CHAPTER FIVE

FIRM FOUNDATIONS:

DOCTRINES OF SIN, JUDGMENT, REDEMPTION, AND CHURCH

The ecological relevance of Christian theology is not exhausted by the doctrines of creation, covenant, divine image, incarnation, and spiritual presence. Other less-noted doctrinal affirmations also have important ecological implications. This chapter is a continuation of chapter 4. It focuses on the ecological significance of Christian understandings of sin, judgment, cosmic redemption, and the church. I conclude with a summary of the chief implications of a "reformed" Christian theology for Christian ecological perspectives and responsibilities.

SIN AS AN ECOLOGICAL DISORDER

A perennial problem in Christianity is the tendency to define the meaning of sin too narrowly or even to reduce it to triviality. Sin too often has been functionally limited, for example, to sexual misdeeds, and sometimes to sexual deeds themselves. Instead, the concept of sin is broad and complex in meaning, and is an indispensable element in Christian theology. In our time particularly, the meaning of sin must be properly extended to cover ecological misdeeds, and the human condition underlying them. The ecological crisis and the host of actions contributing to that crisis are best understood in the context of sin. This interpretation alerts us to the powers behind the plunderings and

the intimidating obstacles to reform. It shows the seriousness of the disorder and the importance of perpetual public vigilance.

What is sin? Sin is not nearly as easy to define as it is for some to identify. Sin is strictly a human phenomenon, though its effects are universal problems. Even though nature as a whole has not "fallen," it has felt severely the fallout from the Fall of humanity. Sin literally defiles the land. Nature's fate is intimately linked to human acts, like the production of acid rain. Sin is volitional, an avoidable consequence of moral freedom or the power of choice, that only humans possess. It exists only to the extent that humans have freedom to choose (which is limited for all and varies among individuals and cultures). Accountability, therefore, depends on culpability.

Being a bondage of the will, sin is not "original" in the sense of being a genetic condition, but it is dependent on a genetic precondition: the capacities for moral volition inherited through the line of succession from the original parents of the species. Moreover, though sin itself is not an inherited trait from the genes of our forebears, its effects are a feature of our cultural inheritance from them. The results of their sins persist in cultural institutions and patterns, from religious customs to economic systems, limiting our own options and compelling, to some degree, our participation. Every generation benefits from the graces and suffers from the sins of its ancestors. Sin is manifested in both individuals and, in accentuated forms, in social structures. It is not "natural," since sin is not in the exercise of moral freedom per se. But it is ubiquitous in the deliberate, consensual abuse of that freedom. The Fall is perennial, not simply primeval.

Sin is not finitude, but it is rarely separated from finitude. The human capacities for error and evil often team up to exaggerate and exceed human powers. Sin and finitude are frequently encountered as incompetence combined with overconfidence. Sin is generally subtle, possessing remarkable powers to pose as altruism or righteousness, but it is always harmful to relationships. Sin is the condition of alienation between humans and God and all the creatures of God.

Traditionally, the root sin, the condition of sinfulness, has often been interpreted as pride or arrogance, the self-centered lust to dominate and the pretension of self-sufficiency at the expense of other beings.[1] Others have argued, however, that sloth—indifference, apathy, omissions, "deficient participation"[2]—is also a root of sin alongside pride. In my view, pride remains primal. Sloth and other root definitions of sin can be incorporated into pride, for they too reflect self-centered arrogance. I prefer, however, to use the term

egoism to describe the root of sin, since it captures the essence of the theological meaning of *pride* and it avoids that word's ambiguity in common usage. Sin, then, makes the self the center of existence, in defiance of divine intentions and in disregard for the interests of other lives. Sin is turning inward, and, thus, turning away from "God, neighbor, and nature."[3] In fact, if love is the core of the gospel, then sin can be seen as its antithesis: egoism is the absence or distortion of love for others in an imperialistic or narcissistic preference for the self (or one's group, from family to nation).

Whatever terms are used to describe the root of sin, there is general agreement on one theological definition that is all-embracing: sin is a declaration of autonomy from the sovereign source of our being. Its essence is rebellion. Whether in omission or commission, sin is the usurpation or rejection of divine authority. That, of course, is a religious interpretation of a broadly verifiable human phenomenon.

On these assumptions, what is the meaning of sin in an ecological framework? What are ecological sins? No single or simple definition will do, because of the complexity and subtlety of relationships between humans and the rest of nature. Several overlapping definitions will give the flavor of ecological sin (and sins). Ecologically, sin is the refusal to act in the image of God, as responsible representatives who value and love the host of interdependent creatures in their ecosystems, which the Creator values and loves. It is injustice, the self-centered human inclination to defy God's covenant of justice by grasping more than our due (as individuals, corporate bodies, nations, and a species) and thereby depriving other individuals, corporate bodies, nations, and species of their due. It is breaking the bonds with God and our comrades in creation. It is acting like the owner of creation with absolute property rights. Ecological sin is expressed as the arrogant denial of the creaturely limitations imposed on human ingenuity and technology, a defiant disrespect or a deficient respect for the interdependent relationships of all creatures and their environments established in the covenant of creation, and an anthropocentric abuse of what God has made for frugal use.

These dynamics of ecological sin are evident in all dimensions of our ecological crisis. Thus, when sin is interpreted in this manner, the miscalculations, foul-ups, high-risk gambles, and negligence surrounding the 1989 "accidental" oil spill from the *Exxon Valdez* into Prince William Sound can properly be called the "sin of *Valdez*."[4]

Descriptions of ecological sin in Christian theological history have been rare until recently. Comparatively few understood sin as having

ecological applications. Two descriptions earlier in this century merit some note. One is by the leading voice of the Social Gospel, Walter Rauschenbusch, and the other by the leading reformer of that movement, Reinhold Niebuhr.

In the following description, Rauschenbusch seems to value the natural world primarily for its contributions to human wants—aesthetic, scientific, and economic. He shows some but still little appreciation for the intrinsic value and vibrancy of otherkind in their ecosystems. He represents the Gifford Pinchot-type of conservation common in his era: anthropocentric, utilitarian, and managerial. Nature is "improved" by development for human needs:

> *Human labor beautifies nature*. . . . Science has furnished labor with unparalleled powers to *fashion nature* according to its will and with *wonderful results*. Arid lands have come to teem with life and verdure; dreary swamps have been *redeemed from desolation*. But side by side with this *fertilizing hand* of man goes an influence of devastation.[5]

Rauschenbusch then proceeds to denounce the excesses of capitalistic destruction—the gutted mines, the wasted forests, and dried waterways—because of unsustainable usages:

> Beauty that ages have fashioned and that no skill of man can replace is effaced to enrich a few persons whose enrichment is of little use to anybody. . . . For any long-range care of nature capitalism is almost useless. . . . The avarice induced by our economic system *sacrifices the future of the race* to immediate enrichment. From the point of view of a religious evolutionist that is one of the greatest of all sins. God and nature are always supremely intent on a better future.[6]

As an admirer of Rauschenbusch, I do not find this passage to be pleasant reading. Rauschenbusch can be commended for recognizing the social structure of ecological sin and the ecological havoc caused by unfettered capitalism—a consciousness that was rising in his time. He does not seem to recognize, however, that capitalism is not in itself the cause of the ecological crisis or that every economic system must be ecologically restrained, as contemporary forms of ecologically debilitating socialism well illustrate. Above all, however, Rauschenbusch seems to reflect some of the very ecological sins he condemns. Anthropocentric initiatives to "improve" nature by development and "beautification" have themselves been major causes of ecological

disorder. Thus Rauschenbusch is not the best model for helping us to understand ecological sin.

In contrast, Reinhold Niebuhr offers a description of ecological sin that reaches its depths. Humans are insecure in their ambiguous situation of finitude and freedom. So, they seek security against the vicissitudes of nature by pretending to unlimited technological capacities and by exceeding the limits providentially established. Ecological sin is one form of the "pride of power":

> Man's sense of dependence upon nature and his reverent gratitude toward the miracle of nature's perennial abundance is destroyed by his arrogant sense of independence and his greedy effort to overcome the insecurity of nature's rhythms and seasons by garnering her stores with excessive zeal and beyond natural requirements. Greed is in short the expression of man's inordinate ambition to hide his insecurity in nature.[7]

Niebuhr's recognition of ecological sin was somewhat ahead of his time (though his use of sexually exclusive language was not). His description is adequate for alerting us to the seriousness of the problem and the difficulty of finding solutions.

From the perspective of the classical Christian definition of sin, the ecological crisis is not simply a consequence of defective technologies, ideologies, or socioeconomic systems. The importance of these factors, of course, cannot be minimized, as this book testifies. Some technologies, ideologies, and systems *are*, actually or potentially, better than others in controlling or preventing ecological problems. We need personal *and* social repentance and reform. However, no morally flawless New Human will emerge and no ecological tokenism or half-measures will be fitting responses to the persistent source of the problem. The Christian understanding of sin warns us that resolving the ecological crisis demands perpetual vigilance and sufficient reforms. Fortunately, an appropriate Christian understanding of the human potential for good, also a consequence of moral freedom and the empowerment of divine grace, gives some hope that the powers of ecological sin can be contained.

DIVINE JUDGMENTS IN NATURAL HISTORY

The judgments of God beyond history have gotten the bulk of the press in most Christian traditions. Imaginations have worked overtime to

provide the gory details of apocalyptic events and literally to scare the hell out of people. But the concern here is with God's judgments *in* history.

Does God exercise judgments in history against ecological sins? Are there "natural" judgments for moral evils? Does the biophysical world communicate divine "wrath" for the exploitation of nature? Is biological unsustainability, for instance, a manifestation of divine punishment for sins against the ecosphere? Contemporary theologians and ethicists often suggest that the answers are in the affirmative. References to the revenge or backlash of nature under the auspices of God are frequent. I generally agree with these assessments, but with qualifications. There can be no doubt that ecological abuses have dire ecological consequences, including for human communities. Moreover, from a Christian perspective, God is actively involved in the processes of cultural and natural history, guiding and judging to redeem. Yet, the attribution of divine judgment to particular natural events is a delicate matter that requires extreme caution.

The association of natural evils with moral evils, the latter causing or contributing to the former, is common in Christian history. The "jeremiads" of seventeenth-century New England preachers, for example, regularly and luridly predicted plagues and other natural disasters, including smallpox epidemics, as judgmental acts of God, unless the people repented and humbled themselves.[8] This association has plenty of scriptural proof-texts for support. Several passages refer explicitly to ecological punishments, like a barren earth or drought, for disobedience to the divine will (Isa. 24:1-7; Jer. 2:7-8; Hos. 4:1-3; Amos 4:6-9; Lev. 26:18-25), or to ecological benefices, like abundant yields, for obedience (Lev. 25:18-19; 26:3-6; Isa. 11:9; 35:1-2). In fact, from some theological perspectives, Adam's Fall had ecological consequences (Cf. Gen. 3:17), even "causing" the fall of nature. It is important to note, though, that the ecological punishments in these biblical passages are *not* the effects of specifically ecological sins. Nature mourns and withers as the device of divine judgment on sins in general, not ecological sins in particular. Because there is no direct causal relationship between ecological abuse and disasters, the use of these texts as bases for sermons or theological reflections on environmental responsibility is at least difficult and often dubious.

In fact, without this causal correlation between actions and effects in ways that are empirically verifiable, the interpretation of natural events as divine judgments is potentially, and usually actually, dangerous and irresponsible. Volcanic eruptions, droughts, floods, and diseases can then be blamed on the alleged moral corruptions of individuals or

communities. These linkages are theologically primitive and were refuted initially in the Book of Job. Certainly, the categories of moral and natural evil are not always discrete.[9] Famines can be caused by both inclement weather and poor agricultural practices. Earthquake damage can be exacerbated by the folly of building major cities on fault lines. Some natural evils are caused directly and solely by moral evils—a nuclear holocaust being an obvious example, and atmospheric ozone depletion being a less obvious one. Nevertheless, if ecological debacles are to be interpreted responsibly as manifestations of divine judgment, the causal connections between moral and natural evils must be empirically verifiable, rather than homiletically irresistible.

James Gustafson suggests a responsible, empirically sensitive way to interpret ecological disorders as divine judgments. He stresses the interdependence of culture and nature. The divine ordering of creation imposes limits on environmental use and mandates the nurturing of nature. Humans must seek empirically to discern proper limits and the duties of care. Divine judgment comes from exceeding the bounds and exercising deficient care: "The religious consciousness confronts the judgment and wrath of God on those occasions when the consequences of our commissions and omissions signal a serious disordering of relationships between persons, in society, in relation to nature."[10]

The biophysical world does "retaliate" for human abuse or negligence, and God is implicated in these natural processes. There is a moral ordering of the world, part of the covenant of creation, and sin is disdainful of the limits and disruptive of the relationships in that order. Theologically interpreted, the natural order sets boundaries to rebellion.[11] Divine judgments, then, are exercised through the natural processes by which humans are compelled to respect biophysical limits—particularly the limits on dynamic ecosystems to survive the stresses of human interventions, the limits on the atmosphere, soil, and waters to absorb toxic wastes, and the limits on the use of renewable and nonrenewable goods. These judgments are "pedagogic," imposing costly effects through which humans are taught to correct their ecological faults. The indiscriminate consequences of these judgments—both the guilty and the innocent, the just and unjust suffer—are reminders of the relationality in both sin and nature; they "show how completely we are members of one another."[12] Thus, in the causal connections between ecological abuse or negligence and ecological disasters with their trains of woes, Christians can perceive the dynamics of ecological sin and divine judgment.

God's natural judgments, however, are not punishments for their own

sake. They are the "grace of wrath" (as Old Testament scholar Harrell Beck used to pun) or providence in a stern, disciplinary mode. They are understood as acts of love by those who believe that God is love. The immediate effects are often costly, even deadly, but the intentions are corrective, to preserve the beneficial dynamics of the natural order and to shape human ecological behavior toward wise, beneficent, and just ends. The only appropriate response to God's ecological judgments against ecological sins is, as usual, ecological repentance.

CONSUMMATION AS COSMIC REDEMPTION

When John Muir, America's most eloquent voice for wilderness, wandered on a dead bear in Yosemite, he railed against Christian orthodoxies for their "stingy heaven" that had no room in the ultimate inn for this "noble" creature or any other nonhuman kin in creation: "Not content with taking all of earth, they also claim the celestial country as the only ones who possess the kinds of souls for which that imponderable empire was planned." But God's "charity," he added, "is broad enough for bears."[13]

Muir was right: the only Christianity he knew reserved the realm of redemption for human occupants. The predominant characteristic of Western theological traditions, Roman Catholic and Protestant, has been the absence of the hope for the consummation of creation. Heaven is exclusively for humans, who alone have "rational, immortal souls," and generally only for a few of them, who believe the appropriate doctrines and who behave in the proper manner. For most, even the resurrection of the body became the immortality of the soul. The "saved" will sing perpetual praise to their Redeemer in this scene of damnation-like dullness, but not "all God's creatures got a place in the choir." In this ultimate dualism, redemption is the release from nature (including the body), and oblivion is the fate of nature.

This exclusivistic belief has served as a major justification for depreciating the value of creation and destroying its allegedly valueless components. Humans can neglect or abuse what is not redeemable. Since the nonhuman creation is ultimately meaningless or useless, it has no intrinsic value for God, and, therefore, no intrinsic value that should be respected by others. It can be treated as an instrumental value, if it has utility for humans, and without hindrance if it does not—so long as our behavior does not cause harm to humans or dispose us psychologically to cruelty to humans.[14]

However, Muir's charge is only partially justified. A strong, minority voice affirming the consummation of all creation has been persistent in Christian history, and it has been an important—in my view, indispensable—grounding for the intrinsic value of creation and other elements of a Christian ecological ethic.

Historical Perspectives

The hope for cosmic redemption is rooted in scripture (Isa. 11:6-9; 65:17, 25; Col. 1:14-20; I Cor. 15:28; Eph. 1:10; Rom. 8:19-22). In the Old Testament, Israel's hope for God's final victory over evil inextricably links humanity with the rest of nature.[15] In the New Testament versions of this view, the cosmic Christ will redeem the whole creation, liberating all creatures from death and reconciling them for harmonious interactions. This minority perspective, however, was not as minor as commonly assumed. Pauline scholar J. Christiaan Beker argues convincingly that for St. Paul, the apocalyptic expectation of cosmic renewal is central. Every creature is destined for resurrected glory, and Jesus' Resurrection is the pledge of that universal salvation. The hope is not for salvation from the body, but rather the redemption of the whole body of creation.[16]

This hope prevailed in the early church. Allan Galloway makes the case that cosmic redemption was "the very heart of the primitive Gospel."[17] It was widely assumed in the Patristic period and was articulated by theologians like Irenaeus, Athanasius, and Augustine. The idea, however, was gradually undermined, partly because of the incorporation of Platonic depreciations of nature into Christian thought. After the Patristic period, cosmic redemption was not featured significantly, if at all, in Western Christian thought.

The cosmic hope, however, was retained and remains intact today in Eastern Orthodoxy, with its passionate loyalty to the Greek Patristic theologians. Timothy Ware (Archimandrite Kallistos) describes this commitment well:

> Not only man's body but the whole of material creation will eventually be transfigured. . . . Redeemed man is not to be snatched away from the rest of creation, but creation is to be saved and glorified along with him. . . . This idea of cosmic redemption is based, like the Orthodox doctrine of icons, upon a right understanding of the Incarnation: Christ took flesh—something from the material order—and so has made possible the redemption and metamorphosis of all creation—not merely the immaterial but the physical.[18]

In Western Christianity, expressions of this hope became relatively rare, largely because it was contrary to official doctrine in its subjection to "spiritualizing" tendencies. The hope of cosmic redemption is not evident, for example, or at least not explicit, in St. Francis, despite his creation-encompassing love.[19] The hope reappeared, however, in the Reformation and Post-Reformation, and was present, though generally not prominently, in the thought of a variety of Western theologians, perhaps partly as a result of scriptural and Greek Patristic studies. Thereafter, however, the cosmic hope was virtually absent from or deemphasized in official Protestant confessions and most theological treatises, to the point that the vast majority of Protestants never knew it existed and probably would have considered it a radical, if not heretical, idea.

Nevertheless, the hope is clearly expressed in Martin Luther, John Calvin,[20] and John Wesley—and that fact makes it almost astonishing that their vision was virtually lost to most of their vast followings. Calvin expressed the hope clearly but circumspectly in a commentary on Romans 8:21:

> Paul does not mean that all creatures will be partakers of the same glory with the Sons of God, but that they will share in their own manner in the better state, because God will restore the present fallen world to perfect condition at the same time as the human race. . . . Let us, therefore be content with this simple doctrine—their constitution will be such, and their order so complete, that no appearance either of deformity or of impermanence will be seen.[21]

Wesley agrees with Calvin, but he is anything but circumspect. He goes into significant detail in an influential sermon defending the redemption of creation.

John Wesley and the Redemption of Creation

Wesley's sermon, "The General Deliverance," based on Romans 8:19-22, first appeared in print in the *Arminian Magazine* in 1782, under the title "Free Thoughts on the Brute Creation."[22] The cosmic hope was certainly not unknown in his time; it was supported by a prominent minority of divines, including the venerable Bishop Joseph Butler in *The Analogy of Religion*.[23] Though not a unique viewpoint, Wesley's sermon is still an exceptional example of this minority perspective. It is theologically imaginative (literally!), ethically sensi-

tive, and, to contemporary readers, sometimes charmingly though unintentionally humorous.

Wesley is acutely conscious of the problem of evil in nature and its incompatibility with the goodness of God. A major purpose of the sermon is a defense of divine justice.[24] It is an eschatological theodicy.

In the "original state" of the "brute creation" in Paradise, each creature was "perfect in its kind." But unlike humans, other creatures were not "capable of knowing, loving, or obeying God." They were subject to human dominion: "And as loving obedience to God was the perfection of men, so a loving obedience to man was the perfection of brutes."[25]

Wesley's definition of dominion is intriguing—and perhaps a vanguard of "new discoveries" in our time. It meant that the human is the "governor" of the earth, the "viceregent" of God, and "all the blessings of God flowed through him to the inferior creatures."[26] Though the nonhuman creatures have only the traditional derivative status, dominion is clearly not exploitation, but rather the *conveyance of divine blessings*. In this state, nonhuman creatures were happy, grateful, good, beautiful—and immortal.[27]

The Fall of the original humans changed things dramatically. Nature also fell with the sin of Adam in Wesley's thought, since humans lost the capacities to communicate the blessings of God. The creatures thus were subjected to evil, and suffered severe losses of their physical, mental, and moral powers. They became vicious predators—even the "innocent songsters of the grove." No romantic writes these pages; Wesley seems to enjoy describing the gory details of predation[28] (in fact, he had a serious interest in and a good understanding of the ecological process for his time). Even worse to Wesley, the creatures lost their beauty; they are ugly, "horrid." Wesley here is no great exponent of natural beauty! Worst of all, however, the animals lost their immortality: they are subject to death and its "preparatory evils."[29] The nonhuman creatures are also subject now not to the mediator of original blessings, but rather to their "common enemy," the "violence and cruelty" of the worst predator, the humans:

> And what a dreadful difference is there between what they suffer from their fellow brutes and what they suffer from the tyrant, man! The lion, the tiger, or the shark, give them pain from mere necessity, in order to prolong their own life; and put them out of their pain at once. But the human shark, without any such necessity, torments them of his free choice; and perhaps continues their lingering pain till after months or years death signs their release.[30]

Exploitative dominion will find no solace in these lines, which could have been written by a contemporary animal rights activist.

Yet, the "brute creatures" will not remain in this "deplorable condition." They will be "saved"—and Wesley seems to know an indecent number of details. They will be brought to eternal life—with but apparently not through humans, which seems contrary to their original derived dignity. Predation will cease. Their original capacities and joys will be restored and enhanced. They will be beautiful again. Though God values humans far more than the animals, still when humans are made the equals of angels, other creatures may be made equal to what humans are now[31]—a thought suggestive of evolutionary potential in the afterlife.

The bottom line for Wesley, however, is the justice of God. Eternal life is "recompense" for the suffering of sinless creatures.[32] He offers an eschatological solution to the problem of evil:

> The whole brute creation will then undoubtedly be restored, not only to the vigour, strength, and swiftness which they had at their creation, but to a far higher degree of each than they ever enjoyed. They will be restored, not only to that measure of understanding that they had in paradise, but to a degree of it as much higher than that of as the understanding of an elephant is beyond that of a worm. And whatever affections they had in the garden of God will be restored with vast increase. . . . The liberty they then had will be completely restored, and they will be free in all their motions. They will be delivered from all irregular appetites, from all unruly passions, from every disposition that is either evil in itself or has any tendency to evil. No rage will be found in any creature, no fierceness, no cruelty, or thirst for blood. [Quotes Isa. 11:6, 7, 9]
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> Thus in that day all the "vanity" to which they are now helplessly "subject" will be abolished; they will suffer no more either from within or without; the days of their groaning are ended. At the same time there can be no reasonable doubt but all the horridness of their appearance, and all the deformity of their aspect, will vanish away, and be changed for their primeval beauty. And with their beauty their happiness will return; to which there can then be no obstruction. As there will be nothing within, so there will be nothing without, to give them any uneasiness—no heat or cold, no storm or tempest, but one perennial spring. In the new earth, as well as in the new heavens, there will be nothing to give pain, but everything that the wisdom and goodness of God can create to give happiness. As a recompense for what they once suffered while under "the bondage of corruption" . . . they shall enjoy happiness suited to their state, without alloy, without interruption, and without end.[33]

Wesley subsequently rejects anthropocentric utility as the basis for salvation or present respect, in a rather jolting argument: "If it be objected to all this (as very probably it will): 'But of what use will those creatures be in that future state?' I answer this by another question: 'What use are they of now?' "[34] The point, however, seems to be that God has biocentric and cosmocentric values and intentions that Christians must honor: "Consider this: consider how little we know of even the present designs of God; and then you will not wonder that we know still less of what he designs to do in the new heavens and the new earth."[35] His argument is at least strongly suggestive of the intrinsic value of creation for God.

Finally, Wesley draws from his speculations an important moral conclusion, to which he alluded in his opening paragraph as one of the purposes of the sermon:

> One more excellent end may undoubtedly be answered by the preceding considerations. They may encourage us to imitate him whose mercy is over all his works. They may soften our hearts toward the meaner creatures, knowing that the Lord careth for them. It may enlarge our hearts towards those poor creatures to reflect that, as vile as they appear in our eyes, not one of them is forgotten in the sight of our Father which is in heaven.[36]

Thus Wesley draws an ethical conclusion from an eschatological expectation. This conclusion seems to be a forerunner of theologies of hope and liberation: anticipating the final future now. For Wesley, the cosmic redemption should result in beneficence toward other creatures.

The sermon was subsequently influential in Britain among animal anticruelty campaigners, who included a number of Methodists, and it continues to have an ecologically inspirational power today, despite its excessive speculations and anachronisms. My major regret is that "The General Deliverance" represents a marginal topic in a significant homiletical corpus—another indicator of the marginality of cosmic redemption in historical Christian thought.

Contemporary Revival

Expressions of eschatological hope for creation have become fairly common in the last couple of decades among Protestant theologians, perhaps stirred by the influence of Orthodoxy and probably spurred by ecological consciousness. In fact, the hope seems to be especially evident among ecologically sensitive theologians, including such

prominents as Jürgen Moltmann, Carl Braaten, Paul Santmire, Gabriel Fackre, Joseph Sittler, and George Hendry.[37] To them, the promise in Christ is not "redemption *from* the world, it is the redemption *of* the world."[38] Much of this hope seems to be grounded in an awareness of ecological connections. Paul Tillich, for example, stresses that the salvation of humanity apart from nature is "unthinkable": "The interdependence of everything with everything else in the totality of being includes a participation of nature in history and demands a participation of the universe in salvation."[39]

Yet, this hope is still a minority viewpoint. Most traditionalist interpreters appear fixated on strictly human expectations, and many "post-modern" types, substituting abundant life for eternal life, offer only equivocations or denials on the eschatological hope for anyone.[40] The former proclaim an anthropocentric hope, and the latter a de-eschatologized Christianity. The proponents of both an anthropocentric hope and a de-eschatological faith fail, in my view, to recognize that the finality of death for any living being threatens the integrity of the Christian faith. Both the intrinsic value of creatures and the moral character of God are jeopardized.

Death is not a moral issue if life is merely a biological accident in an aimless universe. Yet, mortality is the ultimate problem of morality when God is perceived as beneficent and death is interpreted as conclusive. If conclusive death is inimical to the ultimate good of creatures, then it is hard to see how it can be consistent with a good God who seeks the good of creatures. Arguments from biological necessity—death as a function of the limitation of resources and the condition of new life—do not resolve the problem. They fail to do justice to a fundamental query: why did a good God create a biosphere in which the evil of death is necessary to avoid a greater evil of biological unsustainability?

A non-redemptive God cannot be steadfast love or justice. Any lover who wills or allows the final annihilation of the beloved fails all the tests of love, including the preservation of the loved one's individuality, potentiality, relationships, and sense of ultimate meaning.[41] Similarly, this God cannot be just, since the problems of evil and injustice remain forever unresolved, ending all possibilities of restoration, reformation, and reconciliation for the victims and the perpetrators.[42] A God who saves only by memorializing "has beens" in a flawless memory is not the Suffering Servant, but rather the Supreme Ego who makes all creatures into suffering servants, sacrificed for the sake of God's greater glory. Loyalty to the values of such a God is justification for

treating others—including God—as instrumental values; there are no ethically sustaining grounds in ultimate reality for treating others as ends in themselves. Words like *love, justice, fidelity, harmony,* and *reconciliation* are all relational terms that have relevance only in relational contexts. They are inappropriately applied to a God who finally breaks all relationships. It is the ultimate irony, not to mention final incoherence, to be called to love one another and to be agents of reconciliation and liberation by a God who finally snaps forever all the ties that bind.

Thus, in a Christian context, no ultimate loss of the values associated with life, not even of those that we eat or swat or cannot see, can be axiologically irrelevant. No theology that posits a value-conserving God—a God of perfect love and/or justice—can be axiologically adequate or credible unless it also envisions an Isianic hope, a qualitatively New Creation, a cosmic consummation when "the creation itself will be set free from the bondage to decay and obtain the glorious liberty of the children of God" (Rom. 8:21).

From this perspective, the resurrection hope is central to the Christian faith. It need not be—and for some of us, cannot be—taken as literal truth, with an empty tomb, mysterious appearances, bizarre visions, and apocalyptic scenarios, but it must be taken as symbolic truth. The Resurrection is the central symbol of the faith because it points to the basic perception of reality that gives the faith its cosmic integrity and internal consistency: the reality that the One who is Creator and Sustainer is also the Christ, the trustworthy One who defeats death and evil and brings all living creatures to eternal life and love. The point of the resurrection symbol is not that an isolated individual was restored to a new mode of being, but rather that the Representative of Humanity who was, therefore, the Representative of the Cosmos, became the pledge or promise of the full redemption to come (Acts 4:2; John 14:2; Rom. 5:10, 8:10-11; I Cor. 15:12-16; II Cor. 4:14; Col. 1:18; I Thess. 4:14; I Pet. 1:3-5; Rev. 1:5). The Resurrection was the prime sign of the coming Reign; "Jesus Christ is the pledge of God's imminent cosmic triumph."[43] Without this hope, Christian theology and ethics are incoherent. The condition of creation is ultimately tragic and the character of God is ultimately immoral. Only with this hope can the Christian faith maintain its apostolic integrity.

This vision will seem absurd even to many Christians. But it is certainly no greater "absurdity" than an eternal hope for humanity, and it is far more coherent with humanity's evolutionary kinship and ecological interdependence with all creatures than any exclusively human hope. George Hendry makes this point effectively: "If we

believe that God will complete his purpose in the creation of us human beings, . . . we may surely believe that he will complete his purpose with the world of nature, of which we are a part."[44] The key issue in the hope for cosmic redemption is the moral character of God in relation to God's valuation of creatures as ends in themselves. If so, the real absurdity is the dual belief in a value-conserving God and the finality of death for any creature of intrinsic value.

We cannot, however, infer reality from hope. Truth may not correspond with meaning; an unbridgeable chasm may exist between aspirations and facts. Cosmic redemption seems essential as a matter of internal consistency in Christianity, but it provides no argument for its external correspondence with reality. Yet, Christians can give reasons for the hope that is in them.

Cosmic redemption, or, of course, an exclusively humanistic redemption, is neither empirically verifiable nor falsifiable. The biological evidence that death decimates body and mind is valid but hardly conclusive in this mystifying creation with possibilities far surpassing the pretensions of scientism. The Christian hope, however, is grounded largely in specifically religious experience, "the witness of the Spirit" (Rom. 8:15-16), the intuitions and the intimations of the character of the God encountered in the totality of life. In the "logic" of hope, eternal life is an inference from divine love,[45] and, circularly, the validation of that love. The promise is inherent in the Presence. The hope of consummation through God is grounded in the experience of communion with God. Hope knows mainly the Who; it knows the what only as deductions and inductions from the character of the Who; it knows nothing about when or how or the details of the what. Despite the hordes of speculations and imaginative descriptions of glory in Christian history, an honest and humble Christianity knows when to keep silent.

Ecological Implications of Cosmic Redemption

The expectation of universal or cosmic redemption is a necessarily vague vision of the consummation of shalom—reconciliation among all creatures (Isa. 11:6-9) and liberation from the bondage to transience (Rom. 8:21). Fundamentally, it is a statement of hope in the goodness and trustworthiness of God. The value-conserving Creator—who embraced all creation in the incarnation and who inhabits all creation through the Spirit—will fulfill the creation, leading it through the process of becoming perfectly good.

Ecologically, this vision gives ultimate meaning and worth to the cosmic ecosphere. It is the confirmation of nature's ultimate value to

God. Nothing is any longer valueless or meaningless or irrelevant. Every living creature counts for itself and for God ultimately. This perspective stands in judgment on anthropocentrism. If the natural world as a whole will participate in God's redemption, then all things must be treated with respect in accordance with divine valuations, and all living creatures must be treated as ends in themselves—not simply as means to human ends. Again, the divine purposes are cosmocentric and biocentric, not simply anthropocentric. Christian ethics must take that fact into account in a process of ecologically-conscious reformation.

This vision of cosmic redemption causes enormous confusion in our current use of ethical language and our understanding of the breadth of ethical obligations. The confusion will not soon end. In general, however, the vision suggests an ethical style for human relationships with the rest of nature. In the midst of the moral ambiguities of creation, we can experience only promising signs—not the full harmony—of the New Creation, the Peaceable Kingdom. The very fact that eschatological visions are necessary precludes romantic illusions about historical possibilities. Nevertheless, the vision represents the ultimate goal to which God is beckoning us. Our moral responsibility, then, is to approximate the harmony of the New Creation to the fullest extent possible under the constricted conditions of the creation. The present task of Christian communities, as I will explain further in the next section, is to anticipate and contribute to the promise of ultimate liberation and reconciliation in human communities and with the rest of nature.[46]

THE CHURCH AS AGENT OF ECOLOGICAL LIBERATION AND RECONCILIATION

Is ecological concern an optional matter for the Christian church, or is it inherent in the nature of the church? The latter seems to be the case. Certainly the church's major affirmations have significant ecological implications that the church ought to embrace in its proclamations and actions. However, Christian ecological responsibilities are also rooted in the nature of the church itself. The very logic of major contemporary ecclesiologies seems to demand that the goal of ecological integrity become a permanent and prominent part of the church's mission.

Understood theologically, the church is a particular kind of caring community. Its members minister to one another, and, in the

expansion of love, to all the other communities of which the church is an inherent part. The church is a community of ministers and a constellation of ministries. Ministry is the function of the whole people of God. The *esse* of the church—its divine mandate—is found in the functions of ministry.

The church's ministries, however, are not some set of arbitrary services; instead, they are a response to God as our Minister: "We sought a good to love and were found by a good that loved us. And therewith all our religious ambitions are brought low, all our desires to be ministers of God are humbled; he is our minister."[47] The Christian church, then, is that universal and locally manifested communion of pardoned sinners who have responded gratefully in faith, hope, and love to the creating, sustaining, and redeeming graces of God's all-encompassing ministry. The divine ministry is a mission of love, for it is love that creates, sustains, and saves all creation. The church senses in the experience of divine ministering a beckoning to go and do likewise. Consequently, the church's authentic ministries are manifestations of love.

Moreover, because God's ministries are comprehensive, the church seeks to be "truly catholic"—characterized by wholeness, fullness, universality. The divine ministry offers physical sustenance for all, comforts the afflicted, promises redemption, generates meaning, builds communion, pursues peace, reconciles the alienated, liberates the oppressed, challenges the oppressors, demands the right, and rights the wrong. The church's ministry, consequently, seeks to manifest a similar comprehension. Part of what it means to be the church catholic is to be the full community of Christians seeking to embody the whole gospel for the full needs of all persons and other creatures in all places and times.[48] To do less is to be less than the church catholic, and to envisage less is to display a constricted understanding of the breadth and depth of God's ministry in love. Ecclesiology, then, is grounded not solely in doctrines of Christ or the Spirit, but in the interpenetrating fullness of the divine ministry, which the symbol of the trinity so richly expresses when it is not petrified into platitudinous abstractions.

Because God's ministry of love is universal, and because the church is called to re-present that comprehensiveness of concern, ecological responsibility is an inherent part of being the church catholic. It is not an option, but a mandate that must be incorporated into the whole. It is one of the signs of a valid Christian ministry.

The church's ministries in worship, witness, and work, however, are not simply present functions; they have an ultimate goal, a telos. The

church is called to direct its services and design its communal life to be effective expressions of the ultimate goal of God's ministry, the Reign or Commonwealth of God. The church's ministries are acts of confidence in and commitment to the ethos and ethic of God's Reign, which Jesus embodied and proclaimed.

In contemporary theologies of hope and liberation, as well as in the classical social gospel, the church, ideally, is an "interim eschatological community"[49] or "an avant garde of the new creation in a hostile world."[50] This conception reflects a widespread consensus in biblical studies and critical theology that the originating tradition of the church—the apostolic witness in scripture—is thoroughly eschatological in orientation. The essence of the gospel is the good news of the coming Commonwealth: "Eschatology is . . . not just one more element of Christianity, but the very key to understanding the Christian faith."[51] The ministry of Jesus Christ and his Resurrection are promises of the coming Commonwealth. Consequently, communion in Christ must be dedication to Christ's cause, the Reign.[52] Equally, the mission of the Holy Spirit in Paul's writings is focused on the ultimate goal of God: the Spirit is "the power of God driving towards the end of history and carrying us forward to the destiny disclosed and anticipated in the resurrection of Jesus Christ."[53] To be led by the Spirit is to declare and manifest this New Creation.

Thus, if apostolic succession is continuity with the original witnesses, then the church is in that succession when it announces and expresses the eschatological significance of the Resurrection and the expectation of its consummation.[54] This continuity, however, is not in the repetitions of the culture-bound media of the faith in scripture and tradition; it is rather a dynamic continuity that is loyal to the eschatological cause of the originating tradition. This dynamic continuity implies that the church must be truly reforming to be truly evangelical—that is, in conformity with the gospel. The apostolic church, then, is the community of Christians always being reformed, to be in conformity with the divine mission to consummate liberation and reconciliation for the whole creation.

From this perspective, the church is called to be a sign of the Reign, making its vision visible, reflecting Christ's New Creation in personal, social, and ecclesiastical transformations. God's goal is not simply our final destiny; it is also our ethical and ecclesial responsibility. It is a summons to action, to shape the historical present, as the Lord's Prayer suggests, on the model of God's New Heaven and New Earth. The ultimate future is not a mandate for Christian withdrawal from the

world or a denigration of personal, social, and ecological responsibility in the present. On the contrary, a valid "otherworldliness" results in a vital worldliness. The church's ethical orientation is "eschatopraxis," doing the final future now.[55] Since God's ultimate goal is the perfection of just and harmonious relationships (shalom) among all living creatures, the church's historical mandate includes the pursuit of justice, peace, and ecological integrity.

These ecclesial responsibilities, however, are more than *anticipations* of the divine Reign. Here the social gospel in North America offers an important corrective to some current eschatological emphases. For Walter Rauschenbusch and the social gospel generally, the symbol of the "Kingdom" (Reign) is the purpose and norm for the life and mission of the church. The church exists for the sake of the Kingdom, but its task is more than an anticipation of the Kingdom; it is the actual but provisional construction or creation of the Kingdom on earth.[56] Certainly, as abundant excoriations of "liberal perfectionism" remind us, the social gospel movement was often naive about historical possibilities for moral transformation. Nevertheless, the social gospel, along with some liberation theologies, understood that ethical and ecclesiastical achievements must be more than anticipations if they are to have eternal significance or meaning. An anticipation of the Reign makes the final future relevant to the present; it does not make present achievements relevant to the final future. Consequently, if our historical existence and moral acts of liberation and reconciliation are to have enduring value, they must in some sense be contributions to, preparations for, and participations in God's final re-creation.

The social gospel rightly recognized that the role of the church is not only to reveal but also to "realize" the Reign, both provisionally in history and as a contribution ultimately.[57] Though this claim must be kept within realistic bounds in history, it does not deny that the New Creation is God's Reign. It is God's design, God's creation of the necessary conditions, God's provision of possibilities, God's re-creations and completions from our fragmentary contributions, and, therefore, God's Reign. This God calls humanity in its moral freedom not to a divine imposition, but rather to participation in creation's deliverance from evil and the growth of the coming Commonwealth.

A commitment to ecological integrity on the part of the church must be understood in the context of the church's eschatological orientation. In this context, ecological responsibility is a sign of the church's apostolicity and catholicity. It is not an option, but an inherent mandate for the church's ministry. It has been one of the serious omissions in the history

of the church and is now one of the critical reforms necessary for the integrity of the church. If ultimate catholicity is the consummation of liberation and reconciliation for all creation in the Reign of God, then the church cannot be truly catholic, truly reformed, and truly evangelical unless it anticipates and contributes to this Reign by being a *model* of ecological ministries to the world. What ethos and ethics are implied by this responsibility? What strategies and structures are necessary? What demons must be exorcised in the ecclesia? These are only a few of the questions that the church must confront in becoming an ecological agent of liberation and reconciliation, and in ending the alienation between humanity and the rest of the biosphere.

A SUMMATION

What does a reasonably reformed Christian theology offer as a foundation for ecological integrity? That has been the central question in the two preceding chapters. The following points summarize the main supports for Christian ecological ethics and action.

1. Christian understandings of God as Creator, Spirit, and Redeemer imply that the whole creation and all its creatures are valued and loved by God. Divine valuations appear to be cosmocentric and biocentric, not simply anthropocentric. Since loyalty to God entails loyalty to God's values, Christians are called to practice biophilia. All life forms have intrinsic value, and are to be treated with appropriate care and concern.
2. The Christian faith dedivinizes but also sacralizes nature. No element of the biophysical world is divine; nothing in nature, therefore, is to be worshiped. But all creatures and things are to be treated as sacred subjects and objects, used reverently and respectfully insofar as necessary, and otherwise to be left untouched.
3. The Christian faith is an affirmation of ecological relationality. It recognizes a rational and moral order of interdependence and a theocentric kinship of all creation. Humans are interrelated parts and products of nature. Moral responsibilities for the necessary use of the biophysical world are shaped and limited by these relationships.
4. Humans have "natural" rights to use biophysical goods as resources to satisfy human needs and fulfill our cultural potential, but we also have moral responsibilities to use these resources frugally, fairly, and prudently in respect for our coevolving kin.
5. The biophysical world has an interim goodness in experience and

an ultimate goodness in hope. It is not to be despised, rejected, or transcended, either spiritually or materially.

6. The Christian faith counsels human humility in the light of ultimate mystery, natural limitations, and biological connections.

7. Human dominion (or, preferably, a verbal equivalent) is not a sanction for the exploitation of nature, but a judgment on such exploitation. As a dimension of the image of God, dominion is responsible representation, reflecting the divine love, including justice, in all relationships with humanity and the rest of the biophysical world. It is protecting this planet (and every other planet) from human abuse.

8. All forms of ecological negligence or undue harm—from pollution to profligate consumption—are expressions of sin.

9. In the causal connections between ecological disorders and human violations of the ecological covenant, Christians can perceive God as exercising ecological judgments against ecological sins to call the human community to ecological repentance.

10. Ecological responsibility is an inherent part of the ministry of the church, which is called to re-present God's ministry of love to all creation and to be a sign of God's Reign of love. The church, therefore, should be a model of ecological ministries to the world.

11. The Christian faith provides solid supports for all the ecological virtues outlined in chapter 2—sustainability, adaptability, relationality, frugality, equity, solidarity, biodiversity, humility, and sufficiency. Indeed, even a strictly anthropocentric version of the faith, concerned exclusively with human well-being, provides adequate grounds for most of these virtues.

CHAPTER SIX

LOVING NATURE:

CHRISTIAN LOVE IN AN ECOLOGICAL CONTEXT

Perhaps the most urgent and difficult task in the development of a Christian ecological ethic is an adequate interpretation of Christian love in an ecological context. The task is essential, in my view, because love is the integrating center of the whole of Christian faith and ethics. If so, a Christian ecological ethic is seriously deficient—if even conceivable—unless it is grounded in Christian love.

The task, however, is uncommonly difficult, partly because of the tragic condition of existence in a predatorial biosphere. The state of nature, of which humans are parts and products, is that every species feeds on and struggles against other species in order to survive in a strange system of interdependence. As ecological predators and exploiters—as well as prey and hosts—humans must kill and use other life forms and destroy their habitats if we are to satisfy basic human needs and exercise our peculiar endowments for cultural creativity. This tragic condition of the biophysical world—a mournful awareness of which was the foundation of Albert Schweitzer's ethic of "reverence for life"—can and must be morally restricted, but it cannot be avoided. It is fixed in the "nature of things," and it confronts us with unusual, if not unique, versions of the standard ethical problem of "necessary evil" in dealing with conflicts of values and claims. Christian love seems at first sight to be an alien norm in this context.

The task is further complicated by the fact that the application of Christian love to the biosphere is virtually virgin territory. Casual or general references to the love of nature as a Christian mandate, or to

the need for love as a means to protect ecological integrity, are fairly common—for example, in the writings of Schweitzer, Aldo Leopold, Joseph Wood Krutch, John Muir, and such contemporary theologians or ethicists as H. Richard Niebuhr, Robert Shelton, Joseph Allen, Sallie McFague, Douglas John Hall, Jay B. McDaniel, Dorothee Söelle, Loren Wilkinson and his colleagues, Issa J. Khalil,[1] and leading Orthodox theologians.[2] Yet, we have few sustained and systemic explorations, few guidelines, little awareness among Christians that an ethical problem even exists, and no rich dialogue to test our assumptions, remedy our oversights, and correct our errors. The relationship between humans and other forms of life has been perceived, to use Karl Barth's words, as "a marginal problem of ethics"[3]—at best. The issues have been trivialized or bypassed. Consequently, mental misreadings and missteps are almost inevitable on this strange landscape. Yet, these risks must be taken because of the indispensable role of love in defining and shaping Christian ecological responsibility.

I, therefore, must respond to several key questions: What is Christian love? Why is it the basis of Christian ecological ethics? What forms of love are possible and relevant in an ecological context? What does this love require of humans in responsible ecological relationships with one another and to other species and their habitats? The answers I propose only skim the surface, but they may intensify awareness of the problem and prompt deeper probings.

LOVE: THE GROUND OF CHRISTIAN THEOLOGY AND ETHICS

The core affirmations of the Christian faith, I have argued, offer a strong grounding for an ecological ethic. These core affirmations, however, are all expressions of love. Love is the center of the gospel, which everything else radiates from or revolves around. It is the metaethical source of Christian ethics—including, therefore, an ecological ethic.

Christianity affirms that love is the ground and goal of all being. God *is* love—a radical affirmation that Emil Brunner perceived as "the most daring statement that has ever been made in human language," "the very heart of the New Testament, of the Christian Gospel."[4] This claim that God's nature, character, and actions are love has radical implications. If God is love, for instance, the process of creation itself is an act of love. All creatures, human and otherkind, and their habitats

are not only gifts of love but also products of love and recipients of ongoing love. Everything then has value imparted by the Source of Value. The value of all beings is objectively and ultimately grounded in Love, and all deserve, therefore, to be treated not merely as means to human ends, but as ends in themselves.

We experience God as love in the mysteries of creation; in the covenants with Israel; in the cause and loyal life-style of Jesus ("the paradigm of God's love"[5]); in the grace evident on the cross and confirmed in the Resurrection; and in the empowering, liberating, and reconciling presence of the Holy Spirit. Christians hope for God's liberation from the travail of creation through love, and eternal life in a new order whose constitution is love. The Reign of God is the rule of love,[6] and, therefore, "the Christian hope is the hope of love."[7]

The story of God's love provides the "basic moral standard,"[8] the "pattern and prototype,"[9] for Christian ethics. The vast majority of Christian ethicists would agree with Paul Ramsey on one fundamental point: "Christian ethics proposes that the basic norm and the distinctive character of the Christian life is Christian love (agape)."[10] And few would deny H. Richard Niebuhr's famous and deceptively simple definition of the church's mission: "No substitute can be found for the goal of the church as the increase among men [and women] of the love of God and neighbor."[11] The Christian life is "faith working through love" (Gal. 5:6), and that is to be "not far" from the Reign (Mark 12:28-34).

From a Christian perspective, encounters with God through diverse human experiences are encounters with the Creator of the moral order. Thus the indicatives of faith contain an "implied imperative"[12] to love. Since fidelity to God implies respect for divine intentions and affections, humans are called to love what God loves, to value what is valued by the Source of Value. Thus, in imitation of Jesus, the exemplar of divine love, and in anticipation of the coming Commonwealth of God, Christians and their communions are called to produce the fruits of justice and generosity, peace and unity, compassion and community, liberation and reconciliation—all of which flow from love. We seek to love as grateful responses to the grace-filled fact that God first loves us (I John 4:7-11, 19; Eph. 5:1). And we are empowered to love, albeit weakly, by God's love working through us. To be in God's image is to be a reflection of the ultimate Lover, to be one who loves *all* that God loves[13]—which covers "all that participates in being."[14]

In essence, therefore, the Christian faith is the confidence that the

comprehensive ministries of God to the creatures of God are a mission of love, and Christian ethics and action are loyal efforts to be mirror images of that love.

An ecological ethic that is rooted in the Christian faith is a reasonable extension of love to the whole creation, in order to re-present the all-encompassing affection and care of God. Since God's love is unbounded, loyal Christian love is similarly inclusive or universal. This love resists confinement of any sort. It punctures all forms of ethical parochialism, as a number of interpreters have testified. Albert Schweitzer, for instance, broadened the meaning of love to cover moral responsibility to every organism: "The ethic of Reverence for Life is the ethic of love widened into universality. It is the ethic of Jesus now recognized as a logical consequence of thought."[15] The ecologist Aldo Leopold, knowing the unbreakable connections between life forms and their habitats, broadened the boundaries of love to the whole ecosphere, "the land": "That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics."[16] No one, however, has expressed the infinite breadth of love and its transvaluation better than H. Richard Niebuhr in one of his typically tantalizing comments, which seems surprisingly to have had little impact on the formation of Christian ecological ethics:

> The moral law is changed . . . by the revelation of God's self in that its evermore extensive and intensive application becomes necessary. . . . The will of God [cannot now] be interpreted so that it applies within a world of rational beings and not in the world of the unrational, so that men must be treated as ends because they are reasonable but non-human life may be violated in the service of human ends. *Sparrows and sheep and lilies belong within the network of moral relations when God reveals himself; now every killing is a sacrifice.* The line cannot even be drawn at the boundaries of life; the culture of the earth as a garden of the Lord and reverence for the stars as creatures of his intelligence belong to the demands of the universal will . . . [when] the moral law that is a law of God is extended and intensified.[17]

Universality is a central feature of Christian love—indeed, a test for the presence of love. It means that love is not particularistic or exclusive. It is not limited to one's ethnic, social, or ecclesiastical tribe, not even to one's species or biosphere. It is not restricted by criteria of character or conduct, geography or ideology, attractiveness or repulsiveness, consanguinity or utility. Christian love in this sense is indiscriminate. The irony, however, of I John is that at precisely the

place where the New Testament peaks in explicitly defining the character of God as love, it also descends to a particularistic application by limiting love to the "brethren" or Christian compatriots (I John 3:14-19; 4:7-12; 5:1-2).[18]

Yet, Christian love in the New Testament is not generally circumscribed. In fact, the "logic" of love in scripture encourages reasonable extensions to universal dimensions. True, explicit statements about love in the New Testament apply only to divine-human or interhuman relationships. However, there is no inherent reason why biblical concepts of love cannot be extended to relationships between humanity and other life forms. Indeed, there are very good reasons why this extension is justified and even necessary—notably, the affirmation that God is unbounded love. This universality is symbolized by the call to love all our neighbors, including our enemies (Luke 6:32-36; Matt. 5:43-48), just as God is "kind to the ungrateful and selfish" (Luke 6:35), making the sun to rise and rain to fall on the evil and good (Matt. 5:45), and just as God cares about the sparrows (Matt. 12:6; Luke 10:29) and the lilies (Matt. 6:28-30; Luke 12:27).

The answer, then, to the question—who is my neighbor?—that prompts the parable of the good Samaritan is: reasonably extended, our neighbors who are to be loved are all God's beloved creatures. The "love of nature" is simply the "love of neighbor" universalized in recognition of our common origins, mutual dependencies, and shared destiny with the whole creation of the God who is all-embracing love. In this context, the task of a Christian ecological ethic is to help us define the character and conduct of the good neighbor, the ecological equivalent of the good Samaritan who shows compassion and heals the wounds of our biotic neighbors in desperate need.

DILEMMAS OF DEFINITION

Once we root Christian ecological ethics in a theology and ethic of love, however, we immediately encounter mental quagmires in defining Christian love and determining its implications for responsible relations in ecological contexts. Vigorous debates abound in Christian ethics about the definitions, types, characteristics, possibilities, demands, and dilemmas of love. Nearly all these earnest and complicated controversies have focused exclusively on divine-human and interhuman relationships. Perplexity and complexity are compounded, however, in ecological situations where damaging and

killing are biological necessities for existence (rather than strategic responses to moral evil, as in war), and where human relations with other creatures are between *un*equals.

The ethical debates commence with the definition of Christian love. Christians have no consensus on the meaning of love—and apparently neither does the New Testament.[19] Garth Hallett, for instance, argues that six rival rules of preference or types of love—from self-preference to self-denial—have been represented in Christian history and are within Christian bounds.[20] All are altruistic norms; all can require considerable sacrifice; all can be compatible with the sacrifice of Calvary.[21] But the behavioral differences can sometimes be significant. The most strongly supported, but not the only, norm in the New Testament, claims Hallett, is self-subordination, seeking one's own benefit only on condition that benefits to others are first assured.[22] The problem is obviously complex—and Hallett never deals with the additional moral complications of ecological relations! Love, of course, is an ambiguous word in common parlance. It has multiple meanings, most of which connote amorous sentimentality or drooling passions. The internal Christian problem of definition is not so wide or vague, but it is sufficiently confounding in its own right, especially when love is the basic norm of Christian ethics. It is fair to say that Christian ethics has a nebulous norm.

The problem, moreover, only *begins* with definition; it branches out to cover a broad spectrum of ethical issues. A sampling of the key and overlapping questions indicates the character of the debate and the dilemmas of interpreting Christian love in any context, let alone in an ecological one. What is the nature of agape (the prime Greek word for love in the New Testament) and what are its characteristics? What is the relationship, if any, between agape and eros? Are they antitheses, as Anders Nygren contends?[23] Or can they be synthesized in some way; are eros and other "human loves" incorporated into agape, as D. D. Williams argues?[24] To what degree is love self-sacrificing in relation to goals of self-realization? Is love "equal regard,"[25] "other regard," self-disregard, or some other normative relationship between the self and others? To what degree should Christians be suspicious of egoism, or even of claims to altruism? What role, if any, does mutuality—sharing, reciprocal giving and receiving in a caring community—play in Christian love? What kinds and expressions of love are psychologically and sociologically possible for human beings? What is the relationship between love as disposition and deeds, or attitude and acts? What is the relation of justice to love? What are the "most

love-embodying" rules and/or acts[26] in the midst of the tragic choices often associated with conflicting values and claims?

In these complex debates, the starting assumptions about the nature of Christian love obviously will affect the specific applications. Moreover, the meaning of Christian love has been manipulated in a multitude of ways to correspond with self-interest, to reduce the costs to the self of obligations to others. This problem is particularly acute in ecological relationships where humans have exercised a distortion of dominion by denying moral obligations to nonhuman creatures. Excessive self-love is really the root sin of lovelessness, the imperialistic preference for the self and, therefore, the absence or perversion of love for others. It is persistent and imaginative, and constantly corrupts Christian love in practice and dilutes it in theory. The problem is inevitable (even if unnecessary). But an awareness of our human inclinations to whittle away at love may minimize some of its worst effects, like self-deception and self-aggrandizement.

Despite this dissensus in Christian thought, it is still essential and possible to specify some basic implications of Christian love in an ecological context. In what follows, I intentionally have avoided a "radical" definition and opted for a more moderate interpretation of this unfathomable phenomenon we call love. One reason is to enable a wider palatability. Another is the desire to minimize the risks of overstating the case—particularly important in the light of our feeble and vague understandings of love. In effect, I am acknowledging that Christian love may demand more of Christians ecologically, but it certainly demands no less. Even when offered in modest proportions, however, Christian love has an unnervingly demanding quality. Sacrifice of personal interests is an inherent part of love.

By definition, Christian love, as disposition and/or deed, is always at least caring and careful service, self-giving and other-regarding outreach, in response to the needs of others (human and otherkind), out of respect for their God-endowed intrinsic value and in loyal response to the God who is love and who loves all. It seeks the other's good or well-being and, therefore, is always other-regarding (only the degree is up for debate). This love is expressed through kindness, mercy, generosity, compassion, justice, and a variety of other commendable qualities. Love is a relational concept and initiative; it seeks to establish connections and build caring relationships. Its ideal forms are expressed in such terms as *reconciliation*, *communion*, *community*, *harmony*, and *shalom*. These features characterize love in every situation, social and ecological.

LOVE AND PREDATION

In reality, love is always compromised, sometimes severely. The human situation is that we are confronted with a host of conflicting, often irreconcilable moral claims that make it impossible to "do no harm," but only to minimize the harm we inevitably do. Moral purity and perfection are illusions; moral ambiguity and selectivity are the normal conditions of ethical decision-making. We must choose the "greater good" or the "lesser evil"—the "best possible"—among sometimes lousy options. War and abortion are two extreme examples of the standard moral dilemma of struggling to love under the conditions of "necessary evil." In ecological relations, the complexities are compounded, because the "necessary evil" is natural and not only moral. The evil is built into the ecosphere (thus, natural or nonmoral evil); it is an inherent tragedy, entailing no human moral blame or sin except insofar as humans normally exacerbate the tragedy by going beyond environmental use to abuse, by exceeding the limits of human abilities and nature's capacities.

To be human is to be initially a *natural predator,* along with all other creatures, in relation to the rest of the biophysical world. I am using the term *predator* broadly to cover not only biological predation per se, but all forms of human destruction and consumption of other life forms and their habitats—both as herbivore and carnivore, both as deliberate and unavoidable acts. Whether in a broad or narrow sense, however, predation is a primary condition of human existence. We are not a special creation, a species segregated from nature. That is bad biology which leads to bad theology and ethics. Humans are totally immersed in and totally dependent on the biophysical world for our being. We cannot talk about humans *and* nature, but only humans *in* nature. We have evolved with all other creatures through adaptive interactions from shared ancestors. We are biologically (and theologically) relatives—albeit remote—of caterpillars, strawberries, the dinosaurs, the oaks, the protozoa, and all other forms of being.

Nevertheless, it is morally imperative that we not romanticize these biological connections, as some "nature lovers" are prone to do. The biophysical creation in which we humans are participants is not a world of "natural harmony" or "biological community" or "familial cooperation." These commonly used terms have ethical implications as eschatological concepts, as I will argue later in this chapter. In natural history, however, these terms romanticize and distort reality, hindering our understanding of the moral dilemmas in human

relationships with the rest of the biophysical world. That world is a morally ambiguous reality. It is a symbiotic system of predators and prey, edible flora and consuming fauna, parasites and hosts, scavengers and decomposers. The so-called "dynamic equilibrium" of the whole depends upon such primary interactions as lethal competition and amoral mutualism, in which the blood and guts—literally—of deceased creatures provide the nutrients for the generation of new life. In this practically endless recycling of life and death, every member of a species struggles against, uses, and/or feeds on members of other species in order to survive. Euphemisms such as harmony, cooperation, community, or family are hardly fit descriptions of a reality in which species eat and otherwise destroy one another.

Thus, humans are naturally predators—including consumers and self-defenders—in this order. Killing is a biological necessity for existence. We *must* kill and use other life forms and destroy their habitats in order to satisfy human needs (for food, fuel, shelter, etc.), to protect our lives and health from other predators and pathogenic parasites (for which our very bodies are environmental habitats), and to build and maintain the structures of culture. Whatever else human beings may be, we cannot avoid being initially natural predators.

How is it possible, then, to express Christian love in such morally constricted circumstances? Since humans are predators by necessity, is it possible to act as *altruistic predators*—as beings who seek to minimize the ecological harm that we inevitably cause and who consume caringly and frugally to retain and restore the integrity of the ecosphere? Or is altruistic predation a contradiction in terms? The answers to these questions are important, because the development of a Christian ecological ethic depends on the possibility of humans expressing love in an ecological context, on the possibility of humans becoming altruistic predators. Though the answers are by no means easy, they do not appear in principle to be relevantly different from the responses that Christian ethicists generally give to other types of moral dilemmas. Whether the issue is moral evil or natural evil, the ethical problem remains essentially the same: making discriminate judgments to discern the best possible balance, the most love-embodying acts and/or principles under the circumscribed conditions of necessary evil. If the just war theory can provide much of Christian ethics with a means of expressing love in warfare by restricting the conditions and conduct of war, then surely love is relevant in an ecological context—where, unlike human interactions, killing is indisputably necessary—as a means of

preventing and restricting environmental despoliation. This chapter and the next are efforts to spell out some of the basic features of altruistic predation.

QUALIFICATIONS OF ECOLOGICAL LOVE

Christian love in an ecological context is not an exact replica of love in an interpersonal or social context. Relevant differences exist between these contexts, and warrant relevant adjustments in the applications of love.

First, even if *interpersonal love* can rightly be defined as "equal regard,"[27] (which I doubt, since this concept seems insufficiently flexible to cover the spectrum of possible forms, from self-sacrifice to self-affirmation, which love ought to take in different situations), this concept seems totally inappropriate as a definition of ecological love. "Equal regard" for others assumes ontological equality of worth between the lover and the loved. That equality, however, is not evident in a comparison of humans with other species. Morally relevant differences exist that justify disparate and preferential treatment for humans.

Humans are more than one among the multitude of natural predators. We are also *the creative predator*—unique, unlike any other creature. This claim does not deny or ignore the fact that nonhuman creatures, probably all in one respect or another, have powers that are superior to those of humans—the speed of the cheetah, the strength of the elephant and the proportionate strength of the ant, the flight of birds and insects, the echolocation of bats, the web-weaving of spiders, the eyesight of raptors, the hearing of owls and deer, and the chemical production of plants, to name only a few. Some species—especially but not exclusively among mammals—display rational and quasi-moral qualities, including courage, compassion, deception, sympathy, grief, joy, fear, mutual aid, and learning abilities.[28] Human superiority over other creatures is restricted and not rigidly demarcated.

Nevertheless, our rational and moral powers, and, therefore, our creative capacities—no matter how weak they may appear in relation to our norms—so radically exceed the powers of any other species that major differences in quantity or degree are legitimately regarded as differences in quality or kind. We can never transcend nature, contrary to that mainstream theological tradition which contrasted nature and spirit. Human psychic-spiritual capacities are not additives to nature,

but derivatives from nature. In history, we are inextricably immersed in nature. We can, however, transcend some instinctive necessities and realize some of the rational, moral, and spiritual *potentialities in* nature, far beyond the capacities of any other creature. That apparently is what Paul Tillich meant in describing the human, with slight exaggeration, as "finite freedom" in comparison with the "finite necessity" of other life forms.[29] We are the only creatures with moral agency, that is, relative freedom and rationality to transcend instinct sufficiently in order to define and choose good or evil, right or wrong. We, therefore, are the only creatures who now can be *altruistic predators*—or *profligate predators.*

We are the only creatures capable of intentionally creating and regulating our own environments—and, in fact, destroying every other creature's environment while recognizing the demonic effects of our actions. We are the only species that can create cultures, whether primary or complex, and a multitude of cultural artifacts, from artistic expressions to computer systems, from religious rituals to architectural structures, from moral designs to political orders. Only humans, according to traditional Christian doctrine, have the potential to serve as the image of God and to exercise dominion in creation. Despite historical misinterpretations and abuse, these concepts recognize a basic biological fact: humans alone have evolved peculiar rational, moral, and, therefore, creative capacities that enable us alone to serve as responsible representatives of God's interests and values, to function as protectors of the ecosphere and deliberately constrained consumers of the world's goods. We alone are the *creative predators*. In the light of that fact, it seems unreasonable to put humans on a moral par with other creatures.

Biotic egalitarianism strikes me as a moral absurdity and, in some cases, as an antihuman ideology. The claim of Schweitzer and some "deep ecologists"[30] that the choice of one life form over another, including humans, is "arbitrary and subjective"[31] or "an irrational and arbitrary bias,"[32] cannot be sustained in the light of the unique capacities of humans to experience and create moral, spiritual, intellectual, and aesthetic goods. The value-creating and value-experiencing capacities of humans are morally relevant differences between us and all other species, and justify differential and preferential treatment in conflict situations. I shall have more to say on this problem in the next chapter. In the meantime, it is important to note that while my viewpoint affirms the primacy of human values, it also denies the exclusivity of human values. Other creatures also have

intrinsic value—for themselves and for God—which warrants respect from human beings. However, their value is not equal to that of humans. If moral preference for human needs and rights is "speciesism,"[33] I plead guilty, but I think with just cause. Thus, in my view, Christian love in an ecological context is not equal regard, but it must remain at a high level of other regard.

Second, the definition of *Christian love* cannot be restricted to self-sacrifice, especially not in an ecological context of inequality. Reinhold Niebuhr's idea that the essence or highest form of love is self-sacrifice, as symbolized by the cross of Christ,[34] makes sacrificial love into an end in itself, rather than a means to an end. But love is relational. Its ultimate intention is to create and enhance caring and sharing relationships, to unite giving and receiving.[35] It is best described in such relational concepts as reconciliation, harmony, and communion. Sacrificial love, ranging in forms from simple acts of generosity to death on a cross, is a means of advancing the goal of reconciled relationships; it is not the end in itself. In Christian symbols, the instrument of Crucifixion cannot be isolated from its objectives, the reconciling events of the Resurrection, communion, and consummation. The cross is not an end in itself; it is a means to restore broken communion.[36]

Nevertheless, there is an element of self-sacrifice that is an inherent part of every form and context of love. Niebuhr was clearly right on this point: the sacrificial love of the cross stands in judgment on our truncated models of mutuality, and prevents self-regarding motives from pretending to be the ultimate fulfillment of love.[37] Love entails giving up at least some of our own interests and benefits for the sake of the well-being of others in communal relationships. This mandate applies in both human and ecological communities. The agonizing but unavoidable question, then, that Christian love continually poses for us is: what human interests and benefits must be sacrificed in this age of ecological crisis in order to serve the needs of other creatures and to enhance the health of the biotic community of which we and they are interdependent parts?

Third, some dimensions of Christian love appear to be inapplicable in an ecological context. Forgiveness, for example, is a fundamental facet of love in Christian understandings of human relationships with God and with one another. Forgiveness of sins, for example, is the core of Luther's doctrine of justification by faith.[38] But forgiveness is relevant only in interactions between moral agents, parties with moral capacities—to judge right and wrong, to do good or evil, to repent and

pardon, to retaliate or return good for evil. Nonhuman creatures, so far as is known in their present evolutionary state, lack moral agency. Forgiveness is irrelevant in direct relationships with creatures that act instinctively or submorally and are incapable of sin or remorse. In fact, an argument for the relevance of forgiveness in this context might be a dangerous anthropomorphism, since it could legitimate a counter-argument for revenge or retribution against nonhuman creatures "guilty" of some "offense" against humans—like biting or attacking. It is best to keep forgiveness and its opposite out of these relationships.

Nevertheless, appeals for divine forgiveness for our sins against the ecosphere and its all-pervasive life forms are essential for a vital Christian piety. Repentance and petitions for pardon for our profligate predation need to be part of ritualized prayer in Christian churches. Karl Barth uncharacteristically said very little about ecological responsibilities, and much of the little he did say seems confused. Yet one point is potent. Barth notes that the killing of animals, which is morally legitimate only under the "pressure of necessity" and only when accompanied by a protest against it, is theologically possible only as "a deeply reverential act of repentance, gratitude and praise on the part of the forgiven sinner in face of the One who is the Creator and Lord of man and beast."[39] That perspective is valid for all dimensions of human ecological consumption.

These three qualifications mean that Christian love in an ecological context will be less rigorous than in human social relations. Relevant differences in the situations justify different levels of moral expectation, just as we hold different standards for family life and international affairs. This fact, however, certainly does not imply that Christian love makes no serious ethical demands upon human beings in ecological interactions. It does! Christian love has many dimensions, and most of them are relevant and relatively rigorous in an ecological context.

ECOLOGICAL DIMENSIONS OF LOVE

A popular and sentimental song from the fifties was called "Love Is a Many-Splendored Thing." Neither the title nor the lyrics deserve any poetic acclaim; still, the title suggests more wisdom than a horde of homilies. The meaning of *Christian love* cannot be encapsulated in simple definitions or a single dimension. Christian love is multidimensional. No single dimension exhausts its meaning; its full brilliance

depends upon seeing the multiple facets of love together. My intention, therefore, is to outline several interpenetrating dimensions of Christian love as they apply to ecological relationships.

These dimensions are love as *beneficence, other-esteem, receptivity, humility, understanding, communion,* and *justice.* I shall reserve a discussion of love as justice for the next chapter, because this topic deserves special and extensive treatment.

1. Beneficence

Love as beneficence is looking not only to one's "own interests, but to the interests of others" (Phil. 2:4). It is being "servants to one another" (Gal. 5:13, RSV) by seeking "to do good to one another and to all" (I Thess. 5:15). It is serving Christ by ministering to the hungry, naked, lonely, and incarcerated (Matt. 25:31-46); cf. Isa. 58)—and following the principle of the reasonable extension of love to its uncontainable inclusivity, this mandate for ministry applies to all God's creatures in their natural habitats.

Beneficence means *doing* good, or, realistically, the maximum possible good in the circumstances, rather than merely wanting or willing good.[40] It includes nonmaleficence, doing as little harm or wrong to others (Rom. 13:10) as feasible, and refusing to inflict needless suffering or destruction. It goes beyond that negative duty to a positive quest of the neighbor's good, within the limits imposed by nature. Beneficence is caring and careful service on behalf of the well-being of others, human and otherkind, simply because a need exists, without regard for the earned or instrumental merit of the recipients and without the expectations of *quid pro quos.* Other life forms may have no direct utility for human needs, and most cannot respond to love in kind, but these considerations are irrelevant from the perspective of beneficence or other dimensions of Christian love. Christian love cannot be reduced to beneficence,[41] but it is decrepit without beneficence.

Love as beneficence may be simple acts of kindness to wild creatures, like letting a dead tree stand in the yard as a food source and nesting site for woodpeckers or refraining from too-frequent visits to a fox den. Moreover, love as beneficence can be manifested in every way that Christians and other citizens function as protectors of the biosphere—by preventing, for example, the toxication of the air, water, soil, and stratosphere or by saving the stability and diversity of species in their essential habitats. Lobbying for a clean air act or a pesticide control bill may be an act of beneficence. Similarly, preventing radical reductions

and extinctions of species by struggling against deforestation and habitat fragmentation has the character of beneficence. Even human population control is implied by beneficence, since it is necessary, among other reasons, to insure that all species have sufficient living space. Love expressed in the compassionate caring of beneficence is an indispensable element of a Christian ecological ethic.

Distinguishing love as beneficence from love as justice is not always easy, and often it isn't especially useful, except to academic purists. But one thing is clear: beneficence should never be a substitute for justice, as some suggest.[42] In my view, beneficence exceeds the expectations of justice; it begins only when the demands of justice have been satisfied. It is the mercy that tempers justice, the "extra mile" that adds kindness to the calculations of "less and more." In a simple example, ecological justice might allow us to let the mourning dove with the raw, defeathered underwing freeze in the sub-zero temperatures of a New England winter. After all, those are the breaks in the natural struggle for survival. However, beneficence cannot resist feeding and sheltering the bird in the study until the wing heals. In many interpretations, moreover, beneficence has an optional quality, whereas justice is morally mandatory. Again, while beneficence generally connotes doing good, justice deals with the proper distribution of that good. Consequently, it seems important to insist that beneficence should be regarded as a supplement to justice, probably even the primary motivation for justice, but not as a substitute for justice.

2. Other-Esteem

Love as other-esteem "does not insist on its own way" (I Cor. 13:5). It appreciates and celebrates the existence of the other to the empathic point that "if one member suffers, all suffer together with it; if one member is honored, all rejoice together with it" (I Cor. 12:26). Other-esteem values, honors, and respects the integrity of the other, as a precious gift of God. H. Richard Niebuhr has captured the essence of this facet of Christian love:

> Love is reverence. It keeps its distance even as it draws near. It does not seek to absorb the other in the self or want to be absorbed by it; it rejoices in the otherness of the other; it desires the other to be what he is and does not seek to refashion him into a replica of the self or to make him a means to the self's advancement.[43]

Other-esteem is an expression of eros in the classical sense, since it is evoked by the love-worthy qualities or meritorious features in the beloved. But this fact does not disqualify other-esteem for consideration as a form of agape. On the contrary, other-esteem is incorporated into agape, because it values the otherness or distinctiveness of the beloved as a good in itself, and treats the beloved accordingly.

Love as other-esteem speaks forcefully against a variety of forms of ecologically debilitating anthropocentrism. It renounces that anthropocentrism which views the natural world as created for humans, and which values that world only for its contributions to human wants—measuring even ancient forests of sequoias in board feet, evaluating verdant plains and valleys as "worthless" land until "improved" by development, and describing huntable animals as "game" or "trophies" to be "harvested." It rejects that anthropocentrism which treats other creatures kindly only to the extent that they conform to human standards of "beauty" and "civility," and which, therefore, offers bounties on "moral offenders," the "bad" "varmints" like cougars and coyotes.[44] It disdains that anthropocentrism which yearns to transform nature's wild, chaotic order into a Disneyland tameness, with gardens of manicured shrubs, pesticided grass, concrete esplanades, and tender beasts for petting. That anthropocentrism is blind even to the beauty of an untended lawn recuperating from domesticity and overflowing with dandelions.

Other-esteem, in contrast, does not wish to be the manager, gardener, or zoo keeper of the biosphere. It rejects these despotic metaphors for responsible relationships of humans with otherkind. Other-esteem respects the integrity of wild nature—its diversity, relationality, complexity, ambiguity, and even prodigality. It is quite content to let the natural world work out its own adaptations and interactions without "benefit" of human interventions, except insofar as necessary to remedy human harm to nature's integrity and to satisfy vital human interests. Other-esteem groans with the travail of creation, but it also accepts the fact that natural habitats and their inhabitants are generally served best by the absence of human schemes for improvement, beautification, or domestication.

3. Receptivity

Love as receptivity is "not envious or boastful or arrogant or rude" (I Cor. 13:4-5), because it recognizes its dependency. Receptivity is a step beyond love as other-esteem. It too values otherness, but, additionally, it is an acute consciousness that the human community is

incomplete, weakened, and even homicidal apart from others. We need the others, the biotic and abiotic components of the ecosphere. Consequently, receptivity is a yearning for relationship, not only to give to but to *receive from* the treasured others. Like other-esteem, it also is eros. It desires; it longs for the presence and pleasures of the beloved. But it is a self-giving love in the very process of being self-getting, because receptivity gives honor to the gifts of the others by recognizing our deficiencies and our dependencies on the others' gifts.

Receptivity stands in sharp contrast to the self-sufficiency so characteristic of human interactions with the ecosphere. We humans tend to celebrate our uniqueness and completeness in a virtual orgy of anthropocentrism, reminiscent of the competitive rallying boast of "We're Number One"! In our depletion of the ozone layer, our indiscriminate use of pesticides, our destruction of temperate and tropical rain forests, and our indifference to extinctions, we act as if we have no dependence on other parts of the body of earth. Receptivity, however, is a recognition of the intricately interdependent connections between humankind and the rest of the earth and an acknowledgment of our kinship with all earth's elements. It acts caringly to nurture and sustain the vitality, stability, and productivity of the relationship. Receptivity reminds us that love in an ecological context is not a "one night stand"!

Moreover, a full-fledged receptivity desires the raw, unadorned world with a virtually erotic passion. Despite the dangers to life and limb that generate justifiable fears, receptive lovers of nature yearn to be in the presence of the beloved and share in the intimate and omnipresent pleasures. They marvel at the miracles around them. They are filled with awe and humility and mystery. They feel "biophilia." For Christians, receptivity is a celebration of the sacramental presence of the Spirit, discussed in chapter 4. Reflecting my own prejudices, I suspect that many serious ornithologists have experienced these feelings, and probably (though I confess to mystification) so have many herpetologists. Love as receptivity reminds us that the natural world must be protected and nurtured not only for humanity's physical existence, but also for our spiritual well-being. This receptive attitude has aptly been described as "descendentalism," the spiritual appreciation of the earthy,[45] and it has been, as John Muir exemplified, a powerful force in initiating and sustaining the environmental movement. We therefore need to nurture receptivity not only for its inherent value, but also for its dynamic power to promote changes in environmental policy.

4. *Humility*

Love as humility is not thinking of ourselves more highly (or more lowly) than we ought to think (Rom. 12:3. Cf. Matt. 23:11-12; Luke 14:11, 18:9-14). It is a realistic virtue, rejecting both self-deprecation and self-aggrandizement. In response to arrogance, however, humility is other-regarding to the extent that it is self-deflating. It knows the weaknesses in human knowledge and character, and thus, recognizes that we are neither wise enough nor good enough to control the powers we can create or to comprehend the mysterious power that created us. Humility is the counter to hubris, the arrogant denial of creaturely limits on human ingenuity and technology. It is the antidote for triumphalism, the forgetting of our finitude and folly in the midst of celebrating human creativity. It is also a remedy for profligate predation—the excessive production and consumption that strain the limits of nature's capacities and disrespect the intrinsic value of our kin in creation. Humility, therefore, expresses itself as simplicity and frugality—that temperance which undoes self-indulgence.

Humility sits with the lowliest human as an equal (James 2:1-9), and even with unequals in an ecological context, in the manner of the self-emptying God who also sat with ontological unequals by entering and identifying with the human condition (Phil. 2:1-11). It seeks to puncture, therefore, any exaggerations about human powers and any undervaluations of other creatures. It is untroubled by human kinship with all other species. It accepts its relations. Humility recognizes that to be human is to be from the humus and to return to the humus. It regards all creatures as worthy of moral consideration.

Humility is cautious love or careful caring. It thrives in the manifestation of modesty, or choosing restrained, rather than ambitious, means and ends as ways of minimizing the risks of disaster in the light of the virtual inevitability of human error and evil. Undue risks represent the antithesis of humility, since, as that semi-cynical adage notes, if anything can go wrong, it will! Historian Herbert Butterfield spoke forcefully against the arrogance of immodesty:

> The hardest strokes of heaven fall in history upon those who imagine that they can control things in a sovereign manner, as though they were kings of the earth, playing Providence not only for themselves but for the far future—reaching out into the future with the wrong kind of farsightedness, and gambling on a lot of risky calculations in which there must never be a single mistake.[46]

To counteract this arrogance, no virtue will be in greater demand than humility as modesty if we are to avoid ecological catastrophes in the years ahead. The 1989 sludging of Prince William Sound with eleven million gallons of Alaskan crude from the wrecked supertanker *Exxon Valdez* is only one of countless examples of environmental destruction resulting from the sin of immodesty—that exaggerated confidence in human and technical reliability, and the failure to make due allowance for error and evil, the unpredictable and the unknown. Technology, as the contemporary clichés remind us, is both "promise and peril." Technological innovations can provide us with indispensable knowledge and assistance in alleviating some ecological problems. For instance, we would not even know about ozone depletion or be able to reduce toxic emissions without sophisticated technology. Yet, technology also has caused serious ecological damage, and it probably offers no answers to some ecological problems—certainly not to extinctions—to which it has contributed. Moreover, even the most reliable technologies are always subject to breakdowns, technical misuse, and power abuse.[47] Humility as modesty, therefore, cautions us not to be confident, let alone overconfident, in "technological fixes." It warns us that no human plans or techniques are fail-safe, so long as humans are relatively free and definitely finite. It urges us to remember the Achilles' heel of human creativity: the powers to shape the earth contain the powers to destroy it.

The meek or humble may not inherit the earth, but they will dramatically increase the odds that a healthy earth will be there to inherit.

5. *Understanding*

Love as understanding is loving God with our whole mind (Luke 10:27), and therefore loving the created beings that God loves with our whole mind. Not only faith seeks understanding; so does love. Love wants to know everything about the beloved—likes and dislikes, aspirations and anxieties, but above all, the other's needs. In fact, the only way to nurture and serve others adequately is to know their needs. Love requires understanding, or cognitive and emotional comprehension—and that is no less true in an ecological context than in a personal context. In fact, the amount of essential knowledge is far greater ecologically, because of the multitude of creatures in intricate interactions in complex ecosystems.

Knowledge about ecological dynamics is essential for ecological love. A large portion of environmental damage, in both personal and

corporate settings, is a consequence not of malice but of ignorance[48]—indeed, seemingly invincible ignorance. Too few are aware of even the seemingly obvious ecological effects of their actions. I once talked with a woman who was complaining about the decline of nesting birds in her backyard, and then in the next breath, she indicated that she had tripled the use of pesticides to combat gypsy moths. She did not recognize the linkage, despite Rachel Carson's work and despite widespread publicity about the destructive effects of pesticides like DDT on bald eagles, peregrine falcons, and other wildlife. The problem is magnified many-fold when we are dealing with major corporations dumping massive amounts of diverse pollutants into the air, soil, and water. The ecological effects of industrial and technological wastes on ozone depletion, global warming, acid rain, and species' reductions are difficult to trace. Discovery depends on extensive and expensive technical research. Ecological studies in a number of specialties and subspecialties have expanded dramatically in recent years, but we remain a long way from an adequate understanding of the intricate interdependencies in nature.

Despite the impressive knowledge explosion in the twentieth century, the more impressive fact about the human condition is how little we know. Much of human knowledge about ecology is fragmentary and disconnected. Scientific specialists know only a small percentage of the pieces of the ecological puzzle, and far less about how the pieces fit together in the intricate complexity of ecosystems, not to mention the ecosphere. Not even the number of species is known, and dramatically less is known about how these species depend on one another in the interactions of countless food chains.

One danger in this context is that some human act of negligence combined with ignorance, such as the use of a particular pesticide, could destroy an unrecognized "keystone" species, on which many species in an ecosystem depend directly and indirectly for their survival. The whole ecosystem would then crumble. Such acts of ignorance are commonplace in history, ancient and modern. The great North American ecological disaster of the 1930s, the Dust Bowl, was largely a consequence of agricultural malpractice confronting drought. Ecosystems in the United States have suffered heavy damage from the introduction of exotic aliens, without regard for the absence of natural control mechanisms—from kudzu in the Southeast and feral burros in the Southwest to starlings and house sparrows everywhere! Benjamin Franklin cites an ironic example of ecological ignorance from the eighteenth century, along with a wise warning:

> Whenever we attempt to amend the scheme of Providence, and to interfere with the government of the world, we had need to be very circumspect, lest we do more harm than good. In New England they once thought blackbirds useless, and mischievous to the corn. They made efforts to destroy them. The consequence was, the blackbirds were diminished; but a kind of worm, which devoured their grass, and which the blackbirds used to feed on, increased prodigiously; then finding their loss in grass greater than their saving in corn, they wished again for their blackbirds.[49]

Ecological ignorance, then, is hardly bliss; it is a prime ingredient for ecological catastrophes (which may be a single calamity, like an oil spill or, more frequently, an accumulation of abuses that creates a composite calamity, like ozone depletion).

In this context, environmental research and education are important expressions of love. The advancement of ecological understanding is a key responsibility of our educational and ecclesiastical institutions. Knowledge is not virtue, contrary to Socrates, but knowledge is a necessary condition of objectively virtuous behavior in personal and corporate contexts. Knowledge certainly is power. It is power not only to control and manipulate, but also to care and mend. Ecological understanding is essential for acting lovingly.

6. *Communion*

Love as communion "binds everything together in perfect harmony" (Col. 3:14). It is "the unity of the Spirit in the bond of peace" (Eph. 4:3; cf. 4:15-16), for Christ has broken down all the partitions of alienation (Eph. 2:14). It is the pursuit of "what makes for peace and for mutual upbuilding" in community (Rom. 14:19). Love as communion is the consummation of love; it is the completion of the "drive toward the reunion of the separated."[50] It is the solvent of separation, the adhesive for wholeness and fullness in relations, the final sign of the bonding power of love. Communion is the full extension of love as receptivity and other-esteem. It means that the goal of Christian love is inherently and concretely relational. Communion is not satisfied with the other dimensions of love; it knows that love is incomplete without solidarity, without friendship and partnership in fully interdependent and shared relationships, without the interpenetration of giving *and* receiving. Communion not only wants the loved ones to be in their distinctiveness; it wants them to be *our* loved ones in fully reconciled relationships.[51] Love as communion, then, is reconciliation, harmony, koinonia, shalom. Ultimately, it is

salvation, for the Reign of God is the consummation of communion or reconciliation.

Such a love, however, is only partially and provisionally known in history. We experience at best precious fragments of this love, which prompt our urges for more. This is especially true in natural history where systemic alienation and predation prevail. The Isaianic vision (Isa. 11:6-9; 65:25) of a lion resting with a lamb, of a child leading a harmonious band of carnivores and herbivores, of a serpent eating only dust, is "unnatural" in history. Indeed, it is a utopian illusion to believe that such possibilities exist in history (except for the ambiguous distortions in domestication). The "peaceable kingdom" is an ultimate ideal or eschatological hope.

Yet, this vision of love as communion is by no means irrelevant to history, human and natural. It functions not only as a judgment on human deficiencies in expressing the demands of love, but also as a goad pressing us to reach out to the limits of love in history. Though we cannot now experience the full harmony of the New Creation, we can approximate it to the fullest extent that the moral ambiguity of this creation makes possible. Historically, for instance, Eastern Christianity found one intriguing way to express the hope for ultimate and comprehensive communion in the relationships between humans and other creatures. Fasting was understood not only as a discipline of piety but also as an exercise of ecological responsibility. For the pious, fasting occupied more than half the days of the year, and involved abstinence from meats, fish, and other animal products, including milk and eggs. But the intentions were a partial recapitulation of an alleged original communion and an anticipation of the consummation of communion:

> Man is thereby reminded that he was a vegetarian when he was placed in the Garden of Eden and was given dominion over the world. . . . So fasting reminds man of his sinfulness as he preys upon the animals for food. In its practice of fasting, the Eastern Christian, in effect, tells the world of nature, especially the animal world, that man will for a period voluntarily abstain from taking life or even living off animal products. . . . Thus, fasting becomes a symbol of the future reconciliation of man and nature in a Transfigured world where the worst predator—man—shall live with the lamb and not hurt it![52]

I cite this example not as a veiled argument for vegetarianism. (I think, however, that a reasonable case can be made for eliminating or at least reducing the consumption of meat, when nutritionally feasible, and eating lower on the food chain, in order to reduce the suffering of

animals in factory farms and to increase the supply of vegetable protein for hungry humans.) Rather, my intention is to remind us that Christians are called to embody personal life-styles and advocate cultural patterns that are relevant to present ecological needs and that serve as signs of the Reign of love.

* * *

I have only scratched the surface of a major, emerging problem for Christian ethics—but enough, I hope, to reveal some of the dilemmas and possibilities of love in an ecological context, and perhaps enough to encourage others to make deeper scratchings and find fuller meanings.

Love, however, is incomplete without justice. I turn now to that vexing problem of love as justice in an ecological context.

CHAPTER SEVEN

LOVE AS ECOLOGICAL JUSTICE:

RIGHTS AND RESPONSIBILITIES

"Look at the beautiful beetle!" I said enthusiastically as I walked with the five-year-old boy along the path to the barn. "Splat" came the sound from his sneakered foot as he exercised a distorted dominion by deliberately—and proudly—squashing the insect. Stunned, my first impulse is best left unmentioned. Instead, I reacted with a harsh reprimand: "That was unjust! You violated that beetle's moral rights without just cause!"

My words surprised even me. And, obviously, my words had no meaning to the puzzled and alarmed child. The more important issue, however, is whether my words can have any moral meaning at all to anyone. Are concepts of justice applicable to beetles—even though God must have had an "inordinate fondness" for beetles, according to the distinguished biologist Lord Haldane, since the Creator made hundreds of thousands of species of them? Can beetles have moral rights? What about indisputably sentient creatures like deer? Or whales or voles? What about allegedly nonsentients like frogs or even plankton? Can we speak meaningfully about justice for spotted owls and snail darters? Do trees have moral standing under the rubric of rights? What about the lilies of the fields or rare louseworts or barely visible flora? Is justice due even to bacteria and other unicellular organisms? What about rocks and rills? Do individual life forms have rights or only species? Where do we draw the line, if at all? Indeed, what about the biophysical world as a whole? Does it make ethical sense to talk about a holistic ethic that emphasizes the rights of nature per se?

Many will view these questions as manifestations of the trivialization and excessive complication of ecological ethics. And often these feelings are understandable and reasonable. Yet, I doubt that an adequate Christian ecological ethic can emerge without grappling with these befuddling questions. It is not enough to sputter about stewardship or dominion unless we have a clearer understanding of what moral responsibilities are entailed by these roles, or if, indeed, these roles properly incorporate our responsibilities. This chapter, therefore, struggles with the meaning of love as justice in an ecological context. What is love as justice, and what, if anything, does it involve for human and biotic (or organic) rights as well as human ecological responsibilities? Again, I am treading on territory that is largely unexplored by Christian ethics—and that is as treacherous as it is necessary.

BIBLICAL BASES FOR JUSTICE

Christian responses to ecological problems should be developed in the light of biblical commitments to justice. Justice is a prominent theme in the originating source of Christian norms. Explicit statements about justice, like love in general, in scripture apply only to divine-human and interhuman relationships (though some biblical strictures concerning animals, such as Deut. 4:14, 22:10, 22:6-7 and Exod. 23:12, are clearly suggestive of justice). Again, however, like love in general, there is no inherent reason why biblical concepts of justice cannot be extended to relationships between humanity and other life forms. John Calvin, for instance, in commenting on Deut. 25:4 and Prov. 12:10 and in an effort to highlight the rights of humans, said that humans are "required to practice justice even in dealing with animals." Even animals are "entitled to their food."[1] Moreover, there are good reasons why this extension of justice is justified and maybe even necessary—notably the uncontainable inclusivity of love (including justice) in scripture.

The God portrayed in scripture is the "lover of justice" (Ps. 99:4; cf. Pss. 33:5; 37:28; 11:7; Isa. 30:18; 61:8; Jer. 9:24). In response to the groanings of the enslaved Hebrews in Egypt (Exod. 2:23-24), the God who exercises justice for the oppressed (Ps. 146:7) goaded Moses to become a liberator, smashed the shackles of Pharaoh, and led the people to a new homeland. God's deliverance from Egypt became thereafter the paradigm of justice—and the justification for doing justice—for Israel (as well as for every persecuted group in later Christian-influenced cultures).

The covenants between God and the liberated people—which presumably include the Noachic Covenant embracing all creatures (Gen. 9)—were understood in part as God's laws for right relationships. The non-negotiated covenant was a bond of fidelity among the people and with God. It entailed a moral responsibility on the part of the society and its individual members to deal fairly with the participants in the covenant and to provide for the basic needs of all, as an expression of loyalty to their Liberator and as the condition of harmony (shalom) in the community (Isa. 32:17). In the light of the covenant, therefore, to know God is to do justice (Jer. 22:13-16; Mic. 6:8); it is covenant faithfulness. Indeed, justice in the prophetic tradition is a spiritual discipline, an act of worship, without which the values of other spiritual disciplines—prayer, fasting, sacrifices—are negated (Isa. 58:1-12; Amos 5:21-24; Hos. 6:6).

Faithfulness to covenant relationships demands a justice that gives special consideration or a "preferential option" to widows, orphans, aliens, and the poor—in other words, the politically marginalized and excluded, the economically vulnerable and powerless, the communally bruised and bullied (Exod. 23:6-9; Deut. 15:4-11; 24:14-22; Jer. 22:16; Amos 2:6-7; 5:10-12). This tradition of concern for the poor and the weak was embodied in the model of the Jubilee Year (Lev. 25), which prevented concentrations of unjust power and the permanence of poverty by mandating the return of accumulated properties every fifty years; and also in the related Year of Release (Deut. 15:1-18), which provided amnesty for debtors and the liberation from indentured servitude every seven years.

In the diverse strains of the Old Testament (as in the New), the standards of justice are sometimes undeniably parochial and cruel, reflecting their historical and cultural settings. Even the Jubilee is a blemished ideal; it provides, for example, a warrant for holding foreign slaves in perpetuity (Lev. 25:44-46). Standards of justice develop over time as new light breaks forth from the Spirit and misconceptions of God and justice are corrected in the "always-reforming" community of God. Nevertheless, the pervasive commitment to justice, particularly for the poor and powerless, is an enduring guide for the contemporary church.

While justice is a prominent theme in the Old Testament, it is also clearly visible in the New. In fact, contrary to those who hint that the New Testament supersedes and abandons the commitment to justice in the Old Testament, the New Testament writers assume and expand their heritage. Jesus clearly was in the prophetic tradition of Isaiah,

Amos, and Hosea when he denounced those who "tithe mint, dill, and cummin, and have neglected the weightier matters of the law: justice and mercy and faith. It is these you ought to have practiced without neglecting the others" (Matt. 23:23; cf. Luke 11:42). Similarly, Matthew's Gospel reflects the prophetic tradition in its description of divine judgment: Christ comes to us in the form of human need and in the context of the deprivation of rights, soliciting just and compassionate responses. To neglect the deprived is to reject Christ. Individuals and nations will be judged on the basis of their care for the "have-nots" (Matt. 25: 31-46). This concern is also evident in the Epistles, though it is generally restricted for reasons of the cultural situation to the internal Christian communities (II Cor. 8:1-15; Heb. 13:16; James 2:1-14; 5:1-6).

The Reign of God, the central feature of Jesus' preaching, should probably be understood as the fulfillment of the prophetic vision of justice and other dimensions of love (Luke 6:20-31; Matt. 5:3-12; 6:33). The good news of the coming Reign of God, however, is more than an announcement of our ultimate destiny; it is a definition of moral responsibility. We are summoned to shape the present on the model of God's New Heaven and New Earth. That is part of the meaning of the words in the Lord's Prayer: "Your kingdom come, your will be done, *on earth as it is in heaven*" (Matt. 6:10; cf. Luke 11:2). If, however, the Reign of God is understood as the redemption of all God's creatures, then the moral responsibilities that are entailed by that ultimate expectation presumably include justice to all creatures.

Jesus is portrayed in the many stories of the Synoptics as the poor itinerant prophet from a poor family in Nazareth who befriends and defends the dispossessed and the outcastes. The Magnificat of Mary (Luke 1:52-53) and Jesus' reading from Isaiah (61:1-2) in the Temple (Luke 4:16-21) are probably attempts of the primitive church to define the exemplary character of Jesus' ministry and, thus, provide a paradigm for the ministry of the church itself. That ministry emphatically entails the pursuit of justice—including liberation of the oppressed. In fact, the Suffering Servant, with whom the church traditionally has identified Jesus, is the one who *proclaims justice* to the nations (Isa. 42:1-4; Matt. 12:18). Perhaps a good case can be made, as John Haughey argues, that in the New Testament, Jesus is not only the Love but also the Justice of God.[2]

For those whose norms are grounded in scripture, therefore, justice is too close to the core of the biblical message to be ignored or trivialized in the development of an ecological ethic. Justice is not an option for

Christians, but a moral imperative. Loyalty to the lover of justice entails a love for justice. That love for justice must be focused especially on securing the needs and rights of the poor and oppressed. There is no inherent reason, however, why the poor and oppressed cannot be extended to include nonhuman creatures—without implying equality of rights or denying human primacy. Nothing hinders the formulation of standards of justice that are applicable to nonhuman life forms, especially since they have been abused by humans acting as profligate predators. The Lover of Justice sets no boundaries on justice. The gospel we are called to incarnate relates to *all* creatures in *all* situations.

LOVE AND JUSTICE

What is the relationship between justice and love? Is the relation of justice to love that of a contrary, a component, a complement, a substitute, or what? This subject has been one of ongoing debate among Christian ethicists, almost rivaling in prominence the exchanges about the extent to which Christian love is sacrificial or mutual.

Reinhold Niebuhr often has been at the center of the love-justice controversy. Niebuhr argued that agape, which he defined as sacrificial love, is symbolized by the cross as the "perfect ethical norm" and the sacrificing Christ as the "perfect norm of human nature." It is the highest form of love. This norm transcends realistic, historical possibilities.[3] It is the "impossible possibility."[4] It is both the fulfillment and the negation of justice and other forms of mutual love. Consequently, this norm prevents any structure of justice or mutuality from claiming that it represents all that love demands.[5] For Niebuhr, the highest good under the limitations of historical ambiguity is mutual love, including justice.[6] Though Niebuhr sometimes contrasts love and justice, he generally claims that the relationship is paradoxical and that mutuality, including justice, is a vital though not final form of Christian love.[7] Niebuhr never denied that love and justice are intimately related—nor have the bulk of his critics.

In the light of this critical debate, it seems reasonable to say at least that love and justice are distinguishable but not separable. Christian love, as I argued earlier, cannot be encapsulated in any single definition or formula. Love is a multidimensional phenomenon; it exceeds by definition the requirements of justice. Whatever the correct relationship might be in detail, love demands more than justice, but it also demands *no less* than justice. Justice is a necessary condition for the

existence of love; love incorporates justice. D. D. Williams, following Paul Tillich,[8] rightly argued, "Love without regard for the terms of justice is sentimentality."[9] Love is not present, except as a pretense of piety, without the fair treatment of others and full respect for their rights. Thus, justice seems to be at least "the minimal shape of other-love" or "love in embryonic form."[10] But we can go further in acknowledging the noble values of justice in social—and potentially natural—history, and the indispensable function of justice in completing the meaning of love. Justice is nothing more, but also nothing less, than one indispensable dimension of Christian love. Justice is love when it "rejoices in the right" (I Cor. 13:6). For Christians, the meaning of justice is understood in the context of God's love for creatures and humanity's frail reciprocations.

MEANING OF JUSTICE

What is justice? That question will produce no easy consensus! Justice, like love, is a vague word with multiple meanings and forms. Concepts of justice come in various types[11]—leaving aside the rhetorical definitions at press conferences and pep rallies that translate justice into whatever "our side" wants. My basic concern here is distributive justice, which can be defined as the proper apportionment or allocation of relational benefits and burdens. Other forms of justice, like commutative and retributive, are relevant only in relationships between moral agents. Formally, distributive justice is giving everyone his or her due or fair share. From a Christian perspective, this formal principle is grounded in neighbor-love. We render to others their due because of our loving respect for their inherent dignity or intrinsic value, which is grounded in the "nature of things," God's valuations.

The formal principle of justice is usually based on a distributive principle of impartiality: treat similar cases similarly, and dissimilar cases dissimilarly. That sounds simple, until one thinks of the complications. What criterion or criteria, for instance, should a human community use for determining relevant similarities and dissimilarities? Should it be merit, effort, industry, risk, seniority, sentience, basic needs, special skills, physical size, moral behavior, social status, or some combination of these or others? Common sense tells us that different criteria are relevant in different circumstances, and we often act accordingly. Physical agility, for example, is not a relevant consideration for determining who will graduate from medical schools, but it

certainly is for dancing with the Bolshoi or playing for the Packers. Usually, several criteria are relevant for decision-making in particular situations. However, on Christian assumptions, when we are talking about the conditions for due respect in community, basic needs are a prime consideration in the distributive process. In this context, a major task of justice is to insure that the criteria used for the purpose of distributing goods and services are not arbitrary or irrelevant but morally appropriate to given situations,[12] and to prevent any interested party from being deprived of values on the basis of morally irrelevant factors—including, in some cases, not being human.

Treating like cases alike and unlike cases differently also implies that justice is not the equivalent of equality. Equality implies that all cases are to be treated alike in all situations. Justice certainly requires equality in like circumstances. However, equality is not demanded by justice in all cases. Differential treatment is justified when morally relevant differences exist. This distinction between justice and equality can be a delicate one, but it is also essential—as I shall argue—for justice in an ecological context.

On the basis of this interpretation, distributive justice can be defined as love calculating, ordering, differentiating, adjudicating, and balancing dues or interests in the midst of conflicts of claims or interests, in order to provide a proper share of all scarce and essential values and resources for all parties with stakes in the outcome. Since this process rarely starts from ground zero, rarely from some "original position," but rather from a history and context of wrongs, distributive justice is normally redistributive justice.[13] Justice is liberation from deprivation and exclusion—or as Karen Lebacqz argues, restoration, restitution, redress, and reparation.[14] Moreover, humans are not the only relevant parties in the conflicts of interests that love as justice must balance. If nonhuman creatures have intrinsic value and are creations of a loving, value-imparting God, these affirmations seem to imply a claim to treatment respectful of their value. I see no compelling reason why nonhuman organisms should not be included as interested parties in the ongoing process of redistribution.

Justice, moreover, can never be determined in the abstract. It is discovered contextually where relevant similarities and dissimilarities are weighed with discernment, and where injustices are encountered and eliminated. *In*justice can be understood as the social form of sin—that self-centered human inclination to defy God's covenant by grasping more than our due and thereby depriving others of their due. If so, justice is love overcoming sin.

RIGHTS AND JUSTICE

Justice is generally and properly associated with moral rights—particularly human rights (those moral rights essential for human well-being) and possibly organic or biotic rights (those moral rights essential for the well-being of otherkind). Rights are, in my view, essential to the notion of justice, and are implicit also in biblical concepts of justice.[15] Rights are a way of conceptualizing the basic demands of justice, of giving substance to the formal principles of justice. They are specifications of the *content* of what is due. Justice, then, is rendering to each his or her *rights,* and a just community is one in which everyone's rights are properly rendered—that is, fairly balanced and distributed.[16]

Moral rights are moral entitlements, not privileges, mere conventions, or simply social contracts. As such, they should also be legal entitlements or social rights, recognized and protected by law. Rights are usually expressed in general principles—like freedom of speech or equality under the law—in order to cover an array of circumstances. Yet, if they are to be operative in any society, rights must be defined, delimited, interpreted, and defended in casuistic laws, regulations, and judicial decisions. In this process, the basic rights inevitably and often justifiably will be restricted, in order to minimize conflicts with other rights or other parties' claims to the same rights. Rights are rarely absolute. They exist *prima facie,* which means that we have strong moral reasons for respecting them unless we have stronger moral reasons for not doing so. Rights can be overridden only for compelling moral reasons, like conflicts with other rights, and even then only to the extent necessary. Even the freedom of religion is not absolute. It does not include, for example, the legal legitimation of animal, let alone human, sacrifices! In any case, moral entitlements have substantially reduced social value apart from legal entitlements. That is why environmentalists have been intent on establishing human environmental rights and sometimes biotic rights in law.

In substance, human rights are the prerequisites for creative life in relation to the other members of any society. These rights are the basic necessities—the minimal conditions—to which every member is entitled and which a society should strive to guarantee, in order to enable all to live in accord with their God-given dignity and to participate in social decision-making.[17] These rights have sometimes been categorized as negative or positive—the negative being freedoms from interference, like the human rights of privacy and religious

liberty, and the positive being the provision of social goods, like sufficient nutrition and other basic needs. No matter how categorized, however, human rights are justifiable claims on any society for the basic conditions essential for the well-being of its members, God's invaluable creatures. To recognize these rights is to acknowledge others as creatures of God-endowed worth and full members of the society—indeed, full members of the human family. To deny these rights is to regard others as nonmembers or lesser members and, therefore, unworthy of full and equal moral consideration. Presumably, biotic rights would have something of the same character as human rights, with appropriate modifications to reflect different relational settings.

As this conception of rights implies, rights entail correlative responsibilities on the part of communities of moral agents. This correlation does not imply that only moral agents can have rights (which seems quite arbitrary), but rather that only moral agents have responsibilities to respect rights. Nonhuman creatures, therefore, can be rights-bearers without being rights-purveyors, since they lack sufficient capacities for moral decision-making. The correlation simply recognizes that the satisfaction of one's rights depends on others' responsibilities—their recognition of and respect for one's rights. "Rights . . . are expectations regarding responsibilities."[18]

Some argue, however, that responsibilities, not rights, are primary—that in an adequate Christian approach to justice, "justice will reside in responsibilities and duties, not in rights."[19] This argument seems to skew the inseparable and balanced connection between rights and responsibilities. Rights provide an objective moral reference for responsibilities, because we cannot define our duties except in reference to what others are due. Responsibilities to others, in fact, *are* respect for their rights. An obligation to others exists *because* these others have just claims on us. If a right exists, it implies a duty on the part of a community of moral agents—any human community—to satisfy this just claim to the fullest extent possible (which might be possible only partially or not at all, depending on the capacities and needs of a community in given circumstances). Without a correlation between rights and responsibilities, human duties may deteriorate to a level of *noblesse oblige* benevolences, which can be taken away as freely as given. With that correlation, however, humans are morally bound to give what is due. That, of course, is an important reason for recognizing environmental and biotic rights.

HUMAN ENVIRONMENTAL RIGHTS

Based on the above interpretation of human rights, do human beings have environmental rights? The only reasonable answer seems to be an emphatic yes! Though environmental rights did not get even an honorable mention in the 1948 United Nations' Universal Declaration of Human Rights, they have received some attention in the following decades. Environmental rights are now emerging as a *cause celebre* in the environmental movement.[20] At this writing, for instance, the National Wildlife Federation is circulating a petition called the "Environmental Quality Amendment" for inclusion in the United States Constitution. Pope John Paul II also joined the chorus in his New Year's Day, 1990 message on the environment: "The right to a safe environment . . . must be included in an updated charter of human rights."[21]

The formation and implementation of environmental rights are imperatives for our time. One of the essential conditions of human well-being is environmental sustainability and integrity. We live in solidarity with all other species of fauna and flora in a shared ecosphere. The satisfaction of basic human needs and expressions of cultural creativity depend totally on the productivity, diversity, and dynamic stability of the natural world. In this context, ecocide is also homicide. Consequently, "all human beings have the fundamental right to an environment adequate for their health and well-being."[22]

This general right can and should be subdivided into several specific environmental rights, including: (1) sustainable productivity and use of regenerative resources, for both present and future generations; (2) protection of the soils, air, waters, and atmosphere from levels of pollution that exceed the safe absorptive capacities of ecological processes; (3) full public disclosure by governments and private enterprises on the practices and risks associated with toxic disposal and other ecologically harmful behavior; (4) equitable shares of natural resources essential for human life; (5) preservation of biodiversity as resources for the human needs of present and future generations; (6) public protection from the social consequences of "private" behavior, particularly unbridled consumption and excessive population; and (7) redress or reparations to victims for violations of their environmental rights. Developing these and other environmental rights is a major challenge to Christian ethics for the nineties.

Moreover, since rights entail duties on the part of human communities to implement these rights, environmental rights can also be expressed as the obligations of governments to protect the environment for the sake

of their citizens and those of other governments. Thus the World Commission on Environment and Development has formulated a set of environmental responsibilities for nation-states:

* to maintain ecosystems and related ecological processes essential for the functioning of the biosphere;
* to maintain biological diversity by ensuring the survival and promoting the conservation in their natural habitats of all species of flora and fauna;
* to observe the principle of optimum sustainable yield in the exploitation of living natural resources and ecosystems;
* to prevent or abate significant environmental pollution or harm;
* to establish adequate environmental protection standards;
* to undertake or require prior assessments to ensure that major new policies, projects, and technologies contribute to sustainable development; and
* to make all relevant information public without delay in all cases of harmful or potentially harmful releases of pollutants, especially radioactive releases.[23]

The work of the World Commission on environmental rights and responsibilities is a good start. Yet the process is far from complete—and Christian ethics presumably has a contribution to make to the development and defense of environmental rights and responsibilities.

Moreover, the process is critically important. Since environmental health is essential for human survival and creativity, environmental rights are certainly no less important than social, political, and economic rights. In fact, it is not an exaggeration to say that the possibility of realizing every other human right depends on the realization of environmental rights. Thus, contrary to those advocates who contend that environmental concern detracts from or competes with social justice, the reality is that ecological integrity is a precondition of social justice. Indeed, it is itself a manifestation of social justice. The quest for social justice is truncated without the inclusion of a commitment to environmental rights.

Environmental rights for humans, however, are unabashedly anthropocentric. The assumption is that we ought to take care of the environment so that the environment can take care of us. It is enlightened self-interest or, more specifically, the biological equivalent of supply-side economics. By conserving our natural resources and cleaning up our polluted ecosphere to protect humans, the flora and fauna allegedly will be served by indirect effects. But that trickle-down process is about as effective in protecting species and their habitats as

supply-side economics has been in solving the problem of endemic poverty. Economic interests and ecosystemic interests are not always integrated, at least not in the short-run. Economic arguments for protecting a species or ecosystem can be trumped readily by arguments for other, more apparent economic gains, like a hydroelectric dam. Not every life form—not the snail darter in the Tennessee Valley or the spotted owl in the Pacific Northwest or the millions of unclassified plants and insects in tropical forests—is perceived as being beneficial for vital human interests. We can survive, though less richly, without some species. In fact, having exterminated a number of species, we already do! When conflicts occur, and they inevitably do, nonhuman organisms are likely to be the losers—unless there is some reason to respect their existence beyond their instrumental values to humankind. Environmental rights for humans will help but they are no guarantee of ecological integrity. The question then arises about the rights of nature and its biotic components.

BIOTIC RIGHTS

Traditionally, moral rights have been discussed only in the context of human interactions. Ethics has been understood generally as a strictly interhuman concern. But that situation is changing dramatically. A serious debate has emerged over the last couple of decades about the rights of nature.[24] Regrettably, the churches have remained nearly untouched by these controversies, and only a few theologians and ethicists—John Cobb and Jürgen Moltmann being notable exceptions—have thus far entered into the fray. Yet, the Canberra Assembly of the World Council of Churches (February, 1991) called for a Universal Declaration of Human *Obligations* Towards Nature as part of a United Nations' Earth Charter, which will be considered at the 1992 U.N. Conference on Environment and Development.[25] The rights debate is no longer a subject of snickers, especially in philosophical and environmental circles; it has become respectable, a problem worthy of serious reflection, a subject of books and articles in scholarly journals like *Ethics* and *Environmental Ethics*. The basic questions are: Do nonhuman creatures or even their whole ecosystems have rights that humanity should honor? If so, who or what has rights, and what are these rights? The issues are mind-numbing in their complexity.

From a perspective that recognizes the intrinsic value of all God-created being, I affirm the rights of nonhuman creatures—but not

without plenty of trepidation and confusion. This position raises some troublesome problems. Four of them deserve preliminary comment.

First, the danger may exist that the recognition of nonhuman rights, including those of microorganisms, will trivialize the very concept of rights and diminish the fundamental importance of human rights. But there is no necessary reason why such trivialization would follow. The cause, if any, would seem to be psychological rather than logical or reasonable, reflecting perhaps human resistance to abandoning a self-designated status of absolute uniqueness. The recognition of rights is not a zero-sum game in which one party's genuine rights are diminished if another party's rights are acknowledged. Rationally, nonhuman rights can coexist comfortably with a strong set of human rights. Indeed, a coherent or seamless garment Christian ethic would seem to require appropriate moral consideration for all levels of being. Moreover, the charge of trivialization is a factual assessment that requires empirical data to defend. It strikes me as a hypothesis with a heavy burden of proof and plenty of counterevidence, including the breadth of concern of some Christian saints and activists.[26]

Second, the assertion of nonhuman rights could lead to a host of absurdities, straining moral sensitivities to the "breaking point."[27] This threat is real, but it is not in itself a refutation of nonhuman rights or of particular formulations of these rights. Nonhuman rights would be absurd if they were construed as equal rights with humans or as the same rights as humans. Yet, nonhuman rights are not identical with human rights where relevant differences exist.[28] No one should be taken seriously, for example, who proposes voting rights for chimpanzees—let alone fair housing rights for parasites in human bodies. Moreover, nonhuman rights can be overridden for lesser reasons, often dramatically lesser, than would be tolerable for human rights.[29] Nonetheless, the *reductio ad absurdum* argument is an important warning that statements about nonhuman rights must be carefully constructed with appropriate qualifications and limitations.

Third, the recognition of nonhuman rights creates countless complications and dilemmas in determining and balancing rights.[30] This claim is true but irrelevant. Nonhuman rights are certainly difficult to formulate, and seemingly intractable dilemmas are inevitable. The same, however, is true of human rights. If nonhuman rights are valid, they cannot be ignored to avoid taxing our mental faculties. The truth cannot be simplified or constricted for the sake of convenience.

Finally, respect for nonhuman rights is often hopelessly impractical, it is argued, whereas valid ethical norms and restraints must be

practical, since ought implies can.[31] After all, critics ask, how is it possible or practical to show moral respect for nonhuman rights when the human condition is such that we must destroy many billions of microorganisms simply to do our daily breathing and feeding, not to mention the life-destroying consequences of bulldozers and harvesters? Nonhuman rights seem meaningless in this context. This complaint, then, against nonhuman rights deserves a persistent hearing. But whether or not it is valid may depend on particular definitions of and restrictions on nonhuman rights.

Despite serious difficulties in this embryonic area of thought, the affirmation of the rights of nature cannot be summarily dismissed. Something profound—something coherent with the Christian faith in a creating and redeeming God who is all-encompassing love—is happening in this effort at ethical extension. The stress on nonhuman rights is a way of saying that all life is sacred or intrinsically valuable and worthy of being treated as the subject of human moral consideration. Indeed, the acknowledgment of intrinsic value in nonhuman creatures seems to be implicitly an acknowledgment of their legitimate claims for appropriate treatment from the human community and, therefore, of some level of rights and responsibilities. The underlying concern seems to be human responsibility for nature, and the stress on rights provides an objective moral basis for this responsibility. The assumption—a valid one, I have argued—is that rights and responsibilities are correlative, that a duty to another being exists because the other has a just claim. Advocacy for the rights of nature is the contention that environmental concern is not only an expression of benevolence,[32] but also an obligation of justice—not simply justice to human interests, but also justice to the interests of other creatures. In Western cultures, rights are important; no rights suggest no moral consideration.[33]

This question of the rights of otherkind, however, is not an arbitrary judgment. In fact, it is a means of avoiding arbitrariness. To say that humans have moral rights while other forms of life do not, even though humans are continuous with all other forms of life, *is* an arbitrary judgment. However, rights are not mere human constructions or attributions. They are recognitions of the moral claims that inhere in living beings.

This viewpoint on nonhuman rights is not so bizarre or so alien to human behavior as it appears to many at first sight. As Joel Feinberg suggests, we functionally recognize the rights of other creatures every time we treat them kindly or avoid treating them cruelly, not simply for aesthetic, scientific, or other human interests but for their own sakes.[34]

Whenever, for example, we refrain from trampling an immature robin fallen from a nest or forego plucking a jack-in-the-pulpit in the woods, and do so for reasons relating to the welfare of the creatures themselves, we seem to be implicitly acknowledging some right of theirs. In fact, such rights may also be recognized legally. Some wildlife-related laws in the United States—such as the Wilderness Act, the Marine Mammal Protection Act, and the Endangered Species Act—grant legal rights to nonhumans and may implicitly recognize moral rights.[35]

Admittedly, however, support for nonhuman rights appears to be a minority opinion in philosophical circles. The majority of participants in the rights debate probably would agree that the question of the rights of otherkind is a "bogus issue."[36] This type of charge apparently has prompted some rights-sympathizers to search for alternatives to rights language. Paul Taylor, for example, offers a theory of environmental ethics that he claims does not rely on the idea of nonhuman rights.[37] He argues that moral rights can be applied reasonably to animals and plants, but there are good reasons for not doing so.[38] His reasons are practical or strategic: It is "less confusing" and "less misleading" to forego rights-talk.[39] "By avoiding talk of the moral rights of animals and plants we do not lend aid to those who have no respect for them."[40] Moreover, the idea of rights, he says, are superfluous: they add nothing that cannot be accomplished by means of the central ideas he develops, namely, "respect for nature," the "biocentric outlook," and the possession of "inherent worth."[41]

Nevertheless, perhaps ironically, Taylor provides an impressively strong case for nonhuman rights on philosophical grounds. He uses the concept of rights while shunning the words. His alternatives are really the functional equivalents of moral rights. I doubt, however, that anyone who reads his sophisticated work will be misled by this tactic. Personally, I think it will be less confusing in the long-run to use the language of rights forthrightly. This approach avoids the incoherence of moral dualism or pluralism. It affirms one ethic that is continuous for normative evaluations of both social and ecological relationships, with appropriate adjustments for the different contexts. It reminds us that justice is one, comprehensive, and indivisible.

BOUNDARIES OF BIOTIC RIGHTS

The problems associated with nonhuman rights would be somewhat reduced if we could fix parameters. But where is the boundary to be

drawn for inclusion or exclusion from the realm of rights? The usual criteria proposed for determining who or what is in or out are: (1) sentience (the capacity to experience pain and pleasure), (2) reason, (3) moral capacities, (4) moral reciprocity (if no duties, then no rights), (5) consciousness (for instance, the awareness of danger or prey), (6) linguistic communication, and (7) Tom Regan's "subject-of-a-life" (including the presence of desires, perceptions, memories, anticipations, emotions, sentience, psychological identity over time, and so on).[42] None of these criteria, however, seems to be satisfactory, not even in combination. They all appear to be sufficient conditions for the recognition of rights, but they, singly or jointly, are not necessary conditions.

Recognizing this problem, Tom Regan insists that his "subject-of-a-life" criterion does not logically preclude the extension of rights to creatures other than mentally normal mammals of one year or older.[43] He intentionally errs on the side of caution, but urges that other creatures, at least some of them, be given the benefit of the doubt and treated "as if" they are subjects with rights, especially when doing so causes no human harm.[44] Despite this important qualification, however, the various boundary-setting criteria seem arbitrary and anthropocentric; they project human characteristics and values onto the rest of creation and then give or deny moral status on this basis.

So, where do we draw the line? An equally important question, however, may be, why is it necessary or valuable to recognize a boundary at all? That question is especially relevant when the concept of *prima facie* rights, as I shall note later, provides adequate built-in protections against moral absolutes and absurdities. It may be, as H. Richard Niebuhr suggested in his earlier-quoted comments on the extension and intensification of the moral law, that no line is possible or desirable on the basis of Christian norms.[45]

Nonetheless, drawing a line appears to be valuable if rights-talk is to make some practical sense. I have no clear perception, however, about precisely where that line should be drawn. Perhaps the line can be drawn at least at the juncture, insofar as identifiable, where life is distinguishable from nonlife, since nonliving elements—like rocks and gases—have no apparent interests or drives to survive about which rights can be "meaningfully predicated."[46] Even in excluding these elements from coverage under the category of rights, however, humans have no license for abuse, since one must allow for the dependence of all life forms on the abiotic elements in the biosphere. Nonliving elements must be treated with care as instrumental values;

they are the resources and habitations of all creatures. In the biosphere, even rocks and gases are teeming with microorganisms, and the waters of the earth are interpenetrated with organic life. Moreover, even the holistic interactions of biotic and abiotic components in ecosystems and the ecosphere have "systemic values,"[47] on which all life forms are totally dependent and which warrant systemic responsibilities.

Or perhaps we need to draw the line at a higher level, perhaps a much higher level, of species' complexity, if for no other reason than the practical one of avoiding moral absurdities—like campaigns for restricted breathing exercises to minimize injuries to microorganisms, or almost literally, straining at gnats and swallowing camels. Again, however, even here, environmental care is mandated, since all complex organisms and ecosystems are dysfunctional apart from the instrumental benefits of simple organisms. Mutualistic bacteria, for instance, dwell in the human digestive tract and facilitate its functions. Similarly, marine plankton are the foundations of the food pyramid topped by large carnivores, such as eagles, bears, and humans.

My own operational perspective on a rights-boundary is grounded in the criterion of conation—a striving to be and to do. At this point at least, beings may be said to have "interests" in their biological roles *for their own sakes*—a characteristic that is not evident in inanimate objects or probably animate components of members of species. The diverse species of plants and animals, from rudimentary microorganisms to complex organisms, may be good for systemic wholes, like ecosystems. They may be good instrumentally for one another. They may also be good for human interests, whether for scientific, aesthetic, psychological, spiritual, recreational, or economic reasons. Yet, whether they are good or bad for others' interests, *they are good for themselves*—and this claim is the basis for whatever rights ought to be respected by moral agents.

Nonhuman creatures are far more than Cartesian machines. They reproduce their own kind; they interact with their environments with various degrees of indeterminacy; they have inherent powers of mutation to adapt more fittingly to their niches and even to evolve into new and more complex life forms (which, in fact, accounts for the emergence of humankind); and they are defined by a vitality that struggles to fulfill their "reasons for being." They are good for themselves because they possess at least conation—that is, drives or aims, urges or goals, purposes or impulses—whether conscious or unconscious—to be and to do.[48] They are characterized by a volitional and/or instinctive striving to live in order to realize their possibilities, or

what Albert Schweitzer called, somewhat anthropomorphically, the "will to live."[49] They are "teleological centers of life" that pursue their own good in their own unique ways.[50]

Otherkind have "interests" in their own good. Whether or not these interests exist consciously or subjectively, they exist *objectively*. Otherkind can be helped or hindered by the actions of others in their environment.[51] The important consideration is that a nonhuman creature's interest in its own good is "an objective value concept": a "biologically informed" moral agent in theory can take the standpoint of a plant or animal and judge what is good or bad, beneficial or harmful to that creature from its perspective, and then act empathically to promote this objective interest.[52]

Thus nonhuman organisms—animals and plants—are more than means to others' ends; they are ends for themselves. If so, the conative character of members of all species ought to be respected by all moral agents who honor their biological kinship with all other creatures and who are loyal to the biocentric valuations of an all-loving God. The "will-to-live," according to Schweitzer, should generate a response of "reverence for life." Schweitzer's reverence is a mournful and somewhat mystical empathy with the struggles for survival of all life forms. In defiance of "a ghastly drama of the will-to-live divided against itself," it regards all life as sacred and seeks to prevent any harm beyond the point of necessity.[53] A similar notion, rooted in conative urges, seems to underlie the moral principle of Charles Birch and John Cobb: "All things have a *right* to be treated the way they *ought* to be treated for their own sake."[54] This perspective, or something similar to it, seems to be an essential feature of an adequate Christian ecological ethic.

INDIVIDUALS AND COLLECTIVES

Wherever we choose to fix the boundaries of nature's rights (if we can and must), and whether we do so for practical or more substantive reasons, two polarities must be preserved in creative tension for an adequate ecological ethic. One is moral respect for individuals and the other for collectives or wholes.

At one pole, an adequate Christian ecological ethic must posit respect for individual lives, not simply aggregates like species.

The moral issues in the relationship between species and their individual members are complex, but an adequate answer to these problems seems to require concern for both individual rights and

species' rights. The common tendency among rights advocates to endorse one or the other seems incoherent. The two are inseparably linked. Neither a species nor its individual members are simply means to the other; both are means and ends in their interdependence. It is not enough to say that only species have rights, since no species exists without individuals to represent and reproduce it. Equally, it is not enough to say that only individuals have rights, since no individuals exist except as temporary incarnations of a species and carriers of its genetic past and future. A species is much more than a humanly contrived abstraction or classification. It is a genetic lineage that is encoded as the fundamental features of being in every individual and population, inherited from forebears and potentially contributable to successors.[55] The good of a species at any given time is embodied in the good that its living members produce and reproduce.

Certainly, the preservation of viable populations of species is significantly more important ecologically than the fate of individual members, since the extinction of a species or subspecies is the finale for all future generations. Yet, the preservation of a species is unsustainable without sufficient respect for individuals and moral constraints against their destruction. Though a species as an aggregate or a genetic code is not conative in itself, that fact does not contradict a theory of nonhuman rights structured on conation.[56] A species is both the aggregation of conation in individuals and the carrier of potential conation for all future generations. Thus individual rights and species' rights seem to be two sides of the same coin, constitutive of one another. We cannot respect one without respecting the other.

Moreover, on the assumptions that all creatures are good for themselves and good from the perspective of the universal love of God, the individual members of all species seem to have some moral standing as rights-bearers. This is the truth embodied in the life-styles of St. Francis and Albert Schweitzer (even though they lacked adequate principles for making discriminating judgments in conflicts of interest among life forms). Otherwise, it is morally permissible to rip the legs off grasshoppers, shoot frogs or foxes, chop down cherry trees, squash beetles and spiders in natural settings, or pluck rare orchids—all for the fun of it, without just cause, without regard for moral restraints—so long as one does not endanger species or disrupt ecosystems. A holistic ethic, which respects only species and other aggregates, suggests a merciless attitude toward individuals.[57] In its extreme forms, which are often misanthropic, such holism deserves to be branded with Tom Regan's harsh epithet, "environmental

fascism."[58] To avoid this moral consequence, it seems important to maintain that all living beings have at least some rights and these rights should be respected by moral agents.

Yet, it also seems important to avoid biotic egalitarianism and to insist on a gradation of value among rights-bearers. Biotic egalitarianism places all species—dandelions and dogs, humans and amoebas, or, in restricted forms, all of a class of species like mammals, from mice to humans—on the same moral plane. The formal theory disallows moral distinctions and preferences among species. In practice, however, most egalitarians have found ways to avoid these impracticalities and rigidities. Some deep ecologists, for instance, claim that biotic equality is true only "in principle," since all species must use others for the sake of survival.[59]

In contrast, a graded model claims that all creatures are entitled to "moral consideration," but not all have the same "moral significance."[60] All have intrinsic value, but not equal intrinsic value. In the previous chapter, I argued against biotic egalitarianism that the value-creating and value-experiencing capacities of humans are morally relevant differences between us and all other species, and justify preferential treatment for humans in conflict situations. Here the same criteria are extended to all species, creating an ascending/descending scale of intensity for rights and responsibilities. Among species, the moral significance of rights is proportionate to the value-experiencing and value-creating capacities of their members, and the corresponding responsibilities of moral agents are proportionate to this significance.[61] Other things being equal, sentient creatures, for instance, are to be preferred over nonsentient ones in conflict situations.

This ranking mechanism is often considered "speciesistic," since it gives top moral preference to humans and ranks others descendingly on the basis of the same criteria. Yet the criteria seem reasonable and relevant. Moreover, this speciesism is graded, affirming some level of rights for all organisms, rather than dualistic and absolute, affirming rights for some species and denying them to all others. In this value structure, all life forms, as good for themselves and as valued by the ultimate Valuer, have basic moral rights. These rights are minimalistic in moral significance in the case of microorganisms but rise in moral significance with increases in a species' value-creating and value-experiencing capacities. These rights entitle the bearer to appropriate forms of protection from the human community.

Herman Daly and John Cobb summarize this model well in response to biotic egalitarianism:

> We do not share this view [biotic egalitarianism]. We believe there is more intrinsic value in a human being than in a mosquito or a virus. We also believe that there is more intrinsic value in a chimpanzee or a porpoise than in an earthworm or a bacterium. This judgment of intrinsic value is quite different from the judgment of the importance of a species to the interrelated whole. The interrelated whole would probably survive the extinction of chimpanzees with little damage, but it would be seriously disturbed by the extinction of some species of bacteria. We believe that distinctions of this sort are important as guides to practical life and economic policy and that the insistence that a deep ecologist refuse to make them is an invitation to deep irrelevance.[62]

Some charge, however, that this model of graded value and rights is the hierarchicalism that has been the source of multiple forms of human oppression, including racism and sexism, as well as domination over nature.[63] This model is indisputably hierarchical. That is its strength; it avoids, for instance, the misanthropic implications of biotic egalitarianism in which humans, other mammals, insects, or flowers presumably deserve equal treatment and rights. But the other charges do not follow. This criticism fails to make the important moral distinction between *intra*-species rights, human rights that apply equally to all humans, and *inter*-species rights, which are not equal and which do not prevent, though they clearly restrict, humans from destroying members of other species.[64] Contemporary Christian ethical thought increasingly provides adequate protections against hierarchical models being applied *within* the human community. For instance, the egalitarian implications of *imago dei* provide important safeguards against hierarchical rankings among human groupings, and thereby oppose racism and sexism.

Nonetheless, graded rankings seem indispensable—even inevitable—in making ethical judgments in conflict situations involving humans and other life forms. Nearly all of us act routinely on hierarchical assumptions in our daily lives, like swatting flies that invade our food or even deciding to eat lower on the food chain. Graded rankings, moreover, are not alternatives to or contradictions of ecological interdependence. Rather, they occur in the context of, and with respect for, relationality.

The question, however, that haunts the individualistic pole of an ecological ethic is: is it practical? The prevailing opinion is that ecological individualism is "practically meaningless" or "hopelessly impractical."[65] But that viewpoint may be too simplistic. An adequate answer depends partly on the particular set of rights and restrictions

that are being evaluated. An adequate answer also depends, however, on the exercise of moral discernment, or appropriate moral distinctions.

One important distinction is between those organisms whose individuality can be respected as individuals, and those whose individuality can be respected only collectively. In the former case, it is certainly practical to avoid the deliberate and unnecessary squashing of an individual beetle, the dismemberment of an individual fox, or the felling of a particular tree. In the latter case, however, it simply is not practical to respect the individual rights of the millions of microorganisms that reside in every clod of soil, every bucket of lake water and every breath of air. Nonetheless, even in the latter context, nonhuman rights can be respected in the aggregate by responsible, restrained usage. We can respect the conation of other creatures by protecting the earth from profligate consumption, destruction, and pollution. An individualistic strain, therefore, in ecological ethics causes major complications and confusion, but it does not appear to be totally impractical with the proper exercise of moral discernment. Even in the case of microscopic creatures, individual rights can be respected in the aggregate by following the moral maxim: use sparingly, caringly, reverently. We can thereby minimize harm to individuals. Indeed, if frugal use is the only practical way to respect the rights of simple organisms, we do not need to worry in practice about where we draw the boundaries on nonhuman rights.

In our bizarre biosphere, all species are necessarily instrumental values for other species. Various plant and animals, for instance, provide essential food for human beings. Theologically, these creatures can legitimately be regarded as gifts of God to be used without guilt (but not without a yearning for the Isianic hope!). Yet, these creatures also are ends in themselves and ought to be treated as such. One important way for humans to balance the instrumental and intrinsic values of other creatures is to practice restrained consumption. Frugality is a prime ecological virtue.

At the other pole, an adequate Christian ecological ethic must be holistic, concerned about collective connections.

From my perspective, abiotic elements (like minerals and gases) and ecosystemic wholes cannot be said to have moral rights in any strict sense, since they lack conation. Yet, precisely because conative creatures pervade the biosphere, it still seems legitimate to speak compositely and metaphorically, though not quite literally, about the "rights of nature." Whether or not this claim is defensible, there is no

doubt that systemic wholes, composed of diverse biotic and abiotic elements in interaction, are indispensable instruments—systemic values—for the ends of all rights-bearers.

Parasitism and predation, as well as geological and climatic dynamics, mean that the relationships among the parts of ecosystems are ambiguous—harmful and helpful, destructive and creative—for species and their members. The arctic wolf, for example, is a nemesis of the caribou, but this carnivore still contributes to the overall health of the caribou herd by culling the weak and encouraging the survival of the genetically fittest. The wolf also unintentionally promotes a balance between the number of caribou and the carrying capacity of their environment. Similarly, the upheavals of earthquakes and volcanoes create new geographical formations like mountains and islands. The process destroys countless individuals and sometimes even extinguishes whole species; it also prompts the gradual emergence of new species that effectively adapt to the new environments.

Ironically, these ambiguous relationships among the parts are essential for the well-being of the wholes. They contribute to the "common good" of ecosystems and the ecosphere—and reciprocally, the only possibility of good for species and their members depends on the common good of these systems. The common good certainly does not guarantee the survival of individuals or even of particular species. In fact, the very system that sustains individual organisms also eventually destroys them. The same is true of most species. Significantly less than 1 percent of the total number of plant and animal species that have ever existed still exist. Nonetheless, the essential conditions for a species surviving and thriving for a time depend on the common good—ecosystems with maximum diversity of interacting life forms in healthy habitats.

This dependence on the ecological common good is why any ecological ethic must value and nurture ecosystems and the ecosphere as wholes. Thus James Gustafson is right in posing a basic question for Christian ethics: "What is God enabling and requiring us, in the patterns and processes of the interdependence of life in the world, to be and to do?"[66] Unlike most other ethicists, Gustafson is acutely conscious of the fact that a central concern of Christian ethics must be the relationships among parts to wholes, especially responsible human participation in the interdependent systems of the biophysical world.[67] Ethics, especially ecological ethics, must think holistically and relationally.

This concern for relationality also is the fundamental truth in Aldo Leopold's ecocentric "land ethic": "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."[68] For Leopold, the "land ethic" is an enlargement of the boundaries of moral concern to include "soils, waters, plants and animals, or collectively: the land."[69] The land is the source of life, "a fountain of [ecological] energy flowing through a circuit of soils, plants, and animals."[70] Its care requires "love, respect, and admiration,"[71] and its components have a "right" to exist.[72] "In short," according to Leopold, "a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for . . . fellow-members, and also respect for the community as such."[73]

It is unfair to take Leopold's summary maxim of the "land ethic" out of context and accuse him of "environmental fascism," since a respect for individuals is evident in Leopold. Though it is important to avoid environmental fascism, it is equally important to follow Leopold and avoid *nonecological atomism,* which respects individuals in isolation from a holistic context, the ecological common good. Ecological systems are critically important for environmental justice. Indeed, environmental justice is a fantasy without a holistic consciousness and concern, since ecological systems supply the essential conditions for the realization of the rights of all creatures.

The moral problem of individuals and collectives will never be resolved so long as "biocentric individualism" and "ecocentric holism"[74] are seen, as they often are, as competing ideologies or alternative ethical systems. Both perspectives are truncated in isolation. The best hope for resolution, I believe, is in ethical interpretations that regard the two together as a form of the complementary polarities described by Philip Wogaman.[75] They are not mutually exclusive but rather mutually dependent: "Neither pole can continue to exist without some inclusion of the apparent opposite."[76] The two poles must be held in appropriate balance in different situations. Just as humans are social beings for whom the common good is constitutive of the well-being of individuals and vice versa, so all living creatures—including humans—are ecological beings for whom the well-being of wholes is inextricably and reciprocally linked with the well-being of individuals. The individualistic and collectivistic poles—a rights ethic and a land ethic—must be held in tandem, for ultimately they are not two competing ethics, but complementary sides of one ecological ethic.

A BILL OF BIOTIC RIGHTS

What are the rights of nonhuman creatures? Thus far, I have concentrated on the complications surrounding this question. Now I must deal with this question directly—and succinctly. My purpose here is best served by simple generalizations accompanied by brief explanations.

Certain caveats, however, are in order. First, in accord with the ecological purpose of this study, my focus is strictly on "wild" nature, the rights of nonhuman creatures in their natural habitats. The human use and abuse of domesticated and other culturally controlled animals, while related, raise special and serious moral problems that are beyond my present purview. Second, the rights listed are not discrete; they overlap, but each adds a dimension to the whole. Better listings will in time overcome this problem. Third, all the rights outlined apply to both *individuals and species*. Fourth, these rights are not absolute for individuals; they can be overridden for moral reasons. Yet, these rights may very well be absolute or near-absolute when applied to nearly all species, as I shall indicate in the next section. Fifth, the nonhuman rights outlined below are considerably different from human rights, since human rights include but far exceed biotic rights. That fact should alleviate some of the major misunderstandings about nonhuman rights. Sixth, the intention behind this catalogue is inclusive rather than exhaustive. In other words, the rights apply to all species, but this does not preclude the possibility of additional rights being recognized for particular species, such as chimpanzees or dogs, because of their greater intrinsic value.

Finally, in articulating the rights of "wild" otherkind, I am in effect defining human responsibilities, since only humans are moral agents capable of respecting rights. These rights, then, are justifiable claims on humans for the basic conditions necessary for the well-being of otherkind. They are specifications of the content of human ecological responsibility.

With these caveats in mind, I propose the following general rights (both freedoms from interference and provisions of essential goods) as the just claims of nonhuman species and their members:

1. *The right to participate in the natural competition for existence.* Biophysical processes do not show much concern for individual lives, human or otherkind. They are ambiguous. That is why ethics cannot simply let nature be its guide. Ethics embodies a dimension of defiance of nature, as Schweitzer well understood. Yet, trophic relationships—members of all species feeding on members of other species—do not

allow for a formal right to life of nonhuman individuals. That claim could lead to moral absurdities, such as preventing "bad" predators from feeding on their prey. In this context, the best way to show moral concern for the welfare of species and the maximum possible number of their members is to respect the integrity of nature, by letting species and their members work out their own interactions and adaptations in the struggle for survival, without unwarranted human protections and interventions. This implies the acceptance of the processes of nature's wild, chaotic order, without, for example, moralistic diatribes against "brutal" carnivores, or "taming" initiatives to organize ecosystems into "kinder and gentler" orders. The moral role of humans is not to protect otherkind from their natural foes, but rather to defend them from injustices, of which humans are the only perpetrators.[77]

2. *The right to satisfaction of their basic needs and the opportunity to perform their individual and/or ecosystemic functions* (whether predator or prey, parasite or host, scavenger or decomposer, oxygen- and protein-producer, or whatever). These are among the essential conditions of the welfare of otherkind, the very core of the concept of rights. This right may simply be a specification of the first; if so, it is an important specification. The intention is to say that human respect for nature implies the preservation of the structures of existence, the sources of survival, for the needs of members of species.

3. *The right to healthy and whole habitats.* This right includes both the general condition of the environment (for instance, a pollution-free atmosphere, without acid rain, global warming, and ozone depletion) and the specialized habitats necessary for the survival of their kind (for instance, large tracts of fire-dependent, immature jack pines in central Michigan for the Kirtland's Warbler). The prevention of dehabitation and the promotion of healthy habitats are probably the most effective means of furthering the good of species and their members.

4. *The right to reproduce their own kind.* Genetic reproduction is a vital function of all species—indeed, seemingly the primary goal or urge of some species. It is, of course, the *sine qua non* of species' preservation. Members of wild species should be free to propagate their own kind, without chemical, radioactive, or bioengineered distortions.

5. *The right to fulfill their evolutionary potential with freedom from human-induced extinctions.* Extinctions have been a "normal" part of the evolutionary process. Human-induced extinctions, however, occurring at an unparalleled and appalling pace, can and should be prevented as a matter of justice. Until the end of a species' natural time, it should be free to propagate and develop its evolutionary potential,

which may include growth in its value-experiencing and -creating capacities, or development through mutations and adaptations into new species.

6. *The right to freedom from human cruelty, flagrant abuse, or frivolous use.* This right provides formal moral protection from such practices as recreational hunting (in contrast to subsistence hunting), destroying elephants to make ivory trinkets from their tusks and umbrella stands from their legs, and trapping fur-bearers to provide decorations for the distastefully opulent. The proper treatment of nonhuman creatures is more than a matter of kindness; it is a demand of justice.

7. *The right to redress through human interventions, to restore a semblance of the natural conditions disrupted by human actions.* Paul Taylor calls this process of compensation or reparations to amend wrongs "the principle of restitutive justice": "The perpetrating of a harm calls for the producing of a benefit. The greater the harm, the larger the benefit needed to fulfill the moral obligation."[78] The duty and costs of restoration are owed by all in modern societies, since all have benefitted from the amenities produced through environmental destruction.[79] This right entails managerial interventions. Under optimum conditions of wildness, it is best to adopt a *laissez faire* strategy, to let nature take its course without the dubious benefit of human managers. Previous human disruptions, however, mean that these optimum conditions frequently do not prevail. Interventions are necessary to enable a return to the closest possible approximation of the original natural interactions. Examples of this redress are clean-ups of polluted rivers and bays, the reintroduction of rare raptors through artificial breeding programs, the restoration of strip mines, the regulation of water in the Everglades, and the use of controlled fires to simulate natural conditions essential for the vitality of certain ecosystems like the California chaparral.

8. *The right to a fair share of the goods necessary for the sustainability of one's species.* This right has been implied by several other rights, but it is worth stating on its own. It is a requirement of distributive justice. Determining a fair share, however, is a mind-boggling task. One important guideline is that no species should be deprived of the resources necessary for the *perpetual* sustainability of a viable population. Perpetuality is a critical qualifier of sustainability. Humans can insure the survival of most endangered species with relative ease for fifty to one hundred years, the typical time lines suggested for how far we need to "think ahead." The real challenge—the one that revolutionizes ecological perspective—is perpetuality, providing species with a fair share of the resources necessary to preserve their kind until the end of their natural time. This right is assisted by the maintenance of national and regional parks, wilderness areas, wildlife refuges, and other sanctuaries. The idea of "no net loss" in wetlands and other habitats may be one way to implement this right. In fact, however, we have reached a point in habitat destruction where we must think in terms of net gains to make this right a reality. A "fair share" for all species morally stifles human imperialism.

These rights probably can be supplemented, maybe condensed, and certainly revised. Those outlined here are sufficient, however, to establish my understanding of nonhuman rights and, I hope, to stimulate some profitable debate. If justice is applicable to nonhuman creatures, and if rights are essential to the idea of justice, then Christian ethics has a major task ahead in defining, delineating, and defending biotic rights.

PRIMA FACIE BIOTIC RIGHTS

Rights, however, even human rights generally, are not absolute and inviolable. They are *prima facie* rights, which we have strong reasons for honoring unless we have stronger moral reasons for not doing so. Thus the rights of individual members of species and even large aggregates of them can be overridden when rights conflict and moral claims compete. In rare cases, when no reasonable alternatives exist, and when no disproportionate ecological harm will result, even the deliberate eradication of particular species can be justified to provide vital protections for human health. The case, however, must be exceptionally strong; a "superkilling" requires a "superjustification"[80]—which can and should be made against pathogens and parasites whose basic ecological function is to prey on humans. The guinea worm, the infamous parasite that seriously afflicts millions of Third World residents annually, and against which the World Health Organization has launched a campaign, seems to be a legitimate candidate for this distinction. Several bacteria and viruses also qualify. It must be emphasized, however, that these cases are rare, and require compelling reasons, including the absence of substitute measures. A "nice place for a new mall" will not do.

The relativity of nonhuman rights is critical, because humans, as predatorial consumers in the biosphere, could not survive and exercise their creative potential if nonhuman rights were absolute. In fact, the very concept of nonhuman rights seems absurd unless conceived as *prima*

facie in character. As participants in the midst of the natural tragedy of interspecies competition, humans have limited rights to secure their well-being by destroying other forms of life and their habitats.

Though the rights of nonhuman creatures are not inviolable, neither are they violable with impunity. That would make rights meaningless. Biotic rights can be overridden only for clear moral reasons (just causes) and only within the limitations of proportionality and discrimination. Based on my assumption of a hierarchy of rights and values, the degree of justification for an override would rise in intensity from very slight for microorganisms to very significant for complex mammals.

Among the just causes for annulling the rights of nonhuman creatures, or at least some of them for the sake of others, seem to be the following: (1) the satisfaction of basic human needs (for instance, food, clothing, shelter, and medicine); (2) the realization of valuable human benefits (expressions of human creativity and structures of civilization, like means of transportation and centers of economic exchange—but always within the bounds of frugality and sustainability); (3) the exercise of self-defense against crop-destroying insects, harmful bacteria, urban rats, and marauding mosquitoes (Anyone who has ever tried to hike the Snake Bight Trail in the Everglades on a muggy August morn understands this last reference!); (4) the control of the population of prolific species—especially ecological aliens—to prevent them from exceeding the carrying capacities of their environments; (5) the special protection of rare, endangered, or vulnerable species or subspecies from their natural competitors and predators;[81] and (6) the protection of ecologically essential species, including certain soil microorganisms, to maintain, for instance, the viability of given food chains.

Even when a just cause exists, however, other moral constraints are essential to minimize harm to nonhuman creatures. Otherwise, for example, it is possible to justify excessive means for worthwhile ends, like insecticiding or filling a swamp, rather than screening the windows, to provide protection from the nightly nuisance of mosquitoes. Thus the principles of proportionality and discrimination—dominant criteria in the just war theory (conflated here)—are also critical instruments of justice in an ecological context.

Proportionality counsels us that harm to other creatures and their habitats is justified only when necessary (the "last resort," absence of substitutes, or only reasonable alternative), only to the extent necessary (minimal harm or the economic use of destructive means), and only if the values—social and ecological—realized in the achievement of an end outweigh the inevitable losses resulting from destructive means.

The principle of discrimination adds that destructive acts should be focused or targeted on intended objectives, rather than dispersed or generalized, so that harm to "innocent bystanders" or unintended side effects are prevented or minimized. This principle raises serious questions, for example, about the widespread use of chemical pesticides, which frequently are indiscriminate, destroying "beneficial" insects and birds along with the "pests" that are the objects of the attack.

Interpreting nonhuman rights as *prima facie* in character is necessary but precarious. This approach leads to no fixed conclusions when claims conflict. Moral judgments can differ for many legitimate reasons, including disputes about the "facts" or the moral significance of the "facts." Moreover, this approach can sometimes be followed formally to rationalize some ecologically mournful consequences, like destroying the habitat of a species or subspecies for some ignoble or allegedly noble end or private economic gain. That is why the spirit of the laws is what finally counts. And for Christian ethics, the spirit is the total meaning of love in an ecological context. In complex cases, that spirit not only places the burden of proof on the proponents of overrides of nonhuman rights, but it also gives the benefit of the doubt to the rights of nonhuman creatures.

CONCLUSION

A biocentric-ecocentric ethic inevitably will be interpreted by many as an eccentric ethic. Some will see it as excessive sentimentality. I prefer to describe it as essential sensitivity. Yet, after the pejoratives and euphemisms, the bottom line remains: what does Christian love demand of us in defining our responsibilities to and ordering our relationships with our neighbors in nature? I believe that concepts of justice and rights are fundamental elements in answering this question, but I have no illusions that I have resolved the problems or concluded the debate. The question remains as a critical challenge to Christian ethics—one that has potentially revolutionary consequences and one that can no longer be ignored in an age of ecological crisis.

Moral entitlements, however, have comparatively little functional value unless they are also social entitlements—unless they are structured in the ethos, policies, and laws of human communities. What, then, are the implications of the foregoing conceptions of love and justice in an ecological context for new directions in public policies for the nineties and beyond? That is the basic question for the last chapter.

CHAPTER EIGHT

POLITICAL DIRECTIONS FOR ECOLOGICAL INTEGRITY

POLITICS IN ETHICAL PERSPECTIVE

From an ethical perspective, politics is much more than the art of the possible; it is an essential means for realizing the desirable. In other words, politics is not only about the mastery of the methods of power—though that dimension cannot be dismissed as morally disdainful. More important, politics is about the responsible use of power to bring ethical goals like justice to fruition. Ethically, politics is the way that a pluralistic society ought to govern itself in order to insure that all parties in conflict have a say in decisions, to conciliate rival interests, and to advance social peace and justice. It is a means not only of controlling social evils, but also of promoting the general welfare. The essential moral problem is *not* the *presence* of politics in society, but rather its absence or perversion—when, for instance, the bulk of the people (as in totalitarianism) or particular segments of the populace (as in historic racism and sexism in the United States) are excluded from participation in public decision-making or sharing in social benefits. They are thus pushed into resistance or rebellion, prime signs of the breakdown of politics.[1]

Understood in this sense, politics is an ethical enterprise that no responsible individual or institution can ignore or denigrate. That may be especially true for Christians and their churches. Those Christians who draw a sharp distinction between a personal and social gospel, who argue that the role of the church is the conversion of individuals rather than the reformation of society, imply by their rhetoric and behavior not only that the arena of politics is irrelevant to the concerns of faith

but also that the gospel is irrelevant to the decisions of politics. Such an insulation of the Christian religion from politics is theologically indefensible. It is a functional denial of the sovereignty of God in Christ and the ubiquitous involvement of the Spirit.

The gospel relates to *all* creatures and it applies in *all* situations—personal, ecclesial, social, and ecological. The gospel rejects all forms of moral parochialism. The tradition insists that Christ cannot be compartmentalized, locked in some docetic closet. The God known in Christ is central in individual "spiritual" lives, but also is sovereign over the social, economic, and political realms. This God comforts the afflicted, hears prayers, converts minds, and compels proclamation. However, this God is also *political,* blessing the peacemakers, intervening in the affairs of governments and nations, and liberating slaves from the shackles of pharaoh. To be in communion with God the Politician, this "lover of justice" and "Prince of Peace," is to struggle to deliver the community of earth from all manner of evil—private *and* public, personal *and* social, cultural *and* ecological, spiritual *and* material. The sovereign God bans all boundaries on benevolence.

In our complex and technical world, economic and political systems powerfully affect the lives of all of us—too frequently benefiting the "haves" and harming the "have-nots." The regional and national capitals of our world are the scenes where the destinies of billions of humans and millions of species will be determined. Humans are by nature ecological and political animals, inseparably bound together in a web of biological and communal relationships. These entanglements are our true "original position," and they are enhanced in mass societies. Thus, if Christian churches are committed to feeding the hungry, clothing the naked, healing the sick, setting at liberty the oppressed, challenging the powers that be, and exalting those of low degree (all of which characterized the ministry of Jesus and, therefore, ought to characterize the ministry of the apostolic church, according to the Magnificat of Mary and Jesus' reading from Isaiah in the Temple), the churches dare not ignore the political and economic contexts of these concerns. Every political issue that affects biospheric welfare—whether it be the nuclear arms race or the unemployment rate, starvation or pollution, racism or extinctions—is simultaneously a moral and spiritual concern, and, therefore, a challenge to love. If we are to deal with social causes and not merely individual symptoms, these issues in their political settings must be items on the agenda of a truly catholic, evangelical, and reformed church.

The Christian church, therefore, cannot make any theologically

phony distinctions between personal rebirth and social reform. It is called to proclaim and live the whole gospel, not some expurgated version of it, in loyalty to the Christ who seeks to minister through all humanity and in all contexts to all the needs and rights of all creatures. Love, therefore, demands the pursuit of justice, peace, and ecological integrity in the realm of politics. Indeed, politics is a critical context for the expression of Christian love.

On these assumptions, this chapter is an effort to spell out some of the major political directions for ecological integrity, directions that are consistent with Christian theology and ethics and that are especially important in the light of the character of the ecological crisis. The emphasis is on the political ends rather than the specific strategies or policies to effect these ends. Some might call these directions "middle axioms," the connecting links between theological-ethical norms and concrete policies like laws and regulations. That term is not wildly popular today, but I think the concept behind it is valid: we need guidelines that embody the somewhat lofty norms of Christian ethics and yet are relevant to the ecological crisis in our time. They are not necessarily absolute, relevant for all times, though they may be. They are not sufficient—specific moral judgments are also important—but they seem necessary. Whatever name is given to these directions, they are not retreats into irrelevant generalities or abstractions.[2] They are *means of guiding us in designing and assessing specific answers to concrete problems* in ways that promote the "best possible" approximation of Christian norms.

Three qualifications of these political directions, however, are necessary.

First, I am concentrating on *political* responsibilities, not only because of my personal interests, but also because these responsibilities often get shortchanged in Christian circles. Value and life-style changes usually receive prime attention. One can find a host of helpful resources on personal changes—50, 75, 101, and 750 things you can do to save our planet.[3] Yet, without political initiatives and reforms, these life-style corrections may serve little more than therapeutic functions, making the practitioners "feel good" or righteous. The political process is the only place where the rules of relationships for a given society are officially established and where sufficient power might be mustered to match the current scale of the ecological crisis. An apolitical posture on contemporary ecological concerns, therefore, is righteous irrelevance.

I am certainly not suggesting, however, that changes in personal

values and life-styles and in the social ethos are insignificant or secondary. Ecological conversions of individuals and communities are essential, and they often start with "ecotrivia." In fact, these conversions are generally the root cause of political transformations. Without the prodding, pressuring, and persuading of the official actors in the political process by reform-minded citizens and their organizations, political change is not likely. Moreover, without the voluntary compliance of most citizens on most occasions to laws and regulations perceived as generally reasonable, political decisions would have little public impact.

Equally, however, politically created laws and regulations can have transformative effects, not only on *behavior* through enforcement procedures, but also on public *values* and *attitudes*. Laws against discrimination, for example, have sometimes reduced prejudices. Political changes can even impel technological innovations. When a resistant Detroit was forced in the seventies to comply with stricter auto emission standards, which it argued were economically ruinous and technologically unfeasible, the auto manufacturers somehow managed to produce the catalytic converter and celebrated their new-found commitment to clean air.[4] In effect, laws and regulations themselves can function as catalytic converters of values and behavioral patterns. Thus the relationships between consent and coercion—between personal values and a social ethos, on the one hand, and political mandates, on the other—are complex and dialectical. Both are necessary; neither is sufficient without the other.

Second, my reason for focusing on directions or guidelines is not ideological but strictly practical: I am simply trying to manage an awesome volume of complex concreteness, and not suggesting that Christians and their churches should be similarly restricted in their political advocacy. Legislative and regulatory proposals for ecological protection are abundant, reflecting the breadth and depth of the crisis. For example, *Blueprint for the Environment*, a comprehensive product of twenty major environmental organizations, contains 511 proposals for Federal action alone[5]—and the vast majority of these proposals seems morally important. I could not even contemplate making a moral evaluation of more than a handful of these proposals, and that approach would, in fact, defeat my broader purpose. Yet, political action by Christians and their churches requires involvement in selected specifics.

The process of specificity does entail some risks for the churches. No straight line can be drawn from theology and ethics to public policy.

Too many factual disputes, judgment calls, value conflicts, moral dilemmas, uncomfortable compromises, and unholy alliances block the way. The translation of Christian faith into moral norms and then into prudential laws and regulations is a complex and ambiguous process, and that translation becomes more tenuous with each step toward specificity. Consequently, Christian political activity must be tempered by the realization that no political posture, party, or platform can adequately represent a Christian ideal. On most political issues—though I can never say all, since some stances seem clearly compatible or incompatible with Christian norms—contrary positions among Christians are "ethically possible." Christians, therefore, must be aggressively alert to the dangers of the political captivity of the churches and to the relaxation of the critical tension between religious ideals and their ambiguous embodiments in the necessary compromises of politics.

Nevertheless, Christians and their churches must still take the risks of specificity in order to avoid political ineffectiveness and irrelevance. Specificity is "where the action is" politically. To those who argue that the churches should stick to the articulation of moral principles in order to avoid the risk of tarnishing the image of the faith with error or exceeding the bounds of their competency, Roy Enquist makes a telling response:

> Since the church, at its base, stands or falls on God's willingness to justify the ungodly, it is mistaken to demand that impeccability be a requirement for ethical witness. Perfectionism is no more appropriate in the shaping of social teaching than in any other churchly activity. It is the unwillingness to attempt to speak a concrete Word of the Lord in our time of moral squalor, rather than the inability to do it perfectly, that renders the community's witness suspect.[6]

Thus my focus on political directions is not a tacit counsel for the churches to avoid political specifics, but rather an effort to suggest guidelines for Christians and their churches in structuring and evaluating these specifics.

Finally, this effort to link Christian theology and ethics to public policy does not imply the "Christianization of the social order." I am not suggesting any uniquely Christian solutions to the ecological crisis, let alone any impositions of peculiar Christian moral perspectives on the state. The state is the instrument of society, not an extension of the church. Rather, I am proposing a Christian basis for seeking solutions

with others on whatever common moral grounds we can find and in whatever alliances are feasible. That, after all, is the nature of politics. In a pluralistic context (and what modern society isn't?), the church must justify its public stances on public, rational grounds. That raises many complicated questions for Christian ethics that cannot be discussed here.[7] Yet, the evidence seems to indicate that Christians will find—indeed, have found—common grounds for political action with a host of allies. The ecological objectives of many environmental organizations, for example, are usually compatible with Christian theological and ethical formulations—indeed, to a far fuller extent than the positions of the churches themselves have often been. This compatibility should not be greatly surprising. Not only are many "secular" environmentalists proposing solutions that are reasonable responses to the nature of the problems, but they, too, are the beneficiaries of divine proddings. According to classical Christian theology, the Spirit of God pervades the cosmos, renewing, reconciling, and enlightening the peoples of all nations and ultimate convictions.

With these qualifications in mind, what political goals should Christians pursue in their quest for ecological integrity? What features should characterize the legislation, regulations, and policies that Christians support in their efforts to relate Christian theology and ethics to the ecological crisis? The following directions are certainly not exhaustive, but they seem to me to be the most critically important now.

RESOLVING THE ECONOMICS-ECOLOGY DILEMMA

An ecologically sound and morally responsible public policy must continually resolve the economics-ecology dilemma.

The dilemma is real. It is not simply a myth concocted by the greed of robber barons. It is part of an ancient problem, the conflict between the conservation and consumption of resources. Probably every generation and culture of sufficient technical means have faced the dilemma, when human needs and aspirations have exceeded ecological possibilities. It is now a ubiquitous problem of unprecedented proportions as a growing population armed with sophisticated technology creates widespread ecological havoc. As noted in chapter 2, the dilemma is evident in every dimension of the crisis, from the toleration of toxins to the destruction of wild habitats, usually in the name of economic necessity. The northern spotted owl versus the

loggers of the Pacific Northwest is an oversimplified symbol—since the issue is saving a whole ecosystem[8]—of a problem that exists in countless locales, from the rain forests in Brazil to the coke ovens in Clairton, Pennsylvania. Economics and ecology cannot be compartmentalized. They interpenetrate and confront us with ethical dilemmas.

Probably every act of ecological protection has some economic consequences, good and bad. The negative effects are usually exaggerated, sometimes wildly exaggerated, by those who will endure economic liabilities. Nonetheless, these effects are often real. It is deceptive, even if politically palatable, to pretend otherwise. The negative effects for particular enterprises may include job losses, profit losses, plant closures, reductions in competitive status, higher costs, technological renovations, and community dislocations—not to mention buffeted politicians. True, for instance, the Clean Air Act of 1990 probably will reduce employment in the higher-sulfur coal industry and increase electricity costs. Protecting old-growth forests may force some loggers to search for alternative jobs, just as the banning of DDT and restrictions against excessive catches by commercial fisheries have had similar effects. But these liabilities may, and often do, have offsetting economic benefits for society. The demand for ecological soundness may stimulate new commercial opportunities, new technologies, and new jobs. Thus environmental protection is expected to be a growth industry in the upcoming decades, and investments are rising in corporations that, for example, specialize in recycling and pollution-prevention devices like coal scrubbers.

These potential consequences must be seen in a broader perspective. The fact is that similar economic disruptions occur daily in market economies as a result of "normal" competitive interactions. They are not peculiar consequences of ecological protection. Technological innovations, for instance, are a main factor in economic change, and their negative effects are generally considered the "price of progress." The advent of the automobile, for instance, certainly had an adverse effect on horsetraders and blacksmiths. Similar economic consequences—good and ill—can be cited for nearly every other technological innovation, from can openers to computers. The argument for destroying ecosystems in order to maintain economic security or expand economic development in a given setting is really an argument for economic inertia, when economic transitions and dislocations are the standard expectations in the ordinary course of modern, particularly market, economies. Ecological protection cannot be dismissed simply as an economic liability. It offers values—including

some long-term economic benefits for the whole society—to which economic enterprises must adapt, just as they expect to do to other socioeconomic changes, from child labor laws to technological innovations.

Yet, this argument is not an excuse for doing nothing. Letting the mechanisms of the market take their course is part of the classical callousness of unreconstructed capitalism. Whatever the cause, unemployment can mean physical deprivation and psychological trauma, while mill closures, particularly in one-industry towns, can be destructive of communal ties and public revenues. Whether the cause of the problem is ecological protection or any other economic disruption, government interventions are usually necessary to ease these pains and enable effective transitions. Imaginative and sensitive strategies are critical. These include not only the standardized unemployment insurance, but also counseling, job retraining, employment assistance, economic incentives to attract new enterprises, and regulations to ensure fairness to workers in unavoidable plant closures. These strategies are a part of what it means to resolve the economics-ecology dilemma in microcosmic settings.

The dilemma, however, is also macrocosmic. It is a systemic problem that revolves around the ideology of economic growth. No technical correctives will resolve this dilemma!

Growth-mania is a prime tenet of the North American economic faith. It is a bipartisan commitment, almost an imperative of patriotism. Indeed, internationally, economic growth has become for many nations an obsession that unites capitalism, socialism, and mixed economic ideologies. Allegedly, the perpetual expansion of production and consumption is necessary for progress and prosperity—measured quantitatively in GNP, counting even the losses of ecological "capital" in natural resources as assets, rather than deducting them as liabilities—to satisfy the insatiable wants of consumers, and to provide employment opportunities for an expanding population.

The growth system, however, is morally ambiguous. Just as Edmund Burke did "not know the method of drawing up an indictment against a whole people," so I do not know how to draw up a full-scale indictment against economic growth. But neither can I give a wholesale exoneration. In the North American context, the market method of economic growth offers us a mixed assortment of blessings and curses.

On the positive side, growth has fostered some important—in some cases, indispensable—values: profits as incentives to energize the system; jobs in the tens of millions; a multitude of goods and services;

capital for investments and improvements; tax revenues for government programs, including ecological protection; creativity and technological innovations, some of which are environmentally beneficial; and philanthropic benefits that have strengthened voluntary associations, including churches.

Negatively, the capitalistic growth system has some glaring deficiencies. It is not designed to satisfy the needs of the poor and the powerless. Thus millions suffer in the absence of adequate government interventions and assistance. Wealth is severely maldistributed: unemployment and underemployment remain high while the economic elect luxuriate in profligate consumption, capable literally of stifling reform by "buying" elections and votes. Moreover, even the fans of the system agree that it caters to "marketing hedonism," responding to and creating every conceivable desire of people, no matter how "bizarre or ignoble," in order to provide goods and services to meet these demands.[9] "Born to Shop" is the bumper sticker-motto of the human product of this process. The system is generally microcosmically efficient as individual suppliers seek to cut their costs for competitive purposes, but it is macrocosmically inefficient as the total economic product incorporates a wealth of waste and irrelevancies to human welfare.

Most important for our present purposes, economic growth is a major factor in destroying the ecosystems on which the well-being of social and economic systems ultimately depends. Unrestrained production and consumption are key factors in the excessive exploitation and toxication of the renewable and nonrenewable gifts of nature.

The ideology of economic growth tends to assume the indestructibility and inexhaustibility of the products and capacities of nature. This assumption makes this ideology a *utopian illusion*! It ignores the ecological reality of limits and is, therefore, ecologically and economically unrealistic. Unbridled economic growth is eventually destructive of the conditions for economic health. Economic systems—indeed, all social systems—cannot be sustained unless environmental systems are sustained, because human welfare depends on the productivity and integrity of the natural world. Our dilemma is that we want contradictory goals: economic growth and ecological sustainability. Increasingly, it appears that the nations cannot sustain both. One of the "laws of nature" is that human activities must stay within the bounds of nature.

Economic conversion to ecological sustainability, then, appears to be

a social, economic, and ecological necessity. Though some forms of economic development are ecologically neutral or "friendly"—various services and "soft" (renewable and decentralized) technologies, for example—and should continue,[10] our nation can neither tolerate nor survive the indiscriminate material development that has characterized the "American way of life." We need alternatives, and they should be grounded on the ecological virtues outlined in chapter 2. Practically, these alternatives include simpler life-styles, vigorous conservation of energy and other resources, comprehensive recycling, sufficient regulations, polluter-pays penalties, sustainable biodiversity, international cooperation, and the equitable sharing of economic goods.

One option that needs to be explored seriously is the steady-state economy or "ecological economics"[11] long associated with economist Herman Daly. Daly's complex package, recently restated with John Cobb, emphasizes "sustainable development" as opposed to economic growth, growth in human well-being rather than material productivity, persons-in-community rather than radical individualism, progressive (and "pro-business") taxation, "limited inequality" between rich and poor, "soft" (renewable and decentralized) energy paths, provisions for public control of population, decentralization of political and economic power, relative self-sufficiency of nations and regions rather than competition in the international growth race, and international cooperation.[12]

The steady-state model has been rejected by most conservative and liberal economists, from Julian Simon[13] to Lester Thurow.[14] I personally have serious reservations about some elements of Daly's plan, for instance, the proposals on population control and national self-sufficiency. I doubt that the latter is desirable in a context of globalization; moreover, the extent of decentralization in Daly seems at one point at least to suggest balkanization.[15] Nevertheless, Daly's basic model may be technically feasible, and it seems generally compatible with traditional Christian norms for economic life.

A major issue, however, is whether this model is psychologically and politically possible in the foreseeable future. It is clearly "not possible" now. Resistance would be massive. Yet, unpredictable and critical circumstances can radically shift public attitudes and political behavior, as recent events in Germany, Eastern Europe, and the Soviet republics forcefully remind us. Realism now must allow for potentialities previously declared unrealistic. In any case, some version of the steady-state model seems to be the only potentially realistic means of resolving the economics-ecology dilemma. If so, a major challenge to

the churches for the immediate decades will be to form an alternative model to North America's present brand of economic growth. We need a model that enables both the sustainability of a sound and fair economy *and* the integrity of the ecosphere, one that truly represents an "ecological economics."

Yet, the major moral problem with a strategy of economic equilibrium is that it seemingly cannot be applied globally at present. The model fits well the situation of overdeveloped nations with their excessive production and consumption, but it does not fit the situation of impoverished nations. The Third World countries need quantitatively increased material productivity—economic growth—in order to satisfy their citizens' basic needs for food, energy, health care, housing, education, and transportation. Opposition to growth in this context is a formula for the persistence of poverty.

Thus a new concept has emerged from the World Commission for Environment and Development to resolve the economics-ecology dilemma under conditions of mass poverty: "sustainable development."[16] This concept has become the current slogan in some environmental circles. Others, however, see it as vague and contradictory,[17]—and not without plenty of justification, since the World Commission itself seems to equivocate in its perspectives on growth, alternately offering lauds and alarms. Unlike Daly and Cobb, moreover, the Commission does not distinguish between growth and development—the former being quantitative and unsustainable, while the latter may be sustainable, since it is qualitative improvement without necessarily being quantitative.[18]

Yet, the concept of sustainable development still seems to be an accurate reflection of a critical dilemma and an important synthesis of two imperatives in tension. Poor nations need development, and that almost certainly includes sufficient quantitative productivity or economic growth. But they also need sustainability, living within the bounds of the regenerative, absorptive, and carrying capacities of their regions. These twin objectives will require a virtual revolution in energy efficiency, soft energy paths, ecologically suitable technology, pollution controls, recycling, renewable resource stewardship, income redistribution, population controls, and the protection of biodiversity. These are the very same requirements of the First World, but with the added complication of starting from a much lower base. The issue is not economic development per se, but the kind or quality of development.

None of this takes the United States and other affluent nations off

the hook. Resolving the economics-ecology dilemma in the Third World will be difficult. But it may be impossible without major economic and technical assistance from the First World, and especially limits on our production, consumption, and accumulation in order to enable the material conditions for sustainable development globally. It would be ecologically disastrous, most environmentalists agree, for the rest of the world to reach our contemporary North American standards of living. Equally, it would be ethically intolerable to argue that they should not do so while we continue to extend our patterns of economic "normalcy." Charges of racism, classism, elitism, parasitism, and whatever else would be justified in this instance. From a Christian perspective of global solidarity and equality of human value, this situation implies limits to growth for the affluent and economic sharing with the poor.

This situation also requires a major redefinition of human needs and wants in relation to "quality of life." As long as humans are defined economically—and often ethically—as the Grand Acquisitors, motivated by insatiable wants, the prospects for frugality and limits on prosperity are not promising. However, this interpretation of human nature corresponds with neither empirical data nor Christian norms. Humans are far more than consumers, and they *do* have the moral capacities to control and distribute consumption. On this assumption, a critical question that the prosperous must ask is: how much is enough in quantity to sustain a high quality of life *and* to ensure that others, present and future, have the same opportunity? With a long though often neglected tradition of preaching frugality, the churches can be helpful in this redefinition of material adequacy.

REGULATORY SUFFICIENCY

An ecologically sound and morally responsible public policy will include public regulations that are sufficient to match social and ecological needs.

Whatever posture on economic growth finally prevails, the resolution of economics-ecology dilemmas will require stronger public regulations and enforcement procedures. This need includes not only regional and national rules, but also, in a context of global interdependence, international treaties and codes of conduct to control, for example, abuses by multinational corporations.

As much as we might wish otherwise, self-regulation and market competition, while indispensably valuable, are insufficient to provide

adequate environmental protection. Otherwise, the probability is too high that greed and other economically motivated behavior—even if exhibited only by a small minority—will lead to environmental depradations. In fact, the pressures of competition, which encourage cost-cutting to undersell competitors and maximize profits in market economies, can function as incentives for environmental harm in order to increase competitive advantages. In this context, regulations on both national and international levels can help ensure fair competition, forcing all participants to play by the same rules or pay the penalties.

These rules can take various forms—prohibitions, incentives, consumption and production limits, graduated tax penalties, emission fees, licenses and other user fees. All of these and more exist plenteously now, and the bulk of them we accept as reasonable. In theory, public regulations can cover every aspect of the ecological crisis, from the size of cars to the size of families, from CFC bans to hunting licenses—though certainly not all proposals are wise, enforceable, or just. Public controls establish the boundaries of production, consumption, accumulation, competition, and distribution. They can be important political means of protecting our environmental rights by restraining the self-seeking powers of sin.

Considering the severity of the ecological crisis and the role of many economic enterprises in contributing to that crisis, the persistent voices calling in principle for deregulation or minimal regulation of industry and agriculture seem strangely discordant with reality. These appeals appear to be rooted in classical or neoclassical economic theories that regard economic institutions as almost independent of the social matrix of accountability. In these views, economic enterprises should be generally left alone—so long as minimal rules of fair competition are respected—to fulfill their prime or sole responsibility: the maximization of profits for their owners or stockholders, which will also allegedly maximize the latent social functions of employment and productivity. The trajectory of this economic—as well as ethical—theory is that public regulations are generally bad for business and society. Environmental protection regulations allegedly hinder businesses in pursuing their proper objectives. That's not their department, unless economic incentives are available. The tasks of cleaning up and paying for the externalities belong to other sectors of a segmented society.

It would be grossly unfair to suggest that these ideas are anywhere close to universal among contemporary economic entrepreneurs and theoreticians. The social responsibility of economic institutions is widely proclaimed today, partly from internal values and partly in

response to consumer demand. Yet, these classical ideas remain widespread. Many entrepreneurs seem quite content to have economic benefits privatized and the costs socialized.[19] The result is often not capitalism but a corporate welfare system. This dynamic is scandalously evident in the sale—at far below market costs—of water, timber, grazing privileges, and mineral rights on many federal lands in the United States.

Against this almost isolationistic conception of the economy, a social solidarity interpretation argues that economic enterprises, like all other institutions, are part of a complex web of interdependent relationships that constitute a given society. They affect and are affected by every other component. They are dependent on the acceptance of the society for their existence, manner of operations, modes of distributing benefits and costs, and level of profitability, while the rest of the society depends on them for productivity and other material contributions to the well-being of the whole. Businesses, therefore, have social responsibilities precisely because they exist in social relationships that impose broad requirements for order and justice. When businesses fail to fulfill their responsibilities, governments—as the instruments of order and justice for the relevant wholes—have the duty to intervene to protect the common good. These governmental responsibilities may include, if social and ecological needs warrant, bans on products and by-products, limits on production and consumption, mandates on distribution, and appropriate penalties.

Economic enterprises and systems can be evaluated economically on the basis of their productivity and profitability, but they should also be evaluated socially and ecologically on the basis of their contributions and harms to the well-being of humans and other species in our interdependent relationships.

On a social solidarity view, the regulatory function of government should be judged not on some ideologically tainted assumptions that oppose or favor regulations in general. Rather, decisions about particular regulations depend on contextual and prudential considerations (and conflicting values inevitably enter these complex debates). Whether or not "there oughta be a law" depends on questions like the following: Is a regulation valuable or necessary to serve a given social or ecological need? What form should the regulation take? Can the goal be achieved by less coercive means? What are the benefits and liabilities of different types of regulations for all the parties with stakes in the outcome, including nonhuman species? Are the effects

economically regressive or otherwise discriminatory toward the poor (like high user fees or consumer taxes)? Does the regulation discriminate unfairly against small or large enterprises? What adjustments or compensations are necessary to eliminate or reduce discriminatory effects? What will be the economic effects, for instance, on inflation, competition, productivity, and employment? Can the regulation be enforced adequately? Will adequate funding for enforcement be available? Are the potential enforcers sufficiently competent and honest, and can they be kept accountable to the public? At what level, branch, or agency of government should the regulatory powers reside?

Obviously, decisions for or against particular regulations are not easy. Errors are inevitable. Some current or proposed regulations are unnecessary and some are plainly wrong, but opposition to public regulations or types of regulations in general or on principle seems to be no less so. I see no compelling reason, for instance, why moral preference should be given to economic incentives over other forms of regulation.[20] That judgment strikes me as rigid or ideological. Economic incentives, like some tax benefits for reducing pollution, can sometimes be unfair to the public, especially to those whose income is insufficient to be benefited.[21] Sometimes bluntly prohibitive and heavily punitive measures are the only tolerable responses to blatant abuses. The necessity, type, and extent of public regulations are best determined contextually and prudentially in moral struggles with the above questions.

Environmental regulations have provided many important protections against ecological abuses. Many more such regulations will almost certainly be necessary in the coming years. The continuing task of environmental advocates will be to insure not only that particular regulations are effective, efficient, and just, but also that the total package of public regulations is sufficient to preserve social and ecological integrity.

RESPONSIBILITIES TO FUTURE GENERATIONS

An ecologically sound and morally responsible public policy will protect the interests of future generations.

The ecological crisis has brought to the fore the question of responsibility to future generations. That is the essence of the virtue of sustainability. The tragedy of the crisis is not only the damage done in

the present, but also the harm caused to future generations—if, indeed, our generation will allow them the opportunity to exist. The vital interests of coming generations in a healthy and whole habitat are being sacrificed partly for the present gratifications and glorifications of the affluent. Our age is living beyond its means, receiving dubious benefits from exceeding the regenerative, absorptive, and carrying capacities of the planet, while future generations, if any, will bear most of the human risks and costs. Yet, much of the moral force behind ecological concerns dissipates if the present has no responsibility for the future. Sustainability, for example, ceases to be an ecological virtue unless intergenerational justice is assumed. Ecological ethics and politics, therefore, depend on the moral validity of responsibility to future generations.

"What Has Posterity Ever Done for Me?" Robert Heilbroner asked rhetorically in a famous essay that critiqued and mourned the intergenerational indifference of the Me and Now Generation.[22] This egoistic posture is probably not subject to rational discourse, or maybe even therapy. But more serious questions also have been raised about responsibilities to the future, and these require a response. Some, for example, deny or downgrade responsibilities to future generations mainly on the grounds that we cannot know enough about their needs and preferences to exercise responsibilities, or we can owe no obligation to nonentities that have no interests, and, therefore, no rights.[23] These difficulties seem to me to be exaggerated concerns, reflecting more the inadequacies of ethical conceptualization than dilemmas of allocation.

True, we cannot predict very much about the precise needs and preferences of distant generations, but we can know with reasonable certainty what will in general be beneficial and harmful to them. We can know the functions though not the forms of their needs. Since they will be our biological heirs and relational creatures, their optimal needs will include a healthy biosphere, ample resources, unpoisoned foods, and a sustainable population. The similarities between them and us will far outweigh the differences.[24] Our ignorance about the future is far less than sufficient (and is virtually nonexistent for near generations) to serve as a reason or rationalization for denying ecological responsibilities.

True also, future generations do not yet exist. But they *will* exist, unless human-induced or ecospheric calamities eliminate the conditions necessary for their existence. Their existence can be reasonably anticipated—and any ethic that respects consequences must be

structured on the basis of reasonable anticipations. This high probability of their existence is a sufficient ground for affirming rights and responsibilities. Future generations can be said to have *anticipatory rights*, and every present generation, therefore, has *anticipatory obligations*.[25] Though they exist for us only in an anticipatory sense, we certainly "will have existed for them"[26] in a real and dependent sense. They depend on us for their biological and cultural heritage, which they in turn will pass on to their immediate successors. We have obligations to them precisely because what we are and do will have profound effects on them for good or ill. They are part of our moral community because relationships and, therefore, responsibilities extend not only in space but in time, in "a chain of obligation that is passed from one generation to another."[27] We have met the future and it is an extension of us, just as the genetic and cultural heritage of the past, with whatever novelty each generation adds, is perpetuated in the present. On these assumptions, discounting future interests may be a useful device in economics for calculating depreciation, but it is a euphemism for stealing from the future when translated surreptitiously, as it often is, into a moral norm.[28]

These issues have not been controversial ones in Christian theology and ethics. Christianity generally has assumed the legitimacy of intergenerational justice. Just as we have moral duties to strangers in remote lands, so we have similar duties to future strangers in remote times.[29] God's covenant is with you and "your offspring forever" (Gen. 13:15). Moral responsibilities apply not only to our children and grandchildren and not only to the seventh generation, as some contemporary environmentalists argue myopically, since even the problems of plutonium wastes and the potential extinctions of many declining species can be safely ignored if we think only in such short terms. Rather, they apply to the children and grandchildren of every generation in perpetuity, until the end of the age.

Our responsibilities to both present and future generations, however, can lead to some difficult dilemmas. For instance, providing adequate nutrition to a hungry world is a moral necessity, but doing so by methods that increase soil erosion and toxication and thereby decrease long-term productivity will be a moral tragedy for the future. Certainly, the present generation should not be sacrificed for a better future, since we are the only generation that can help the people of our time. Equally, future generations should not be sacrificed for the present one. The real moral challenge is to prevent such intolerable choices. Indeed, the dilemma may often be a false one. In some key

respects, behavioral patterns—like sustainability and frugality—that will benefit future generations will also benefit the present one.

What then are some ecological responsibilities to future generations that should be embodied in all contemporary public policies? They can be described in several overlapping rules or principles:

1) Do nothing that could jeopardize the opportunity for future generations to come into being.[30] This rule suggests, for example, the urgency of eliminating nuclear weapons.
2) Do nothing that could deprive future generations of the ecological conditions necessary for their fundamental rights to "a just, sustainable, and participatory society."[31] Inadequate policies for limiting population growth seem to be a serious violation of this responsibility.
3) Leave the ecosphere to its successors in as healthy a state as it was received, so that future generations will have relatively equal opportunities to the present one.[32] This responsibility might require, for instance, major clean-ups of synthetic chemicals, and acid rain, and reduction of carbon dioxide.
4) Going a step further, in the light of the church's role in anticipating the Reign of God, seek not only to maintain the status quo but to enhance the condition of the biosphere by cleaning up even the messes that our forebears left behind. The expansion of wildlife habitat is one possible example of this responsibility.
5) Use no more than our "fair share" of nonrenewable resources like fossil fuels and minerals, or provide reparations. This rule, of course, is dysfunctionally vague, but it is intended as a standard of frugality and redress. Excessive depletions of nonrenewables should be "counterbalanced by the devising of new techniques so that succeeding generations have opportunities matching those of their predecessors."[33] The compulsive overuse of fossil fuels in our generation, then, would seem to require not only a new conservation but also the compensatory development of ecologically friendly technologies, like solar energy.
6) Avoid ecologically irreversible actions. Just as the present generation cannot be sacrificed for a better future, so future generations should not be endangered or deprived irreversibly for the sake of the benefits to some in the present generation.[34] This criterion seems to provide a compelling argument against human-induced extinctions, global warming, ozone depletion,

and nuclear energy. We need to allow room for future generations to remedy our errors.

7) In summary, live sustainably, within the bounds of the regenerative, absorptive, and carrying capacities of the earth, so that all future generations can also do so indefinitely.

In creating and assessing public policy, Christians must be a voice for the unrepresented—future generations. Indeed, Christians should be advocates of an expanded concept of political representation in our time: the constituents of public officials include every generation, past, present, and future. We and our representatives are trustees or stewards for the future. This concept is hardly new in political history. Political communities have nearly always regarded their existence and responsibilities as historically continuous. What is tragically new is a biologically, politically, and culturally indefensible generational isolationism.

THE GUARDIANSHIP OF BIODIVERSITY

An ecologically sound and ethically responsible public policy will provide protection for nonhuman species, ensuring the conditions necessary for their perpetuation and ongoing evolution.

This role of guardian of biodiversity is for Christians an expression of genuine "dominion," in respect for our spiritual and biological kinship and connections with other creatures, in acknowledgment of their intrinsic value, and in fidelity to the biocentric valuations of God. Otherkind are entitled to freedom from the sin of human-induced extinctions and dangerous reductions in numbers and populations. This nonhuman right entails human responsibilities to prevent these consequences to the maximum extent possible. The guardianship of biodiversity is empowered by humility: the whole of nature cannot be defined by human purposes and wants. It has its own integrity under God that defies human arrogance and demands human respect and protection.

What does this role mean in terms of political objectives? Because nonhuman species are threatened by every dimension of the ecological crisis, the political defense of biodiversity must be similarly comprehensive. It means, for instance, provisions for clean air, clean water, and clean soil, as well as the prevention of global warming and ozone

depletion. It means controlling the anthropocentric imperialism manifested in human overpopulation and overdevelopment.

The political defense of biodiversity means, moreover, additional controls on bioengineering through public regulations and oversight. Other species are not simply machines to be redesigned. These life forms are the bearers of millions of years of evolutionary adaptations in accord with divine intentions. From a Christian perspective, that reality seems to place a strong burden of proof, a need for compelling justifications, on bioengineering proposals and practices. The value of natural biodiversity is not compatible with the apparent goals of some advocates of bioengineering: the humanization and artificialization of nature. The question of what precise limits are necessary as political controls on bioengineering in its ecological interventions is one with which Christian ethics must struggle in countless contexts in decades to come.[35]

The political defense of biodiversity also requires further controls and bans on the direct overkilling of nonhuman species. The massive driftnets, for example, used widely in commercial fisheries, are not only efficient (perhaps unsustainably so) but also indiscriminate, killing rare and endangered specimens along with the targets. Alternatives should be mandated for this practice and many equivalents.

Recreational hunting, however, raises special problems.[36] Subsistence or "meat" hunting has the moral justification of being a nutritional necessity or asset in the absence of alternatives (or often justice) for poor and indigenous peoples. Indeed, killing in one form or another is a biological necessity. But "bloodsports"—killing animals (including fish) for fun, pleasure, recreation, glory, or even competition (Boone-and-Crockett-Club-style)—are morally dubious at best under my articulation of a biocentric Christian ethic. These "sports" seem to be justifiable only on anthropocentric assumptions that otherkind are only instruments or objects for human wants, including fun and games. The ecological rationalization for sports hunting—for example, "sportsmen" as the functional equivalent of wild predators, culling the herds and flocks of "game" to "save" them from overpopulation and starvation—contains some truth in some circumstances, but it is mostly a romantic illusion. It ignores, for example, the fact that "stocking" of some "game," including alien species, is a widespread practice to remedy overhunting and supply persistent hunting demands; the fact that hunting of wild predators, like wolves and coyotes, has been a major cause of their reduction or elimination in many places; and the fact that nonhuman predation is

far more effective than hunting in preserving the "survival of the fittest" among prey species. Even the justification for subsistence hunting could be substantially reduced in many places in this nation if economic justice prevailed. Similar reasoning also raises moral doubts about sports fishing, even if fish are less sentient creatures than mammals and birds. On grounds such as these, I gave up the gun and the rod for the binoculars and camera years ago.

Yet, on strategic grounds, I would not encourage any present efforts to outlaw sports hunting in the United States, except of certain species whose populations are seriously declining. (This exception is already a common game management mandate in theory, though with too many abuses in practice.) Efforts to ban these sports would almost certainly fail miserably and would create antienvironmentalist furies where simple tensions now exist. That is probably one reason why some prominent environmental organizations are neutral on these recreations. More importantly, however, sports hunting and fishing in the United States have served a critical latent function: "sportsmen" have often provided the public pressures and the funds to preserve natural habitats. Most national wildlife refuges, for example, were established to provide breeding, feeding, and resting areas for migratory waterfowl—a prime target of hunters. These valuable habitats—serving also numerous nongame species—might not exist otherwise. Indeed, many organized hunters and fishers are conservationists, strongly committed to preserving species and habitats, the preconditions of their sports. This ambiguous benefit of recreational hunting and fishing seems to me to be sufficient grounds for saying that environmental and some hunting and fishing organizations sometimes should, as they do, make common cause against a common foe, the destruction of natural habitat. Politics, after all, is often about uneasy alliances. Nevertheless, the witness against bloodsports by animal liberationists—despite whatever questions can be raised about some of their tactics and moral assumptions—remains beneficial as a deterrent to destruction and as a catalyst for public debate and cultural transformation.

Yet, the trophy hunters are another story. Many people in high places are willing to pay vast sums to bag prized specimens—the fittest, if possible—of often rare or endangered "big game" species. Leaving aside the questions about the psychology of trophy hunting, the practice warrants shunning and, when possible, banning as a moral offense against biodiversity. The Endangered Species Act and the Convention on International Trade in Endangered Species (CITES)

provide some legal protection against these abuses, but many insist that the regulations need to be strengthened.

Above all, the political defense of biodiversity demands the protection and expansion of natural habitat. Expanding human development results in increasing nonhuman dehabitation. That is the process that must be halted if all species are to thrive. Ideally, the political goal should not be simply the preservation of remnant populations of threatened species, but rather the coexistence of humans with viable populations of unthreatened species.

Habitat protection will require new and more effective public restrictions. Restricted use should apply not only to public lands but also to private property, as a new endangered species act in Massachusetts mandates. Many threatened species and habitats are on private property, but property rights are not absolute and do not outweigh the recognized legal responsibility of the state to act, on behalf of the public interest, as trustee or protector of wildlife. It may also be necessary to expand current zoning concepts and to establish "protection and production zones," not only on a national scale but on a virtually global basis,[37] along with more creative efforts to integrate human and nonhuman habitats.[38]

Among the possible guidelines for these political controls, a couple are noteworthy. For instance, since wilderness and other rare or endangered habitats are only a small fraction of their original extent, any further loss to development would be a tragedy and an injustice to otherkind.[39] It would require a heavy burden of proof in accord with the restrictions on rights outlined in chapter 7. Moreover, the rarer, more beautiful, and more fragile an environment, argues Holmes Rolston, the lighter it ought to be treaded.[40] That seems to be a basic rationale, for example, for protecting Alaska's Arctic National Wildlife Refuge, an unmarred and irreplaceable habitat for unusual species, including polar bears and muskoxen, from the irreparable damage of oil and gas drillings. Again, since the *prima facie* evidence indicates that we humans have occupied more than our "fair share" (whatever this vague criterion might require precisely) of inhabitable land in most places, reparations are in order. This criterion suggests, for example, an increase in the number and acreage of wildlife refuges and other sanctuaries (ideally with connecting corridors) and the restoration of degraded lands, like strip mines and overgrazed grasslands. These activities are underway now, but more need to be undertaken.

Though the economics-ecology dilemma is dangerously real, both humans and nonhumans are wronged when human problems of

maldistribution are resolved by the sacrifice of nonhuman habitats.[41] These human dilemmas are best solved by frugal and sustainable life-styles, economic efficiency, conservation, population control, and the just redistribution of available resources. For instance, preventing human hunger while preserving natural habitats will require major changes in agricultural land use, including ecosystemic compatibility, improved yields, erosion and pesticide reduction, and land reform.[42]

What kind of rationale for biodiversity is most appropriate in the public sphere? The prevailing view among environmental organizations seems to be that anthropocentric, especially economic, values ought to be highlighted. The impressive *Global Ecology Handbook* of the Global Tomorrow Coalition, for instance, stresses the contributions of biodiversity to medicine, industry, agriculture, recreation, and ecological cycles.[43] The arguments are valid. Yet, arguments from the intrinsic value of biodiversity are virtually ignored, even though most activists in the coalition probably accept an intrinsic value rationale. The apparent assumption, however, is that intrinsic value arguments will be politically ineffective or divisive.

I am not convinced. True, the anthropocentric and biocentric perspectives generally have similar policy objectives; they are complementary, not contradictory.[44] Normally, nothing obstructs political coalitions. Yet, an overemphasis on anthropocentric values to the near-exclusion of biocentric values can have effects that are contrary to intentions. It encourages human arrogance and, by emphasizing "products," aids those committed to the commodification of nature. The arguments also lose force if the utility of a species is only an unknown potential for the remote future or if an artificial substitute seems possible; they can often be outweighed by other economic arguments. Indeed, if the arguments suggest that the primary purpose of biodiversity is to preserve the gene pool for human purposes, much of that goal can be accomplished in zoos and labs![45]

Moreover, I doubt that the anthropocentric rationale is even politically sufficient in itself. An increasing number of contemporaries seems open to biocentric arguments and may be unmoved otherwise. Today, many scientists and government administrators also argue from the intrinsic value or rights of nature.[46] My counsel to Christian and other environmentalists, therefore, is: do not distort or dilute the full rationale for biodiversity on grounds of political strategy. Many are open to a biocentric witness, even if their ultimate grounds differ. Anything less than a full rationale lacks moral validity and may also lack political credibility.

The guardianship of biodiversity, like responsibility to future generations, requires a much broader and more radical concept of political representation than has heretofore prevailed. Christians are called not only to be a voice for voiceless creatures, but to appeal to the public and its officials to perform the same role. Public decision-makers should be understood not only as representatives of an electorate but also as protectors of all the inhabitants of the land, human and otherkind. That will be no easy challenge.[47]

INTERNATIONAL COOPERATION FOR ECOLOGICAL SECURITY

An ecologically sound and morally responsible public policy will promote international cooperation as an essential means to confront the global ecological crisis.

Ecologically, the world is one and always has been. Though much has been written, and rightly so, about the unitive significance of international communications, transportation, and economic relations in the twentieth century, the planet's perpetual ecological interdependence has been largely neglected until the consciousness of global crisis struck. Now we know that the planet's only ozone layer is being depleted by CFCs floating up from many nations. The climate changes resulting from the excessive production of carbon dioxide in nearly every nation will be globally disastrous. Acid rain has no respect for international boundaries. Neither do the host of toxins, from radiation to pesticides, that float in the world's one atmosphere and interconnected waterways. Migratory species of birds, marine fauna, and other animals are destroyed or dehabitated in lands or seas far from their breeding grounds. Affluence in one nation is linked to poverty and overpopulation in others.

In this setting, national isolationism is impossible; national self-sufficiency is obsolete; and national security is jeopardized apart from ecological security. Thus any concept or vision of globalization that is not finely tuned to the ecological crisis is simply irrelevant, if not harmful, to the resolution of current and emerging dilemmas in the international community.

Many environmental problems, of course, can be solved best by national governments, regional states, local municipalities, voluntary associations, or even families—and often in cooperation, because in our increasingly interdependent societies, the smaller social units often

need considerable help from the larger. Consequently, few would debate the classical principle of subsidiarity, which calls for the assignment of a social task to the lowest social unit capable of performing the task adequately. But the ecological crisis confronts us with new realities that compel unprecedented responses. Until recently, most environmental problems were at least perceived as localized and could be corrected locally or regionally. That reality and perception of reality, however, are now changing dramatically, and so are the corresponding proposals for correction.

On the macrocosmic dimensions of the ecological crisis, the social/political units—including nation-states—are simply too parochial jurisdictionally to confront successfully transnational problems: "The traditional forms of national sovereignty are increasingly challenged by the realities of ecological and economic interdependence."[48] No nation can withstand alone the ecological invasions of everyone's sovereign territory; its national security is corrupted by ecological insecurity. Thus Michael Renner is seemingly right in seeing "a fundamental contradiction between the illusion of national sovereignty and the reality of transboundary environmental degradation."[49] In this context, the lowest social/political unit potentially capable of responding effectively to the global ecological crisis is the international community. But that community is mainly tribalistic. It exists as a sufficient political unit only embryonically. Our champion has no armor. That is a major dilemma.

The world is one ecologically, but it is fractured politically. How do we resolve this dilemma? What is required to match solutions and problems? What political transformations are necessary to correspond with ecological realities? These are the questions with which Christian and other environmentalists must struggle today. The prevailing answer, which has become almost hackneyed, is that the crisis requires a high and unprecedented level of international cooperation. Some call for world government. I doubt the present political possibilities or necessities of that solution, though I would welcome particular forms of it. Yet, it seems clear to me that national initiatives, while imperative, will be insufficient. Only international cooperation offers hope of satisfying what I have called the virtue of sufficiency: solutions must be proportionate to the magnitude of the problems. The United Nations and its subsidiary organizations—for example, the Development Program, Food and Agriculture Organization, Population Fund, and Environmental Program—seem to be the logical structures through which this essential cooperation is implemented.

The legal powers of these institutions, however, are now inadequate. They must be enhanced if global ecological security is to be realized. That requires appropriate regulations, funds, and enforcement authority and procedures.[50] The last particularly, while it does not entail a major sacrifice of national sovereignty, certainly means some limitations and controls on sovereignty by voluntary and mutual agreement. In that sense, I am suggesting at least a minimal form of world government.

Are these limitations and controls politically realistic? Very unlikely now. Yet, they do appear to be ecologically essential, and sometimes the widespread consciousness of essential needs can substantially change political possibilities. Indeed, realism can degenerate into an apathetic acceptance of the status quo when it does not allow and press for the extension of the parameters of the politically possible. The situation is not hopeless. Bilateral and multilateral conferences and treaties on the environment are increasing, reflecting a growing political awareness of the problems and the inadequacies of exclusively national solutions. But the situation can only become really hopeful if partisans can make a convincing case.

Flagrant nationalists have often argued that international agreements and institutions are contrary to "national interests." That claim, whatever element of truth it contains, is dissonant with ecological realities, as it has been on nuclear weapons. The global scale of ecological degradation means that every country's vital national interests now depend on global ecological security, which, in turn, depends on international cooperation.[51] Global solidarity is no longer only an ultimate vision; it is fast becoming an ecological and political necessity. The challenge to Christians, whose normative tradition has long been suspicious of narrow national interests and biased in favor of global community,[52] is to help translate these necessities into political realities. That role, however, will demand an intensified and tenacious commitment to Christian unity, for only a church that lives in ecumencial solidarity can be an adequate instrument and effective sign of God's reconciling powers for a human community seeking political solidarity.

LINKING JUSTICE, PEACE, AND ECOLOGY

An ecologically sound and morally responsible public policy will pursue ecological integrity in intimate alliance with the struggles for social peace and justice.

This point has been suggested so often in these pages that a complaint of redundancy may be justified. Yet, this linkage is so critical that a final reemphasis on it is warranted.

There can be no ecological integrity apart from social peace and justice!

There can be no social justice without ecological justice!

There can be no peace among nations in the absence of peace with nature!

These affirmations are rhetorical exaggerations—slogans, but they highlight the fact, with tolerable validity, that these three prime areas of political concern are interdependent and inseparable. As in the biosphere, so in the political sphere, everything is connected with and has consequences for everything else. Compartmentalization of concerns is malconceived and self-defeating. Holistic and relational strategies are necessary to respond to holistic and relational realities.

This interdependence is the message implied by the biblical concept of *shalom*, by the stress on "ecojustice"[53] among some Christian environmentalists, and by The World Council of Churches' current theme, "Justice, Peace, and the Integrity of Creation" (JPIC). The WCC's linkage initiative reached a peak with the impressive efforts preceding and proceeding from the Faith, Science, and the Future Conference at M.I.T. in 1979. Regrettably, however, the document prepared for the 1990 WCC conference in Seoul, Korea, "Between the Flood and the Rainbow: Covenanting for JPIC," is notable for homiletical exhortations, rather than empirical and ethical analyses. Nevertheless, rigorous and creative work continues in commitees and consultations, and an ongoing commitment to JPIC is evident in the reports of the 1991 WCC Canberra Assembly.[54] These developments remain promising for the future.

Unfortunately, peace, justice, and environmental advocates are still troubled by turf problems, particularly the competition for scarce resources and fears about the diversion of public attention from their respective projects. Much of this is inevitable in the political process, but it is still regrettable. The tensions of the early seventies appear to have subsided but they have not disappeared. Suspicions persist and they periodically pop into public view, prompting shudders at the sometimes silly public and private postures of advocates on all sides. True, a few environmentalists are genuinely misanthropic, speaking as if humans were somehow alien to the biosphere. More are economic elitists, concerned about the perils of ecosystems but indifferent to the plight of the poor. Equally true, some peace and justice activists oppose

any rights of nature on the grounds that they will distract from human rights, as if the two are contraries rather than complements. These positions, however, are aberrations, the myopic appeals of partisans. They do not detract from the moral reality of indivisibility among peace, justice, and ecological integrity.

The connections among the three are readily evident in contemporary problems.

Environmental policy can contribute to the advancement or retardation of economic justice. Pollution taxes, for instance, are valuable, but they should be levied in a way that does not cause additional harm to the poor. Similarly, since economic deprivation is a major cause and effect of ecological degradation, ecological problems cannot be resolved unless economic maldistribution is remedied. Otherwise, the people of poor nations are forced to exploit their natural resources beyond the limits of sustainability. Economic equity among nations is as much an issue of ecological ethics as social ethics. Equally, population control is a matter of both social and ecological justice. Environmentalists, therefore, should also be spirited advocates of economic justice. Thankfully, an increasing number are.

Some feminist thinkers have shown the close connections, historically and ideologically, between patriarchalism in gender relations and anthropocentric instrumentalism in ecological relations—between the devaluation and domination of women and the devaluation and domination of nature. Women somehow have been perceived as associated with nature, and both have been treated as objects for male exploitation.[55] I suspect, in fact, that the same case can be made against racism and classism. These linkages suggest at least that environmentalists, feminists (female and male), and other egalitarians should be intimate allies and mutual advocates. Fortunately, more are recognizing an essentially common cause.

Political peace also contributes to ecological integrity, just as war has the opposite effect. War and the preparations for war pose serious threats to ecological health, largely because of the massive consumption of resources and energy, the production of toxic and radioactive wastes, and the destruction of ecosystems through the testing and use of weaponry.[56] Numerous unexploded artillery shells, many containing poison gas, still litter the battlefields of World War I. The ecosystems of Vietnam were seriously damaged—in some respects permanently so—by U.S. defoliants and bombs, to the immediate and long-range detriment of the land's human and nonhuman inhabitants. As a consequence of the Persian Gulf War, "black rain" from the oil

well fires in Kuwait created an atmospheric oil slick damaging to crops, water, and human lungs throughout the region. Oil spills in the Gulf have caused irreparable damage to marine life and delicate ecosystems. War wreaks social and ecological havoc long after the fighting stops. Certainly, moreover, nuclear war is the ultimate social *and* ecological threat. The nuclear peril should be seen as "the very center of the ecological crisis," argues Jonathan Schell,[57] because of potential wholesale extinctions, including the human species. "Death," notes Schell, "cuts off life; extinction cuts off birth"—eliminating the possibility of future generations of existing species.[58] Environmentalists, therefore, should logically be passionate peace activists. Happily, many are.

Equally, political peace and social justice are not achievable apart from environmental integrity. A dynamic and diverse ecosphere is a necessary condition of peaceful and just relationships within and among nations, for humans depend upon environmental health to make life possible, productive, and peaceful. The social consequences of an environmental apocalypse, which is our present trajectory, are alarming to contemplate: mass poisonings, accentuated cancer rates, increased poverty and starvation, massive migration of environmental refugees, wars for scarce land and water (especially in the Middle East), conflicts over other resources, systemic economic collapses, political upheavals, and spiritual lamentations. It can't happen, many optimistic technocrats might mutter, but technological fixes cannot correct adequately for global warming, ozone depletion, and a toxicated planet, or restore extinct species and simplified ecosystems. Peace and justice advocates, therefore, should be avid environmentalists. Fortunately, an increasing number are.

Strategically, of course, it is impossible for advocates to focus on all facets of the intertwined social and ecological crises simultaneously. Prudence requires strategic concentration and persistence. Individuals and institutions must pick priorities rationally and deploy resources efficiently in order to be politically effective. The moral mandate to respond holistically and relationally, however, does not require diffusion. Instead, this approach counsels advocates in all spheres to act in ways so that solutions to social or ecological problems do not cause or aggravate other social or ecological problems, and, if possible, contribute to the resolution of them. Obviously, this approach does not reduce moral complexities and ambiguities; it simply reflects the perplexing dilemmas of reality.

As a practical matter, every public policy or political position of the

churches on peace and justice concerns should be accompanied by an environmental impact assessment, and every public policy or political position on environmental concerns should be accompanied by a social impact assessment. This same approach should be pressed as standard operating procedure for governments and voluntary organizations. That might help save us from fragmentation. In the final analysis, the integration of peace, justice, and ecological concerns is simply an effort to match ethically and politically the integration that already exists ecologically and socially.

FINALLY

A summary at this point would be absurd. But a note of hope is theologically and politically reasonable.

The multipronged ecological crisis is a persistent and perilous problem, and the essential solutions seem fearfully massive and even presently unrealistic. A revolution in values and policies will not come easy and cheap. The necessary remedial and preventive measures will meet stiff resistance. The environmental clean-up and other costs will be hefty penalties for our sins against the biosphere and each other—though the emerging benefits will be worth the price. In this situation, optimism is not even an option, and pessimism is demoralizing and indefensible.

The best we can do is hustle and hope. We can strive to realize whatever semblances of ecological integrity are maximally possible now. We can also struggle in the confidence that with each step forward, God the Politician and the Lover of life is ever creating new possibilities to realize the integrity of God's—and our—beloved habitat.