you get from this story of the great mariner a sense of space and light, of spreading horizons, of verdant lands, of living men, of that mighty ocean that laved the western shores but did not yield her secret? Comment, drawing in closing on the very fine summary at the end of the book, beginning, "So died the man . . ."

Additional Reading:

The Sky and the Sailor: A History of Celestial Navigation, by Harold Augustin Calahan.

Hornblower Saga, by C. S. Forester.

Life of Sir Francis Drake, by Alfred E. W. Mason.

Golden Admiral, by F. Van Wyck Mason. (Sir Francis Drake) So Noble A Captain, by Charles McKew Parr. (Ferdinand Magellan) Balboa of Darien: Discoverer of the Pacific, by Kathleen Romoli.

2. On Desperate Seas

"For when the ships went forth, no one knew what they might find."

-Mitchell

Beyond Horizons: Voyages of Adventure and Discovery, by Carleton Mitchell

Discuss at some length the conditions, problems and dangers confronting sailors in the centuries when new worlds were being discovered. Take note of the dangers and difficulties even once land was discovered, not the least of which was whether one would, in truth, be met with a rock or a maiden. Insofar as you consider it necessary in order to "understand and visualize those men so long dead," include reference to the frequently miserable physical lot of the common sailor, particularly in the English Navy. But in such an horrendous account, do not forget the urge of patriotism in an expanding world, and other points of merit and contentment, as Theodore Dreiser would call them, which seamen found

in "a sea a-shimmer in the sun," in the climbing wave and in the excitement of the unknown which lay beyond every horizon.

As a practically unbelievable example of the marvelous seamanship and endurance of the English, tell of Anson's voyage in a "bawble" around Cape Horn in the dead of winter, and of the subsequent exploits of the Centurion. Do you find a comparison in courage and self-reliance between these men in worm-eaten, rigging-weighted vessels on lonely seas, and men today in submarines, no matter how modern the equipment, in lonely ocean depths? Comment. Incidentally, explain very briefly Mitchell's reference when he remarks that "one of Anson's sailors would be utterly confounded by the airplane, the automobile, the locomotive, or the elevator, yet would be at home and a useful hand aboard a cruising yawl."

Nansen, writing of the voyages of the Norsemen, refers to "the silent struggle of hardy men with ice, storm, cold and want." Tell of the search of Captain James and his equally hardy English vikings for the Northwest Passage in that "sea most infinitely pestered with ice." Comment particularly on the good captain's revealing words to his sovereign, Charles I: "Many a storm, and rock, and mist, and wind, and tide, and sea, and mount of ice have I encountered in this discovery; many a despair and death almost overwhelmed me. But the remembrance of so gracious a Majesty put me in heart again, and made me not give way to my own fears, or the infirmities of humanity"; and on his classic apology when, in their small lonely ship riding "in an extremity of distress," amongst dangers of "rocks, shoals, overfalls, and breaches round about us," he writes, "All these perils made a most hideous and terrible noise in the night, and I hope it will not be accounted ridiculous if I admit I was affected, now and then, with doleful meditations amongst my ordinary prayers." Parenthetically, note the very effective precise use in this account of the word "mortifying."

Comment briefly on the wide difference in the character and habits of pirates, and for welcome change from such horrors quote from passages descriptive of the pleasures of Tahiti and of shipwreck on Bermuda.

To one reader, by far the most interesting section is that describing in Bligh's own words the mutiny on the Bounty and the subsequent voyage of the Bounty launch. Give a running account of that remarkable voyage. Considering the practices common on board all English naval vessels in his day, what do you make, from this excerpt, of the character and humanity, so to speak, of this much discussed seaman?

Additional Reading:

The Buccaneers of America, by John Esquemeling.

Westward Ho!, by Charles Kingsley.

The Voyages of Captain James Cook Round the World, selected from his Journals and edited by Christopher Lloyd.

Men Against the Sea, by Charles Nordhoff and James Norman Hall.

Jolly Roger: The Story of the Great Age of Piracy, by Patrick

Pringle.

The Great Days of Piracy in the West Indies, by George Woodbury.

PROGRAM IV

LEVIATHAN

". . . there Leviathan, Hugest of living creatures, on the deep Stretch'd like a promontory sleeps, or swims And seems a moving land . . ." -Milton

Herman Melville wrote Moby Dick, that greatest of all books about men and whales—a book "broiled in hell-fire," as he put it, and containing the "darkness" of truth—in 1850, toward the close of the golden age of whaling. His tumultuous imagination seized by the image of the white whale which had existed in the minds of mariners for many years, and having himself been drawn to the sea, as so many before him, to escape the "parts of men" he encountered ashore, he based his book on his own experience of whaling in the Pacific. A hundred years later, wearied too with the "parts of men" he meets ashore, Robert B. Robertson seeks "whole men" as medical officer on a modern whaling factory and writes of them in Of Whales and Men.

Melville, speaking in Moby Dick the "whole secret of the sea," as Masefield says, writes with dynamic creative drive and with wry humour. Robertson is a modern, writing the facts, strange and dramatic facts which he presents in a vigorous prose informed with insight and humour. But though Moby Dick is grandly imaginative fiction of the nineteenth century, and Of Whales and Men is contemporary reportage, one theme binds the two books together: the extraordinary courage, stamina, and originality of character of men who hunt the whale.

Herman Melville (1819-1891), born in New York City, went to sea as a cabin boy at the age of eighteen. At twenty-three, after a year and a half on the whaler Acushnet, he deserted his ship at the Marquesas Islands, was captured by cannibals but was well treated and was finally rescued. Out of this experience he wrote the two romances, Typee and Omoo. After Moby Dick his most important book of the sea is Billy Budd, Foretopman, published for the first time in 1924, following the revival of interest in Melville's greatness as an American writer.

Robert Blackwood Robertson was born in Cairo, Egypt, in 1913, of pure Scottish ancestry on both sides. He was educated in Scotland. As surgeon and psychiatrist he served in the Italo-Abyssinian war and in World War II. Invalided home, he did psychiatric work in a London hospital and later in the Middle East.

1. THE GLIDING GREAT DEMON

"...and with the soft feeling of the human in me, yet will I try to fight ye, ye grim, phantom futures!"

-Ahab

Moby Dick, by Herman Melville

"Give me Vesuvius's crater for an inkstand!" cries Melville as he writes of that most magnificent and mighty of earth's creatures, the largest that exists or has ever existed in the universe, a warm blooded mammal as man is, who must breathe the air as man does, though he lives in the depths of the seas. As you describe the sperm whale—the creature's gigantic size; the wondrously minute and subtle ears; the lashless small eyes, separated from each other by so many cubic feet of solid head that the whale, unlike man, sees sideways two things at once; the mysterious spiracle, or spout hole, through which the whale breathes and blows; the prodigious lower jaw, so hinged it can hang frighteningly at right angles to the upper, revealing its fifteen foot rows of white destructive teeth; the tail, its amazing grace and strength "of a thousand thighs"; the enormous head, that impregnable, uninjurable, blank battering-ram which, propelled by the tremendous force of the body, in one assault stoves in a ship-do you feel that Melville succeeds in presenting "the great inherent dignity and sublimity" of the sperm whale? That he has truly dipped his pen in Vesuvius's crater?

All the malignity and destructive power of this great creature, Melville, for the purposes of his story, ascribes to Moby Dick, the white whale known far and wide over the seas. Recount stories of Moby Dick: of the manner of death of Macey, mate of the Jereboam; of the one-armed captain of the Samuel Enderby; of the Rachel, weeping for her children; most important, of Ahab's first encounter with the white whale—Ahab, captain of the Pequod, who was to "burst his hot heart's shell" in pursuit of his foe.

Against this gliding great demon of the seas Ahab, all mutilated, pitted himself. The White Whale swam before him, says Melville, as the incarnation of all that most torments in life: all evil, to maddened Ahab, visibly personified and made practically assailable in Moby Dick. Tell of the demoniac purpose of Ahab, that man branded in an elemental strife at sea, an eternal anguish in his face, who swears the crew of the *Pequod* to his monomaniac revenge, and by his all-consuming fixed purpose holds them to his will.

Recount the story of the pursuit of Moby Dick. As Melville so carefully does, explain the procedure in hunting the whale; the use of the line, of the dart, of the two murderous harpoons lying within the crotch. Explain the disposition of the men in a whale boat, with particular attention to the importance of the harpooner, illustrating the superhuman strength and reckless courage necessary to a successful harpooner

by stories of Queequeg, Tashtego, and Daggoo. Introduce such characters as heighten the narrative: Starbuck, that staid, steadfast man, to whom "courage was one of the great staple outfits of the ship," who quails before the mighty rage of Ahab; Perth, the blacksmith, maker of Ahab's whalebone leg, welder of his harpoon and bloodtipped barbs, who could "smooth all seams and dents but one"; Pip, the small black boy whose courage failed; Fedallah, the Parsee who cast no shadow, whose hearse was to be the broad living back of Moby Dick himself.

Recreate the suspense of the story as it mounts in horror: beginning with man's horror of whiteness, going on to other incidents such as the madness of Pip, the direful foreboding of the Parsee, Starbuck's temptation to murder Ahab and thus save the crew, the meeting with the horrendous, ghostly squid, the turning of the compasses, the use of Queequeg's coffin for a life buoy. Tell of the final fearful chase, the destructive fury of Moby Dick, who in one maddened moment smites the *Pequod* with his great blank forehead—and the great shroud of the sea rolls on as it rolled five thousand years ago.

2. Peaceful Adventurers

"To northern seas I'll in a twinkling sail,
And mount upon the snortings of a whale
To some black cloud; thence down I'll madly sweep
On forkéd lightning, to the deepest deep,
Where through some sucking pool I will be hurl'd
With rapture to the other side of the world!"

-Keats

Of Whales and Men, by R. B. Robertson

Running through Robertson's story, like a thread weaving it into a whole, is the continual question: Why do men go whaling? There are many answers, but the final one, the one most satisfying to Robertson, and to the reader, is the hold Leviathan has on the imagination of man. From "mighty Job" who wrote, says Melville, the first account of Leviathan, through Milton, Keats and Melville, to Robertson and on into the future, whales, those "huge sea-monsters . . . that lift the deep upon their backs," have lured and will continue to lure man seaward. Since Robertson is a psychiatrist he uses a technical term to describe the "peaceful adventurers" on the *Acushnet*. He calls them "The Psychopaths." Give in detail his definition of psychopath, not omitting the poetic couplet describing those "who hear a different drummer."

Give a comprehensive account of some of the *Acushnet* psychopaths about whom Robertson writes with so much admiration and sympathetic humour: Mansell, whom he likens to Queequeg in *Moby Dick*, "landless, unfathomable"; Inspector Gyle, "totally incompatible with the creatures" ashore; Thor, former New York taxi driver and rum runner, leading bold gunner on the *Acushnet*; Old Burnett, chief engineer, that "prejudiced old grumbler" who summed up in his character the quality required of all whalemen—reliability.

What are other qualities required of these modern whalemen? Illustrate: the "serenity and patience" of the engineers, for instance, by the amusing story of Gavin and the mess boy; their resolution in an emergency, by the dramatic story of Gavin and Michelsen and the repair of the catchers.

Describe the Acushnet, its size, its facilities for handling the one hundred ton blue whale, its laboratories and scientists. Name the products processed on this huge floating factory, describing their importance to John Citizen as food, medicine, fertilizer. Give an account of the modern whale hunt, the role of the catchers, the corvettes, the buoy boats, the use of the harpoon gun.

What are some of the unanswered questions as to the habits and physiology of the whale? Compare the blue whale with the sperm whale, explaining why the blue whale was never hunted by the old Nantucketers; read aloud the chart of weights and measurements which attempt to make comprehensible the incomprehensible size of the blue whale.

From the many fascinating topics in Of Whales and Men not touched on in the above, choose your own for discussion: the lore of the albatross with its "seaman's eyes," for instance, or of the Wilson's petrel who can never rest upon the sea; the meeting with that sad little comic of the Antarctic, the penguin; some account of the work of the flensers, led by the Gaunt Stranger who recalls Bulkington in Moby Dick; the pitiable story of Dornoch; the icebergs in the Southern Ocean; the international control of whale hunting; the profits to be made from whaling; that South Atlantic slum, South Georgia; the story of Shackleton; Dr. Robertson's own experiences as medical officer; the continuous and lively argument among the whalemen over the old way and the new; or others to your liking.

Additional Reading:

The Cruise of the Cachalot, by Frank Bullen.

Sails and Whales, by H. A. Chippendale.

Whale Ships and Whaling: A Pictorial History of Whaling during Three Centuries, by George Francis Dow. (This book is probably almost impossible to get except from certain very large libraries, but the marvelous pictures are worth the effort to see it.)

Whale Hunt, by Nelson Cole Haley.

Thar She Blows!, by Chester Howland.

Shark!, by P. FitzGerald O'Connor.

The Sea-Hunters: The New England Whalemen During Two Centuries, 1635-1835, by Edouard A. Stackpole. (An excellent reference work with splendid pictures.)

Whaling Wives, by Emma Mayhew Whiting and Henry Beetle Hough.

PROGRAM V

THOSE WHOM THE SEAS CLAIM

"Oh, Lord, Thy sea is so broad and my ship is so small."
—Gloucester Fisherman's Prayer

In the preface to his novel, *The Pilot*, James Fenimore Cooper remarks that after he had made some progress on the work, he had many misgivings, the opinions of different friends being anything but encouraging. Least encouraging appears to have been that of the friend who declared "that the sea could not be made interesting; that it was tame, monotonous, and without any other movement than unpleasant storms." Both men were mistaken, of course. Cooper's novel initiated a vogue for sea stories, and little more than half a century later Joseph Conrad revealed to an awakened reading public new aspects of the infinite variety of the sea and of the character and endurance of the men who followed it. In the "rich tropical glow" of his prose a naturally beautiful and intensely exciting world of ships and men took permanent shape.

With particular reference to his two exclusively sea books, The Nigger of the Narcissus and The Mirror of the Sea, and to his short sea stories like "Youth" and "Typhoon," Conrad remarked that he had "tried with an almost filial regard to render the vibration of life in the great world of waters, in the hearts of the simple men who have for ages traversed its solitudes, and also that something sentient which seems to dwell in ships—the creatures of their hands and the objects of their care." Of The Nigger of the Narcissus he said that it was the story "by which as a creative artist I stand or fall; at any rate no one else could have written it."

The magic of Conrad's writing and the pattern of his prose is frequently attributed to the influence of French literature, with which he was so thoroughly familiar. For this reason, it is intriguing to place by The Nigger of the Narcissus a classic book of the sea, Pêcheur d' Islande, translated from the French of Pierre Loti under the title of The Iceland Fisherman. Although The Nigger is in the original English and Loti's novel is in translation, there is spiritual kinship between the two in dignity and clarity of expression in the understanding and appreciation of courageous men, and in a stunning ability to describe the sea in any mood, however wild. Fascinating, too, is an important contrast between the two novels. Conrad writes in compassionate but ironic mood of

men, alone, in their relationship to the great waters, while in Loti's tender story of Breton fishermen women stand as poignant symbols of the fatal fascination exercised on their men by the sea which takes them.

Pierre Loti is the pen name of Louis Marie Julien Viaud (1850-1923), a French naval officer and author who found his subjects in his travels. Pêcheur D'Islande, the best known of his books, was first published in 1886. In 1891 Loti was made a member of the French Academy.

1. THE GREAT WORLD OF WATERS

"So violent, yet long these furies be."

-John Donne

The Nigger of the Narcissus, in Joseph Conrad: Tales of Land and Sea.

Quoting from the most significant statements of his preface to *The Nigger*, explain Conrad's deeply felt creed as an artist.

Tell briefly this story of a Negro, a boat and a stalking death.

Discuss the characterizations of several of these men, so varied in appearance and nature but in their responsibility to the ship "akin with the brotherhood of the sea": emotional little Belfast, or "stupid cookie," overflowing with the desire to meddle and the "pride of possessed eternity"; silent white-bearded Singleton, "sixty-year-old child of the mysterious sea"; that "cheeky costermonger chap in a black frock coat," an unbelievably real creature of degradation and fury, Donkin; the model chief mate, Mr. Baker, grunting "in a manner bloodthirsty and innocuous"; or those two men, subtle and superb creations, Captain Allistoun and James Wait: the one, distant, perceptive, fearing "naught but an unforgiving God," and throughout the storm seeming "with his eyes to hold the ship up in a superhuman concentration of effort"; the other, that man of terror, the nigger, doomed to death, but facing it with subtle faculties—that man scornful, condescending, glorious and obscure.

Discuss the effect on the crew of the presence of James Wait. Quote from Conrad's masterful analysis of the reactions of these men of "vague and imperfect morality" to the problem in integrity and humanity presented by the enigma of the tragic and mysterious Negro. Was this indeed "a weird servitude" for men who were only trying to be decent chaps and finding it jolly difficult?

Read from the magical word pictures, found on practically every page, of the men and the ship and of nature, and of the battles of storm and calm in which the three engage. Do you, like Conrad, glory in this world which he creates, in this bigness, this surge of life and sound and struggle, all, except the sea itself, subject, ironically, to the actual fact of death? Do you find yourself delighting in Conrad's precise use of words and his unremitting care "for the shape and ring of sentences"; in his creation of atmosphere and character by constantly elaborated and

revealing detail; in the general richness and beauty of his prose; in the magic sensitivenes which plays over his pages?

Does Conrad indeed achieve his task? By the power of the written word, does he make you hear, feel, and see? Have you experienced the storm, sat out the calm, suffered with the crew, died with the nigger, rushed with the ship foaming to the Northward before a freshening gale, and finally gone with the mariners from the blazing reality of the sea to the dull roar of the busy earth? Have you found "encouragement, consolation, fear, charm—all you demand—and, perhaps, also that glimpse of truth for which you have forgotten to ask"?

Additional Reading:

In Hazard, by Richard Hughes.

Gallions Reach and

The Sea and the Jungle, by H. M. Tomlinson.

2. The Return

"I will go back to the great sweet mother, Mother and lover of men, the sea"

-Swinburne

The Iceland Fisherman (Pêcheur D'Islande), by Pierre Loti. Translated from the French by W. P. Baines.

Describe the Breton countryside from which the Icelanders came: stony hills, small villages and "Celtic" huts, cliffs forever hammered by the sea; grey chapels and saints and graveyards dishevelled by "the eternal hand of the west wind"; cold winters, and "warm, suave, troubling" spring-times, with lovely hedges of blossoming thorn and full-growing, sweet-smelling grass in valleys sheltered from the wind of the sea.

Explain the cycle of life forever set in this Breton land by the departure and return of the Icelanders, and tell of the manners and customs, the religious faith, the fetes and festivals of the people: the fishermen, "children of the wind and the tempest," they "whom Iceland devours"; the women, their hearts so often wrung by the terrifying music of the sea; the children of whom there must be so many, and the handsome proud-bred girls for whom the spring was almost loveless.

Picture the fishing fleets and describe the lonely dangerous seafishing. Read generously from the eloquent descriptions of the varied aspects of "the great nurse and the great devourer" of vigorous generations—the cold waters of Iceland which Yann loved so well. Are these waters disturbing to you, even sinister, in their beauty?

Relating the simple stories of old Yvonne and Sylvestre, of Gaud and Yann, discuss the very fine characterizations of the four people, noting the sureness with which Loti brings out the integrity of each and the beauty of their various relationships. Quote from the lovely cadenced prose.

Do you find this writing tremendously moving and rich in lasting images of life, particularly when Loti writes about Sylvestre's parting from his grandmother, his voyage, and his death and burial "under his wonderful trees, under his wealth of blossom"; or about old Yvonne walking towards the news of her grandson's death, and of her return home; or about Gaud's longing for Yann, her care of old Yvonne, and the lonely lives of "these two forlorn ones who had become united"? Again, are you deeply stirred by passages such as those descriptive of Yann's reactions to Sylvestre's death and his prophetic vision in the clouds, or of the fateful apparition of the Reine-Berthe, or of the sea's fury on the night of the wedding?

In fact, is every page of this book a haunting reminder of the ageold relation of men and women to the sea? Is the novel, in its insight and compassion, a tribute to all valiant men and women whose lives have been conditioned by the sea? Comment.

Additional Reading:

Riders to the Sea, by J. M. Synge.

PROGRAM VI

SALT SEA TOILERS

"Thy salt is lodged forever in my blood."

-W. H. Davies

Two of America's finest writers in our time have contributed to the story of men who get their living from the sea: Eugene O'Neill (1888-1953) in several plays of the sea from among which the S. S. Glencairn cycle has been selected for reading; and Ernest Hemingway (1898-), in his last published novel, The Old Man and the Sea.

Gradually but inexorably the steamship had replaced the sailing vessel until "Coal took the place of wind," in William McFee's words, "and the tramp steamer's smoke covered the seven seas." It is of the tough, hard-living and hard-working crew of one of these tramp steamers that O'Neill writes in the Glencairn cycle. His first significant work, this cycle was the pungently realistic fruit of his own experience in early young manhood as an ordinary seaman. Born in New York City, the son of an Irish actor, he had left Princeton, after a year there, to go to sea, and it was when illness brought to an end his life on the sea and along the New York waterfront that his attention turned to the playwriting which was to make him famous.

In sharp and pleasant contrast to O'Neill's rowdy plays is Hemingway's quiet novel about a deep-sea fisherman. The son of a doctor in Oak Park, Illinois, Hemingway, as newspaper correspondent, soldier, author, and sportsman has led a life of action which is reflected in his work from his first successful book, The Sun Also Rises, to this latest slim volume, The Old Man and the Sea. Eloquent of courage in man and nature, of calm seas and of vibrant sea creatures, this novel is a small classic of today.

1. Poor Devil Sailormen

The Long Voyage Home: Seven Plays of the Sea, by Eugene O'Neill

Tell the story of the S. S. Glencairn and what in general her seamen are like. For the flavor of the dialogue, read from the "rude and stormy lines."

Distinguishing between those who find on the sea refuge from the land and those who find in the life a fierce fulfillment, tell of individual seamen: bitter, drunken Smitty, raving to placid Old Tom, the donkeyman, or sobbing in fury and humiliation; dying Yank, recalling past

days of glory on the beach with Drisc, and wondering about his maker; vain tormented little Cocky; trusting Olson, shanghaied aboard the *Amindra*; and to leave the Glencairn for a moment—the Keeneys in "Ile," inexorably trapped, each by his own nature.

Sentimentally perhaps—perhaps not—some people feel that the demands of sail produced better men than those of steam. In general how do you feel about this? The crew of the *Glencairn* may be a ragtag crew but do you find in it, even in these brief scenes, evidence, for instance, of that sense of responsibility to the ship that Conrad considers a requisite of all good seamen? Are these men any more turbulent or, at heart, any less decent than those of the *Narcissus*, for example? Would you say they are softer, or any less subject to the fascination of the sea, hard and demanding as the life is? Discuss.

Brooks Atkinson, dramatic critic of the *New York Times*, says that these plays distill "raw truth into a kind of undeclared poetry." Do you find it so?

Additional Reading:

The Hairy Ape and Anna Christie, by Eugene O'Neill.

2. THE ANCIENT MARINER

"But man is not made for defeat . . . A man can be destroyed but not defeated."

-Santiago

The Old Man and the Sea, by Ernest Hemingway

Reading at length from the novel, tell in its simplicity the story of the old man. In selecting passages from the text, bear in mind, in addition to the lucid prose, other notable aspects of the novel:

- 1. The relationship between the man and the boy.
- 2. The descriptions of sea and sky and of the vivid life in the sea around the old man.
- 3. The dignified, tender development of the character of the old man and of his feeling toward the fish he would kill. Are you struck with Hemingway's simple acceptance of this poor humble soul who, deserted by his luck and without necessary physical strength, has still the will to endure at any price and to conquer? As you read, do you find yourself sharing the old man's acceptance in brotherhood of all of the good in nature—fish; the stars; the birds; la mar; even the stupid loggerheads and the brave dentuso—all but the scavenger galanos? Is this feeling of kinship, this humility in the face of the strength and cleverness of nature, one of the most endearing aspects both of the old man and of the novel itself?

When this book was translated into French, Génet, correspondent for *The New Yorker*, wrote from Paris: "In an amazing appreciation, the writer Jean Quéhenno stated that he was putting it on his library shelf besides 'Feuilles d'Herbe,' by Whitman; 'Un Coeur Simple,' by Flaubert; 'Des Souris et des Hommes,' by Steinbeck; and 'La Mort d'Ivan Ilitch,'

by Tolstoy." Do you find this appreciation amazing? Would you care to speculate on the quality, or qualities, which Mons. Quéhenno found in common between The Old Man and the Sea and Leaves of Grass, A Simple Heart, Of Mice and Men, and The Death of Iván Ilych?

Additional Reading:

Gulf Stream North, by Earl Conrad.

PROGRAM VII

OF MEN AND THE ELEMENTS

"You can never see the sky until you've looked upward to the stars for safety. You never feel the air until you've been shaken by its storms. You can never understand the ocean until you've been alone in its solitude. To appreciate fully, you must have intercourse with the elements themselves, know their whims, their beauties, their dangers. Then every tissue of your being sees and feels, then body, mind, and spirit are as one."

-Charles A. Lindbergh

Flying a mail route in the Middle West in the fall of 1926, Charles A. Lindbergh was startled with his own thought: "Possibly," he says his mind told him,, "I could fly nonstop between New York and Paris." Now, a quarter of a century later, he has completed his account of that famous flight and into it he has skillfully woven the story of a life overflowing with interest and excitement, from childhood days on the banks of the Mississippi to the moment when, twenty-five years of age, he landed his plane in the center of Le Bourget Aerodrome, Paris, France. Although in *The Spirit of St. Louis*, the pilot, the plane and the weather are the amazing protagonists, the implacable Atlantic Ocean, powerful symbol of possible failure and death, pervades the book, lending to the man and the plane in flight over its waters an enchantment in daring exciting to the reader as the finest fiction.

At one point in his planning, Lindbergh thought of attempting to set a record in flying the Pacific rather than the Atlantic. Twenty years later several young men did cross the Pacific in daring fashion, but it was the ocean's surface, not above it, and on a contraption very different from any the flyer might have envisioned. This trans-Pacific voyage of six young men on a raft is recorded in Thor Heyerdahl's *Kon-Tiki* with an impact of life and high spirits which renders it utterly delightful. Heyerdahl, a Norwegian scientist and graduate of the University of Oslo, made the voyage to obtain proof for a novel theory, and the development of this theory in the course of his narrative is quite as exhilarating as the actual adventures of the men on their raft.

1. By Man's Witchcraft

"I believe the risks I take are justified by the sheer love of the life I lead."

-Charles A. Lindbergh

The Spirit of St. Louis, by Charles A. Lindbergh

In the eighth hour of his flight, Lindbergh, noting fortune's favors to his enterprise, remarks, "It seems today that every door is flung wide open when I knock." Was this luck, or was it perhaps the result of a life and intelligence shaped to this flight? With this question in mind, tell Lindbergh's story, with particular attention to tough pioneer ancestry, interests and preoccupations as child and young man, reaction to formal education, training in flying, risk and excitement of barnstorming, and dangers and responsibilities of flying the mail. Cite examples of his daring.

Does this responsible young man, who, like Columbus, was "about to take on the entire ocean," completely amaze you when in the midst of his planning he suddenly inquires of himself: "How does a pilot locate his position over the ocean—by day—by night? How accurate is a sextant sight? How can one measure drift above water?" Comment, not on his dilemma alone but on the generally primitive state of flying knowledge and equipment in that day.

Tell of the actual flight: genesis, preparations, navigational aids, course, time consumed, weather conditions and other hazards, and conclusion. In even the most factual summary of the flight, are you overcome with the horrors of ice, the trickery of blind flying, the potentialities for death? Comment.

For sheer pleasure, select and read aloud passages which you find most interesting, revealing, or beautiful—passages, perhaps, concerning the overpowering desire for sleep and other sensations and thoughts of the flyer (the section pp. 301-2, beginning "For some unmeasurable time in memory," is particularly lucid), or passages descriptive of the terror and beauty around him in the awful spaces of sky and ocean. Note the stunning descriptions of cloud formations in "the sacred garden of the sky" and the moving paragraphs telling of the sighting of the porpoise, particularly the passage beginning, "This ocean, which for me marks the borderland of death, is filled with life."

2. Tasters of Peril

"... the great waters where, strictly speaking, a man would have no business whatever but for his audacity."

—Joseph Conrad

Kon-Tiki: Across the Pacific by Raft, by Thor Heyerdahl

Explain the theory and circumstances which resulted in the Kon-Tiki expedition, and discuss some of the colorful folklore and remarkable

evidence Heyerdahl presents in support of his belief, evidence which, like the traces on Easter Island, even "the tooth of time has not been able to destroy." In this connection, comment on the inventiveness and nautical sagacity of ancient man.

Tell the highly entertaining story of the collection of equipment and crew, and the building of the raft. Describe the raft, mentioning the life saving attributes of soft sap-filled balsa logs, and show how far the conditions under which Heyerdahl thinks Kon-Tiki crossed the sea were recreated for this expedition.

Give an account of the daily work routine on board the raft and of the recreational pursuits of the crew, with particular note, and instances, of the high spirits and good humour of these bold young men, and of the exhilarating sense of the ridiculous which so often in their empty blue world sent them into hilarious laughter at themselves and their zany craft. In this connection, discuss the various sources of food the sea might offer the shipwrecked, and the possible ways to check thirst and to stretch a supply of fresh water.

Picture the wonderfully entertaining sea life around, under, and even on, the raft, the "inquisitive guests which wriggled and waggled" about the six friends—diverting pilot fish and delicious dolphins, night-glowing plankton, grinning whale sharks and great sea turtles, swarming crabs as big as a fingernail, gamboling porpoises, shining giant whales (slightly disconcerting with their real breathing), stupid remora, rocket propelled young squids, leisurely sharks, great goldfinned tunnies—fascinating all. Is there here bewitching evidence in support of ancient mariners and their tales of mermaids and sea monsters?

As the protagonist in this drama, the sea, assisted by the winds, assumes all but exclusive importance. Discuss its behaviour, from the hour when "the jagged mountains of Peru had vanished into the dense cloud banks astern" to the last moments when the raft ran aground on the Raroia reef. Cite instances of high peril to individual or raft, but in the terror of wind and wave and man overboard don't forget the average day when, Heyerdahl says, "While wind and waves pushed and propelled, the ocean current lay under us and pulled, straight toward our goal," and when "If a boat had cruised our way . . . it would have found us bobbing quietly up and down over a long rolling swell covered with little white-crested waves, while the trade wind held the orange sail bent steadily toward Polynesia." Considering all the circumstances, can you appreciate the sense of security which through most of the voyage the "primitive lair" of the bamboo cabin afforded the adventurers? Comment.

When land is sighted and success almost in hand, do you find yourself quite as excited as were the young men? Quote from the moving pages in which Heyerdahl describes the attempt to get through the opening in the reef to Angatau and near-death on the Raroia reef, and from the even more moving and delightfully humorous account of the reception by the Polynesians.

Contemplating the unbelievable yet true achievement of these twentieth century Vikings, do you agree that the intelligence, vigor, and resourcefulness of ancient man are well matched in modern man? And could one deny that Conrad's "stern and impartial sea" was certainly not niggardly of opportunities to these six who knew how to grasp them with ready hands and undaunted hearts?

Additional Reading: (books about sailing for sport, mostly)

Yankee's Wander World, by Irving and Electa Johnson.

They Took to the Sea, by David Klein and Mary Louise Johnson. (Accounts of famous voyages of Joshua Slocum, Jack London, Rockwell Kent, and others.)

The Cruise of the Snark, by Jack London.

The Voyage of the Cap Pilar, by Adrian Seligmann.

Sailing Alone Around the World, by Captain Joshua Slocum.

Captain Joshua Slocum: The Life and Voyages of America's Best Known Sailor, by Victor Slocum.

Sailing to Freedom, by Voldemar Veedam and Carl B. Wall.

PROGRAM VIII

MEN SING OF THE SEA

"Old ocean was
Infinity of ages ere we breathed
Existence; and he will be beautiful
When all the living world that sees him now
Shall roll unconscious dust around the sun."

—Thomas Campbell

Unfathomable and unchanging, the sea is still today, as in the epic days of the ancients, all but pure poetry. Those who would doubt this, remembering the sea

".... that tramples beauty into wreck,

And crumples steel and smites the strong man dumb," need only refer to the pages of Rachel Carson's books, written by a scientist in prose but from necessity of the subject constantly passing into poetry.

Of sea poetry, W. M. Williamson's anthology, *The Eternal Sea*, although it is inclusive rather than selective, is yet, for browsing, a volume of delight. As varied in mood as the winds and waters themselves, it ranges in quality from "The boy stood on the burning deck" to "Methought I saw a thousand fearful wrecks," and in time from Caedmon and Shakespeare to Robert Bridges and Edna St. Vincent Millay.

Pause, and heed Rossetti's admonition to "Listen, alone beside the sea," for profit lies here in the enchantment of "blissful golden melody."

The Eternal Sea: An Anthology of Sea Poetry, edited by W. M. Williamson

"Gather a shell from the strewn beach
And listen at its lips: they sigh
The same desire and mystery,
The echo of the whole sea's speech."

—Dante Gabriel Rossetti

Select and read aloud the poems which speak to you.

With the hasty admission that selection is a matter of personal taste and that the groups are far from mutually exclusive, attention is tentatively called to certain verses or poets:

1. Poems, widely varied in virtue and appeal, and recalling to older readers, perhaps with some nostalgia, the days when elocution innocently held the high school boards: "We were crowded in the cabin"; "It was the schooner *Hesperus*"; "The boy stood on the burning deck"; "All in the

Downs the fleet was moored,; A wet sheet and a flowing sea"; "Build me straight, O worthy Master!"; "Ah! what pleasant visions haunt me"; "It was many and many a year ago"; "The full sea roars and thunders"; "I am fevered with the sunset"; Holmes' "The Chambered Nautilus" and "Old Ironsides"; Stevenson's "Christmas at Sea," Cowper's "On the Loss of the Royal George," Kingsley's "The Three Fishers" and "The Last Buccaneer"; Tennyson's "Break, Break, Break" and his deathless "Crossing the Bar" and, never to be forgotten, Lord Byron's wonderful apostrophe, beginning "Roll on, thou deep and dark blue Ocean—roll!"

2. More recent verses: those of the two whose very names invoke the sea, Walter de la Mare and John Masefield; the quiet verses of Mac-

Leish, Colum, Genevieve Taggard, and Edna St. Vincent Millay.

3. Poems by poets of earlier generations who, gifted in imagination, speak to all in terms of nobility and beauty: "Milton, even in excerpts "splendid as a cloth of gold"; somber Spenser; grave Wordsworth; Shelley, Keats, and Southey—various and beautiful; James Thomson, Rossetti, Whitman, Bridges, Morris, more of Tennyson and Byron, Thomas Campbell, Crabbe and Caedmon, Matthew Arnold, Lanier, Swinburne, Shakespeare—the magic of the sea matched in the magic of their lines—and of purest beauty, the verses from Psalm CVII. From such wealth, selection is difficult, but from whichever poet, come always "More notes of more delight."

(The omission of Coleridge's "The Rime of the Ancient Mariner" is especially to be regretted.)

Additional Reading:

Poems, by John Masefield.

PROGRAM IX

THE SEA AND MEN AT WAR

"It is a war of groping and drowning, of ambuscade and stratagem, of science and seamanship."

-Winston Churchill

Although Nicholas Monsarrat's *The Cruel Sea* is a novel and Edward Young's *Undersea Patrol* is a personal account, the two books complement each other. Based on the individual experience of the particular writer in World War II, neither book makes for complacent reading. Young pictures life in an English submarine on war patrol; Monsarrat tells a story of surface convoy duty and of English men and ships torpedoed into oblivion in the Battle of the North Atlantic. Perhaps for the very reason that Young writes without heroics or sentimentality—although with a very welcome humour—the bare fact of the ever present imminence of death in the depths of the sea strikes that much deeper into the reader's imagination as the tension of his assignments steadily increases. *The Cruel Sea*, in the very nature of its subject a blend of suspense and terror, is all the more horrifyingly engrossing because the story is told in terms of history and actual incident.

Nicholas Monsarrat (1910-), an Englishman of French-Irish descent, was born in Liverpool, the son of a surgeon. He was educated at Trinity College, Cambridge, and learned his trade as writer in years prior to World War II. During the war he was promoted to command of a corvette and then of a frigate. He has since combined writing with duties in the United Kingdom Information offices in South Africa and in Canada.

Avaliable data on Young is included in Undersea Patrol.

1. On The Surface

"The whole battle was now a very personal matter, and for sailors involved in it there was a pride and a comradeship that nothing could supplant. For they were the experts, they were fighting it together, they had learnt what it took from a man, and the mortal fury that, increasing from month to month, tested whomever was sucked in, from the highest to the lowest, down to the fine limits of his endurance."

—from The Cruel Sea

The Cruel Sea, by Nicholas Monsarrat

Fill in the background of this book, drawing attention particularly to England's early lack of ships and trained men, and to the role played

by the corvettes, "definitely odd" ships but cheap and quick to build. Compare to the awkard, ill-equipped Compass Rose the solid complex Saltash, launched three years later to fight a war which, "toward the the middle of 1943, had reached a hard and hopeful moment."

Tell the story of Compass Rose and of how, though "a natural bastard in any kind of seaway," she was got going and made to work. Describe her duties of convoying, spotting and bombing, towing and rescuing and searching, and discuss some of the men who, during "nearly three years of training and practice and learning at first hand, three years of sweating it out in wretched surroundings, three years of cruel weather, cruel dangers, cruel sights to remember," made of Compass Rose one of the best ships in the flotilla. Note particularly the response of these men—and of men like them on the Saltash—in matters and circumstances most cruelly strange to them.

Tell several of the stories which best illustrate the gamut of experience and emotion in the lives of these men at sea in wartime—stories of attack, of death or survival, of furious weather when danger lay in the storm rather than the enemy, of cruelty and compassion, of decency and indecency in living and in dying, of wry humour. Did there come to be in truth "no margin for humanity," as even Ericson finally felt?

For the fun of it, sum up with supporting evidence Johnson's opinion of Americans as sampled in New York. Do you agree with his pronouncements? Incidentally, do you enjoy Monsarrat's very clever contrast between the British and the American temperament?

By at least one critic, this book has been classed as slick journalism only dressed up as fiction. What do you think? For mere fact, would you give up Ericson, Lockhart, Morell, Ferraby, Tonbridge, Tallow and Watts, a dozen others, even Bennett? In the interests of pure fiction, would you dispense with the factual passages, the author's explanations, his evaluation of character, his open admiration for English ships and English crews?

Additional Reading:

Away All Boats, by Kenneth Dodson.
Far From the Customary Skies, by Warren Eyster.
The Undaunted, by John Harris.
The Survivors, by Ronald McKie.

2. Beneath The Waters

"Nothing is more depressing than to spend day after day on a billet without a sign of the enemy."

-Commander Young

Undersea Patrol, by Edward Young

Explain in general the construction and layout of a submarine; discuss some of the equipment, such as periscopes, torpedoes, types of guns, etc.; tell how a submarine dives and surfaces, and explain the meaning of "diving on the klaxon"; describe the accommodations for,

and outline the duties of, officers and crew; mention the nature and functions of depot ships. Refer to Young's comments on American submarines and his tribute to American submariners.

Follow briefly Young's career from the day he found himself a volunteer for submarine service to the day he was called to the CO's course. Tell something of the men who meant most to him during this period, notably George Colvin, and of the experiences which left the most lasting impression on him: the sinking of the *Umpire*; the voyage in *Sealion* to the Arctic Circle—in retrospect "a succession of mountainous seas and nights of misery"—the spartan far north environment and the beastliness of freezing spray; the warmth and gaiety of Gibralter; the "magic carpet" in the Mediterranean; the desolation of Malta.

Tell of the challenge of the perisher course (a wryly accurate nick-name!).

Touch on the conditioning of *Storm* and her crew; pointing out the navigational miracle of pinpoint rendezous in midocean, outline *Storm's* travels, noting especially the dangers, other than the enemy, which lay in wait for her in empty northern waters and in treacherous southern seas; make up her crew and follow the routine of their lives, noting dress, food, recreational pursuits, general morale, etc.

Describe one or two of *Storm's* most dangerous exploits and explain the close reasoning of the officers and the expert maneuvering of the ship which saved crew and sub.

Characterize at some length the commander of *Storm* as he is gradually revealed in the pages of his book. Are you impressed with his consecration to his job, navigational skill, generosity towards his officers and crew (recall the original purpose of *Good Evening*), humanity, frankness, modesty, sense of humor, pure courage, and an intelligence balanced by a sense of the value, on occasion, of calculated risk? Cite incidents illustrative of his qualities, many of which could probably be tied together in one package in his decisions in the abortive cloak and dagger episode of the Sumatran native "agent" and the landing on Pulo Weh. Do you feel that certainly as far as commanders like Young were concerned, these submariners were admirable combinations of head, heart, and courage?

Young remarks in his preface that he would remove the average man's ignorance of life in a submarine, and prove that life's fascination. Does he do just that? Comment.

Additional Reading:

Submarine!, by Edward L. Beach (Commander).

Twenty Thousand Leagues Under the Sea, by Jules Verne.

PROGRAM X

"THE RISING WORLD OF WATERS"

Little more than a hundred years ago, Leigh Hunt referred to "the roaring waste" of the seas—and with some truth. But so rapidly has the knowledge developed of the physical aspects, the creatures, and the potentialities of the sea for modern needs that today the waters of the earth are no longer a "roaring waste" but a rapidly expanding source of valuable historical data, relics of ancient civilizations and past centuries, oil and abundant food, to mention the more obvious of its treasures.

In February 1954, about 120 miles west of Dakar, two French naval officers descended in a free bathyscaphe to 13,284 feet, more than two and one-half miles below the surface of the Atlantic. They now hope to take the bathyscaphe 36,000 feet under the Pacific, thus reaching the greatest recorded depth of the ocean (35,640 feet, according to the New York Times). Meantime the Swiss scientist, Prof. Auguste Piccard, famous for his balloon ascents into the stratosphere and his pioneering in free bathyscaphe diving, is planning new descents. As yet books descriptive of the experiences of these men below sea are not available, but twenty years ago the scientist William Beebe (1877-) had himself lowered in his bathysphere at the end of a cable to 3,028 feet and wrote an engrossing account of the adventure. Since light does not penetrate the sea below 3,000 feet and beyond that point all is black, his book, A Half Mile Down, is characteristic still of present knowledge.

An excellent companion to A Half Mile Down is Rachel Carson's Under the Sea-Wind, which in addition to being an enchanting book in its own right affords a very fine picture of the crowded life of salt waters and so a splendid background for Beebe's descent.

1. THE SEA'S CREATURES

"While the sun and the rain live, these shall be"
—Swinburne

Under the Sea-Wind, by Rachel Carson

Quoting generously from Miss Carson's fascinating and wonderfully crowded word pictures, tell of life at the edge of the sea—on the southern shore, where the sanderlings rested and to which they returned, and in the beautiful northland. Are you struck with the contrast between the

ecstatic freedom of shore bird and fish, and the relentless manner in which "the precious elements of life are passed on and on in endless chains"? Draw examples from the abundant and colorful wealth Miss Carson offers.

Tell the story of Scomber, the mackerel. Do you find in it most perfect examples of the pulsing life and the amazing color and movement in salt waters, of the beneficent sanctuary offered by the strong, steady rhythms of the sea, of the self-sufficiency of life in the ocean? Note particularly the ever-recurring miracle of the mackerel's arrival in the protected summer waters of New England and their winter return to the quiet blue twilight of the continent's edge from which the mackerel tribes which produced them had set out. Give examples of other recurring miracles, notably in the lives and habits of shad, shrimp, scup and mullet.

In the precision with which nature orders their lives and adjusts their bodies to their environment, in their countless hordes, and in their unerring mass movements, do the eels amaze you? Are you amazed, too, at how much we know about them, and yet how little? Tell their story. Note the many exciting passages in their tale and that of the waters around them, notably the description of the warp and woof of fishes over the eels to the surface and under them to the abyss as they spread in a carpet through the sea. How does the comparison at the end of the book of the waiting eels to the restless waiting sea strike you?

In this whole picture of the unending cycle of life in mighty waters, advancing and receding through time, does man appear a petty marauder, an insolent intruder into a world which has no need, and takes no thought of him. Comment.

Additional Reading:

The Outermost House: A Year of Life on the Great Beach of Cape Cod, by Henry Beston.

Icebound Summer, by Sally Carrighar.

Lady With A Spear, by Eugenie Clark.

Wonders of Neptune's Kingdom, by Francis Martin Duncan.

Field Book of Seashore Life, by Roy Waldo Miner.

A Field Guide to the Shells of Our Atlantic Coast, by Percy A. Morris.

2. Towards The Fathomless Depths

"Through caverns measureless to man Down to a sunless sea"

-Coleridge

Half Mile Down, by William Beebe

Follow Beebe's exceedingly entertaining review of the history and folklore of man's efforts to descend into the sea. Select from the delightful examples, anecdotes and quotations, those which interest you most, not omitting his clever account of the superior ingenuity of the bubble-clutching beetle, the rat-tailed maggot, and the amazing spider.

Can you believe that helmet diving to 40 feet is actually as effortless and safe as Beebe describes it? Can you doubt that, as he says, the experience would leave you "inarticulate with amazement"? As evidence for his enthusiasm, read from his descriptions of the strange and marvelous seascapes and denizens of the different seas of the world.

Explaining the chief problem of pressure in deep-sea diving, describe briefly the bathysphere (note the coinage of the word) and its equipment, and tell of some of the difficulties and dangers encountered in the various dives. Are you really astounded at the pure courage and dedication of Beebe and Barton in their undertaking? Comment.

Selecting for inclusion the observations and incidents which you find characteristic, accompany Beebe and Barton on a sample dive to one-half mile. Note the tricks of light; the fading of color from "brilliant blue" to nameless gray, to black—the sun defeated and color gone forever, "until a human at last penetrates and flashes a yellow electric ray into what has been jet black for two billion years"; the steadily growing pressure of tons of waters with its potential threat of "instant, unthinkably instant death"; the totally unexpected mass of life; "the strangeness and unbelievable beauties of this newly conquered realm."

Does Beebe's association of real stars in the heavens and animal stars in the eternal blackness of the abyss stir your imagination? What is your reaction to his personal response to this experience? Discuss particularly his very interesting statement that his descents beneath the sea seemed to partake of a real cosmic character. Quote, in ending, his imaginative summary in the last paragraph of Chapter 9 (At the End of the Spectrum).

Special Reference: The World Beneath the Sea, by Otis Barton.

Additional Reading:

The Arcturus Adventure, and Beneath Tropic Seas, by William Beebe.

Program XI

OCEAN'S EDGE

Because the two books are fascinating, and because they were written for those who would know more of the populations of coast, bay and reef, before descending again into the "fish-haunted deep," attention is called to Gilbert Klingel's *The Bay* and T. C. Roughley's *Wonders of the Great Barrier Reef*. Endowed with a gift for tireless and rewarding observation, each of these two writers transmits with fervency his own enthusiasm and respect for the marvel of all growing and living things.

Klingel, a Baltimore business man, for many years has devoted his leisure hours to biology. On one of several scientific expeditions he was shipwrecked off the Bahaman island of Inagua and from this experience came a most interesting book originally called *Inagua* but recently reissued by Dodd, Mead under the title of *The Ocean Island*. Roughley is a scientist well-known in England and Australia.

1. Antechamber to the Sea

"...a being is not less perfect for being small."
—Klingel

The Bay, by Gilbert Klingel

Explain the scope of this book.

Describe some of the exquisite and wondrously wrought small sea creatures and coast animals and birds from among the numbers Klingel observes, and tell something of their habits, mode of life, and means of perpetuation: the unbelievable glass prawns, perhaps, or the green-eyed balloon fish; the unorthodox sponges and pipefishes; the delicate and graceful tern, or the odorous muskrat; the ghostly jellies; the puzzling lantern bearers, or the unassuming sea squirts and the devilish barnacles; the methodical ospreys, the strange fiddler crabs, the shimmering gold butterfish, the close-packed croakers, the amazing starfish.

Taking note of the "earth-sea struggle" between the marshes and the ocean, tell of "the mosaic that comprises the total picture of a Chesapeake swamp" from the morning chorus to the last clear note of the lone gray mockingbird. Does Klingel convince you that "These marginal swamps are places of surpassing beauty, and there is a quality of loveliness about them that is different from all else"? Incidentally, don't miss the comical *Littorina* snails.

In passing, describe the "Bentharium." Is its simplicity amazing, and its efficiency even more so? Do you agree that this is a clear case where heroes are certainly born, not made?

From the farthest wave reach, where the dunes are born, to the first buried forest, picture the Cape Henry desert. Give examples of

the determined tenacity of animate life, in spite of "the intense heat and the glare of summer, the icy wintry blasts, and the ever-shifting sands and unnourishing soil." Note particularly that "perpetual Casper Milquetoast," the hog-nosed viper, the toads from the distant gum forest, and the blithe shadowy ghost crabs eternally sure of their lovely beaches.

Reading of these myriad little creatures in the setting nature has here given them, do you agree that to those who can look and listen the Bay is indeed a wonderful place, its inhabitants a fit introduction to the larger but no less marvelous wonders of the deep?

2. TWELVE HUNDRED MILES OF CORAL

Wonders of the Great Barrier Reef, by T. C. Roughley

Give the necessary facts as to the location, nature, extent, etc., of the Great Barrier Reef.

Noting the conditions under which coral grows best and the agents of its destruction, discuss aspects of this twelve hundred miles of coral which interest you most. Don't overlook nature's clever provision of a supplementary supply of oxygen for the coral and the effect of the polyp's powers of contraction and expansion on the appearance of the coral.

Call attention to the great variety of creatures which inhabit the reef and its waters, to the fascinating diversity of these creatures in size, form and colour, and to their ingenuity in adaptation to their environment.

From the abundance of life, select the specific creatures which you find most interesting, entertaining, beautiful, queer, or just plain amazing, and discuss in some detail their appearance, nature and habits. Incidentally, introduce the birds which fossick in their millions over the reef. And since beauty alone, as Roughley points out, is not entirely dominant in the region of the Reef, include some discussion of the physical attributes, defensive and feeding habits, of some of the forms which are to be found there: the unpleasant star fish with its protrusible stomach, or the vile stone-fish, the repulsive octopus, the venomous sea snakes, etc.

Finally, turning to more prosaic but none the less important aspects of this reef, point out the actual and potential sources of wealth and food. Note, with example, the unquestioned necessity for scientific investigation and sane legislation as an aid to industry.

PROGRAM XII

NEW FRONTIERS

"But when a hitherto impenetrable portion of the earth or some zone foreign to human presence is suddenly rendered accessible by reason of a new means of transport or the overcoming of some elemental or other natural condition inimical to human life, then every corner of man's mind susceptible to enthusiasm or accumulated curiosity is aroused to highest pitch."

-William Beebe

Captain Jacques-Yves Cousteau is a French navy gunnery officer who has been diving for fifteen or more years; Frédéric Dumas, said to be the world's most experienced diver, is a civilian physiologist with the French navy's Undersea Research Group; and Philippe Diolé, editor, writer, explorer, and diver, is Director of Undersea Archeological Research for the French National Museums. From the pens of these Frenchmen have come fascinating books descriptive of their diving experiences and of the world of waters in which they have freely moved to a depth of approximately 300 feet.

Cousteau and Dumas are specialists whose primary interest has been solution of the problem of effective penetration of the sea in individual freedom. Diolé's specific intent is to arouse in others a proper enthusiasm and readiness for the intelligent exploitation of the material, scientific, and spiritual potentialities of the undersea world. Witty, sophisticated, and fully informed, their books open exciting horizons on the frontiers of the sea—a sea from which new lessons in history are already being drawn, and upon which in Diolé's ardent opinion a newly constructed agricultural civilization may in some distant future be based. For to Diolé, as to the men and women of old Nantucket, "There is the green pasture where our children's children will go for their bread."

1. A World Long Lost

"We have tried to find the entrance to the great hydrosphere because we feel that the sea age is soon to come."

-Cousteau

The Silent World, by Captain J. Y. Cousteau, with Frédéric Dumas

Put together briefly, as Cousteau tells it, the long story of diving,

which through the centuries has so fascinated man and which today offers such fresh and exciting vistas of adventure, discovery, and economic security.

Describe the aqualung and summarize the advantages of aqualung diving over that of helmet diving.

In tribute to all brave explorers, tell something of those two adventurers of the expanding frontiers of the sea, Cousteau and Dumas, their personalities, their aims and ambitions, and their amazing accomplishments. In passing note their admiration for other divers, from helmet to skin, and tell briefly of some of them: the fascinating old Greek professionals of the Mediterranean, for instance; the somewhat comical Gianino; Auguste Marcellin's crew of hard-bitten helmet divers; the twisted little men Cousteau and his friends met off Corsica.

Do you agree with Cousteau that he and his friends always set "a reasonable premium on returning alive"? Tell the story of several of their most dangerous exploits—Didi trapped in the Dalton, for example, or riding the submarine; or the descent into the Fountain of Vaucluse, or the test to attain the utmost depth. In the latter connection, note the interesting material on the bends, quote from the fascinating descriptions of l'ivresse des grandes profondeurs, that terrible blank rapture of the depths, and give some figures on depths of the ocean.

Discuss the sea's deceiving color filter, explaining how the monocromatic blue of lightless regions and the black of millenial time are corrected to show true colors of the undersea landscape—whether it be the blare of hot pigment, or the loose rich colors of a Pierre Bonnard, or a dazzling harlequinade of color as opulent as a Matisse. A careful study of the color pictures is most rewarding, especially the one of Dumas swimming through a coral garden under the Red Sea, or that of the niche in the Mediterranean under Sanary, or the twin shots, one from 25 feet down, the other from 110 feet further down on the same reef.

Giving examples of the surprising intelligence of larger fauna in self-protection and competent living, take note of some of the strange and fascinating sea companions of these men—among them the gay needlefish, the comical little scorpion fish, the noble liche, the angry moray, the beguiling monk seal, the puzzled merow, the hapless trumpet fish, the great rays and mantas, the blue jacks as "animated as a wedding party," the romping herds of whales and porpoises.

To what does Cousteau refer when he says, "With all senses attuned to the sea, we are still without the sixth sense, perhaps the most important of all in undersea existence"? Discuss.

Sum up observations on marine demonology and on that "creature which has eluded man's understanding," the unpredictable shark.

Point out the possibilities of "the calm museum of the floor" where Cousteau thinks hundreds of ancient hulks are preserved in accessible mud and where so far men have merely scratched at history's door. Note the importance of trained eyes to detect the slightest sign of treasure, notably the amphora, and tell the story of the two classic cargo vessels where Cousteau and his friends discovered riches beyond gold, particularly the fascinating story of the Galley of Mahdia. Recall, in this connection, Rachel Carson's summary of the wealth of mineral

and other resources in the sea.

Can there be any disagreement with Cousteau that there is already under way that great popular economic movement which he considers the first requisite to successful penetration of the incredible realm of the sea?

2. The Great Cornucopia

"It is time to remeasure the earth—in depth."
—Diolé

The Undersea Adventure, by Philippe Diolé

If man is to enter the sea world, the first problem in Diolé's opinion is that of physical and psychological adjustment. Discuss some of the physical inadequacies, fears, and pleasures involved.

The Middle Ages, Diolé says, "turned a maritime civilization into a land one. From this stems our present ignorance of, and indifference to, submarine life." Review Diolé's discussion—equally as fascinating as Beebe's—of the ancient's knowledge of, and interest in, the underwater world, when diving was regarded as an art and war produced the amazing forerunners of the famed frogmen of 1940.

Drawing examples from his notes on his own observations of fish, follow Diolé's stimulating speculations on their complexity and sophistication. Note in this connection Hass' comment on the mental faculties of the huge mantas he encountered in the Red Sea.

Give instances of how infinitesimal, how all but elementary, is our knowledge of the sea world, where animals produce buds and plants lay eggs; and of the enchanting opportunities offered by the marine grottoes and stationary fauna of the continental shelf, the biological antechamber to the ocean, for first steps in the formulation of a whole new set of natural laws. Draw examples from Diolé and Hass of nature's wondrous and effective provisions for propagation, feeding and survival of the myriad forms of life in the ocean.

Follow with examples of man's achievements to date in marine husbandry, and of the abundant unsolved opportunities for industrial use of sea products—seaweed, for instance. Note Diolé's appreciation of the living sea beauty and subtlety of this weed, to us on land ordinary ugly shore refuse.

In the awe and curiosity created by such books as Beebe's, Carson's, Cousteau's and Diolé's, do you agree that to the unraveling of the world below (as above the waters!), sea writers and poets are as important as biologists and geologists? Recalling Beebe's feeling of inadequacy in describing the undersea world, tell something of the manner in which Diolé and his friends have gone about acquiring a vocabulary that they may accustom themselves to life under the mirror of the sea "by getting hold of more reliable and more illuminating terms in which to define it." In passing, note Diolé's opinion as to the relative values of photography, painting, and philosophy to this discovery of a continent.

Summing up the amazing potentialities—material, scientific, cultural,

and intellectual—of this new life and new world, and telling very briefly of the legal problems, alone, involved in conquering the deep, discuss Diolé's ideas for education toward a rational exploitation of the sea's resources. Would the future seem to offer not alone wealth but enchantment in the discovery and understanding of ancient remains in the fabulous museum of the sea?

Finally, does Diolé prove his point that "Economy, psychology, morals, will one day all have to be revised and civilization itself reconceived with the sea as an integral part"? Does he, in an enthusiasm for which he need not apologize, open for you the door to this magic universe and leave you with "a belief in the scientific interest, the intellectual richness, the artistic vitality of life under water"?

Special Reference: Manta: Under the Red Sea With Spear and Camera, by Hans Hass.

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