STUDY QUESTIONS

1. Do you agree with Russow's rejection of inherent value in species?
2. Is Russow's argument for aesthetic value in individual animals of certain types just another version of anthropocentrism? We get pleasure from beholding certain animals. Does that mean that they are merely resources for our enjoyment?
3. The blue whale is an endangered species, which is valuable for its oil and meat. Supposing its immediate economic value outweighs its aesthetic value, would Russow's arguments conclude that no moral evil would be done in eliminating this species? What do you think?
4. Respond to the following question, which Richard Routley poses to those who see no intrinsic value in other species. Suppose human beings were about to die out. Nothing can be done to save our species. Would it be morally permissible to kill (painlessly, just in case that matters) all other life on Earth before we became extinct? Why, or why not?

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Should Trees Have Standing? Toward Legal Rights for Natural Objects

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Stone argues that a strong case can be made for the "unthinkable idea" of extending legal rights to natural objects. Building on the models of inanimate objects, such as trusts, corporations, nation-states, and municipalities, he proposes that we extend the notion of legal guardian for legal incompetents to cover these natural objects. Note the three main ways that natural objects are denied rights under common law and how Stone's proposal addresses these considerations.

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INTRODUCTION: THE UNTHINKABLE

In *Descent of Man*, Darwin observes that the history of man's moral development has been a continual extension in the objects of his "social instincts and sympathies." Originally each man had regard only for himself and those of a very narrow circle about him; later, he came to regard more and more "not only the welfare, but the happiness of all his fellow-men"; then "his sympathies became more tender and widely diffused, extending to men of all races, to the imbecile, maimed, and other useless members of society, and finally to the lower animals. . . ."

The history of the law suggests a parallel development. Perhaps there never was a pure Hobbesian state of nature, in which no "rights" existed except in the vacant sense of each man's "right to self-defense." But it is not unlikely that so far as the earliest "families" (including extended kinship groups and clans) were concerned, everyone outside the family was suspect, alien, rightless. And even within the family, persons we presently regard as the natural holders of at least some rights had none. Take, for example, children. We know something of the early rights-status of children from the widespread practice of infanticide—especially of the deformed and female. (Senicide, as among the North American Indians, was the corresponding rightlessness of the aged.) Maine tells us that as late as the Patria Potestas of the Romans, the father had *jus vitae necisque*—the power of life and death—over his children. A fortiori, Maine writes, he had the power of "uncontrolled corporal chastisement; he can modify their personal condition at pleasure; he can give a wife to his son; he can give his daughter in marriage; he can divorce his children of either sex; he can transfer them to another family by adoption; and he can sell them." The child was less than a person: an object, a thing.

The legal rights of children have long since been recognized in principle, and are still expanding in practice. Witness, just within recent time, *In re Gault*, guaranteeing basic constitutional protections to juvenile defendants, and the Voting Rights Act of 1970. We have been making persons of children although they were not, in law, always so. And we have done the same, albeit imperfectly some would say, with prisoners, aliens, women (especially of the married variety), the insane, Blacks, foetuses, and Indians.

Nor is it only matter in human form that has come to be recognized as the possessor of rights. The world of the lawyer is peopled with inanimate right-holders: trusts, corporations, joint ventures, municipalities, Subchapter R partnerships, and nation-states, to mention just a few. Ships, still referred to by courts in the feminine gender, have long had an independent jural life, often with striking consequences. We have become so accustomed to the idea of a corporation having "its" own rights, and being a "person" and "citizen" for so many statutory and constitutional purposes, that we forget how jarring the notion was to early jurists. "That invisible, intangible and artificial being, that mere legal entity" Chief Justice Marshall wrote of the corporation in *Bank of the United States v. Deveaux*—could a suit be brought in *its* name? Ten years later, in the *Dartmouth College* case, he was still refusing to let pass unnoticed the wonder of an entity "existing only in contemplation of law." Yet, long before Marshall worried over the personifying of the modern corporation, the best medieval legal scholars had spent hundreds of years struggling with the notion of the legal nature of those great public "corporate bodies," the Church and the State. How could they exist in law, as entities transcending the living Pope and King? It was clear how a king could bind *himself*—on his honor—by a treaty. But when the king died, what was it that was burdened with the obligations of, and claimed the rights under, the treaty *his* tangible hand had signed? The medieval mind saw (what we have lost our capacity to see) how *unthinkable* it was, and worked out the most elaborate conceits and fallacies to serve as anthropomorphic flesh for the Universal Church and the Universal Empire.

It is this note of the *unthinkable* that I want to dwell upon for a moment. Throughout legal history, each successive extension of rights to some new entity has been, theretofore, a bit unthinkable. We are inclined to suppose the rightlessness of

rightless "things" to be a decree of Nature, not a legal convention acting in support of some status quo. It is thus that we defer considering the choices involved in all their moral, social, and economic dimensions. And so the United States Supreme Court could straight-facedly tell us in *Dred Scott* that Blacks had been denied the rights of citizenship "as a subordinate and inferior class of beings, who had been subjugated by the dominant race...." In the nineteenth century, the highest court in California explained that Chinese had not the right to testify against white men in criminal matters because they were "a race of people whom nature has marked as inferior, and who are incapable of progress or intellectual development beyond a certain point ... between whom and ourselves nature has placed an impassable difference." The popular conception of the Jew in the 13th Century contributed to a law which treated them as "men *ferae naturae*, protected by a quasi-forest law. Like the roe and the deer, they form an order apart." Recall, too, that it was not so long ago that the foetus was "like the roe and the deer." In an early suit attempting to establish a wrongful death action on behalf of a negligently killed foetus (now widely accepted practice), Holmes, then on the Massachusetts Supreme Court, seems to have thought it simply inconceivable "that a man might owe a civil duty and incur a conditional prospective liability in tort to one not yet in being." The first woman in Wisconsin who thought she might have a right to practice law was told that she did not, in the following terms:

> The law of nature destines and qualifies the female sex for the bearing and nurture of the children of our race and for the custody of the homes of the world.... [A]ll life-long callings of women, inconsistent with these radical and sacred duties of their sex, as the profession of the law, are departures from the order of nature; and when voluntary, treason against it.... The peculiar qualities of womanhood, its gentle graces, its quick sensibility, its tender susceptibility, its purity, its delicacy, its emotional impulses, its subordination of hard reason to sympathetic feeling, are surely not qualifications for forensic strife. Nature has tempered woman as little for the juridical conflicts of the court room, as for the physical conflicts of the battlefield....

The fact is that each time there is a movement to confer rights onto some new "entity," the proposal is bound to sound odd or frightening or laughable. This is partly because until the rightless thing receives its rights, we cannot see it as anything but a *thing* for the use of "us"—those who are holding rights at the time. In this vein, what is striking about the Wisconsin case above is that the court, for all its talk about women, so clearly was never able to see women as they are (and might become). All it could see was the popular "idealized" version of *an object it needed*. Such is the way the slave South looked upon the Black. There is something of a seamless web involved: there will be resistance to giving the thing "rights" until it can be seen and valued for itself; yet, it is hard to see it and value it for itself until we can bring ourselves to give it "rights"—which is almost inevitably going to sound inconceivable to a large group of people.

The reason for this little discourse on the unthinkable, the reader must know by now, if only from the title of the paper. I am quite seriously proposing that we give legal rights to forests, oceans, rivers and other so-called "natural objects" in the environment—indeed, to the natural environment as a whole.

As strange as such a notion may sound, it is neither fanciful nor devoid of operational content. In fact, I do not think it would be a misdescription of recent developments in the law to say that we are already on the verge of assigning some such rights, although we have not faced up to what we are doing in those particular terms. We should do so now, and begin to explore the implications such a notion would hold.

TOWARD RIGHTS FOR THE ENVIRONMENT

Now, to say that the natural environment should have rights is not to say anything as silly as that no one should be allowed to cut down a tree. We say human beings have rights, but—at least as of the time of this writing—they can be executed. Corporations have rights, but they cannot plead the fifth amendment; *In re Gault* gave 15-year-olds certain rights in juvenile proceedings, but it did not give them the right to vote. Thus, to say that the environment should have rights is not to say that it should have every right we can imagine, or even the same body of rights as human beings have. Nor is it to say that everything in the environment should have the same rights as every other thing in the environment.

What the granting of rights does involve has two sides to it. The first involves what might be called the legal-operational aspects; the second, the psychic and socio-psychic aspects. I shall deal with these aspects in turn.

THE LEGAL-OPERATIONAL ASPECTS

What It Means to Be a Holder of Legal Rights

There is, so far as I know, no generally accepted standard for how one ought to use the term "legal rights." Let me indicate how I shall be using it in this piece.

First and most obviously, if the term is to have any content at all, an entity cannot be said to hold a legal right unless and until *some public authoritative body* is prepared to give *some amount of review* to actions that are colorably inconsistent with that "right." For example, if a student can be expelled from a university and cannot get any public official, even a judge or administrative agent at the lowest level, either (i) to require the university to justify its actions (if only to the extent of filling out an affidavit alleging that the expulsion "was not wholly arbitrary and capricious") or (ii) to compel the university to accord the student some procedural safeguards (a hearing, right to counsel, right to have notice of charges), then the minimum requirements for saying that the student has a legal right to his education do not exist.

But for a thing to be *a holder of legal rights*, something more is needed than that some authoritative body will review the actions and processes of those who threaten it. As I shall use the term, "holder of legal rights," each of three additional criteria must be satisfied. All three, one will observe, go towards making a thing *count* jurally—to have a legally recognized worth and dignity in its own right, and not merely to serve as a means to benefit "us" (whoever the contemporary group of rights-holders may be). They are, first, that the thing can institute legal actions *at its behest*; second, that in determining the granting of legal relief, the court must take *injury to it* into account; and, third, that relief must run to the *benefit of it*.

The Rightlessness of Natural Objects at Common Law

Consider, for example, the common law's posture toward the pollution of a stream. True, courts have always been able, in some circumstances, to issue orders that will stop the pollution.... But the stream itself is fundamentally rightless, with implications that deserve careful reconsideration.

The first sense in which the stream is not a rights-holder has to do with standing. The stream itself has none. So far as the common law is concerned, there is in general no way to challenge the polluter's actions save at the behest of a lower *riparian**—another human being—able to show an invasion of *his* rights. This conception of the riparian as the holder of the right to bring suit has more than theoretical interest. The lower riparians may simply not care about the pollution. They themselves may be polluting, and not wish to stir up legal waters. They may be economically dependent on their polluting neighbor. And, of course, when they discount the value of winning by the costs of bringing suit and the chances of success, the action

*Riparian—related to living on the bank of a natural waterway.

may not seem worth undertaking. Consider, for example, that while the polluter might be injuring 100 downstream riparians $10,000 a year *in the aggregate*, each riparian separately might be suffering injury only to the extent of $100—possibly not enough for any one of them to want to press suit by himself, or even to go to the trouble and cost of securing co-plaintiffs to make it worth everyone's while. This hesitance will be especially likely when the potential plaintiffs consider the burdens the law puts in their way: proving, *e.g.*, specific damages, the "unreasonableness" of defendant's use of the water, the fact that practicable means of abatement exist, and overcoming difficulties raised by issues such as joint causality, right to pollute by prescription, and so forth. Even in states which, like California, sought to overcome these difficulties by empowering the attorney-general to sue for abatement of pollution in limited instances, the power has been sparingly invoked and, when invoked, narrowly construed by the courts.

The second sense in which the common law denies "rights" to natural objects has to do with the way in which the merits are decided in those cases in which someone is competent and willing to establish standing. At its more primitive levels, the system protected the "rights" of the property owning human with minimal weighing of any values: "*Cujus est solum, ejus est usque ad coelum et ad infernos.*"† Today we have come more and more to make balances—but only such as will adjust the economic best interests of identifiable humans. For example, continuing with the case of streams, there are commentators who speak of a "general rule" that "a riparian owner is legally entitled to have the stream flow by his land with its quality unimpaired" and observe that "an upper owner has, prima facie, no right to pollute the water." Such a doctrine, if strictly invoked, would protect the stream absolutely whenever a suit was brought; but obviously, to look around us, the law does not work that way. Almost everywhere there are doctrinal qualifications on riparian "rights" to an unpolluted stream. Although these rules vary from jurisdiction to jurisdiction, and upon whether one is suing for an equitable injunction or for damages, what they all have in common is some sort of balancing. Whether under language of "reasonable use," "reasonable methods of use," "balance of convenience" or "the public interest doctrine," what the courts are balancing, with varying degrees of directness, are the economic hardships on the upper riparian (or dependent community) of abating the pollution vis-à-vis the economic hardships of continued pollution on the lower riparians. What does not weigh in the balance is the damage to the stream, its fish and turtles and "lower" life. So long as the natural environment itself is rightless, these are not matters for judicial cognizance. Thus, we find the highest court of Pennsylvania refusing to stop a coal company from discharging polluted mine water into a tributary of the Lackawana River because a plaintiff's "grievance is for a mere personal inconvenience; and ... mere private personal inconveniences ... must yield to the necessities of a great public industry, which although in the hands of a private corporation, subserves a great public interest." The stream itself is lost sight of in "a quantitative compromise between *two* conflicting interests."

The third way in which the common law makes natural objects rightless has to do with who is regarded as the beneficiary of a favorable judgment. Here, too, it makes a considerable difference that it is not the natural object that counts in its own right. To illustrate this point, let me begin by observing that it makes perfectly good sense to speak of, and ascertain, the legal damage to a natural object, if only in the sense of "making it whole" with respect to the most obvious factors. The costs of making a forest whole, for example, would include the costs of reseeding, repairing watersheds, restocking wildlife—the sorts of costs the Forest Service undergoes after a fire. Making a polluted stream whole would include the costs of restocking with fish, water-fowl, and other animal and

†To whosoever the soil belongs, he owns also to the sky and to the depths.

vegetable life, dredging, washing out impurities, establishing natural and/or artificial aerating agents, and so forth. Now, what is important to note is that, under our present system, even if a plaintiff riparian wins a water pollution suit for damages, no money goes to the benefit of the stream itself to repair *its* damages. This omission has the further effect that, at most, the law confronts a polluter with what it takes to make the plaintiff riparians whole; this may be far less than the damages to the stream, but not so much as to force the polluter to desist. For example, it is easy to imagine a polluter whose activities damage a stream to the extent of $10,000 annually, although the aggregate damage to all the riparian plaintiffs who come into the suit is only $3000. If $3000 is less than the cost to the polluter of shutting down, or making the requisite technological changes, he might prefer to pay off the damages (*i.e.*, the legally cognizable damages) and continue to pollute the stream. Similarly, even if the jurisdiction issues an injunction at the plaintiffs' behest (rather than to order payment of damages), there is nothing to stop the plaintiffs from "selling out" the stream, *i.e.*, agreeing to dissolve or not enforce the injunction at some price (in the example above, somewhere between plaintiffs' damages—$3000—and defendant's next best economic alternative). Indeed, I take it this is exactly what Learned Hand had in mind in an opinion in which, after issuing an anti-pollution injunction, he suggests that the defendant "make its peace with the plaintiff as best it can." What is meant is a peace between *them*, and not amongst them and the river.

I ought to make it clear at this point that the common law as it affects streams and rivers, which I have been using as an example so far, is not exactly the same as the law affecting other environmental objects. Indeed, one would be hard pressed to say that there was a "typical" environmental object, so far as its treatment at the hands of the law is concerned. There are some differences in the law applicable to all the various resources that are held in common: rivers, lakes, oceans, dunes, air, streams (surface and subterranean), beaches, and so forth. And there is an even greater difference as between these traditional communal resources on one hand, and natural objects on traditionally private land, *e.g.*, the pond on the farmer's field, or the stand of trees on the suburbanite's lawn.

On the other hand, although there be these differences which would make it fatuous to generalize about a law of the natural environment, most of these differences simply underscore the points made in the instance of rivers and streams. None of the natural objects, whether held in common or situated on private land, has any of the three criteria of a rights-holder. They have no standing in their own right; their unique damages do not count in determining outcome; and they are not the beneficiaries of awards. In such fashion, these objects have traditionally been regarded by the common law, and even by all but the most recent legislation, as objects for man to conquer and master and use—in such a way as the law once looked upon "man's" relationship to African Negroes. Even where special measures have been taken to conserve them, as by seasons on game and limits on timber cutting, the dominant motive has been to conserve them *for us*—for the greatest good of the greatest number of human beings. Conservationists, so far as I am aware, are generally reluctant to maintain otherwise. As the name implies, they want to conserve and guarantee *our* consumption and *our* enjoyment of these other living things. In their own right, natural objects have counted for little, in law as in popular movements.

As I mentioned at the outset, however, the rightlessness of the natural environment can and should change; it already shows some signs of doing so.

Toward Having Standing in Its Own Right

It is not inevitable, nor is it wise, that natural objects should have no rights to seek redress in their own behalf. It is no answer to say that streams and forests cannot have standing because streams and forests cannot speak. Corporations cannot speak either; nor can states, estates, infants, incompetents, municipalities or universities. Lawyers speak for them, as they customarily do for the ordinary citizen with legal problems. One ought, I think, to handle the legal problems of natural

objects as one does the problems of legal incompetents—human beings who have become vegetable. If a human being shows signs of becoming senile and has affairs that he is de jure incompetent to manage, those concerned with his well being make such a showing to the court, and someone is designated by the court with the authority to manage the incompetent's affairs. The guardian (or "conservator" or "committee"—the terminology varies) then represents the incompetent in his legal affairs. Courts make similar appointments when a corporation has become "incompetent"—they appoint a trustee in bankruptcy or reorganization to oversee its affairs and speak for it in court when that becomes necessary.

On a parity of reasoning, we should have a system in which, when a friend of a natural object perceives it to be endangered, he can apply to a court for the creation of a guardianship. Perhaps we already have the machinery to do so. California law, for example, defines an incompetent as "any person, whether insane or not, who by reason of old age, disease, weakness of mind, or other cause, is unable, unassisted, properly to manage and take care of himself or his property, and by reason thereof is likely to be deceived or imposed upon by artful or designing persons." Of course, to urge a court that an endangered river is "a person" under this provision will call for lawyers as bold and imaginative as those who convinced the Supreme Court that a railroad corporation was a "person" under the fourteenth amendment, a constitutional provision theretofore generally thought of as designed to secure the rights of freedmen. . . .

The guardianship approach, however, is apt to raise. . . [the following objection]: a committee or guardian could not judge the needs of the river or forest in its charge; indeed, the very concept of "needs," it might be said, could be used here only in the most metaphorical way. . . .

. . .Natural objects *can* communicate their wants (needs) to us, and in ways that are not terribly ambiguous. I am sure I can judge with more certainty and meaningfulness whether and when my lawn wants (needs) water, than the Attorney General can judge whether and when the United States wants (needs) to take an appeal from an adverse judgement by a lower court. The lawn tells me that it wants water by a certain dryness of the blades and soil—immediately obvious to the touch—the appearance of bald spots, yellowing, and a lack of springiness after being walked on; how does "the United States" communicate to the Attorney General? For similar reasons, the guardian-attorney for a smog endangered stand of pines could venture with more confidence that his client wants the smog stopped, than the directors of a corporation can assert that "the corporation" wants dividends declared. We make decisions on behalf of, and in the purported interest of, others every day; these "others" are often creatures whose wants are far less verifiable, and even far more metaphysical in conception, than the wants of rivers, trees, and land. . . .

The argument for "personifying" the environment, from the point of damage calculations, can best be demonstrated from the welfare economics position. Every well-working legal-economic system should be so structured as to confront each of us with the full costs that our activities are imposing on society. Ideally, a paper-mill, in deciding what to produce—and where, and by what methods—ought to be forced to take into account not only the lumber, acid and labor that its production "takes" from other uses in the society, but also what costs alternative production plans will impose on society through pollution. The legal system, through the law of contracts and the criminal law, for example, makes the mill confront the costs of the first group of demands. When, for example, the company's purchasing agent orders 1000 drums of acid from the Z Company, the Z Company can bind the mill to pay for them, and thereby reimburse the society for what the mill is removing from alternative uses.

Unfortunately, so far as the pollution costs are concerned, the allocative ideal begins to break down, because the traditional legal institutions have a more difficult time "catching" and confronting us with the full social costs of our activities. In the lakeside mill example, major riparian interests might bring an action, forcing a court to weigh *their*

aggregate losses against the costs to the mill of installing the anti-pollution device. But many other interests—and I am speaking for the moment of recognized homocentric interests—are too fragmented and perhaps "too remote" causally to warrant securing representation and pressing for recovery: the people who own summer homes and motels, the man who sells fishing tackle and bait, the man who rents rowboats. There is no reason not to allow the lake to prove damages to them as the prima facie measure of damages to it. *By doing so, we in effect make the natural object, through its guardian, a jural entity competent to gather up these fragmented and otherwise unrepresented damage claims, and press them before the court even where, for legal or practical reasons, they are not going to be pressed by traditional class action plaintiffs.* Indeed, one way—the homocentric way—to view what I am proposing so far is to view the guardian of the natural object as the guardian of unborn generations, as well as of the otherwise unrepresented, but distantly injured, contemporary humans. By making the lake itself the focus of these damages, and "incorporating" it so to speak, the legal system can effectively take proof upon, and confront the mill with, a larger and more representative measure of the damages its pollution causes.

So far, I do not suppose that my economist friends (unremittent human chauvinists, every one of them!) will have any large quarrel in principle with the concept. Many will view it as a *trompe l'oeil* that comes down, at best, to effectuate the goals of the paragon class action, or the paragon water pollution control district. Where we are apt to part company is here—I propose going beyond gathering up the loose ends of what most people would presently recognize as economically valid damages. The guardian would urge before the court injuries not presently cognizable—the death of eagles and inedible crabs, the suffering of sea lions, the loss from the face of the earth of species of commercially valueless birds, the disappearance of a wilderness area. One might, of course, speak of the damages involved as "damages" to us humans, and indeed, the widespread growth of environmental groups shows that human beings do feel these losses. But they are not, at present, economically measurable losses: How can they have a monetary value for the guardian to prove in court?

The answer for me is simple. Wherever it carves out "property" rights, the legal system is engaged in the process of *creating* monetary worth. One's literary works would have minimal monetary value if anyone could copy them at will. Their economic value to the author is a product of the law of copyright; the person who copies a copyrighted book has to bear a cost to the copyright-holder because the law says he must. Similarly, it is through the law of torts that we have made a "right" of—and guaranteed an economically meaningful value to—privacy. (The value we place on gold—a yellow inanimate dirt—is not simply a function of supply and demand—wilderness areas are scarce and pretty too—but results from the actions of the legal systems of the world, which have institutionalized that value; they have even done a remarkable job of stabilizing the price.) I am proposing we do the same with eagles and wilderness areas as we do with copyrighted works, patented inventions, and privacy: *make* the violation of rights in them to be a cost by declaring the "pirating" of them to be the invasion of a property interest. If we do so, the net social costs the polluter would be confronted with would include not only the extended homocentric costs of his pollution (explained above) but also costs to the environment *per se*.

How, though, would these costs be calculated? When we protect an invention, we can at least speak of a fair market value for it, by reference to which damages can be computed. But the lost environmental "values" of which we are now speaking are by definition over and above those that the market is prepared to bid for: they are priceless.

One possible measure of damages, suggested earlier, would be the cost of making the environment whole, just as, when a man is injured in an automobile accident, we impose upon the responsible party the injured man's medical expenses. Comparable expenses to a polluted river would be the costs of dredging, restocking with fish, and so forth. It is on the basis of such costs as these, I assume, that we get the figure of $1 billion as the

cost of saving Lake Erie. As an ideal, I think this is a good guide applicable in many environmental situations. It is by no means free from difficulties, however.

One problem with computing damages on the basis of making the environment whole is that, if understood most literally, it is tantamount to asking for a "freeze" on environmental quality, even at the costs (and there will be costs) of preserving "useless" objects. Such a "freeze" is not inconceivable to me as a general goal, especially considering that, even by the most immediately discernible homocentric interests, in so many areas we ought to be cleaning up and not merely preserving the environmental status quo. In fact, there is presently strong sentiment in the Congress for a total elimination of all river pollutants by 1985, notwithstanding that such a decision would impose quite large direct and indirect costs on us all. Here one is inclined to recall the instructions of Judge Hays, in remanding Consolidated Edison's Storm King application to the Federal Power Commission in *Scenic Hudson*:

> The Commission's renewed proceedings must include as a basic concern the preservation of natural beauty and of natural historic shrines, keeping in mind that, in our affluent society, the cost of a project is only one of several factors to be considered.

Nevertheless, whatever the merits of such a goal in principle, there are many cases in which the social price tag of putting it into effect are going to seem too high to accept. Consider, for example, an oceanside nuclear generator that could produce low-cost electricity for a million homes at a savings of $1 a year per home, spare us the air pollution that comes from burning fossil fuels, but which through a slight heating effect threatened to kill off a rare species of temperature-sensitive sea urchins; suppose further that technological improvements adequate to reduce the temperature to present environmental quality would expend the entire one million dollars in anticipated fuel savings. Are we prepared to tax ourselves $1,000,000 a year on behalf of the sea urchins? In comparable problems under the present law of damages, we work out practicable compromises by abandoning restoration costs and calling upon fair market value. For example, if an automobile is so severely damaged that the cost of bringing the car to its original state by repair is greater than the fair market value, we would allow the responsible tortfeasor to pay the fair market value only. Or if a human being suffers the loss of an arm (as we might conceive of the ocean having irreparably lost the sea urchins), we can fall back on the capitalization of reduced earning power (and pain and suffering) to measure the damages. But what is the fair market value of sea urchins? How can we capitalize their loss to the ocean, independent of any commercial value they may have to someone else?

One answer is that the problem can sometimes be sidestepped quite satisfactorily. In the sea urchin example, one compromise solution would be to impose on the nuclear generator the costs of making the ocean whole somewhere else, in some other way, *e.g.*, reestablishing a sea urchin colony elsewhere, or making a somehow comparable contribution. In the debate over the laying of the trans-Alaskan pipeline, the builders are apparently prepared to meet conservationists' objections halfway by re-establishing wildlife away from the pipeline, so far as is feasible.

But even if damage calculations have to be made, one ought to recognize that the measurement of damages is rarely a simple report of economic facts about "the market," whether we are valuing the loss of a foot, a foetus, or a work of fine art. Decisions of this sort are always hard, but not impossible. We have increasingly taken (human) pain and suffering into account in reckoning damages, not because we think we can ascertain them as objective "facts" about the universe, but because, even in view of all the room for disagreement, we come up with a better society by making rude estimates of them than by ignoring them. We can make such estimates in regard to environmental losses fully aware that what we are doing is making implicit normative judgements (as with pain and suffering)—laying down rules as to what the society is going to

"value" rather than reporting market evaluations. In making such normative estimates decision-makers would not go wrong if they estimated on the "high side," putting the burden of trimming the figure down on the immediate human interests present. All burdens of proof should reflect common experience; our experience in environmental matters has been a continual discovery that our acts have caused more long-range damage than we were able to appreciate at the outset.

To what extent the decision-maker should factor in costs such as the pain and suffering of animals and other sentient natural objects, I cannot say; although I am prepared to do so in principle.

The Psychic and Socio-psychic Aspects

... The strongest case can be made from the perspective of human advantage for conferring rights on the environment. Scientists have been warning of the crises the earth and all humans on it face if we do not change our ways—radically—and these crises make the lost "recreational use" of rivers seem absolutely trivial. The earth's very atmosphere is threatened with frightening possibilities: absorption of sunlight, upon which the entire life cycle depends, may be diminished; the oceans may warm (increasing the "greenhouse effect" of the atmosphere), melting the polar ice caps, and destroying our great coastal cities; the portion of the atmosphere that shields us from dangerous radiation may be destroyed. Testifying before Congress, sea explorer Jacques Cousteau predicted that the oceans (to which we dreamily look to feed our booming populations) are headed toward their own death: "The cycle of life is intricately tied up with the cycle of water ... the water system has to remain alive if we are to remain alive on earth." We are depleting our energy and our food sources at a rate that takes little account of the needs even of humans now living.

These problems will not be solved easily; they very likely can be solved, if at all, only through a willingness to suspend the rate of increase in the standard of living (by present values) of the earth's "advanced" nations, and by stabilizing the total human population. For some of us this will involve forfeiting material comforts; for others it will involve abandoning the hope someday to obtain comforts long envied. For all of us it will involve giving up the right to have as many offspring as we might wish. Such a program is not impossible of realization, however. Many of our so-called "material comforts" are not only in excess of, but are probably in opposition to, basic biological needs. Further, the "costs" to the advanced nations is not as large as would appear from Gross National Product figures. G.N.P. reflects social gain (of a sort) without discounting for the social *cost* of that gain, *e.g.*, the losses through depletion of resources, pollution, and so forth. As has well been shown, as societies become more and more "advanced," their real marginal gains become less and less for each additional dollar of G.N.P. Thus, to give up "human progress" would not be as costly as might appear on first blush.

Nonetheless, such far-reaching social changes are going to involve us in a serious reconsideration of our consciousness toward the environment....

... A few years ago the pollution of streams was thought of only as a problem of smelly, unsightly, unpotable water, *i.e.*, to us. Now we are beginning to discover that pollution is a process that destroys wondrously subtle balances of life within the water, and as between the water and its banks. This heightened awareness enlarges our sense of the dangers to us. But it also enlarges our empathy. We are not only developing the scientific capacity, but we are cultivating the personal capacities *within us* to recognize more and more the ways in which nature—like the woman, the Black, the Indian and the Alien—is like us (and we will also become more able realistically to define, confront, live with and admire the ways in which we are all different).

The time may be on hand when these sentiments, and the early stirrings of the law, can be coalesced into a radical new theory or myth—felt as well as intellectualized—of man's relationships to the rest of nature. I do not mean "myth" in a demeaning sense of the term, but in the sense in which, at different times in history, our social

"facts" and relationships have been comprehended and integrated by reference to the "myths" that we are co-signers of a social contract, that the Pope is God's agent, and that all men are created equal. Pantheism, Shinto and Tao all have myths to offer. But they are all, each in its own fashion, quaint, primitive and archaic. What is needed is a myth that can fit our growing body of knowledge of geophysics, biology and the cosmos. In this vein, I do not think it too remote that we may come to regard the Earth, as some have suggested, as one organism, of which Mankind is a functional part—the mind, perhaps: different from the rest of nature, but different as a man's brain is from his lungs. . . .

> . . . As I see it, the Earth is only one organized "field" of activities—and so is the *human person*—but these activities take place at various levels, in different "spheres" of being and realms of consciousness. The lithosphere is not the biosphere, and the latter not the . . . ionosphere. The Earth is not *only* a material mass. Consciousness is not only "human"; it exists at animal and vegetable levels, and most likely must be latent, or operating in some form, in the molecule and the atom; and all these diverse and in a sense hierarchical modes of activity and consciousness should be seen integrated in and perhaps transcended by an all-encompassing and "eonic" planetary Consciousness.
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> Mankind's function within the Earth-organism is to extract from the activities of all other operative systems within this organism the type of consciousness which we call "reflective" or "self"-consciousness—or, we may also say to *mentalize* and give meaning, value, and "name" to all that takes place anywhere within the Earth-field. . . .

As radical as such a consciousness may sound today, all the dominant changes we see about us point in its direction. Consider just the impact of space travel, of world-wide mass media, of increasing scientific discoveries about the interrelatedness of all life processes. Is it any wonder that the term "spaceship earth" has so captured the popular imagination? The problems we have to confront are increasingly the world-wide crises of a global organism: not pollution of a stream, but pollution of the atmosphere and of the ocean. Increasingly, the death that occupies each human's imagination is not his own, but that of the entire life cycle of the planet earth, to which each of us is as but a cell to a body.

To shift from such a lofty fancy as the planetarization of consciousness to the operation of our municipal legal system is to come down to earth hard. Before the forces that are at work, our highest court is but a frail and feeble—a distinctly human—institution. Yet, the Court may be at its best not in its work of handing down decrees, but at the very task that is called for: of summoning up from the human spirit the kindest and most generous and worthy ideas that abound there, giving them shape and reality and legitimacy. Witness the School Desegregation Cases which, more importantly than to integrate the schools (assuming they did), awakened us to moral imperatives which, when made visible, could not be denied. And so here, too, in the case of the environment, the Supreme Court may find itself in a position to award "rights" in a way that will contribute to a change in popular consciousness. It would be a modest move, to be sure, but one in furtherance of a large goal: the future of the planet as we know it.

How far we are from such a state of affairs, where the law treats "environmental objects" as holders of legal rights, I cannot say. But there is certainly intriguing language in one of Justice Black's last dissents, regarding the Texas Highway Department's plan to run a six-lane expressway through a San Antonio Park. Complaining of the Court's refusal to stay the plan, Black observed that "after today's decision, the people of San Antonio and the birds and animals that make their home in the park will share their quiet retreat with an ugly, smelly stream of traffic. . . . Trees, shrubs, and flowers will be mown down." Elsewhere he speaks of the "burial of public parks," of segments of a highway which "devour parkland," and of the park's heartland. Was he, at the end of his great career, on the verge of saying—just saying—that "nature has 'rights' on its own account"? Would it be so hard to do?

STUDY QUESTIONS

1. Is the analogy with extending the circle of moral consideration and rights (from white male adults to women, other races, children, etc.) a good way to view our possible extension of rights to natural objects? Or are there relevant differences? Could the antiabortion movement use Stone's analogy to argue for the rights of fertilized eggs?
2. Is Stone's basic argument anthropocentric? That is, does his argument for granting legal standing to natural objects actually depend on a kind of enlightened self-interest? Or does it involve something further? Explain why or why not.
3. To which natural objects should we grant rights? You might support rights for entities traditionally valued by humans, such as the Mississippi River, the Giant Redwoods of California, and the Grand Canyon and Yellowstone National Parks—but how about deer, rats, weeds, ordinary trees, bacteria, lice, and termites? Should they get legal standing? Why or why not?
4. Sum up the advantages and disadvantages of Stone's proposal. How would granting legal rights to natural objects be a good thing, and how could it produce bad consequences?

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