it involved contact with the outdoors," which he cherished throughout his life.105

The current debate between anthropocentrism and biocentrism, therefore, misses the crucial issues at stake between these two theorists. Ultimately, Thoreau's pastoralism and Pinchot's progressivism do not part company over the appropriate conception of nature abstractly considered, but rather over the appropriate understanding of American political life and values and the role of nature in this political life. If the political element in their thought is ignored, much of the moral and intellectual power of their respective visions is lost. If we remove the social and political criticism from Thoreau's writings about nature, we are left only with an alienated naturalist—and we will fail to grasp what initially drove Thoreau to Walden Pond. If we remove the vision of Progressive democracy from Pinchot's work, we are left merely with the scientific management and control of natural resources for no other purpose than brute human survival—a much lower aim than the commitment to democratic equality that actually animates his writings. The importance of Thoreau and Pinchot for understanding American environmental thought is that for both theorists, environmental thought was essentially political thought. As such, their works represent two competing paradigms—the pastoral and the progressive—for American environmental political theory.

## Scarcity beyond Inefficiency: Neo-Malthusian Fears

You will see how dearly nature makes us pay for the contempt with which we have treated her lessons.

-I. I. Rousseau

Gifford Pinchot's progressive conservationism was based on a crucial technical claim: Natural resources, if properly managed, are for all practical purposes limitless. The threats posed to nature by contemporary society, and the possible scarcity of resources that could result from these threats, are caused by needless waste, poor administration, and the squandering of natural resources for short-sighted private gain. Scientific public management would assure in perpetuity the availability of the resources required for an expanding economy and a liberal democratic society.

Pinchot's optimistic views about the abundance of natural resources provided him with the link between scientific management and democratic politics. Not only would public management produce the necessary material basis of democratic society, but it would actually promote democratic values by setting an example of patriotic public service. As Grant McConnell has pointed out, however, the mass appeal of Pinchot's conservationism died with the end of Progressive politics. The popularity of the program had hinged on its championship of democratic equality, but that banner now shifted to other movements (particularly the labor movement).1 (Even so, Pinchot's views have remained influential within the professional ranks of public servants and foresters, primarily in the doctrine of multiple use for public lands.<sup>2</sup>)

By the late 1960s and early 1970s, nagging concerns began to emerge about the increasing severity and intractability of problems of

scarce resources. New conditions threatened to destroy the bridge that Pinchot had built between the conservation of natural resources and a political program that fostered democratic equality. As fear about limited, even shrinking, natural resources became more intense, the connection between environmental conservation and liberal democratic politics was for some theorists strained to the breaking point.

Alarm about natural resource scarcity, and perhaps even the depletion of some essential resources, was originally raised to a wide popular audience by two scientists, Garrett Hardin and Paul Ehrlich, both of whom focused on the dangers of world population growth. In 1968, Hardin published his famous paper, "The Tragedy of the Commons," in which he concludes that the "freedom to breed will bring ruin to all."3 Hardin develops this thesis by discussing the problem of a "commons," or pasture used in common by independent farmers. The land is capable of serving a limited number of cattle, beyond which it will become depleted. Yet each individual farmer has a personal incentive to graze as many animals as possible, and each addition only adds a seemingly insignificant burden to the pasture. However, since each farmer has the same incentive to add more cattle to the commons, an inevitable strain will be put on the land. Thus, the collective interests of the farmers as a whole come into conflict with the private interests of each. The result is the eventual overgrazing and ruin of the commons.

Hardin argues that this simple case is analogous to the problem of population growth. As long as having children is a matter of private choice, individual families may have personal incentives to maximize their number of offspring. Each additional child encumbers only slightly the overall resources, or "commons," of a community, nation, or region. As in the case of the pasture, however, population growth puts pressure on collective resources. The result, again, is that the collective resources of the community are overstrained by the personal choices of its members. The only solution for this problem is some form of collective control over the private behavior of individuals. Thus, the collectivity must be responsible for regulating the use of collective resources, since it is ruinous to allow individuals to make private and independent resource decisions concerning common goods. Hardin argues that in situations fitting the commons model, appeals

to personal conscience and private responsibility are simply incapable of solving the problem. What is needed is coercion, preferably coercion that is "mutually agreed upon by the majority of the people affected." Although Hardin concedes that such coercion may cause injustice to some (by limiting their right to have children), he believes that the other options are unacceptable: "Injustice is preferable to total ruin." Because he contends that population growth is currently threatening to overrun the international base of natural resources, Hardin urges that reproductive decisions be removed from private control and placed in the hands of a public authority. In a later work he concludes that "the community, which guarantees the survival of children, must have the power to decide how many children shall be born."

Hardin's analysis was triggered by the United Nations' claim that there is a natural human right of reproduction that must be respected by the international community. His rejection of such a right is based not only on the hypothetical possibility of the depletion of "the commons," but on his belief that empirical evidence already indicates that such a tragedy is occurring and increasing in gravity.

This empirical claim was most forcefully asserted in Paul Ehrlich's best-selling book, The Population Bomb, published in the same year as "The Tragedy of the Commons." Ehrlich's argument is simply that Malthus was correct: Population growth will increase geometrically, while agricultural production will at best increase arithmetically. Thus, eventually (and perhaps in the very short term) population will grow well beyond our capacity to supply food for multiplying numbers of people. "We already know that it is impossible to increase food production enough to cope with continued population growth."9 In fact, the imbalance between population and food supply is already upon us. Ehrlich is convinced that the world, especially the underdeveloped world, is rapidly running out of food,10 and that mass starvation in the very near future is inevitable.11 Put baldly, "There is not enough food today,"12 and this crisis promises only to intensify. But this is not the worst of it, according to Ehrlich. All of the significant environmental problems in the contemporary world can be traced to the pressure exerted on the environment by human overpopulation,13 and the resultant pollution will only exacerbate and compound the immediate hardships caused by population growth.

The political implications of Hardin and Ehrlich's neo-Malthusianism are ominous but not highly developed in their own works. As noted, Hardin is sensitive to the fact that his analysis of the commons implies the need for a solution based on coercion and the limitation of individual choice. However, his formulation of the nature of this coercion has a democratic component: It is to be mutually agreed upon by at least a majority of individuals. Nonetheless, he clearly believes that individual choices about childbearing should no longer be respected as personal liberties. Population control is possible only if people surrender the freedom to make private reproductive decisions.

Ehrlich, too, believes that the "cancer of population growth" can be controlled only through what the uninitiated might think are inhumane or even draconian policies. Internationally, the United States must put maximum pressure on developing countries to curb their population growth by tying foreign aid to successful population programs. Here Ehrlich follows the proposals made by William and Paul Paddock in Famine 1975! The Paddocks recommend a policy of "triage," modeled on medical practices developed for combat situations. This program would divide the countries of the developing world into three categories: those that cannot be saved (that is, control their population growth to the degree necessary to allow for economic self-sufficiency), those that can be saved with appropriate incentives and aid, and those that will survive without American assistance. The United States must break foreign aid relationships with the first category of nations and concentrate efforts on the second. As Ehrlich grimly observes, "The operation will demand many apparently brutal and heartless decisions. The pain may be intense. But the disease is so far advanced that only with radical surgery does the patient have a chance of survival."15

Domestically, Ehrlich advocates the creation of a "Federal Department of Population and Environment" with "the power to take whatever steps are necessary to establish a reasonable population size in the United States and to put an end to the steady deterioration of our environment."16 Although Ehrlich does not specify the relationship of this department to other political institutions or to constitutional requirements, it is clear that he believes it should have far-reaching powers and authority. For example, he suggests that it should investigate the possibility of placing contraceptive chemicals in water sup-

plies.<sup>17</sup> In addition, tax policy should be designed to discourage large families, 18 and educational resources must be used to "bring home to all the American people the reality of the threat to their way of life indeed to their very lives."19 Although his proposals for the domestic control of population are not as extreme as those for international policy, Ehrlich is convinced that the population problem is critical enough to overwhelm traditional commitments to democratic institutions or individual rights.

In the wake of the energy crisis of the early 1970s, Robert Heilbroner joined this neo-Malthusian chorus in his book, An Inquiry into the Human Prospect. Heilbroner examines the political problems raised by natural resource constraints in more detail than either Hardin or Ehrlich do. Heilbroner's focus is not only on population pressures, but on what he sees as increasing natural checks on industrial production. Both major economic systems in the contemporary world, capitalist and socialist, share a similar industrial base and commitment to the "productive virtuosity" that drives expanding economies. 20 Both are confronted, however, with a future in which economic growth will become more and more difficult if not impossible. This is due to the growing scarcity of the natural resources needed to fuel these economies, and to the environment's limited ability to absorb the ecological damage they inevitably produce. Heilbroner writes that "what portends, in the longer run, is a challenge of equal magnitude for industrial socialism as for capitalism—the challenge of drastically curtailing, perhaps even dismantling, the mode of production that has been the most cherished achievement of both systems."21 Industrial growth must slow down or even come to a halt within the next generation or two.2 "Ultimately there is an absolute limit to the ability of the earth to support or tolerate the process of industrial activity, and there is reason to believe that we are now moving toward that limit very rapidly."23

Heilbroner predicts not simply economic and technical repercussions, however. There is cause to believe that contemporary societies will be politically unable to manage the disruptions that will likely be generated by these changes. Distributive justice in an expanding capitalist economy, for example, has traditionally been achieved by augmenting the economic benefits to all sectors of society, rather than by redistributing income. If economic growth ceases this option will no longer exist. "A stationary capitalism is thus forced to confront the explosive issue of income distribution in a way that an expanding capitalism is spared."<sup>24</sup> As the struggle for material resources becomes a zero-sum competition, the strain on American political institutions will become intolerable: "Candor compels me to suggest that the passage through the gauntlet ahead may be possible only under governments capable of rallying obedience far more effectively than would be possible in a democratic setting. If the issue for mankind is survival, such governments may be unavoidable, even necessary."<sup>25</sup>

Although Heilbroner is unhappy with his own conclusions—he points out that his thesis is contrary to both his personal interests and his democratic socialist values<sup>26</sup>—he believes that the future holds little hope for representative democratic institutions in the face of the changes that environmental limits will impose on capitalist economic systems and society.

For the majority of capitalist nations . . . I do not see how one can avoid the conclusion that the required transformation will be likely to exceed the capabilities of representative democracy. . . . The likelihood that there are obdurate limits to the reformist reach of democratic institutions within the class-bound body of capitalist society leads us to expect that the governments of these societies, faced with extreme internal strife or with potentially disastrous social polarization, would resort to authoritarian measures.<sup>27</sup>

Future American society will probably be less individualistic and libertarian, and it will require new ideologies and institutions of social cohesion to contend with the stresses of social change. "The order that comes to mind as most likely to satisfy these requirements is one that blends a 'religious' orientation with a 'military' discipline. Such a monastic organization of society may be repugnant to us, but I suspect it offers the greatest promise of making those enormous transformations needed to reach a new stable socio-economic basis." 28

Compared with Hardin and Ehrlich, Heilbroner seems more sensitive to, even appalled by, the types of changes he believes are unavoidable, given environmental constraints. Even so, all three writers use

neo-Malthusian language to assert the inability of liberal democratic institutions to cope with the environmental problems confronting us. All see American society, indeed the international community, as facing a bleakly Hobbesian future. As the struggle for scarce resources intensifies, which they predict it must, the solution (if there is one) is most likely to be found in authoritarian political institutions capable of enforcing peace and managing the environment successfully. Like Pinchot, these theorists believe that public management of resources is required for the maintenance of society. Unlike Pinchot, they believe that since these resources are becoming increasingly scarce—potentially to the point of catastrophe—this management cannot complement democratic equality. In fact, because of the hardships that scarcity will create, environmental management will be forced to become more dictatorial in order to assure simple survival. Environmental scarcity, for these authors, has cut the feet out from under the political program of progressive conservationism.

The one major work to develop the implications of this neo-Malthusian literature for political theory is William Ophuls's *Ecology and the Politics of Scarcity*. Ophuls, too, is convinced that the age of material abundance is coming to a close. "Ecology is about to engulf economics and politics, in that how we run our lives will be increasingly determined by ecological imperatives." The new science of ecology, punctuated by the experience of the energy crisis of 1973–74, teaches that "there is only so much the biosphere can take and only so much it can give, and this may be less than we desire." Drawing on the work of specialists in the areas of pollution, population, food production, and natural resources, Ophuls contends that "an era of ecological scarcity has dawned." Further, he sees a growing consensus among these specialists that a "steady state" economy will inevitably replace current growth-based economies. <sup>32</sup>

Ophuls shares with other neo-Malthusians the belief that ecological scarcity has profound and subversive consequences for contemporary social and political institutions as well as for the theories that inform them. Since modern institutions and political theories are premised on material abundance, they are incompatible with (or perhaps simply irrelevant to) the realities of scarcity: "Virtually all the philosophies, values, and institutions typical of modern society are the luxuriant fruit of an era of apparently endless abundance. The return of

scarcity in any guise therefore represents a serious challenge to the modern way of life."33

The first set of institutional problems that Ophuls perceives are economic and technological in character. Ophuls argues that capitalist market economies tend to function anti-ecologically on roughly the same grounds that Hardin outlines in "The Tragedy of the Commons." The exhaustion of resources and the pollution of the environment are both examples of how market relations exacerbate the plight of the commons, threatening to deplete the natural environment. In addition, the technological sophistication of modern industrial production is often achieved at the expense of environmental health. The paradigmatic case here is nuclear power. This particular response to the need for cheap, renewable forms of energy creates enormous problems, such as how to ensure public safety and how to manage nuclear waste. Technologies such as this not only spawn dangerously anti-ecological by-products; they also stretch the competence of bureaucratic management beyond its capacities. As Ophuls observes, "Our ability to achieve the requisite level of effectiveness in planning is especially doubtful. Already the complex systems that sustain industrial civilization are seen by some as perpetually hovering on the brink of breakdown; the computer and other panaceas for coping with complexity appear to have been vastly oversold; and current management styles-linear, hierarchical, economic-appear to be grossly ill adapted to the nature of the problems."34 Finally, Ophuls, like Heilbroner, believes that all modern economies that are committed to economic growth-capitalist as well as socialist-are simply incapable of persisting indefinitely in the face of economic scarcity and environmental limitations. In short, modern economic institutions are ill suited to confront ecological realities.

American political institutions appear to Ophuls to be equally unable to cope with environmental scarcity. The United States, he argues, has never had a "genuine politics," by which he means a politics that raises fundamental issues of value and addresses the whole of our social arrangements. Rather, "American political history is but the record of a more or less amicable squabble over the division of the spoils of a growing economy." But as the spoils of this economy diminish, the potential for more significant political conflict emerges. "The political stage is therefore set for a showdown between the

claims of ecological scarcity on the one hand and socioeconomic justice on the other."<sup>37</sup> And Ophuls, like Heilbroner, believes this showdown is probably more than our political institutions, in their present form, can bear: "Our political institutions, predicated almost totally on growth and abundance, appear to be no match for the gathering forces of ecological scarcity. . . . The problems of scarcity that confront the system today are ones that *it was never designed to handle*. Its past virtues are therefore irrelevant; all that matters now are its equally undeniable failings in the face of ecological scarcity."<sup>38</sup> Without an expanding economy, which allows for a broad range of interests to be at least partially accommodated in the political arena, American political institutions will be strained to the breaking point.

The institutional vulnerabilities Ophuls discusses, however, are symptomatic of a deeper fault he finds in the political theory informing contemporary society. Ophuls argues that political theorists, with the notable exception of Malthus, have built their systems on the unexamined assumption of material plenty.39 Liberalism shares with other modern political theories the "indispensable premise" of abundance.40 "The liberal ideas of Locke and Smith have not gone unchallenged, but with very few exceptions, liberals, conservatives, socialists, communists, and other modern ideologists have taken abundance for granted and assumed the necessity of further growth."41 As this premise proves increasingly unreasonable, so the theories that are its offspring become increasingly irrelevant at best, counterproductive at worst. Ophuls fears that as the problem of "the commons" worsens, the promotion of liberal individualism and democracy becomes more problematic. "It hardly need be said that these conclusions about the tragedy of the commons radically challenge fundamental American and Western values. . . . Certainly, democracy as we know it cannot conceivably survive."42

Ophuls admits that this is an extreme conclusion, "but it seems to follow from the extremity of the ecological predicament industrial man has created for himself." The individualism on which the commitment to democracy, liberty, and individual rights is based threatens to aggravate the exploitation of the commons. Ophuls believes, in fact, that the environmental crisis not only disputes the competence of contemporary social and political theory but is a moral indictment of it as well. "Indeed, the crisis of ecological scarcity can be viewed as

primarily a moral crisis in which the ugliness and destruction outside us in our environment simply mirror the spiritual wasteland within."44 The conceptual failure of modern political theory reflects its moral failure to promote ecological values, institutions, and lifestyles.

What political theory, then, is required for the approaching "steady state"? Ophuls claims that his work does not present a full-blown conceptual foundation for such a state, and he promises a more detailed discussion in the future. 45 Nonetheless, on the most general level he believes the tasks ahead, both theoretically and institutionally, are revolutionary in character. "What is ultimately required by the crisis of ecological scarcity is the invention of a new mode of civilization, for nothing less seems likely to meet the challenge."46 He fully understands that this is an "epochal political task," requiring the creation of completely new institutions and political theories. It will also probably be accompanied by the instability and turmoil characteristic of all major social upheavals. "The epoch we have already entered is a turning point in the ecological history of the human race comparable to the Neolithic Revolution; it will inevitably involve racking political turmoil and an extraordinary reconstitution of the reigning political paradigm throughout most of the modern world."48

In fact, despite his disclaimer, Ophuls does discuss in some detail the necessary components of a political theory of the steady state—or rather, he provides at least two different understandings of the nature of such a theory. By far the dominant theme is Hobbesian: The only possible solution to the political problems raised by scarce resources is to return to a Hobbesian model of centralized, perhaps absolutist, sovereign power for the purpose of maintaining peace and security in a potentially explosive social and environmental context. Hobbes, Ophuls argues, is the one great theorist who understood that scarcity of resources was the source of political conflict and that if left unrestrained this conflict could be catastrophic for civilized life. Following Hardin's analysis of the "tragedy of the commons," Ophuls notes that "Hardin's implicit political theory is in all important respects identical to that of Thomas Hobbes in Leviathan."49 The fundamental problem is how to restrain selfish and quarrelsome individual behavior in light of the collective need for security. The solution, inevitably, is a "sufficient measure of coercion."50 "Only a government possessing great

powers to regulate individual behavior in the ecological common interest can deal effectively with the tragedy of the commons."51

There are moments when Ophuls appears to embrace what he understands to be a democratic element in Hobbes's (and Hardin's) theory: This necessary coercion should be predicated on the consent of at least the majority of the coerced.<sup>52</sup> In one passage, he even goes so far as to suggest that such a Hobbesian state need not be incompatible with a large degree of individual liberty and constitutional protections against arbitrary power.

There seems to be no reason why authority cannot be made strong enough to maintain a steady-state society, and yet be limited. The personal and civil rights guaranteed by our Constitution, for example, could be largely retained in an appropriately designed steady-state society. Nor need the right to own and enjoy a sufficiency of personal property be taken away; only the right to use private property in ecologically destructive ways would have to be checked. Thus authority in a steady state need not be remote, arbitrary, and capricious; in a well-ordered and well-designed state, authority could be made constitutional and limited.53

Ultimately, however, Ophuls believes that his overall appeal to Hobbes is an "unpalatable conclusion" insofar as it necessarily requires a significant limitation of individual and democratic liberty—an even more profound limitation than the above comments indicate.54 Ecological scarcity produces "overwhelming pressures toward political systems that are frankly authoritarian by current standards, for there seems to be no other way to check competitive overexploitation of resources and to assure competent direction of a complex society's affairs in accord with steady-state imperatives. Leviathan may be mitigated, but not evaded."55 Not only is authoritarian power needed to enforce ecological standards compatible with the steady state society, but those in control must have a type of environmental knowledge that is probably beyond the reach of average democratic citizens.

The ecologically complex steady-state society may therefore require, if not a class of ecological guardians, then at least a class of ecological mandarins who possess the esoteric knowledge needed to run it well. Thus, whatever its level of material affluence, the steady-state society will not only be more authoritarian and less democratic than the industrial societies of today—the necessity to cope with the tragedy of the commons would alone ensure that-but it will also in all likelihood be much more oligarchic as well, with only those possessing the ecological and other competencies necessary to make prudent decisions allowed full participation in the political process.56

Centralized, authoritarian government-Hobbes's Leviathan-is mandated not only because of the need to coerce individuals to conform to ecological standards, but also because of the need to combine specialized ecological knowledge with direct access to political power in order to ensure that the commons are wisely managed.

Standing alongside Ophuls's frank Hobbesian authoritarianism, however, is another set of political values that might best be thought of as a variant of "classical republicanism," with an emphasis on civic virtue and decentralized participatory democracy. Ophuls claims that the only feasible response of the political theorist to the crisis of environmental scarcity is to "enlarge our conception of politics to its classical dimensions."57 What he seems to mean by this is, first, that political power and authority must encompass a greater scope of social and personal life than is the case in modern liberal democracy; and, second, that political theorists have to address questions of ultimate values and first principles more deeply than they do at present.58 He notes that ecology, which must inform any defensible contemporary political theory, is an essentially conservative way of viewing the world.59 Although he appeals to Edmund Burke as an important figure for understanding the nature of this conservatism,60 Ophuls appears to be thinking more in terms of traditional republican commitments to civic virtue than of the acceptance of the ancient traditions promoted by Burke.

The primary moral lesson to be learned from the environmental crisis, Ophuls contends, is that we need to treat the environment with self-restraint. If we can absorb this lesson and act on it, it is not inconceivable that the radical authoritarianism he has earlier described can be avoided. 61 Any environmentally sensitive society is certain to have

a more communitarian basis than liberal democracy and must include some new and shared environmentally grounded religious orientation.62 If individuals can renounce their pursuit of increasing wealth and material satisfaction, the possibility exists for a new social order based on communitarian and qualitative norms rather than individualistic and quantitative ones: "Once the ultimately fruitless and selfdestructive quest for ever more private affluence was abandoned, public amenity would be free to grow and to produce all the kinds of cultural riches men have been able to enjoy in the past, even if the gross quantity of production were less than it is today."63 Surprisingly, given his earlier criticism of the American political tradition, Ophuls believes that such a society would draw on Thomas Jefferson's prototype: "Where this seems to lead is toward a decentralized Jeffersonian polity of relatively small, intimate, locally autonomous, and self-governing communities rooted in the land (or other local ecological resources) and affiliated at the federal level only for a few clearly defined purposes. It leads, in other words, back to the original American vision of politics."64 The reconstituted politics must be informed by a strong ecological ethic to guide people in their daily lives—an ethic reinforced by strong communal norms and institutions (perhaps religious in nature).

It is unclear from Ophuls's account whether he regards the Jeffersonian vision as a possible alternative to his Hobbesian forecast or actually believes the two are compatible in some unspecified way. In an article published before his book, he argues that we need "macro-autocracy [that is, on the national and even the international level] to give us a maximum of micro-democracy."65 However, he never explains how "macro-autocracy" and "micro-democracy" can meaningfully exist simultaneously. In Ecology and the Politics of Scarcity, it appears as though Hobbes and Jefferson represent divergent paths: The less virtuous local communities and individuals are, the more necessary centralized authoritarian political power will become. Regardless, the relationship between these two understandings of steady-state institutions and political theory is undeveloped and ambiguous.

What can be said with some confidence, however, is that Ophuls's own analysis of the need for authoritarianism overpowers his secondary appeal to republican and democratic theory. In his earlier articles,

he repeatedly argues that Leviathan is inevitable and is in fact the only feasible solution to the problem of scarcity.66 In his book, his claims about the expediency of authoritarianism are equally absolute. He has given the reader very little reason to be convinced by his alternative call to Jeffersonian values, and they appear to be more of an expression of his own unhappiness with his Hobbesian conclusions than an integral part of the political theory he has derived from his own ecological analysis.67 As he writes in one of his articles, "Only a Hobbesian sovereign can deal with this situation effectively, and we are left then with the problem of determining the concrete shape of Leviathan."68

Critique of neo halthusians.

Not surprisingly, this neo-Malthusian literature has generated numerous unfavorable responses. One set of criticisms is directed against the empirical claims on which the analysis is built. The most sustained of these attacks has come from an economist, Julian Simon. Simon argues that the evidence presented by the neo-Malthusians regarding overpopulation, decreasing food supply, and the increasing scarcity of natural resources is generally unconvincing. Malthus was simply wrong (as are his latter-day followers) in his view that land is a fixed resource and that food production cannot possibly grow at the same rate as the population. Contrary to the claims made by Ehrlich and others, famine is actually decreasing in the twentieth century, as are other environmental problems such as pollution. Simon contends that the neo-Malthusian argument fails to explain either the empirical evidence indicating a pattern of increased food production and economic growth, or the important role played by technological developments in effecting this growth.<sup>69</sup> Echoing these views, one reviewer of Heilbroner's book writes, "The trend toward exhaustion of resources may be reversed by technological and social developments, which may make economically feasible access to new deposits, new methods of extraction and reprocessing, and substitution of synthetic materials."70 Although this economic faith in the ability of markets and technology to solve environmental problems seems remarkably optimistic-even complacent-Simon's work in particular has challenged many of the empirical claims supporting the neo-Malthusian analysis.

A second empirical problem with this literature concerns its appeal

to strong, centralized, and even authoritarian government as a solution for environmental problems. Critics counter that this idea flies in the face of what is known about the nature of such centralized and authoritarian states. Susan Leeson, for example, points out that contemporary authoritarian regimes, such as the USSR, have equally bad if not worse environmental records than liberal democratic societies do-a fact that Ophuls acknowledges.71 More generally, it is simply not true that centralized power tends to be more efficient and successful in dealing with problems like those relating to the environment. David Orr and Stuart Hill argue that "the case for a highly centralized, authoritarian solution is not sufficiently grounded in what we know (or may conjecture) to be the limits of large-scale organization."72 Such organizations are susceptible to corruption, bureaucratic inertia, inefficiency, and other defects. There is little reason to think that they will be more capable of dealing with environmental problems than decentralized and democratic institutions.

And this leads to a third empirical criticism of the neo-Malthusian position. The basic assertion in Ophuls's and Heilbroner's work is that liberal democratic institutions have been inept at best, counterproductive at worst, in addressing environmental problems. Robert Paehlke, however, contends that this view fails to account for the "strong link between environmentalism and enhanced democratic openness and participation."73 Environmentalists have been quite successful in working within democratic institutions, and based on this record, there is every indication that "environmentalism cannot be successful in the long run without a continuous enhancement of democratic participatory values and opportunities."74 For Paehlke, Ophuls and others have grossly underestimated the responsiveness of democracy to environmental politics.

In addition to these empirical problems, a second set of criticisms has focused on the theoretical coherence of the neo-Malthusian analysis. Perhaps the most forceful of these is presented by J. Donald Moon, who makes two general points: one regarding resource constraints and the theory of the steady-state society, and the other relating to the neo-Malthusian critique of liberalism as a political theory. On the first point, Moon observes that a steady-state economy would not resolve the problem of scarce nonrenewable resources, which would continue to be used and, potentially, used up. Thus, technological progress would still be required to develop alternative resources. Since this situation is identical to the one faced by a growing economy, the steady state offers no qualitative advantage over growthbased economies.

The very conception of a steady-state society requires a level of scientific and technological advance capable of overcoming the constraints imposed by finite quantities of non-renewable resources. But if fixed stocks of non-renewable resources do not constitute a barrier to the existence of a steady-state society, then why should they constitute a barrier to a society experiencing economic growth—even exponential growth? The only difference is a matter of when exhaustion will occur.75

Since a steady-state economy would face the same problems of nonrenewable resources as a growth-based economy, the question then becomes, which economy would be able to generate the technological advances needed to overcome resource constraints? Here, Moon thinks, a well-functioning market system is likely to be more successful than the nonmarket systems advocated by theorists such as Ophuls.76

Moon's second objection to the neo-Malthusian position is that it is based on a crude and distorted understanding of liberal political theory and practice. Ophuls believes, for example, that liberalism is premised on material abundance and is thus incapable of guiding a society in which scarcity is the overwhelming fact of life. Put another way, liberalism as a theory and political practice cannot adequately control "the commons." Moon responds, however, that this portrait of liberalism misconstrues its central character. "Apart from the fact that the 'liberal' values involved are described only in the vaguest and most rhetorical terms, it overlooks the fact that an essential function of the state in classical liberal theory is to solve problems that are identical in form to those of the commons."77

Moon admits that it may be difficult to promote common interests in a liberal democratic regime, but he sees no theoretical obstacle to prevent it from doing so. There are, in fact, notable examples of such causes being promoted and protected in liberal societies. "Although the system does present many barriers to effective action in support of

widespread public interests, it has been able to respond to such interests in the past, and there is no reason to believe that environmental issues will be more intractable than others."78 Moreover, even if environmental problems require that certain types of liberty be limited for example, elements of economic liberty-this in no way undermines the entire universe of liberal freedoms. Freedom of speech and worship, equality before the law, and so forth, are all quite possible (and desirable) in a society facing substantial resource constraints. 79 In short, the criticism of liberal theory and practice found in the neo-Malthusian literature significantly underestimates liberalism's capacity to contend with scarcity and overestimates the threat scarcity presents to liberalism's fundamental values and commitments.

Others have noted that Ophuls's rejection of liberalism has a remarkable irony to it. While advocating that we transcend our political inheritance, Ophuls ends up returning to Hobbes, the one theorist who is central to the very foundation of liberalism. As Robert Holsworth writes, "After outlining all the faults and incapacities of our political organization, [the neo-Malthusians'] call for an end to liberalism ironically terminates by recycling the solution of the most distasteful liberal, Thomas Hobbes, in the guise of tragic realism."80 Whether or not Hobbes should be viewed as a liberal theorist, it is at least true that his ideas are indispensable to the development of liberalism, and his resurrection certainly does not seem to herald much of a break with political orthodoxy. Certainly, given Ophuls's censure of liberal individualism, it is surprising to find him returning to one of the most radically individualistic political philosophers in the Western tradition.81

A third set of criticisms that has been leveled against the neo-Malthusian theorists can be thought of as sociological in nature.<sup>82</sup> These opponents do not address the specific empirical or theoretical claims of the neo-Malthusians so much as they call into question the general purpose of their project and attempt to locate it within a structure of class-based politics. Hans Magnus Enzenberger, for example, argues that neo-Malthusianism is an expression of bourgeois class interests: "In so far as it can be considered a source of ideology, ecology is a matter that concerns the middle class."83 Enzenberger believes that fears about population pressures are simply reactionary responses to national liberation movements in the developing world.84 The frequent use of the metaphor "spaceship earth," which is supposed to emphasize the limited quantity of natural resources, is actually an insidious technique for justifying the political status quo with its accompanying inequality and injustice: "One of the oldest ways of giving legitimacy to class domination and exploitation is resurrected in the new garb of ecology."85 James Ridgeway summarizes this criticism as follows: "The Neo-Malthusian doctrine, rising among both the technocrats and the ecologists, functions as a manipulative scheme aimed at controlling the poor in the interests of the wealthy."86

It is certainly true that some of the neo-Malthusians are very much concerned about the political disruption that may result from population pressures and resource constraints in the developing world, and these theorists are clearly nervous about the implications this turmoil may have for the stability of American society. It is also true that their writings tend to focus on the absolute levels of wealth and scarcity rather than on questions about the just distribution of resources. As Robert Hoffert observes, "Ophuls's lack of interest in resource distribution is especially troubling given his dissatisfaction with liberalism."87 In addition, there are passages that seem to hint at the authors' preoccupation with the possible impact of scarcity on the privileged position of certain nations and social classes. For example, Ehrlich writes in The Population Bomb that "the time has come for us to assemble small groups of dedicated people who do not want to see our way of life destroyed by the population explosion."88 At the very least, one can find, most noticeably in the population literature, a disturbing lack of empathy or compassion for the plight of the poor in the developing world.

Nonetheless, this sociological critique of the neo-Malthusian position is the least satisfactory of those offered. First, it ignores the message repeated throughout this literature: that scarcity demands that the wealthy and materially privileged, both individuals and nations, alter their behavior dramatically. Ophuls and Heilbroner are especially frank in their claims that the material foundations of wealth (particularly in the West) are disintegrating and that new social, political, and economic institutions and relationships will have to be developed to contend with this fact. Since radical disparities of wealth can be neither justified nor politically maintained on the basis of an expanding economy, it will be necessary to rethink notions of distributive justice, just as it will be necessary for the rich to learn to live with less. Ophuls and Heilbroner each state that they take no joy in their conclusions, which actually run contrary to their own privileged positions and deeply held values—another aspect of the neo-Malthusian works ignored by these critics.

Most important, the sociological criticism fails to address the substantive issues raised by the neo-Malthusians. Rather than forthrightly addressing their empirical or theoretical assumptions, it attempts to discredit these claims indirectly by situating them within a social class structure. Such a tactic can tell us at most who makes these arguments, why they might be inclined to do so, and in whose interests such arguments might function. But it does not disclose whether the neo-Malthusian arguments are right or wrong, coherent or incoherent.

Neo-multhus in Literature characteristics

Setting aside considerations of empirical and theoretical cogency, there are two striking characteristics of the neo-Malthusian literature. The first is the degree to which it self-consciously attempts to divorce itself, both theoretically and institutionally, from the past. Their view is that a theoretical break is required because contemporary modes of political theory are unable to conceptualize satisfactorily the political problems created by environmental scarcity. Institutional severance is necessary because contemporary political structures are incompetent to deal with the overwhelming environmental problems we now face. The second characteristic is related to the first: The authors are ambiv- $\mathcal{D}_{\text{alent about-even repelled by-this radical commitment to an entirely}$ new political theory and set of political institutions.

Ophuls's writings provide the paradigmatic case here, although similar elements are found in others' works as well. As we have seen, Ophuls claims that we need to reject liberal democratic political institutions, as well as the capitalist political economy they promote, in favor of more authoritarian (Hobbesian) institutions. For Ophuls (as for Hardin), only authoritarian political structures can effectively control the decisions of individuals in the interest of protecting common environmental goods. "The problem," writes Ophuls, "that the environmental crisis forces us to confront is, in fact, at the core of political philosophy: how to protect or advance the interests of the collectivity, when the individuals that make it up (or enough of them to create a problem) behave (or are impelled to behave) in a selfish, greedy, and quarrelsome fashion. The only solution is a sufficient measure of coercion." But, as pointed out, Ophuls also follows Hardin in arguing that this coercion is best thought of as "mutual coercion, mutually agreed upon by the majority of people affected." This being the case, it is difficult to understand how Ophuls arrives at his authoritarian conclusions. As he frames the problem, what is needed is political authority powerful enough to regulate and manage public environmental problems—yet this authority, although necessarily extensive, need not infringe on democratic norms. If the political community can democratically legislate such authority, it is no violation of popular sovereignty and the collective will. Therefore, the need for a strong government to solve significant public problems does not by itself entail Ophuls's claim that scarcity requires the abolition of democratic government.

The less developed but crucial reason Ophuls reaches his Hobbesian solution appears to be his belief that citizens in a liberal democratic society have neither the wisdom nor inclination to empower a strong, centralized government. As noted, Ophuls's "ecologically complex steady-state society" would require a class of "ecological mandarins," who possess the knowledge necessary to manage that society. Ophuls suspects that the same mass of people responsible for exploiting "the commons" cannot and will not learn to manage them appropriately. Thus it is the ecological incompetence of democratic citizens, rather than the simple need for political power, that makes authoritarian government seem essential to Ophuls.

Garrett Hardin uses similar reasoning to arrive at his suggestions for managing what he considers the worldwide population crisis—policies that authoritatively impose stringent population control measures on underdeveloped nations. His assumption is that those who are most responsible for population growth (the poor) are the least capable of managing their own problems. In one of his later books he claims that "many poor people are pathologically passive." Likewise, Ophuls and Hardin concur that those most responsible for generating environmental problems are the least capable of either effecting or understanding their solutions. Only a select group of environmental elites has the requisite knowledge to make the hard decisions necessary for resolving these problems. <sup>92</sup> As Ophuls writes,

environmental scarcity requires "a movement away from egalitarian democracy toward political competence and status." What the neo-Malthusians view as their radical break with contemporary political institutions and political theory is actually just a revival of a conventional distrust of democracy.

But this places Ophuls and the other neo-Malthusians in a bind. Not only do they regard their projections about the political future as unattractive-presumably because their own democratic values persist, at least to some degree—but their environmentalist criticism of contemporary society includes a large measure of distrust toward both modern science and bureaucratic management. Ophuls writes that the "narrowly rationalistic norms and modus operandi of bureaucracies . . . are at odds with the ecological holism needed for the task of environmental management."94 Heilbroner blames many of the current problems he discusses on the "runaway forces of science and technology."95 And Hardin is very critical of technological optimists who believe that science will generate solutions to population and environmental threats without wholesale political changes.<sup>96</sup> Although pessimistic about the possibilities of democratic institutions solving the problems created by environmental limitations, these theorists are also highly skeptical of the managerial and scientific capabilities of modern society. In fact, they view its technologies as a part of the problem, rather than as a part of the solution.

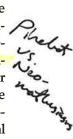
What then is the intellectual foundation that is to inform and guide new steady-state political theories and institutions, if both democratic and scientific solutions are rejected? As noted, Heilbroner believes that future social and political institutions will have to blend a "religious" orientation with "military" discipline. Ophuls also develops similar themes: "The crisis of ecological scarcity is fundamentally a moral and spiritual crisis. . . . The earth is teaching us a moral lesson: the individual virtues that have always been necessary for ethical and spiritual reasons have now become imperative for practical ones." The virtues Ophuls appears to have in mind are those of self-restraint, modesty in personal lifestyle, and a concern for the community that overrides the pursuit of personal pleasure and self-interest. "Ecology broadly defined is thus a fundamentally conservative orientation to the world." It teaches that we must give up our modern quest for power and progress, discover the limitations nature imposes on us,

and accept a "modesty of both ends and means."<sup>99</sup> "The essential political message of this book is that we must learn ecological self-restraint before it is forced on us by a potentially monolithic and totalitarian regime or by the brute forces of nature."<sup>100</sup> Most importantly, this new sensibility must have a religious component that will reinforce the scientific lessons of ecology as well as the communitarian virtues issuing from these lessons. "Thus the steady-state society, like virtually all other human civilizations except modern industrialism, will almost certainly have a religious basis."<sup>101</sup> A religious orientation imparts the virtues necessary for an ecological society and then develops and reinforces the "ultimate values" on which such a civilization must be built. <sup>102</sup>

This appeal to moral and spiritual transformation is required by Ophuls's own suspicion that his political authoritarianism alone will not solve the problems he identifies. Ophuls, acceding to his critics, senses that there is no guarantee authoritarian management of the environment will have the capability or the will to address the problems of scarcity. He nonetheless is left without much of an alternative because of his distrust of democracy. In the final analysis he can only appeal to such authoritarian management, while hoping to temper and transform its character (and perhaps the extremity of its power) through the development of a new ecological sensibility. Again, despite his own distrust of bureaucratic management, Ophuls can only promote it, even if modified by some new ecological consciousness. Hoffert speaks directly to this point: "It turns out that 'genuine politics' is very much like the conceptual essence of technology—domination and control-and the machine-like 'fitness' of nature. Thus, Ophuls's ecological solution is an aping of the very processes which have generated contemporary ecological problems."103 Whether or not technology has in fact been responsible for modern ecological problems, Hoffert is correct to see that Ophuls ends up recommending the kind of bureaucratic management of nature and society he set out to criticize. Ophuls has objected to this point, countering that his intention has not been to promote authoritarian or technocratic government, but rather to send a warning about the potential political dangers created by the current environmental crisis.104 This response, however, is not altogether convincing. Throughout his work the emphasis is on the inevitability and necessity of such authoritarian government, and his ambivalence about his own conclusions cannot obscure their categorical presentation. Until his promised sequel to *Ecology and the Politics of Scarcity* appears, we can only conclude with Hoffert that Ophuls ultimately advocates, perhaps against his own better judgment, the form of politics he has censured in his own analysis.

Instead of a radically new vision of politics, what distills out of Ophuls's work is technocratic authoritarianism, modified by an only vaguely defined and mystical environmental sensibility. As such, we have not travelled anywhere near as far from Pinchot's classical conservationism as Ophuls would maintain. The crucial difference between Pinchot and the neo-Malthusians is in how they view the relationship between environmental administration and democracy. For Pinchot the scientific management of natural resources guarantees the material foundation of democratic society, provides a model of democratic public service, and thus is a tool not only for preserving natural resources, but for reenforcing democracy as well. For the neo-Malthusians, however, proper management of the environment presupposes an abridgement or negation of democratic institutions and values. While such management for Pinchot is ultimately built on his vision of democratic equality, for the neo-Malthusians it is committed, first, to simple survival and, second, to what they perceive as an environmental philosophy or consciousness. The guiding ethics are no longer political principles of justice, but ecological principles of environmental balance. In essence the neo-Malthusians are promoting progressive conservation administration without its commitment and ties to democratic values. What remains is the authoritarian management of the environment and society.

The central argument between neo-Malthusianism and classical progressive conservation is thus less one of principle than an empirical dispute over the degree to which freedom and democracy are compatible with environmental management. For Ophuls and other neo-Malthusians, Pinchot is much too optimistic about both the bounty of nature and the responsiveness of democratic society to environmental problems. To them, the waste that Pinchot abhorred is endemic not only to the behavior of a few monopolistic corporations, but to the very structure of contemporary society. It is not just privilege, but capitalism, even industrialism itself, that threatens the natural resource



### 50 CHAPTER TWO

base of society—if not the entire biosphere. The neo-Malthusian rejection of the democratic component of progressive conservationism grows out of their disbelief in the optimistic claims this conservationism made about natural resource abundance. Having rejected this claim, the neo-Malthusians retain the administrative form of progressive conservationism—scientific management—but abandon faith in political democracy and expanding economies, leaving only the element of managerial optimism found in the earlier American conservationism.

Neo-Malthusianism is therefore best viewed as progressive conservationism cut away from its classical commitment to democratic equality. Once this break has been made, Ophuls is right to suspect that the Leviathan is the most obvious political option remaining. In this sense the neo-Malthusians are correct to view their project as a radical break with the past. On the other hand, what they are left with is the scientific management of the environment, which had been pioneered and promoted by the first great American conservation movement. As such, they have developed a strand of the very American political tradition they believed themselves to have rebelled against.

## 3

# Liberal Reformulations of Progressive Conservationism

One of the penalties of an ecological education is that one lives in a world of wounds.

—Aldo Leopold

For all the conceptual and empirical problems found in the works of the neo-Malthusians, they are not alone in their belief that the environmental conservationism of earlier generations is inappropriate or ineffectual in the context of the latter half of the twentieth century. Historians of American environmentalism have commonly distinguished between the conservationism of the Progressive Era and the environmental movement as it developed in the 1960s and 1970s. For Roderick Nash, recent environmentalism has broken away from its earlier roots in Pinchot. In the place of progressive utilitarian attitudes toward nature, he sees an emphasis on the intrinsic values and "rights" of nature.1 Samuel Hays argues that while progressive conservationism can best be understood as part of the history of American production (stressing wise use of resources and efficiency), environmentalism in its more recent incarnations is a part of the history of American consumption patterns. As living standards rose in the period following World War II, Americans began to value wilderness and the natural environment as a resource not only for production, but for recreation and aesthetic experience. "Environmental and ecological values were an integral part of the continuous search for a better standard of living. They reflected changing attitudes about what constitutes a better life. . . . The search for environmental quality was an integral part of this rising standard of living."2 At the same time that many environmentalists, like the neo-Malthusians, were becoming increasingly nervous about the ability of contemporary society to pro-