Carol Christ replies that, granting the perspectival nature of all truth claims, feminist experience contradicts any view which sees such claims as sheerly relative. As she puts it, feminism and patriarchalism do not have the same "ontological status"; it is more "true" to believe in equality and the importance of both sexes' contributions to the human community.[55] Nonetheless, the truths of feminist experience cannot be "objectively proved to all by rational argumentation"; their truth is found in commitment and in practice, in a verification in life of the relatively more true and just. "We seek to speak a truth rooted in our experience, our time and place, our bodies."[56] It is more accurate to see feminist authors as representatives of the larger postmodern movement to locate discovery of truth in the function of practical reason and in praxis, than to see them as jettisoning objectivity altogether. The feminist recognition of the perspectival limits of hegemonic construals of gender leads not to relativism but to advocacy of counterproposals which can better account for women's experiences of wrongful inequality. As Anne Patrick notes, moral theology in the postmodern period is being defined above all by the "turn to the oppressed," to the " 'otherness' in all who are oppressed," and to a hopeful dialogue and incipient praxis of inclusion.[57] Hence for the feminist the criteria of theological validity become, as for David Tracy, "political-ethical criteria." "There is no manifestation disclosure that is not also a call to transformation." What the inquirer after truth can expect are not absolute but "relatively adequate" criteria,[58] criteria focused on the pragmatic personal and political consequences of action. And for the Christian theological feminist, the oppressive or liberative quality of experience itself, and hence the content of the ethical criterion, is discerned in a constant, critical dialectic with Scripture, theological interpretations, Christian communal traditions, broader philosophical perspectives, and the provisional investigations of the human sciences.

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ECOLOGY, JUSTICE, AND DEVELOPMENT

Since the first Earth Day 20 years ago, there have been many efforts to make environment a major public issue. While there have been some revolutionary developments domestically—the Wilderness Act (1964), the National Environmental Policy Act (1969), the Clean Air Act (1970),

[55] "Embodied Thinking" 13.

[56] Ibid. 14. A lesbian feminist critique of distanced "objectivity" is Carter Heyward, "Heterosexist Theology: Being above It All," *Journal of Feminist Studies in Religion* 3 (1987) 29–38.

[57] "The Linguistic Turn" 56.

[58] "The Uneasy Alliance" 568.

and the Toxic Substances Control Act (1978)—action at an international level has come more slowly. In the past several months, for example, the U.S. and Britain blocked agreement on an Antarctic Treaty, President Bush has failed to make good on his promises to support strong measures against acid rain and global warming, and only modest cutbacks have been announced by East Asian nations on driftnet fishing.[1] One major exception has been the 1987 Vienna Convention for the Protection of the Ozone Layer, which gathered swift support even from manufacturers.[2]

Nonetheless, with the lessening of traditional international rivalries, the attention of world leaders has begun to turn to global environmental issues.[3] At the economic summit in July the leaders of the industrial democracies called for "decisive action" to "understand and protect the earth's ecological balance."[4] In September 100 members of the nonaligned movement called for "a productive dialogue with the developed world" on "protection of the environment."[5] The Worldwatch Institute talks about the 90s as "a turnaround decade" for a sustainable world, and Pope John Paul II looks to the third millennium as "a New Advent."[6] The

[1] On the impasse over the Antarctic Treaty, see "Antarctic Plea by Rocard," *Manchester Guardian Weekly*, Oct. 15, 1989, 8, and "Britain and US Block Antarctic Conservation Deal," *Manchester Guardian Weekly*, Oct. 29, 1989, 5. For the status and future of the Antarctic environment, see M. J. Petersen, *Managing the Frozen South* (Berkeley: University of California, 1988). On acid rain and global warming, "Senators and Administration in Pollution Pact," *New York Times*, Nov. 12, 1989, 19, and "Global Warming Means Global Politics," *New York Times*, Section 4, News of the Week in Review, Nov. 12, 1989, 5; on driftnet fishing, "Ban on 'Walls of Death' Gaining," *Christian Science Monitor*, Nov. 13, 1989, 3, and "Citing Data on Damage to the Pacific, Groups Seek Drift-Net Fishing Ban," *New York Times*, Nov. 14, 1989, 1.

[2] For details of the Ozone Convention, see Department of State/Environmental Protection Agency (FRL-3295-1), "Environmental Impact Statement on Protocol to the Vienna Convention for Protection of the Ozone Layer," *Federal Register* 52:229 (Nov. 30, 1987) 45520. On the growth of voluntary compliance by business, "More Companies to Phase Out Peril to Ozone," *New York Times*, Oct. 11, 1989, 21.

[3] See "A New Item on the Agenda, Special Report on the Greening of Geopolitics," *Time*, Oct. 23, 1989, 60–62, and "Global Warming" (n. 1 above).

[4] "A New Item" 61.

[5] Ibid. 61.

[6] Lester Brown et al., *State of the World 1989*, A Worldwatch Institute Report on Progress toward a Sustainable Society (New York: Norton, 1989) 192–94. The *State of the World* series (1984–89) is perhaps the best survey of environmental developments, though it does not ordinarily follow the justice dimensions of ecological transition. But see H. Jeffrey Leonard et al., *Environmental and Anti-Poverty Strategies for the 1990s* (Washington: Overseas Development Council, 1989). John Paul connects the New Advent to the coming of the third Christian millennium (*On Social Concern: Sollicitudo rei socialis* [Washington: USCC, 1988] 7). According to John Paul's intellectual biographer George Hunston Williams, the pope's earlier uses of this theme held strong overtones of last judgment (*The Mind of John Paul II* [New York: Seabury, 1981] 305–11), but *Sollicitudo* exudes an uncharacteristic spirit of hopefulness about the human prospect (see below).

agenda for this new epoch is "just and sustainable development," a conjunction of worldwide ecological goals with Third World development.[7]

At last fall's UN General Assembly, as Britain's Margaret Thatcher urged the adoption by 1992 of a convention on atmospheric pollution, Third World leaders made clear that environmental collaboration between rich and poor nations must involve greater assistance for the latter's development and greater equity in international economic arrangements.[8] World leaders had three sorts of concern about global environmental quality, development, and international justice: (1) the relative burden of restraint among nations, (2) the effect of international economic activity on development priorities, and (3) environmental degradation caused by large numbers of poor people.

Burden of restraint. First, as Third World leaders are quick to point out, responsibility for atmospheric pollution lies largely with the industrialized nations. "Pollution of the environment and other environmental dangers," they contend, "stem mainly from the industrialized world's high standard of living and wasteful consumption of fossil fuels."[9] Accordingly the burden for reducing pollution ought to fall first on them. So long as the industrialized nations have not made very substantial adjustments in their own economies, efforts to force the developing nations to curtail resource depletion, limit population expansion, or alter strategies of economic growth in the Third World will be regarded as unjust.

International Economic Policies. Second, deforestation and the depletion of other resources are very often the result of undesirable patterns of development encouraged by international economic policies. To curb and correct these trends, changes will be needed in international economic arrangements, not only to reward environmentally sensitive projects but also to assure that poorer nations will enjoy economic growth by other means.[10] In a limited way the environment-development con-

[7] On the goals of just and sustainable development, see William C. Clark, "Managing Planet Earth," *Scientific American* 261:3 (September 1989) 48.

[8] See "Thatcher Urges U.N. Pact to Protect Climate," *New York Times*, Nov. 9, 1989, 4. It should be noted that the present state of knowledge about how to induce and assist economic development is quite imprecise. Development planning today is characterized by an eclectic pragmatism. See John P. Lewis et al., *Strengthening the Poor: What Have We Learned*? (Washington: D.C.: Overseas Development Council, 1988), and John P. Lewis and Valeriana Kallab, eds., *Development Strategies Reconsidered* (Washington, D.C.: Overseas Development Council, 1988).

[9] "Thatcher" (n. 8 above) and "A New Item," (n. 3 above) 61–62. For a scientific argument for need for greater First World adjustments, see Clark, "Managing Planet Earth" 51–53. On needed changes in political attitudes, see William D. Ruckleshaus, "Toward a Sustainable World," *Scientific American* 261:3 (September 1989) 166–74, esp. 168–69.

[10] "A New Item" 62.

nection has already been made. There have been a variety of schemes, for example, to trade debt-adjustment by lending nations for environmental preservation of tropical rainforests in Central and South America and South Asia.

Poverty and Ecological Deterioration. Besides the general need to promote just development for Third World nations, there is a special need to assist the poorest peoples. These large populations, eking out a living on marginal lands with inappropriate farming and pasturing techniques, are fast destroying forests and grazing land, resulting in flooding, erosion, and desertification over large areas.[11] "Protecting the global environment is inextricably linked with eliminating poverty," says Richard Benedick, a leading U.S. environmental negotiator.[12]

While the ideal of just and sustainable development has been around since the Limits to Growth debate in the 70s, it received its most important formulation to date in the 1986 report of the World Commission on Environment and Development, *Our Common Future.*[13] The commission, headed by Prime Minister Gro Harlem Bruntland of Norway, acknowledged that co-ordination of international policies is necessary because otherwise rich and poor nations are likely to differ about the relative value of economic growth and environmental conservation. "Sustainable development thus reflects a choice of values for managing planet earth in which equity matters," writes William C. Clark, "equity among peoples of the earth around the world today, equity between parents and their grandchildren."[14]

Paradoxically, further economic growth—controlled and redefined—seems necessary to reduce pressures on the environment. The Bruntland Commission concluded that a five-to-tenfold increase in economic activity will be necessary over the next 50 years to reduce mass poverty. Its best estimate is that a minimum three percent annual growth in per capita income in developing countries would be necessary as a transition to sustainable development.[15] At the same time, efforts will need to be made to preserve and restore stocks of environmental resources (soil, water, forests, fish stocks, etc.), to reduce population growth, to develop resource-conserving technologies especially through recycling and energy efficiency, and to develop new political decision-making procedures served by novel information systems.[16]

[11] Sandra Postel, "Halting Land Degradation," in Brown et al., *State of the World 1989* 21–40; Jim McNeill, "Strategies for Sustainable Economic Development," *Scientific American* 261:3 (September 1989) 157.

[12] "A New Item" 62.

[13] *Our Common Future* (Oxford: Oxford University, 1987).

[14] "Managing Planet Earth" 48.

[15] *Our Common Future* 49–52.

[16] McNeill, "Strategies" 157–64.

Church Teaching: Sollicitudo rei socialis

Environmentalists greeted the 1988 release of Pope John Paul II's encyclical letter *Sollicitudo rei socialis* (*On Social Concern*) as a landmark in Catholic participation in the environmental movement.[17] For the first time an official Vatican document bearing the pope's own name discussed ecological issues in the context of just and sustainable development. John Paul also appreciates the interconnected nature of the common dangers facing humanity. Noting the numerous factors which deter concerted action against poverty, he concludes nonetheless that "we are *all* called, indeed *obliged*, to face the tremendous challenge of the last decade of the second millennium, also because the present dangers threaten everyone" (no. 47). In no. 26 he explicitly argues the "indivisibility" of respect for life with the search for peace and justice. The Philippine bishops in a 1988 pastoral, "What Is Happening to Our Beautiful Land?" echo the indivisibility argument, claiming ecology is "the ultimate pro-life issue."[18]

Like Paul VI's *Populorum progressio* which it commemorates, *Sollicitudo* is primarily concerned with the issue of equitable and humane development.[19] It focuses on the growth of inequality, the worsening of

[17] While the encyclical was dated Dec. 30, 1987 to coincide with the commemoration of the 20th anniversary of *Populorum progressio*, it was not actually released until some weeks later. For one Christian environmentalist's appreciative reception of the document, see J. Ronald Engel, "Introduction: The Ethics of Sustainable Development," in J. Ronald Engel and Joan Gibb Engel, eds., *Ethics of Environment and Development: Global Challenge, International Response* (London: Pinter, 1990), Engel 8. (The copy of this volume available to me is a typescript. Pages are enumerated separately, and so references are given by name of author and the pages of the chapter. The book is due to be released in January 1990. I am grateful to Prof. Engel for allowing me a preview of this work.) For recent surveys of religious responses to the environmental crisis, see Martin J. Palmer, "The Encounter of Religion and Conservation," in *Ethics of Environment and Development*; Freda Rojda, "Creation Theology at the WCC," *Ecumenist* 26 (September–October 1988) 85–89; Diane E. Sherwood and Kristin Franklin, "Ecology and the Church: Theology and Action," *Christian Century*, May 13, 1987, 472–74. The release of John Paul's World Day of Peace Message (Jan. 1, 1990), "Peace with God the Creator, Peace with All Creation," came too late for consideration here; see "John Paul Rebukes Lands That Foster Environment Crisis," *New York Times*, Dec. 6, 1989, 7.

[18] I have been unsuccessful in locating the Philippine bishops' 1988 pastoral. It is cited by Christopher J. Moore, "A New Christian Reformation," in *Ethics of Environment and Development*, Moore 19–20. Moore writes that the bishops' theology gives "a totally healthy meaning to the doctrine of dominion. . . ." Also see in the same volume Henryk Skolimowski, "Reverence for Life."

[19] *Sollicitudo* represents a significant stage in the evolution of John Paul's teaching ministry. To start, its reading of the signs of the times has more balance than earlier letters. It manifests greater trust in human capacities (nos. 30, 31) and confesses greater confidence in humanity's abilities to meet the global crisis (nos. 38, 47). It is more affirmative about the action of grace in society (no. 48) and adopts a servant as well as a sacramental model of the Church (no. 31). Most of all, John Paul appeals to a "Christ the Consummator"

poverty, and the subversion of development aims by ideological tensions between East and West. Like Paul VI before him, John Paul takes table fellowship to be the root metaphor for a Catholic conception of justice. He argues for "each people's right to be seated at the table of the common banquet" (no. 32) and interprets the lack of North-South collaboration in development as re-enacting the indifference of the rich man to Lazarus.

As a religious thinker, John Paul is a "cosmopolitan" whose views on international affairs do not fit the familiar conventions of geopolitics as defined by the East-West conflict. "The present division of the world," he writes in the letter, "is a *direct obstacle* to the transformation of the conditions of underdevelopment in the developing and less advanced countries" (no. 22). *Sollicitudo* enjoins solidarity within and among nations, demands that political leaders take responsibility for the universal common good, and argues for the need for more effective international organizations. "A leadership role among nations," he writes with not-so-veiled criticism of the cold-war mentality, "can only be justified by the possibility and willingness to contribute widely and generously to the (universal) common good" (no. 23).

a. Just Development

Though the focus of these notes is the intersection of just development with ecology, since the Holy Father's primary concern in commemorating *Populorum progressio* was to address the development question, it is appropriate that some space be allocated to this topic.

If there is one sign of the time which emerges as a unifying theme in *Sollicitudo*, it is the growth of inequality over the last two decades. The aggravation of inequality is symbolized by the further subdivision of the globe into four worlds, the Fourth World being the collective designation for the poorest countries. But, the pope notes, underdevelopment is not restricted to the so-called lesser developed countries. "In a process of regression" (no. 17), fast-expanding islands of underdevelopment have appeared in certain regions and among social groups in the most advanced countries. Insult, moreover, is added to the injury of poverty by the conspicuous consumption of the affluent. Material goods themselves, however, are not the problem. The injustice lies in maldistribution: "the

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theology of history (nos. 31, 48), a view he rejected at the council in favor of a redemptive Christology because the former appeared to him to be overly optimistic. What accounts for this change of tone and theology? The pope's careful study of *Gaudium et spes* and the writings of Paul VI partly explains the change, but other influences are not readily apparent. In any case, *Sollicitudo* is less personal in idiom and concept, and it is wholly consistent with the major lines of the liberal social teaching of Vatican II and Paul VI (nos. 2–3, 6–10).

ones who possess so much are relatively few and those who possess almost nothing are many" (no. 28).

To redress "the notorious inequalities" which afflict the contemporary world, John Paul, following the teaching of Paul VI, appears to advocate a thoroughgoing redistribution of resources both within and among nations on *the principle of solidarity. Sollicitudo* makes clear that the aim of redistribution is not simply the alleviation of poverty but rather an egalitarian sharing in a common level of development. The poor, the Holy Father argues, are neighbors and helpers, "to be made sharers, *on a par with ourselves*, in the banquet of life to which all are equally called by God" (no. 39; italics mine).

While the encyclical's primary emphasis is on the obligations of the rich toward the poor, the solidarity of the poor with one another is nonetheless a significant theme within the letter too. The Holy Father is especially supportive of nonviolent protests in which the poor claim their own rights. He favors initiative on the part of developing countries and encourages solidarity among developing nations themselves, especially in geographic regions.[20]

b. Ecological Dimension of Development

Sollicitudo takes up environmental concerns at the conclusion of its treatment of authentic human development (no. 34), but the theme is well integrated within the encyclical as an expression of humanity's moral vocation (nos. 26, 29–30). The pope affirms "the dominion" of humanity over the rest of creation, but insists that this dominion is circumscribed by moral limits. "[D]evelopment," he writes, "cannot consist in the use, dominion over, and *indiscriminate* possession of created things. . ." (no. 29). For John Paul, environmental constraints are simply a further example of the prohibitions "imposed from the beginning by the Creator" (no. 34). He argues that the primary function of development is to subordinate "possession, dominion, and use to man's divine likeness and to his vocation to immortality" (no. 29). In the concrete, human

[20] On nonviolence see no. 47; on solidarity among the poor, nos. 44–45. On self-help efforts, see Sheldon Annis and Peter Hakim, eds., *Direct to the Poor: Grassroots Development in Latin America* (Boulder: Rienner, 1988), and Alan B. Durning, *Worldwatch Paper 88, Action at the Grassroots: Fighting Poverty and Environmental Decline* (Washington, D.C.: Worldwatch Institute, 1989). The idea of solidarity among the poor is continuous with the formulation used in *Laborem exercens* (1981), but in *Sollicitudo* the idea is closer to the usage of Paul VI in which solidarity expresses an intergroup obligation in which the affluent are obliged to make sacrifices to share with the disadvantaged. Another noteworthy development is that John Paul seems to distinguish between solidarity as a human virtue (no. 39) and a Christian virtue (no. 40). In his earlier theology "the human" is understood wholly in light of the redemption.

beings fulfil their vocation by working together "for the full development of others" (no. 30).

Unlike many environmental theologians, therefore, John Paul does not regard the dominion theme as a special source of the environmental crisis. It is rather another instance of the checkered human history of sin and achievement. Human history "is not a straightforward process, as it were automatic and in itself limitless" (no. 27); it is instead an ambiguous succession of developments, constantly threatened with sin and in need of moral guidance to keep it faithful to humanity's essential vocation.[21]

c. Respect for Nature

Sollicitudo identifies three moral guidelines with respect to the environmental dimensions of development. These precepts have to do with (1) respect for nature, (2) conservation of nonrenewable resources, and (3) restriction of pollution. Only the first is explained at any length, but its formulation is most striking. In development "one must take into account the nature of each being and of its mutual connection in an ordered system, which is precisely the 'cosmos' " (no. 34). The formulation is remarkable because it is an affirmation, in the pope's own words, of two strong ecological principles: (1) the independent moral status of other creatures and (2) the need to think and act in terms of whole "environments" and ecological systems.

History Re-Examined

Ever since Lynn White's notorious essay "The Historical Roots of the Ecological Crisis," there has been a tendency among environmentalists to blame Christianity for the pernicious anthropocentric attitudes which motivated the Western assault on nature.[22] A new wave of environmental

[21] *Sollicitudo*, nos. 30–31, 38.

[22] *Science* 155 (1967) 1203–7. Unfortunately, most theologians interested in ecology adopted uncritically White's thesis that environmental destruction was the result of the dominion theme in Genesis. For more dispassionate reading of biblical and historical theological texts, one had to turn to nonbelievers. See esp. Clarence Glacken, *Traces on a Rhodian Shore: Nature and Culture in Western Thought from Ancient Time to the Nineteenth Century* (Berkeley: University of California, 1967). For recent treatment of biblical themes, see Bernhard W. Anderson, "Creation in the Bible" and "Creation and the Noachic Covenant," in Philip N. Joranson and Ken Butigan, eds., *Cry of the Environment: Rebuilding the Christian Creation Tradition* (Santa Fe: Bear, 1984); Richard J. Clifford, S.J., "Genesis 1–3: Permission to Exploit Nature?" *Bible Today* 26, 133–45; Norman K. Gottwald, "The Biblical Mandate for Eco-Justice Action," in Dieter T. Hessel, ed., *For Creation's Sake: Preaching, Ecology and Justice* (Philadelphia: Geneva, 1985). The last item is especially valuable not only because it combines ecological with justice concerns, but also because it provides a succinct yet sophisticated hermeneutic for use of Scripture in preaching on these topics.

theology, however, has begun to do a more searching and dispassionate evaluation of the resources for environmental theology in the Christian tradition. The most ambitious of these works, H. Paul Santmire's *The Travail of Nature*, is a critical survey of the history of Western theology from the perspective of the standing of nature.[23] The problematic feature in Christian theological anthropology, as Santmire sees it, is "a spiritual motif" of humanity's ascent to God in which nature serves only as a means to salvation or as backdrop for the drama of salvation history. To this he opposes "an ecological motif" "predicated on the assumption of a divine and human concomitance with nature."[24] Santmire's use of these models in the assessment of major theological figures can be best seen in his treatment of Augustine's thought, which he regards as "the flowering of the ecological promise of classical theology."[25]

a. Augustine and Creation History

Santmire's interpretation leans heavily on Augustine's mature theology. He argues that "the ascent motif" evident in the Latin Father's early theology was displaced over time by an increasingly historical view of divine action and an affirmative view of the material universe. Subsequently Augustine's theology of history became "creation history," the narrative of the unfolding of God's goodness in the physical cosmos. "Human redemptive history," Santmire writes, "happens wthin the broader milieu of the all-comprehending framework of creation history."[26]

From his exegetical studies, Santmire claims (I believe correctly), Augustine also gained a respect for the diversity of God's creatures. According to his theocentric aesthetic, other creatures do not exist solely to serve humans but rather to glorify God.[27] Heretics, he objects in the *City of God*, "do not consider how admirable these things are in their own places, how excellent in their own natures, how beautifully adjusted to the rest of creation, and how much grace they contribute to the universe by their own contributions, as to a commonwealth. . ." (22.24). From passages like these Santmire concludes that Augustine propounded a theological aesthetic which respected the value of nonhuman creatures and the harmonious (ecological) relationships of the natural world.

Santmire's treatment of Augustine as a precursor of ecotheology deserves serious comment. I would like to address three issues: (1) his interpretation of Augustine's development, (2) the contention that Au-

[23] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Philadelphia: Fortress, 1985).

[24] Ibid. 189–90.

[25] Ibid. 73.

[26] Ibid. 71.

[27] Ibid. 60–61.

gustine's cosmology is "world-affirming," and (3) the equality of nature and humanity in contemporary biological thought.

First, what are we to make of Santmire's version of Augustinian cosmology? Does contemplation of the goodness of creation displace the orientation to God as the Good that satisfies human life? To begin with, one must acknowledge that at times Augustine takes delight in the physical universe, and further that he makes exceptional theological moves with respect to the worth of natural creatures. These positions, however, do not unambiguously constitute an Augustinian theology of nature which overturns his earlier convictions. For one, Augustine's delight in the natural world wanes with the passing years.[28] For another, his concern for the natural world takes up only a small space in a cosmology largely concerned with spiritual realities. He was far more preoccupied with the status of angels than with plants and animals and landscapes, and from the hardships nature placed on human beings drew lessons about the appropriateness of human ingenuity.[29]

Secondly, does the Augustinian cosmology really surrender the dualism of "the ascent motif" for affirmation of the natural world? To be sure, the marvels of nature are occasion to glorify God, but they are not enough to keep Augustine from longing for the life to come. For Augustine, the pertinent metaphor for the human journey in the confines of history is *peregrinatio*, living out one's allotted time like a resident alien or exile, living in the world without being attached to it. Those who belong to the city of God "are set apart by a holy yearning" for the heavenly Jerusalem.[30] Such an attitude is most unlikely to provide the affirmation of the natural world required to undergird a modern-day environmental ethics. Indeed, it is more likely to advise willing endurance of "the necessities" of a degraded environment rather than to preserve and restore a rapidly changing ecology. The loss of ecosystems, the extinction of species, the poisoning of air and water are just the kind of evils which admonish "We have here no lasting garden of Eden."

Santmire makes much of "the overflowing goodness" of God displacing God "as the Good" in Augustine's mature thought. True, Augustine's late thought does show greater pluralism. Life in glory, for example, is not so much the union of the individual soul with God as it is the *vita socialis sanctorum.* Fulfilment, however, still lies in union with God. In a justly famous image Augustine compares humanity to a woman who has re-

[28] See Peter Brown, *Augustine of Hippo: A Biography* (Berkeley: University of California, 1969) 117, 259. Brown's comment on Augustine's waning delight in nature is pertinent because Santmire relies on him to make his case for Augustine's world-affirming cosmology.

[29] See Eugene Te Selle, *Augustine the Theologian* (New York: Herder and Herder, 1970), on the spiritual character of Augustine's cosmology (208–23, esp. 216).

[30] See Brown, *Augustine* 323, on the longing for the heavenly Jerusalem.

ceived a ring from her beloved. Something is profoundly wrong, he argues, if one loves the ring more than the lover.[31] The goodness of creation, therefore, when properly understood, should draw humanity to God. Thus a wholesale rejection of ascent for an immanentist cosmic piety is unfaithful to Augustine's intention.

Lastly, one must ask whether even contemporary science and experience any longer warrant thinking of nature, at least on this planet, apart from humanity. Is it possible to talk of a three-way encounter—nature, humanity, God—in an ethic of "concomitance"?

In planetary terms, at least, I would assert, it is less and less possible to see nature as an independent reality. Human intervention has become so enmeshed in the cycles of the biophysical world that one biologist speculates that we have seen "the end of nature."[32] Biologically speaking, there is no one stable reality called nature. Ecosystems themselves are constantly evolving in natural succession. Other species than man alter large ecosystems: the beaver, the lamprey eel, the harbor seal, and so on. To maintain a preferred balance in nature (secure a flowing stream, preserve fish counts, rescue a mountain landscape, etc.), humans must intervene in natural processes. Likewise, to arrest the depletion of the ozone layer, to check global warming, or to control acid rain, human beings must plan together and collaborate. On this planet, then, there is no longer any nature apart from humanity. If the future of the earth itself is so entwined with conscious human decision, then one cannot avoid granting a special place to human beings in the cosmos. Respect for nature must be, therefore, as much an act of intelligence and reason as an act of contemplative awareness.

b. Francis and the Ascetic Tradition

Francis of Assisi remains an icon of the environmental movement. For Santimire, Francis represents "the flowering of Christianity's ecological

[31] See Augustine's Second Homily on 1 John, no. 11, in John Burnaby, ed., *Augustine's Later Works* (Philadelphia: Westminster, 1955) 275.

[32] Bill McKibben, *The End of Nature* (New York: Random House, 1989). For more scholarly treatment of the place of human intervention in natural history from professional ecologists, see Stephen Boyden, *Western Civilization in Biological Perspective: Patterns in Biohistory* (Oxford: Oxford University, 1987), and David Drew, *Man-Environment Process* (London: Allen and Unwin, 1983). From the side of Christian ethics, theocentric programs seem to offer foundations for an ecological ethic consonant with our scientific knowledge of human-nature interactions. See William C. French, "Ecological Concerns and the Anti-Foundationalist Debates: James Gustafson on Biospheric Constraints," in Diane Yeager, ed., *The Annual, Society of Christian Ethics, 1989* (Washington: Society of Christian Ethics/ Georgetown University, 1989) 113–30; David G. Trickett, *Toward a Christian Theology of Nature: A Study Based on the Thought of H. Richard Niebuhr* (Ph.D. dissertation, Southern Methodist University, 1982).

promise."[33] Roger Sorell's *Saint Francis of Assisi and Nature* provides a careful analysis of sources of the Poverello's nature mysticism in the medieval spiritual traditions.[34] He situates Francis' development within the ascetic spirituality of the eremitic tradition. Francis' familiarity with nature seems to have grown with his recourse to remote and rugged sites for prayer.[35] Much of his response to the natural world consisted in stock elements of medieval ascetic spirituality and hagiography. Some of it, however, was original: nature mysticism, familiarity with natural creatures, chivalric address, insistence on the goodness of nature, extension of almsgiving to birds and animals.[36] Sorrell concludes, Francis "reveal[s] one of the most positive developments of that potential visible in the whole range of medieval reactions to the natural world." He resolved "the medieval ascetic ambivalence to the natural world" into "a burst of positive reactions to creation."[37]

Sorrell's historical scholarship gives the lie to sentimentally romantic interpretations of Francis' life and Franciscan spirtuality. Leonardo Boff's *Saint Francis* makes the case that Francis' reverence for the created world was rooted in the severest sort of asceticism. He became a reformer only after "a long and demanding novitiate" in which he lived with the poor and lepers. Boff concludes: "Whoever tries to romantically imitate Saint Francis in his love for nature without passing through asceticism, penitence, and the cross falls into deep illusion. . . . It was at the end, not the beginning of his life that Francis composed the hymn to the sun. To begin where Francis ended is a disastrous illusion."[38] Penance, Boff writes, "apparently so inhuman, was the price he had to pay for his profound humanity."[39] If Boff is correct, and I think he is, then environmental ethics will need to learn from Christian asceticism rather than to discard it as a life-denying spirituality.[40]

Michael and Kenneth Himes, drawing together the figures of Augustine and Francis, argue that creatureliness per se is the source of equality

[33] Santmire, *Travail* 117.

[34] Sorrell, *Saint Francis of Assisi and Nature: Tradition and Innovation in Western Christian Attitudes toward the Environment* (New York: Oxford, 1988). Sorrell's summary of the various streams of tradition flowing through medieval spirituality (9–38), particularly the Cistercian tradition (28–38), is highly useful. Because it was willing to combine both aesthetic and utilitarian considerations, the Cistercian tradition seems a more appropriate model for emulation by modern society than Francis' eremitic style.

[35] Ibid. 38–44.

[36] Ibid. 139.

[37] Ibid. 141.

[38] Boff, *Saint Francis: A Model for Human Liberation* (New York: Crossroad, 1984) 40.

[39] Ibid. 22.

[40] Also see Paul Wiegand, "Escape from the Birdbath: Saint Francis as a Model for the Ecological Movement," in *Cry of the Environment* 148–60.

with the rest of God's creation. What Augustine and Francis grasped, they write, is that "When one grasps the 'iffiness' of one's existence, the shocking fact that the source and foundation of one's being is not in oneself, then one knows oneself as truly poor. . . . This poverty unites all creatures."[41] The Himes brothers' argument points to a theological affirmation which many environmentalists deny, at least implicitly: the ontological difference between God and creation. An overlooked aspect of Franciscan nature ethic is its tie to love of the poor. Francis' humility grew out of his engagement with the little people (*minores*) and the lepers, and grew to embrace all God's little creatures. Perhaps the most inspiring role for Francis as patron of the environmental movement would be to join ecology with an option for the poor. "Only the *vere expropriatus*, one who has truly disappropriated himself, can become a *frater minor*, a brother of all."[42] "It is the concept of need that is essential in formulating a new understanding of Francis as the patron of an ecological movement," writes Paul Weigand. In choosing Francis, he contends, ecologists "have gotten more than they bargained for. . . ."[43]

Constructive Efforts[44]

a. Deep Ecology[45]

Deep Ecology is the name radical ecologists give their movement. It is an eclectic vision drawing from Gandhi, process philosophy, Teilhard, Buddhism, and ancient religions of the earth. It is, according to the bible of the movement, "Earth wisdom ... [the] unity of humans, plants,

[41] Michael J. Himes and Kenneth Himes, O.F.M., "A Universe of Sacraments," *Commonweal*, forthcoming. On the sacramentality of nature as approached from contemporary biology, see Arthur Peacocke, *God and the New Biology* (San Francisco: Harper and Row, 1987) chap. 7: "Nature as Creation" (108–15).

[42] Boff, *Saint Francis* 72.

[43] Weigand, "Escape" 153, 156.

[44] Due to space considerations, I deal with only one of the three systematic constructive programs I would have liked to review. The second would have been theocentric ethics; see n. 32 above. The third would have been Sallie McFague's feminist metaphorical theology; see her *Models of God: Theology for an Ecological, Nuclear Age* (Philadelphia: Fortress, 1987).

[45] I also do not consider here the thoroughgoing theological reconstruction proposed by Thomas Berry; see Anne Lonergan and Caroline Richards, eds., *Thomas Berry and the New Cosmology* (Mystic, Conn.: Twenty-third, 1987); Thomas Berry, "Creative Energy" and "The Dream of the Earth: Our Way into the Future," *Cross Currents*, summer/fall 1987, 178–217; Kenneth L. Woodward, "A New Story of Creation," *Newsweek*, June 5, 1989, 70–72. While I regard Berry as thought-provoking, my comments on the place of humanity in nature, the significance of sin and redemption, etc., will indicate that I am out of sympathy with his program.

animals and the Earth."[46] Both a philosophy and a social program, it is above all a spirituality rooted in "biocentric equality," i.e. "the intuition" that "all things in the biosphere have an equal right to live and blossom and to reach their individual forms of unfolding and self-realization within the larger Self-Realization."[47] The movement accordingly advances a radical program of moral and religious transformation. Its platform includes the affirmation of the intrinsic value of nonhuman "life" (including inanimate things), preservation of ecological and cultural diversity, an economic standard of "vital needs," and a measure of "life quality" rather than "standard of living" for the evaluation of development.[48]

The Norwegian philosopher Arne Naess, the most articulate spokesman of the movement, sees the tenets of Deep Ecology as antithetical to the goal of "sustained development" advocated by the Brundtland Commission and the World Conservation Society. The nub of the disagreement lies in the value each ascribes to nonhuman life. For the mainline environmental movement, Naess believes, "Conservation, like development, is for people"; it is essentially anthropocentric. Deep Ecology, by contrast, values nonhuman life "independently of human life," and it adheres to "a policy of non-interference with continuing evolution, for example, the evolution of mammals demanding vast territory, and of highly different landscapes with their special organisms." Thus "the satisfaction of nonhuman needs and the improvement of life quality for any nonhuman kind of being" are central to the Deep Ecology platform.[49]

b. The Ethical Program

Several principles of Deep Ecology deserve further reflection even for those who hold reservations about the necessity of biocentricity. To begin with, *ecological diversity* also has utilitarian value, e.g. in providing the variation in the gene pool needed for adaptive survival.[50] Wetlands prove valuable not only for flood control but also as breeding grounds for marine life and as natural filters to cleanse polluted waters. Over the long term, then, a diversity of ecosystems is more than an amenity; it is

[46] Bill Davis and George Sessions, *Deep Ecology: Living as If Nature Mattered* (Salt Lake City: Gibbs Smith, 1985) 64.

[47] Ibid. 67.

[48] Ibid.

[49] Arne Naess, "Sustained Development and Deep Ecology," in *Ethics of Environment and Development* 6.

[50] Naess (6–7) willingly acknowledges utilitarian assessments of environmental values on condition that they are accompanied by a recognition of the intrinsic value and diversity of nonhuman life.

a source of replenished life. A conservative respect for the worth of other creatures and ecologies may serve as a barrier against a narrow or shortsighted economic calculus which has proved dangerous even for human ends.

Secondly, *the vital-needs standard* raises serious questions about world-wide economic growth as a tool of just and sustainable development. The basic-needs strategies advocated by mainline environmentalists look to continued economic growth to supply the basic needs of the poor. By contrast, the vital-needs standard gives a signal to the affluent that environmental reform in the long run will require cutbacks in consumption on their part.[51] The principle, of course, bears some similarities to the patristic idea of autarchy, which has become a consistent theme of Catholic social teaching since Vatican II.[52] While basic needs are a matter of justice to other human beings, an economy of vital needs would be required for the preservation of a viable ecosystem. For if past experience can be a guide, then new efforts to insure that growth does not augment current levels of pollution can be expected to yield unforeseen yet large-scale problems of their own.[53] A standard of vital needs for everyone, not just the poor, therefore, merits consideration, as a referent point, to spur discussion about reduction in consumption as a necessary component of a prudent environmental policy.

Thirdly, *the standard of life-quality* even more than that of vital needs suggests that development does not have to be measured in GNP per capita. "Reverence for life," Naess argues, "implies reverence for the richness and diversity of human cultures and subcultures." Replacing material standard of living with a new measure of life quality is intended to indicate that there are patterns of life which do not entail intensive consumption or high technology which are humanly very satisfying. By weighing more heavily those things other than material growth which

[51] As Naess presents the concept of vital needs, the standard would permit (a) a transition toward a sustainable environment, and (b) permission for some natural excesses (e.g., feasting or large families) within the paramenters of ecological viability.

[52] I refer to *Gaudium et spes* 69, *Populorum progressio* 22–23, and *Sollicitudo* 31.

[53] Advocates of just and sustained development contend that energy efficiency, recycling and population control will allow for transformation of the economy in the direction of sustainable growth. See MacNeill, "Strategies," 157–63. Technological fixes, however, may prove unreliable. Some unexpected negative feedbacks from recent environmentally-designed technologies include the increase in acid rain due to the nitrous oxide emitted by energy-efficient auto engines, contaminated nuclear waste sites as a result of attempts to replace fossil fuels, and residue plastic bits from failed efforts to make biodegradable plastics. For an extended critique of the technicism implicit in the mainline view of sustainable development proposed by the World Conservation Society and the Brundtland Commission, see Rajni Kothari, "Environment, Technology and Ethics," in *Ethics of the Environment and Development* (n. 17 above) Kothari 16–19.

contribute to quality of life (environmental quality, leisure, education, and so on), it may be possible for diverse cultures to exist subject to "local, regional, and national particularities."[54] Again, such a standard would coincide with what Pope John Paul refers to as the distinction between "being and having."[55]

Thus, while biocentricity may be unsatisfactory as an ultimate standard of value, the ethical principles articulated by the Deep Ecology movement point nevertheless to plausible standards for sustainable development with which Catholics will be sympathetic. As to biocentricity, given the evolution of human-nature interactions and the need for conscious human direction, it appears to me that biocentrism is an exaggerated principle. Humans need to be respectful of environmental systems, to be sure, but reverence for nature can and ought to be combined with intelligent action. Furthermore, traditional Christian concepts like sin and conversion seem better able to deal with moral failure and renewal than neo-Gnostic notions about Earth wisdom. Anthropocentrism, in the aggressive form known by Western industrial society, needs a corrective, but biocentrism is not the answer. Whether humanity succeeds or fails in meeting the environmental crisis will depend on the intrinsically ambiguous character of human beings themselves. To meet that challenge, humanity needs to look more searchingly at itself as it is embedded in nature, not turn away to look at nature alone. Finally, the theocentric tradition in Christian theology (Augustine, Edwards, Niebuhr, Gustafson), with its insistence on responsibility to the God of all being, seems better able to generate a properly ordered sense of moral responsibility than the natural piety of Deep Ecology with its emphasis on the undisturbed evolution of the natural world.[56]

Politics of Ecojustice

Before significant progress can be made toward a just and sustainable world, it appears a series of innovations will be necessary both in political culture and in the structures of political decision-making.[57] The market mechanisms, the political philosophy of self-interest, and the interest-

[54] Naess, "Sustained Development" 11.

[55] *Sollicitudo*, nos. 28, 31.

[56] See James M. Gustafson, *Ethics from a Theocentric Perspective* 1: *Theology and Ethics* (Chicago: University of Chicago, 1981) chap. 6, "Man in Relation to God and World," and 2: *Ethics and Theology* (1984) chap. 7, "Population and Nutrition," esp. 218–50. H. Richard Niebuhr's theology provides a more hopeful and Christocentric outlook than Gustafson's (see n. 32 above).

[57] A provocative exploration of the changes in conceptualities and thought processes needed to meet the global ecological challenge is Robert Ornstein and Paul Ehrlich, *New World, New Mind: Moving toward Conscious Evolution* (New York: Doubleday, 1989).

group politics of the industrial democracies are obstacles to long-term global and regional decision-making, particularly when they demand restraint.[58] Both scientists and political analysts are clear about the need for stronger political institutions as a way to meet the current crisis. Even domestic institutions, when a nation is a major actor, like the U.S., U.S.S.R., or China in carbon emissions or Nigeria and Egypt in population growth, can make a serious difference.[59] Europe has made significant progress towards regional decision-making and enforcement, but acid rain, ozone depletion, and atmospheric warming have made clear the necessity of greater regional and international collaboration. Improved co-ordination, wrote the World Commission on Environment and Development, "is the chief institutional challenge of the 1990s."[60] Treaties and existing international organizations, such as the UN system, have roles to play. Much of the literature emphasizes use of the current political structures, and some warn of the proliferation of forums and agencies, arguing that co-ordination and focus are becoming urgently necessary.[61] All urge that environmental policy ought to take its place at the top of the foreign-policy agenda. Others believe that more coercive policies and institutions will be necessary to produce change.[62] Still others suggest the use of economic incentives to restructure growth.[63]

As I indicated above, recent events suggest that while constructive international agreements on the environment have been few, at least political leaders have begun to put ecology on their agenda and to begin negotiation. In the field of development, however, there is no comparable evolution of policy. Yet we have seen how necessary Third World development (in some modified sense) is in order to meet the environmental challenge. The Bruntland Commission recommended a series of measures from reorienting multilateral and bilateral aid to providing new sources of revenue and automatic financing. These include international taxes on the commons, such as ocean fisheries and seabed mining, and taxes

[58] Ruckleshaus, "Sustainable World" 168–69.

[59] Lester Brown and Edward C. Wolf, "Charting a Sustainable Course," in *State of the World 1987* (Washington: Worldwatch Institute, 1987) esp. 209–13.

[60] *Our Common Future* (n. 13 above) 317.

[61] On the need for consolidation and co-ordination of efforts, see Clark, "Planet Earth" 54.

[62] See Richard O. Brooks, "Coercion to Environmental Virtue: Can and Should the Law Mandate Environmentally Sensitive Lifestyles?" *American Journal of Jurisprudence* 31 (1986) 21–64. Much of the best literature on political decisions and social design in an era of environmental constraints comes from the 1970s; see esp. Dennis Clark Priages, *The Sustainable Society* (New York: Praeger, 1977). More recently see his *Global Technopolitics: The International Politics of Technology and Resources* (Pacific Grove, Calif.: Brooks/Cole, 1989).

[63] Ruckleshaus, "Sustainable World" 170–71; MacNeill, "Strategies" 163–64.

on international trade.[64] The commission recommends automatic financing because the current mix of voluntary aid and minimal financing of international organizations simply is not up to the enormous task ahead.[65] Automatic financing of this sort would involve a significant derogation of authority to transnational organizations. While it would be desirable to institute such an authority by conscious design to prevent deleterious delays in meeting the environment-development agenda, it is more likely that, as with the European Economic Community, it will evolve over time as a result of efforts to integrate environmental and development activities on a world scale. What is clear is that, even within the present international system, leaders will have to take the initiative in setting global needs on their national agendas.[66]

Responsibility falls on ethicists as well. Ethicists, writes Denis Goulet, cannot "remain content with portraying ideals and passing adverse judgment on the means used by politicians, planners, or others to achieve social justice." Ethics, Goulet proposes, ought to be a praxis in which ethicists take responsibility with others for the design and direction of social institutions. He concludes that just and sustainable development requires that ethicists "versed in the constraints surrounding vital choices promote values for which oppressed and underdeveloped groups struggle: greater justice, a decent sufficiency of goods for all, and equitable access to collective human gains realized in domains of technology, organization, and research."[67]

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THE ETHICS OF BUSINESS

Business ethics is a field that covers a vast range of problems from affirmative action to toxic wastes, from Third World debt to management styles, from fixing prices to closing plants, from supporting ballet to paying foreign officials. In societies as different as the United States and Poland, the United Kingdom and Mexico, greater reliance is steadily being put on the private sector to meet a wider variety of personal and social needs. This ensures that even more of the vexing problems of

[64] *Our Common Future* 340–42.

[65] Ibid. 340–41.

[66] While Pope John Paul sees political will as a necessity for just and sustainable development, he sees determination to work for global change lacking on the part of leaders, particularly, it seems, in the West (*Sollicitudo*, nos. 24, 35).

[67] Denis Goulet, "Development Ethics and Ecological Wisdom," in *Ethics of Environment and Development*, Goulet 11, 12. Also see 13: "Under ideal circumstances ethicists would share responsibility for the practical consequences of joint decisions taken by teams of development planners, economists, and technicians. . . . [T]hey need the critical input made by problem solvers if they are to avoid purely extrinsic moralism."