ारणी ६० कृतिमा प्रकारकार स्ट्री ००० हा प्राप्त स्वीती) फल किएक

> tron Holine, Robbin, Conserving Naturalleloc Colymbia 1894 5. MANAGING THE PLANET? 5 tor t

characterized by syndromes of global change that stem from the interdown to earth, we humans have got to manage the planet, especially It is all very well, in philosophical moments, to muse over Mother et, and the planetary managers will figure out how to get it for them. suggest that humans are being asked what they want out of the plananswers, but, coupled with the "management" intent, they strongly kind of planet do we want? What kind of planet can we get?" them consciously, two central questions must be addressed: What attempt to move from merely causing these syndromes to managing dependence between human development and the environment. As we from here onward. William C. Clark writes, in a Scientific American Earth; but-comes the protest-in practice, when we really come issue devoted to "Managing Planet Earth," "We have entered an era lating the planet's future. The root of manage is the Latin "manus," (1989:47-48). Those questions do not preclude nonanthropocentric like the end of nature, the replacement of spontaneous nature with hand. Humans will handle the place. Now this does begin to sound That puts humans "at the center of concerns," consciously manipunew epoch of deliberate control, humanizing the Earth.

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analysis nothing is guiding the ship" (1970). No wonder, then, that drifting, valueless world. control. Homo sapiens is the professional manager of an otherwise cance, unsteady the Earthship all the more. The only answer is to take human-introduced changes, when they reach levels of global signifivard professor of ecology. Though this is spaceship Earth, "in the final tune because she does not exist." So claims Frederick E. Smith, a Harknow the cold truth: "Mother Nature cannot keep the environment in efficient, purposeful, and powerful," but now, thanks to science, we Nature. Once we had visions of a Mother Nature that was "sensitive. This urge to manage may be coupled with doubts about Mother

under control as a result of restored human confidence and power" Society. Because of our power and our conscious management, "our Emmanuel G. Mesthene, director of the Program on Technology and (1966:482, 491–492). plagued man since his beginnings." "Nature is coming increasingly that can aspire to be free of the tyranny of physical nature that has age is different from all previous ages. We are therefore the first age We live in a new age, continues another Harvard professor,

218 scientists, including 27 Nobel laureates, issued an appeal to the 118 heads of state gathered there to "beware of false gods in Rig." While the UNCED Earth Summit was meeting in Rio de Janeiro,

ogy which is opposed to scientific and industrial progress and of the twenty-first century, at the emergence of an irrational ideolcommon heritage, the Earth. We are however worried, at the dawn since man's first appearance in the biosphere, insofar as humanity ural State, sometimes idealized by movements with a tendency to impedes economic and social development. We contend that a Nat-We want to make our full contribution to the preservation of our stock of, monitored and preserved. But we herewith demand that scientific ecology for a universe whose resources must be taken needs and not the reverse. We fully subscribe to the objectives of a has always progressed by increasingly harnessing Nature to its look toward the past, does not exist and has probably never existed quately managed, are indispensable tools of a future shaped by Science, Technology and Industry whose instruments, when adethis stock-taking, monitoring and preservation be founded on . . . Humanity, by itself and for itself, overcoming major problems like

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False Gods in Rio," Wall Street Journal, June 1, 1991, p. A12) overpopulation, starvation and worldwide disease. ("Beware of

another irrational romanticizing, now of the human place in the idolize the latter too, and humanity by itself and for itself may be only Science, Technology and Industry. But the trouble is that we can also against false gods, against irrational romanticism, and by capitalizing There is an almost religious fervor here, indicated by the warning

the planet by and for ourselves" commits the opposite error to "the even though both views pretend to come out of science. "Managing biological science. The planetary manager is still a Cartesian at heart, and this can be demythologized and verified by hard atmospheric and spooky about the planet, best caught by echoes of an ancient goddess, said to teach us that. The other view is mythical: there is something the clay on a potter's wheel, worked by the potter's hands. Science is Gaia hypothesis." The one view is managerial: the earth is inert like automobile, of a mind in a body, with humans the minds who mancollected now into a "we" who manage. The image is of a driver in an with a dualist worldview: the objective planet out there, matter in view is of a world that can manage itself, and has done so for several age the otherwise-managerless and often recalcitrant world. The Gaia motion, contrasted with the self-conscious, human subject, the "I" billion years. Now we have turned almost 180° from the view we had before,

gy on which everything else depends (Vitousek et al. 1986). The whole Humans now control 40 percent of the planet's land-based primarynow become degraded (1992). Surely our only option is to intervene the Work Bank, found that 35 percent of the Earth's land now has detrimental. We intervene ineptly. Robert Goodland, in a study for humans have affected everything; there is no pristine nature anymore point of the worry that we have reached "the end of nature" is that net productivity, that is, the basic plant growth that captures the enermore intelligently-to manage the planet. Those effects are, the would-be managers worry, more often than not Well, all that is philosophically interesting. But let's face the facts.

tion, and we have everywhere in our argument advocated culture in Now certainly no one wishes to oppose more intelligent interven-

harmony with nature, both remaking landscapes and fitting in, relatively, with the natural givens. We want a sustainable society, with its health and integrity, superposed on a natural world, also with its health and integrity. But we are not so sure that managing the recalciterant planet is the apt paradigm, besides which all the other ideologies are backward romanticisms. Why not, for instance, think of ourselves as authors who are writing the next chapters, or residents who are learning the logic of our home community, or of moral overseers who are trying to optimize both the cultural and the natural values on the planet? Is our only relationship to nature one of engineering it for the better? Perhaps what is as much to be managed is this earth-eating, managerial mentality that has caused the environmental crisis in the

Penultimately, management is a good thing; but, ultimately management is no more appropriate for Earth than for people, because it only sees means not ends. The scientific managers still have the value questions on their hands. On planetary scales, and even on continental and regional scales, it is not so clear that we really do want to manage the environment; rather we want to manage human uses of the environment so that they are congenial to letting the planet go on managing itself. We do say of an Iowa farmer who plows and plants his fields that he is managing his land, but when the sun shines and the rains fall, and the seed grows in the ear, the farmer is fitting his operations in with what is going on over his head and outside his managing hands. We do not just conserve natural value by managing it; we manage ourselves to let natural values continue to flow.

Managers do not really dwell in an environment; they only have resources, something like the way in which bosses, as such, do not have friends, only subordinates. Even the most enlightened exploiters, qua exploiters, do not live as persons in a community; they are not citizens of a world, only consumers of materials. They reduce their environment to resource and sink. The environment, of course, must be this much, but it can be much more. But proportionately as the development ethic increases, the environment is reduced to little more than exploited resource.

Let us envision a greatly accelerated management of Earth. Keeping people well fed seems like a good thing, as does the cure of human diseases—but if and only if we can manage ourselves to keep popula-

our soils, to keep irrigation systems in repair, and so on. But after that, desert? Do we want to modify the climate, and have our weather prodo we want more rain here and less there? More rainforest and less tions within the capacity of their landscapes. We will need to manage fires? Snowstorms? Would we like to have nature less spontaneous grammed by the meteorologists? Or by national policy? Would we and more orderly, or more spontaneous and less orderly? More earthquakes and hurricanes, presumably, but do we want fewer forest and fewer there? More birds? Fewer snakes? Bugs? We want fewer rivers? Do we want different species of fauna and flora, or here more islands? Mountains? Plains? Canyons? Volcanoes? We want more More spring and less fall? Less wind? More clouds? More or fewer like to have more summer and less winter, or the other way around? tary engineers? diverse? Less complex? Should we leave these decisions to the planelakes, apparently, for we often build them. But do we want more

We are not so sure; it is already a rather congenial home planet. We cannot take nature ready to hand, but we can remake it for the supporting of agriculture, industry, culture. After that, perhaps, on the larger planetary scales, it is better to build our cultures in intelligent harmony with the way the world is already built, rather than take control and rebuild the planet by ourselves and for ourselves. Donald Ludwig, Ray Hilborn, and Carl Walters say, rather provocatively, "It is more appropriate to think of resources as managing humans than the converse" (1993:17). We worry a little about those who would play God—not that we should not intervene in nature's course for our own good. But there is indeed a danger of false gods, and an overweening trust in "Science, Technology, and Industry" may result in too little trust in "Mother Earth" after all.

If the symbol of "Mother Earth" still seems unscientific, we can use our alternate vocabulary: the aim of the planetary manager is to have human genius manage the system, but there is already a considerable "genius" in the system. Is man the engineer in an unengineered world? The word engineer comes from the root ingenium, an innate genius, an inventive power, and hence our word ingenious, "characterized by original construction." Etymologically again, nature and genius (and hence engineer) come from the same root, gene (g)nasci, natus, to give clever birth. In that sense there is ample inventive and engineering



going, for billions of years. keeping the whole machinery running, with these species coming and power in nature, which has built Earth and several billion species.

out of protons a rather ingenious natural achievement? Maybe we remake it into something else. Hands are for managing, but hands are ing. We ought to spend adequate effort making sure we know what a not know what they are doing until they know what they are undoneering; it is the prototype of ingenuity. Engineers and managers canshould reconsider our models. Nature is not the antithesis of engiwhich they propose now to manage the planet? Isn't building people also for holding in loving care. place is, especially if it is the only home planet, before we decide to Who built the engineers, with their clever brains and hands, with

6. BALANĆING GLOBAL NATURAL AND HUMAN CULTURAL VALUES

nature (see chapter 1, sec. 9); as we close our inquiry, we expand those to ten more. We began with ten principles to help achieve a balance of culture and

- national law. The first ten principles of international law are all any powers to act for worse or better. But now they do; and that is hardly had any duties at the global level, because they hardly had tory that makes human life possible. Before, people and nations ple to people, nation to nation, has been the chief task of ethics. humanistic and nationalistic, understandably so, since relating peobecoming a new, fundamental principle. Protection of the environwhy, during our lifetimes, protecting the natural environment is it moves outside the human and national sectors to the natural his-That imperative continues. The eleventh principle is novel because Earth is more important than nation, or sovereignty, or rights, or because most fundamental international interest. The fate of the ment, which is the last, because the most recent, should be the first, treedom, or democracy, or economics, because it is foundational to 1. Conserving natural value is a fundamental principle of inter-
- 2. Emphasize global nonrival cultural and environmental values

nature and culture have entwined destinies. There are two truths to (chapter 1, sec. 9; chapter 3, sec. 6). Now we apply it at the planeit. The oceans, the ozone layer, the atmosphere, the waters, the contary level. Viewing Earth from space, there really is no doubt that tinents, shorelines, islands, landscapes, the world heritage of biodinature. We cannot be free from our environment, only free within nature; and culture forever requires the support of spontaneous be kept in tandem: culture is a radical emergent from spontaneous outweighs any modest, short-term gains. On global scales, no onward, be compromised without deep, long-term cultural loss that an environment with integrity-none of these can, from here versity, the wildlife, species, germplasm knes, the universal right to We began with this principle and met it again with ecosystem health nation, no culture, no people really win when the whole Earth loses. With the goalposts in the right place, no evil comes to those who

care for the Earth.

3. Foreign affairs are domestic affairs in a global Earth ethics. If the issue is saving the Earth we do not have any foreign policy, since a disproportionate percentage of the Earth's biological richy aries include the Rivers Amazon. And, since the Amazon drains from the domestic policies of the other eight nations whose boundthe Amazon, that is Brazilian domestic policy, but it is inseparable because Earth is not a foreign country. If a particular action affects ness is at stake there, what happens there is really domestic policy photosynthesis in the Amazon is significant on global scales, and nearly a quarter of all the freshwater runoff on Earth, and since the important than voting as Americans, Brazilians, or Germans. for Earthlings in the United States. Voting as Earthlings is more

vate resources. We-need to think of these as world resources that themselves become rivals about because they are not national or prial environment are not values that people or nations should let national and private resources. The health and integrity of the globcontrol access to propertied natural resources. On global scales, belong to us all, even though nations and persons may legitimately planet. In a fundamental sense, Earth, and its richness, is something heritage is only temporarily to be appropriated as national propernations are almost as ephemeral as persons. The common natural ty, under the constraint of its conservation for the good of the whole 4. Common natural resources are more fundamental than

