In a previous book I argued that the greatest problem facing humanity is the need to gain control over technology. Man has, I asserted, achieved virtually godlike powers over himself, his society, and his physical environment. As a result of his scientific and technological achievements, he has the power to alter or destroy both the human race and its physical habitat. Man is thus on the threshold of a further evolutionary step of almost unimaginable importance. He now has the potential for transforming himself into a new man, one who is able to understand his powers and is willing to use them responsibly to control himself and his world in order to create the first truly humanized physical and social environment. This human being I call "technological man," the creature who both creates and controls his technology. Alternatively, man now has the capacity of degrading himself into a mere object, a physical cog in a less than human society, or of allowing society to dissolve into primitive poverty and chaos. Humanity, in Buckminster Fuller's phrase, now faces a choice between utopia and oblivion.

The new technological man, who seeks to control the world of
which he is the potential master for humanistic purposes, must neces-
sarily have a very different cultural and philosophical outlook from
the bourgeois man who has created liberal society. The bases for this
new outlook are three overall synthesizing principles: naturalism,
holism, and immanence. The new philosophy is naturalistic in that
it is rooted in the assumption that man is part of nature and his
salvation lies in acting in accordance with this fact. The new
philosophy is holistic in that it is based on the realization that every-
thing in man's world—the physical planet he lives on, the society he
lives in, and himself—is closely interrelated in a single system, and
that any descriptive or prescriptive principles will have to take into
account this entire universe. Finally, the new philosophy is immanen-
tist in recognizing that the reordering of human society and man's
nature can never come from outside or "above," nor can it be blue-
printed in advance; it can only grow out of whatever already exists.
The form of the new society will be determined in the course of
the process of interaction among individuals and groups and society
as a whole as they strive to achieve a greater sense of identity and
purpose and a renewed planetary order. Technological man and the
new humanist society are "emergent properties" of this interaction.

What do these high-sounding generalities mean theoretically and
programmatically? What specific ideas about man and society are re-
quired or implied by these principles? What ideas are incompatible
and excluded? How is this philosophy to be operationalized and what
will a new world order created in accordance with these principles
look like? In short, what will the philosophy and politics of technolog-
ical man, of postliberal society, be?

Such an analysis must necessarily be carried on on two levels. On
the theoretical level, I will attempt to set forth certain basic principles
which appear to be scientifically tenable and logically necessary. On
the more practical level, I will try to show how these principles can be
used as guidelines toward the creation of new structures in the real
world around us and how they can be used to help shape the course of
events. In accordance with the principle of immanence, this second
level cannot be expected to have the same logical necessity as the first.
On this level, it will be possible only to indicate parameters and gen-
eral courses of action rather than to specify all necessary details; we will
only be able to suggest tentatively rather than to prescribe
definitively how order can be achieved. But to reject dogmatism and a
superimposed blueprint is not the same thing as to embrace the com-
placent stand-pattism or "muddling through" philosophy of the
reigning liberal establishment, the philosophical nihilism of most of
the counterculture and New Left, or the optimistic meliorism of the
prophets of the new "greening." One need not prescribe what color eyes and what shape nose an unborn child must have in order to be able to distinguish the birth of a human being from the emergence of a monster, and one need not have planned the interior decoration of a house in order to begin to dig its foundations.

Human beings are part of the world of nature, of the world of natural living things; they share the characteristics common to other elements of the physical and biological universe and are affected by the characteristics of the whole natural system of which they are members. From this fact follows the first general requirement for any philosophy of politics designed to meet mankind's needs: Political philosophy must take into account and be in conformity with the objective nature of the universe, insofar as science can ascertain that nature.

This is not as self-evident as it may seem. Some political philosophers would argue that, although we can no longer accept the scientific world view of the ancients, their political philosophy alone deserves to be called truly human, and that, while we are forced to accept the modern view of the physical world, we must in the name of humanity reject any political philosophy derived from it. They would hold that, although we cannot any longer give credence to Aristotle's description of how the solar system is constituted and operates, as human beings neither can we live in the atomistic social world of Hobbes, Locke, and their successors, which these political theorists still assume to be consonant with contemporary scientific thought.

Dualism of this sort seems to have a built-in appeal in times of major intellectual discovery and change; witness the Averroistic reaction to the introduction of Aristotelian science into the medieval Islamic and Christian worlds. But such dualism runs counter to our most fundamental intellectual and psychological instincts; we are all monists at heart. And sooner or later one of the elements in a dualistic world view will triumph. We must try at the outset therefore to look steadily at reality and see it whole, albeit recognizing the possibility that human uniqueness and indeterminacy may itself be part of the basic order of things.

This is not to say that it is necessary to construct a theory of society which is strictly analogous to the picture of the physical universe established by the physical sciences, or even less a theory in which social laws are reduced to physical laws. The scientific view of the universe, including the world of living things, has changed over time and will probably continue to change. Simply to extrapolate from it would be to doom any political theory to becoming dated as soon as scientific theories are revised. On the other hand, no philosophy of society which runs counter to currently established scientific facts and
laws can expect to survive long, nor should it. Societies based on illusion cannot expect to prosper or even endure: "Ethics, sociology, politics are ultimately subject to infestation by the germ that is born when a discovery in pure science is made."6

A major objection to liberalism is that it is based on an outdated view of the universe. In referring to the American Constitution, Jefferson said, "All its authority rests upon the harmonizing sentiments of the day,"7 that is, the Lockean world view. But these harmonizing sentiments have evaporated (although this is not yet popularly realized), and with them its authority must also wane. Political theories must, like scientific theories, "save the appearances," that is, they must be consistent with the world as we perceive it. This requires that they be consistent with the data of the physical as well as the social sciences.8

But not only is it important to recognize that theory must be consistent with, though not overcommitted to, existing structures of knowledge in the physical sciences; it is also necessary to keep in mind the fact that, although the universe is a self-consistent whole, different principles of order operate at different levels. Political theory deals with the activities of human beings, who are, as individuals, midway in size between the nebulae and the electrons, the largest and smallest "objects" in the universe.9 Theories about human behavior must be compatible with those laws of nature appropriate to human beings in this middle kingdom.

**FACTS AND VALUES**

But if political philosophy must be in accord with the facts of life, these facts are not what it is about. Political philosophy is above all a normative enterprise. Its norms must ultimately derive from the nature of things; political philosophy cannot set goals and standards contrary to the order inherent in nature. But it is by no means simply a reflection of how things are.

Perhaps this is as good a place as any to set to rest one of the greatest bogeymen of modern ethical and social philosophy, at least since Kant: the supposed inherent dichotomy between facts and values, the alleged human inability to derive the "ought" from the "is." Forests have been devoured and rivers of ink poured out in the technical discussion of this question by philosophers.10 There is therefore no possibility of recapitulating, ordering, and resolving the argument here in technical terms. In part it is a quarrel over words. We use specialized language for various purposes and sometimes fail to recognize that words are tools, not full embodiments of reality. Descriptive and prescriptive statements are of different kinds in and of them-
selves simply as a matter of linguistic usage. But this is not really saying anything more than that "is" has two letters in English and "ought" five, or that some languages have more than two words to express the concepts involved in these words while others make no such distinction. The real issue is at once both more complex and simpler than our convenient linguistic distinctions.

Aristotle said all that needs to be said on the subject two thousand years ago when he defined the end of man as happiness. This is both a descriptive "is" statement and a normative "ought" statement. He meant both that men normally seek happiness and that men should seek happiness. If anyone seeks to be unhappy we can say one of two things: that for him being unhappy constitutes his happiness (as in some forms of psychological disorder, such as masochism), thus validating our proposition formally though weakening it substantively, or that such a person is so seriously deranged as to be no longer human, not worth arguing with, and hardly worth worrying about. Men are uniquely free in being able to choose to act contrary to their nature. Or, to put it in the most mechanistic terms, their behavior can be determined in such a way that they will act contrary to their own objective good, just as animals without the human being's facility for choice sometimes end up being miscued by nature and eating things which poison them. But we do not feel it necessary to consider such arbitrary choices in establishing our norms. A person who is a masochist and enjoys being tortured is considered to be perverted, and we usually can find ways of accounting for his aberrations. We do not, because of his existence, consider it impossible to make the statement that it is the nature of man to avoid pain and that he therefore should avoid certain actions which will cause him pain in order to be happy. Pain is basically a mechanism by which our body tells us that something wrong is happening, something which under normal circumstances we should avoid or correct.

The matter becomes clearer if we think in terms of health. All living creatures seek life and power, the full exercise of their potentialities. Animals sometimes choose death in accordance with instinctual drives to preserve their young or their herd; also, under extreme conditions such as overcrowding, their internal controls may break down and they may engage in behavior which is group destructive as well as individually harmful. But life—the fullness of life—is the norm.

"Health" is a word we use to describe the maximization of life, both in terms of longevity and of scope of activity. If our physician tells us that research indicates that the intake of certain substances is conducive to illness and that we should therefore avoid them, he is making a simple statement at once both descriptive and normative,
the legitimacy and cogency of which we easily recognize. We may, of course, act contrary to his recommendations. We can decide that we prefer other things to personal health, either for personal or altruistic reasons, but if we do so we usually recognize that our choice is one which involves setting one value (wealth, let us say) above another (continued health). We would never think of arguing that our medical adviser's statement is philosophically illegitimate or illogical. As a result of compulsive behavior patterns we may continue a course of action such as cigarette smoking—or, on a national level, polluting the environment—which we know or have been told is dangerous, because we refuse to break these patterns, but we would never deny that doing what harms us is wrong in some meaningful sense. Continued life and health are regarded as good and what can be shown to imperil them as evil. Even suicides, insofar as they act out of rational choice rather than compulsion, are saying that the quality of their lives—or its effects on the lives of others they cherish—has become so negative as to negate the value of life itself. And it is obvious that a terminal cancer patient, living on in pain with no hope of resuming normal activity, a burden to the lives of others, who chooses death rather than a continuation of his situation, can hardly be said to be denying the intrinsic value of life and health.

What is true of the choices of individuals applies to social choice as well, even though social choice, like individual choice, may not be rational but rather the result of compulsive behavior patterns. Few societies seek to be unhappy or unhealthy according to their perceptions of what constitutes health and happiness, even though to the outside observer it appears that they may have chosen a path bound to lead to disruption and decay. No social system seeks extinction, although political leaders and their followers sometimes pursue policies which can only lead to destruction. The problem is not solely—or even primarily—one of overcoming an inherent philosophical inability to derive meaningful prescriptive statements from descriptive ones—the “ought” from the “is”—but in convincing people, including ourselves, to do what we know we ought to do.

Much of the professional ethician’s confusion and that of many social scientists who should know better stems from a failure to recognize that the problem derives from the fact that “is” statements can be made universally and “ought” statements are made most usefully only about human beings. To say that a rock is subject to the laws of gravity is a complete statement to which nothing useful is added by saying that therefore rocks “ought” to fall, though we often say so colloquially. Rocks have no choice or apparent awareness in the matter; they will follow whatever physical laws apply to their situation. In the case
of animals the matter is more complex, depending on how much volition we believe we can ascribe to them. The fact that the Hound of the Baskervilles is not barking is significant because we think he ought to be. His actions reflect a kind of choice, and because is and ought are not completely congruent in his behavior, it is necessary to account for his behavior.

In the case of human beings, we know both from introspection and observation that their behavior is purposeful. Even the supporters of the most behavioralist schools of philosophy or psychology, even those who in the abstract deny the existence of free will, in practice respond to the behavior of their wives, children, colleagues, and students as though the actions of these others were more than determined behavior over which they had no control. Professor Skinner feels—or at least manifests—annoyance with those of his colleagues who "choose" to prefer what he considers to be ineffective methods of social control. The human being is above all a goal-setting animal, and therefore for him the "is" and the "ought" are necessarily conjoined.12

Some scientists try to avoid the implications of man's purposiveness by observing and describing him in terms of his external behavior (including his verbalization of norms) as if he were a rock or a dog. Whatever satisfaction it may give to the observers' own sense of "oughtness," such a method seems foolish as a universal procedure. However useful it may be in some cases to suspend judgment about motivations until after behavior has been observed, sooner or later any description of human behavior to be at all interesting as an explanation or useful as a predictor of actions must come to grips with the "causes" of behavior, among which are motivations, conscious or unconscious. Even a complete determinist would have to deal with the obvious fact that overt, human behavior patterns are normally preceded by and correlated with internal mental states which must be assumed to be of some potential explanatory significance. It is impossible to describe human beings without discussing their purposes. We are human, and the more we react as humans the more we are able to understand how men and women in fact behave.

Today some social scientists have moved all the way to the opposite end of the spectrum and insist that there can be no understanding without complete empathy, sympathy, or participation—that only the poor can understand the poor, only blacks can adequately describe black society, etc.13 This obviously overstates the case, but no matter how detached we try to be, we face a choice between increased comprehension based on some sharing accompanied by possible loss of perspective on the one hand, and a lesser degree of comprehension as
a result of detachment together with a possible gain of perspective on the other.

Even to perceive is to judge. One cannot describe without using language or without imposing some framework and some criterion of choice on a myriad of details. One cannot talk about human affairs without using valuational terms. The legal difference between homicide and murder is a descriptive matter normally dependent on antecedent factors such as premeditation, but the difference has obvious valuational connotations and consequences. There is a difference, as Americans (especially southerners) know, between a "rebellion," a "civil war," and a "war between the states." We can invent supposedly value-neutral terms to replace obviously value-laden ones—we can call actions "dysfunctional" rather than "bad," and "operationally inappropriate" rather than "futile." We can talk about "instability" rather than disorder, or call statements "inoperative" rather than lies. But we still use such language in order to evaluate. For in political discourse the descriptive is necessarily normative.14

Because there is no real difference between descriptive and normative statements, and because all language is evaluational, it is absurd to argue that science cannot be a source or standard of values. Once we have made the basic decision to survive or function effectively as individuals or as societies, science can tell us what we should or should not do, what actions are capable of leading us to our goals and are therefore good and what actions will frustrate the achievement of our goals and are therefore evil. Insofar as science describes what in fact hurts or heals us, it provides us with substantive norms. However much philosophers may quibble, science can furnish us with norms of behavior appropriate to the achievement of basic human purposes.

Actually, as the sociologist Ernest Becker notes, the "separation of fact and value is an historical anomaly that has no place in contemporary science."15 Not only do any descriptive statements reflect our own perspectives and concerns, including our universal characteristics as human beings—not only do we necessarily create nature in our own image in a process sometimes called the "social construction of reality"16—but, unlike the situation in the nineteenth century when science conceived of man as a detached spectator of an objective universe, we now, as a result of Heisenberg's work in quantum mechanics, must accept "a partial fusion of the knower and the known."17 Even assuming that there is some "objective" nature "out there" which is independent of human perception, it is in itself purposeful, as I shall emphasize later. Nature is not the mere fortuitous outcome of the random jumbling of subatomic particles, as the early
modern physics which developed along with liberalism held, but a hierarchically organized structure in which no constituent element can be described except in terms of its function in relationship to other elements in creating meaningful wholes.\(^1\)

As a simple operational matter, political philosophy must be normative because it is by definition prescriptive. But if we are going to make statements about what should be we must have some general definition of the good. This is the Achilles' heel of pragmatism, no matter how it masquerades as moderation, compromise, or common sense. We cannot act to avoid present ills unless we can define the probable outcome of our actions as something better. We cannot say a thing is good simply because it works. It must be good for something, it must work in terms of some end which is sought. Any set of statements about what we should do to surmount our current crisis must ultimately be based on some clearly conceived idea about what man is and what therefore is good for him. We can no longer act as if we could get out of the maze simply by running faster. We cannot defeat the alien invasion of earth unless we can tell what is human from what is inhuman, unless we have a banner under which we can rally.

The Tasks of Political Philosophy

There are three basic questions with which any philosophy of society or politics must deal: (1) What is man? (2) What is the nature of the universe as it affects man? (3) What is the relationship between man's values and the way in which the universe works? Whether these questions are answered explicitly or implicitly they cannot be ignored. One of the things which separate the great political philosophers such as Plato, Hobbes, and Marx from mere ideologues is that the former deal with these questions directly and attempt to relate subsidiary propositions about the nature of justice to their answers to these basic questions about human nature and destiny.

Unless we know what man is, we have no way of knowing what the possibilities or limits of his actions are, nor can we know what will make him healthy and/or happy. Since society consists of men, we cannot discuss society without discussing its human constituents. Nor can we understand man or society without reference to the physical universe within which they both exist. This universe has certain regularities which we call laws, and man—composed of atoms and subject to the laws of physics and chemistry (or statistics)—is bound by them. To understand what man and his society must be, and what they can aspire to be, we must first understand this context. Does the universe have human meaning? Is it moving in any direction that man can perceive? Is man part of a "great chain of being," as the central
philosophical tradition of the West once averred, or is he, as Lycurgus and Hobbes would have us believe, simply the product of a fortuitous concourse of atoms in the void?

To discuss man's nature intelligently we need not penetrate (even if this were possible) to the ultimate meaning of the concepts of time and space. Aristotle got along quite well as a philosopher without knowing whether or not the world was eternal, and we need not solve the conundrum of infinity in order to save our planet from disaster. Whether entropy rules universally or whether the universe is involved in a process of continuous creation need not be definitely answered here, but to know that we live in a small subsystem where that antientropic phenomenon called life flourishes does matter, and the important question for us is what we can learn from this fact.

**Political Philosophy and Theology**

At this point it might be objected by some that all political questions, all questions of the nature of man, are at bottom theological, and that therefore we cannot discuss the meaning of the universe without dealing with the question of the possible existence and nature of God. In a sense this is true, but this does not mean that the traditional problems of theology as such need concern us. Increasingly, theologians have come to recognize that the full reality of God is as hidden from us as he was from the Hebrews. God may not be "totally other" as Barthian neoorthodoxy holds, but the relationship between his nature and his manifestations in the universe is not a simple one-to-one correspondence as medieval piety supposed.

In the broadest sense, however, the revolt against liberalism is implicitly theistic. Theologians are coming to recognize that whatever provides the source of our value orientation is our god. The revolt of life-affirming forces in the modern world against the idolization of technology, the implicit appreciation by the ecological movement that we live in a numinous universe which must be respected if we are to respect ourselves, is a religious movement. Nor is it an accident or total misconception that has led many commentators to refer to the recent youth culture—despite its distrust and in large measure abandonment of formal religion—as being the expression of the most religious generation in our nation's history. The spiritual vacuum left by liberalism is being filled.

There is one theological point on which postliberal political philosophy must take a stand, however it eschews traditional theological disputes. Any religious doctrine which holds that the world is fundamentally evil or at best a neutral, valueless stage on which individual men and women work out their individual salvation, or any
doctrine which radically separates man's earthly and eternal destinies, is contrary to the most fundamental insights of the traditions of most of the great religions, which have held the divine to be immanent as well as transcendent. Also, such religious beliefs engender human alienation of the most profound sort, serve the cause of the forces of evil in the world, and imperil the future of humanity.

In dealing with political matters we need not utilize the special language or speak to the special concerns of the theologians. We can simply talk of human beings and the universe in terms of what we know and feel, through our minds and our bodies. Unlike Molière's character, if we speak the prose of theology as well as the language of science and philosophy, we need not be surprised or concerned. Insofar as many contemporary theologians seek to be social philosophers and prophets rather than the more otherworldly specialists in a God who exists outside his creation that most of their predecessors were, our concerns may overlap, but that is their problem rather than ours.

**Man's Values and Nature's Norms**

Throughout the history of the West there have been conflicts between society and society's laws and those who claimed that there were laws of God superior to the laws made by men. Recent struggles over the principle of conscientious objection or resistance to "unjust" wars are a contemporary expression of a long tradition of belief in some kind of "higher law." It is relatively easy to speak of the relationship between the "laws of God" and the "laws of man" when one has an anthropomorphic image of God as a conscious, willing being, much like ourselves except for being omniscient and omnipotent. It is more difficult to relate man's values to the norms of the universe if the universe is thought of in nonpersonal terms.

The classic natural-law tradition of Plato, Aristotle, Cicero, and the Stoics and Scholastics held essentially that there is an intelligible order in the universe and that man is a part of this order. This order is eternal and unchanging, and it is man's moral duty to conform to its dictates. For other philosophers, man's will is set over against the universe's nonwill, its simple existence. What if man is subject to the laws of physics and biology; why should they invalidate his desires? Man alone can will and therefore man alone can be a bearer of morality. Man's role is therefore to struggle against nature and the barriers it poses to his will.

Any philosophy of politics must take a position on this central issue. Does the universe provide norms of behavior for men in society?
there laws of nature, and if so, are they of moral significance or simply physical constraints which we are free to circumvent rather than obey? The issue of the extent to which the universe can be a source of value for humanity must be met squarely by any political philosophy worthy of the name.

Equally basic to the task of reconciling our view of man and of nature is the need to relate logically our view of human nature to our view of society. Historically, the idea that man is "intrinsically" evil has been used to justify both strong and weak governments, and the same is true of the opposing position that man is inherently good. Clearly, there is no simple one-to-one relationship between our concept of human nature and precise forms of the social and political order. But if there are no simple means by which political and social forms may be univocally deduced from premises about human nature, there are, as in the case of physical nature, parameters for man and his behavior which are set by his natural constitution. Only totalitarians dream that everything is possible. Any coherent political philosophy must therefore be clear about what it holds to be the irreducible essentials of human life and how it relates its ideas about human nature to its social and political goals.

**UTOPIA WITHOUT UTOPIANISM**

Any political philosophy meaningful for our time must meet two further criteria: It must be universally relevant, and it must be capable of being incarnated in political and social reality within the relatively near future.

Any new political philosophy must be universal because our problems are planetary; the oneness of the world, the crisis of the world ecosystem, and the need of the human species as a whole to regain mastery over its technology are the factual assumptions underlying our normative inquiry. This does not mean that a new political philosophy must postulate a world in which all cultural and social subsystems have disappeared—only that the basic premises for the solution of our planetary problems must be universally adopted and implemented. A political philosophy for the next century must be equally acceptable and intelligible to East and West, to developed and less developed nations alike. We are entering an age of worldwide community, and therefore an age in which universal political and philosophical consensus is both possible and essential.

Any new political philosophy must eschew traditional utopianism. Utopianism refers to the tendency of social philosophers to create ideal states without telling us in any useful fashion how they are to be achieved. Our utopias must be relevant utopias. Ideals are important
as standards of what should be, but we must have guidance as to how to achieve them as well.

Some utopian thought (Plato's Republic is an example) premises an all-powerful ruler, acting as a deus ex machina for the society, creating the good order by force of decree, independently of the normal dynamics of social life. Rousseau's "legislator" used persuasion but struck while the iron was hot and could therefore operate successfully only in a few special moments in history, the existence of which the legislator could not influence. Other utopians have depended on some kind of fortunate isolation from the complexity of ordinary social processes. Thomas More's Utopia was an island, and from the nineteenth century to the present America has seen the birth—and death—of utopian colonies based on the withdrawal from the world of a select and usually economically independent few. None of these philosophies or movements comes to grips with the problem of how one moves a large, powerful, already existing social and economic system from peril to utopia. The great appeal of Marxism has been that Marx, in direct contrast to earlier socialists whom he derided as "utopian," attempted to provide a scientific explanation of the dynamics which made possible (and inevitable) change from an unsatisfactory present to a desirable future.

Any serious political philosophy must have its own theory of political dynamics, based on its assumptions about the nature of man and the universe. In addition to defining the good society or denouncing the existing one, a political philosophy must be able to tell us how the new society is to be brought into being, and it must postulate means which are compatible with the ends it seeks to achieve, because, as Marx also recognized, means inevitably shape ends.

Environment and Social Philosophy

All of these requirements have always held for any serious political philosophy. They are in effect the philosophical and methodological criteria for determining whether we are talking seriously about man and society or whether we are spinning fantasies. What is unique in our own time is that there is a further overarching, substantive requirement which political philosophy must meet. The nature of man and society must be considered in terms of our relationship to physical nature, including our own material artifacts, since the central issue of today is how man should deal with technology—how he can control the machines he has created so that they do not destroy him and how he can control his machines and techniques so that they do not destroy the ability of the planet to support decent human life.

It is interesting to note that classical political philosophers were
always conscious of the relationship of the physical environment to human society. Plato and, to a lesser extent, Aristotle were aware of the impact and conditioning force of geography, economics, and biology. So too were their modern heirs, Rousseau and Montesquieu. But the most influential modern political thinkers—the founders of liberalism, Hobbes and Locke—ignored the physical bases of human existence and spoke in terms of abstract universals independent of geography and history. Despite their rootedness in the study of history, and Marx's special concern with economics, both Hegel and Marx ignored or were unaware of the biological and physical constraints under which human society on earth exists. They therefore contributed to a politics of unreality paralleling the economics of unreality of their age and—until recently—of our own, in which man chooses to forget he is part of the kingdom of nature, akin to other children of Mother Earth.

But even the ancients, despite their concern with the size and location of cities, the effects of climate on peoples, and so on, did not deal with the central issues of man's relation to physical nature and his tools. How could they? Nature was an enemy far from conquered. The size of a city might condition the nature of its political system, but the earth as a whole was an unknown and unnecessary concept in their calculations. For Plato, Aristotle, and Thomas Aquinas, man was dominated by his own nature (however conceived) while physical nature was an external reality so boundless as both to invite and to defy conquest. Machiavelli's heroes fought against nature in striving for glory, yet they were the playthings of the external world as personified in Fortuna, the goddess of chance; both man and nature were capricious for men of the Renaissance and the early modern rulers. For Hobbes and Locke, man had the task of dominating a nature which was humanly meaningless; for Hegel and Marx, nature had meaning, but only because it produced men who would increasingly manipulate it.

It must not be supposed that modern Western man has been unique in abstracting himself from and ravaging nature. Many other civilizations have apparently destroyed their resource bases. Neither the ancient Greeks nor the Romans, the Mayans nor the Plains Indians, ancient China nor ancient India have always, despite their philosophies, treated nature with the respect it demands. Our primitive ancestors were responsible for the extermination of many species of animals through overhunting and the results of their agricultural practices. We are not the first generation of men to destroy some of our animal cousins forever. It may not be specific cultural traditions only but instead deep-rooted psychological impulses
toward aggression that shape our attitudes toward other species and the earth.

But we of the last quarter of the twentieth century and the dying decades of bourgeois industrial society inherit not only the age-old proclivities of most human groups to foul their own nests and destroy the basis for their subsistence but also the intellectual rationalizations for such action developed by modern Western man in liberal society. Thus the prime requirement for a political philosophy for technological man, a philosophy adequate for dealing with the social and physical ills created by the unbridled growth of population and technology, is a new theory of man's relation to nature which will tell us both what the good life and society are and how we can attain them. Such a philosophy is essential if we are to survive as human beings within a human society. The only alternative to discovering such a philosophy and creating a new order based upon it is the destruction of any human civilization worthy of the name and possibly even the destruction of the human species and its mother planet as well.

The outlines of this new philosophy of the proper relationship between humanity and nature are beginning to become apparent in the work of scientists, philosophers, theologians, and poets and also, increasingly, in the attitudes and behavior of the educated young in industrial societies. Ecological humanism is emerging as the basis of a new political and social philosophy because existing philosophies fail to meet the challenge of our time. What is ecological humanism? To answer this question we must begin at the beginning, and ask ourselves what it means to be human, what the place of our species is in the pageant of the universe, and what the nature of the universe itself is.

NOTES
7. As quoted in ibid., p. 44.