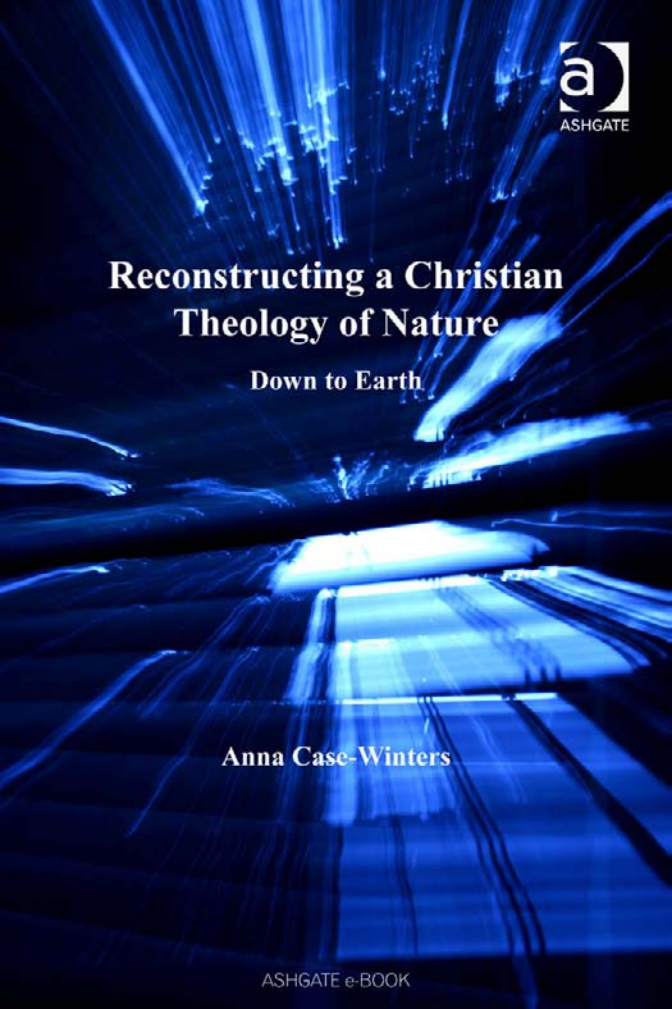
ASHGATE
Reconstructing a Christian Theology of Nature
Down to Earth
Anna Case-Winters
ASHGATE e-BOOK

RECONSTRUCTING A CHRISTIAN THEOLOGY OF NATURE

This is a hot topic which arouses great interest.
Roger Trigg, Warwick University, UK

I believe this is an exciting project, representing a different but important voice in North American theology.
Wentzel van Huyssteen, Princeton, USA

In the present ecological crisis, it is imperative that human beings reconsider their place within nature and find new, more responsible and sustainable ways of living. Assumptions about the nature of God, the world, and the human being, shape our thinking and, consequently, our acting. Some have charged that the Christian tradition has been more hindrance than help because its theology of nature has unwittingly legitimated the exploitation of nature. This book takes the current criticism of Christian tradition to heart and invites a reconsideration of the problematic elements: its desacralization of nature; its preoccupation with the human being to the neglect of the rest of nature; its dualisms and elevation of the spiritual over material reality, and its habit of ignoring or resisting scientific understandings of the natural world.

Anna Case-Winters argues that Christian tradition has a more viable theology of nature to offer. She takes a look at some particulars in Christian tradition as a way to illustrate the undeniable problems and to uncover the untapped possibilities. In the process, she engages conversation partners that have been sharply critical and particularly insightful (feminist theology, process thought, and the religion and science dialogue). The criticisms and insights of these partners help to shape a proposal for a reconstructed theology of nature that can more effectively fund our struggle for the fate of the earth.

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Reconstructing a Christian Theology of Nature

Down to Earth

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ASHGATE

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Introduction

Our current ecological crisis makes it imperative that a new theology of nature be formulated. The Western classical tradition has come under attack—and to some extent rightly—as a contributor to the present predicament. While I do not agree that *all* the blame can be laid at this door, in a state of affairs so complex and multifaceted, I do wonder what part Western classical tradition has played. I wonder whether and to what extent it has provided ideological underpinnings that have supported habits of thinking and acting without a proper regard for environmental consequences. I also wonder what Christian tradition might have to offer constructively in the struggle for the fate of the earth. At the very least, the challenges being issued invite theologians to re-examine theological constructions of God's relation to the natural world and the place of the human being within the rest of nature.

There is a groundswell of attention to theology of nature in current theological conversations. This work is long overdue. The beginning of the upswing in attention to a hitherto neglected topic roughly coincides with the publication of Lynn White's article on the "Historical Roots of Our Ecological Crisis." This groundbreaking article in *Science Magazine* raised to our consciousness the possibility that there may be fundamental *theological considerations* that have contributed to the present crisis. Since then it has been commonplace to hear that the wanton exploitation of nature is rooted in the Judeo-Christian theology of creation and the license to "subdue" the earth and have "dominion."

Responses both in biblical studies and in theology have been two-pronged: First, to argue that these outcomes result from a misinterpretation and a misappropriation of the tradition and not from the tradition itself. The claim is that the criticisms do not strike at the heart of the matter but rather invite us to reconsider interpretations and uses of the tradition that have proven so damaging. The second step is, to work toward re-interpretation and a more viable theology of nature. The present project joins the efforts to formulate a more viable Christian[1] theology of nature.

The first chapter asks the question of why we need a new theology of nature and proceeds to answer in terms of "the state of the world." Interlocking economic and ecological crises present a challenge for a faith that would be relevant and helpful in a "down to earth" sort of way. The way we live is grounded in what we believe about such things as the nature of the human being, the vision of the "good life," the place of the human being in relation to the rest of nature, and ultimate reality. These life-

1 This construction does not aspire to be a theology of nature for all people of all faiths—articulating a universal "view from nowhere." The author's location and the sources consulted are embedded in the particularities of the Christian faith tradition—which itself is not monolithic. The author hopes that other people of other faith traditions and other streams of Christian tradition will bring the gifts of those particularities to the table of dialogue. The challenges ahead are formidable, and we will need all the wisdom we can muster in our struggle for the fate of the earth.

orienting theological considerations are critical for shaping how human beings live with and within nature.

The second chapter asks the question of why we need a new theology of nature and answers in terms of "the state of theology." Is it the case that there are theological roots to our ecological crisis? The chapter does a brief review of five elements integral to Christian theology that, as some have charged, may contribute to the present crisis. Going beyond these initial criticisms three other perspectives are draw in to sharpen the critique: feminist theology, process thought, and contemporary science. The chapter then argues that either denial of the charges posed or easy acquiescence to them would constitute a "false start" that does not advance the project of formulating a theology of nature that is both relevant and Christian. A posture identified as "critical engagement" seems to hold more promise. Sallie McFague and Gordon Kaufman are held up as examples of theologians who take this approach and have made substantial contributions to this endeavor. The chapter challenges certain aspects of their respective proposals and makes an initial counterproposal. The chapter then proceeds to propose a set of prerequisites to guide in reconstructing a Christian theology of nature.

Chapter three seeks to establish that Christian theology of nature, though in need of critique and reconstruction, is not utterly bankrupt of resources to address the challenges raised. In fact, it has elements "authentic" to the tradition in its highest moments and best insights that may point the way forward toward a new theology of nature. The argument is conducted from a standpoint within Reformed tradition where, some would argue, the case is the most difficult to make. The chapter begins with Barth, and then looks back to Calvin and forward to Moltmann (and Reformed contemporaries) examining the theological challenges and contributions of this stream of Christian tradition and it present trajectory.

Chapter four surveys insights from ecofeminist perspectives. Ecofeminism generally faults Christian tradition for buying into a hierarchical dualism that sets man over woman, culture over nature, and mind over body in ways that are mutually reinforcing and destructive in their effect. "Logic of domination" underlies the system and yields a web of oppressions. Within this web the oppression of women and the oppression of nature are inextricably linked. The hierarchical dualistic system as a whole must be dismantled for the sake of social justice and ecological responsibility. The chapter begins by laying out the perspective of ecofeminism and ends with the constructive work of rethinking relations to address the challenges this perspective poses.

Chapter five examines the critique of classical theism offered by process theology that the perfections ascribed to God have been defined over against the natural world (God is eternal, the world is temporal; God is immutable, the world is changing, etc.). The effect has been to structure in an opposition and a mutual exclusion that effectively removes God from the natural world, a step that makes exploitation and violation of nature thinkable. The chapter then draws in resources from process thought for reconstructing a Christian theology of nature. It argues that there are three theological/philosophical considerations essential for a viable theology of nature and for the work of ecojustice that are helpfully illumined by Whitehead's philosophy: the alterity of nature, the integrity of nature, and the subject status of nature. The constructive work here is on how we understand nature as such.

Chapter six surveys the renewed dialogue between religion and science in hopes of a mutually illumining engagement. Being fully conversant with science is essential for a responsible theology of nature. Contemporary science has charged that Christian theology of nature has generally been inattentive to scientific understandings of the natural world. Furthermore, certain current interpretations of biblical texts and the accompanying theological accountings are simply not credible given the evidence of science. Particularly problematic for the present project is the view of the human being as somehow above and separate from the rest of nature. The constructive portion of the chapter draws upon what science has learned about the place of human beings in relation to the rest of nature to re-think the meaning of the theological affirmation that human beings are made "in the image of God." A reconstructed (and more "down to earth") understanding of the place of the human being in relation to the rest of nature is not only more intellectually credible but also more motivating for the work of ecojustice.

Chapter seven elaborates a constructive proposal regarding how we may understand the relation between God and the world. The proposal is panentheistic in contrast to classical theism which unduly separates God from the world on the one hand and pantheism/pancosmism which unduly identifies God and the world on the other. Within the family of panentheist perspectives, I argue for process panentheism as having advantages. The constructive portion of the chapter illustrates how process panentheism opens up new ways of understanding God's presence and activity in the world. The sense in which divine presence may be sacramental and incarnational is illumined. Divine activity in the world is rethought in terms of its creative interaction (*creatio*), divine accompanying (*concursus*), and persuasive luring (*vocatio*).

Chapter eight reviews the recurring challenges that a Christian theology of nature must address and suggests ways of approaching these challenges. Then the chapter proceeds to draw out the ethical implications of what has preceded. The theological exploration that precedes has yielded constructive proposals on how we might think about nature as such, the nature of the human being in relation to the rest of nature, and the relation of God to the natural world. How do these revisions in our theology of nature guide our living with and within nature? If we are called to be in the image of God, who is the God whose image we are to reflect and how does that guide us? We see *God with creation* in *creative interaction* with the world exemplifying both a respectful "letting be" and an engaged calling forth or persuasive luring toward the good. We see *God for creation* manifesting in Jesus Christ a *saving solidarity* in the face of suffering and *redemptive resistance* in the face of evil. Saving solidarity is manifest in vulnerable, self-giving love that suffers with and for cruciform nature and exercises a tender care that nothing of value be lost. Redemptive resistance sets itself against destructive principalities and powers in a prophetic denunciation of evil, judging and transforming. Both incarnation and sacrament signify and enact God's ("down to earth") "real presence." We see *God in creation* in a *life-giving communion* that renews, regenerates, releases, and reconciles all things in a communion of communions. If our way of living with and within nature were to be modeled upon this vision, our relation with the rest of nature would be marked by creative interaction, saving solidarity/redemptive resistance, and life-giving communion.

While we are unlikely to solve the complex problems of economic injustice and environmental irresponsibility through theological interventions alone, in so far as what we believe about God and the world and ourselves affects how we live—theology matters. This project joins with others in seeking to formulate a theology of nature that is more credible, more religiously viable, and more morally adequate. Together we need to find a model that might guide us to better ways of living with and within nature. In this modest effort, I take comfort in the words of Rabbi Tarphon, "It is not incumbent on you to finish the task...," but I am also challenged by his conclusion, "neither are you free to give it up" (Pirkei Avot 1.21).

In a project like this there are many more contributors than there is room to acknowledge. I want first of all to express gratitude for the students here at McCormick Theological Seminary, who continue to teach me more than I teach them and always help push the faculty to "keep it real." I am grateful to the seminary for time and space to do the research and writing for this book. My colleagues here have heard pieces of this at various phases of its evolution. Their evident enthusiasm for this project has kept me energized, and their insightful questions have brought needed and welcome refinements. Particularly notable contributions to my thoughts have come from my colleagues in the field of theology/ethics Cynthia Campbell, Robert Cathey, Lois Livezey, and Luis Rivera and from Ken Sawyer (in history) and Ted Hiebert (in biblical studies).

Organizations and efforts that I have been involved with over the years have shaped this work significantly and account for the interesting (if unusual) combination of resources (reformed, feminist, process, and scientific) that illumine my thoughts. Most significant have been: the theological committee of the World Alliance of Reformed Churches, the Institute for Reformed Theology, the Presbyterian Church USA, various (loosely organized) gatherings of women in theological education, The Highlands Institute for Religious and Philosophical Thought, and the Zygon Center for Religion and Science. These engagements keep me stimulated and challenged. The amazing people and ideas I have had the privilege to encounter in these connections have been formative and transformative for me.

I wish to thank four people in particular for their invaluable assistance with the book. McCormick Master of Divinity student, Michael Goodwin, read the initial draft and helped me to a much improved second edition. Academic Technology Librarian at the Jesuit Krauss McCormick library, Anthony Elia, has provided an excellent index for the work. From Ashgate, Ann Newell, Managing Editor for Humanities, and Sarah Lloyd, Publisher for Theology and Religious Studies, have both been immensely helpful. If faults remain after this able assistance, they are all mine.

Our family has been a source of blessing and motivation all along the way. Our children Jennifer, Michael, and Danny continue to surprise and delight us. Thinking of them and their future has, in a special way, kept before me the urgency of this work. The interlocking crises of the economy and the ecology *must* be addressed—for the children, for the future. What kind of world will we bequeath to them? My husband of thirty one years, R. Michael Winters, III continues uphold my life with his love, encouragement and eager partnership in everything I undertake. I am more grateful than words can express.

Chapter 1

Why We Need a New Theology of Nature: The State of the World

In the presentation which follows, it will become clear that the companion crises in ecology and economy are inextricably connected; the one cannot be addressed in isolation from the other. The work of eco-justice (*eco*-logical and *eco*-nomic) is one work. It is important to ask questions and study relevant relations in such a way that our response can be coherent and comprehensive. This will involve—as good theology usually does—seeing things in their particularity ("up close and personal") and seeing things whole (as we are utterly connected).

What are the connections between our self-understanding of the place of the human being in relation to the rest of nature and the present ecological crisis? What are the connections between our vision of human community and the economic crisis? How is diminished biodiversity related to poverty? How are habits of consumption related to global warming? How is the debt crisis related to the AIDS pandemic? How is the situation of "environmental refugees" related to the situation of poverty?

The reader may be fully familiar with the latest data on "our planet in peril." What follows will be only a sampling to give a sense of the state of the world. But it is an essential step both in order to paint a realistic picture of the state of the world and for the motivating effect that such a presentation may have in our struggle for the fate of the earth. Even a brief sampling will suffice to show the great extent of the present crises as well as the myriad ways in which economics and ecology crises are connected.

I. The World is in a State of Ecological Crisis

Consumption of Non-Renewable Energy Sources: Fossil Fuels

Use of fossil fuels (oil, coal, and natural gas) continues to be on the rise in spite of a campaign of awareness regarding its non-renewability, environmental damage, and rising cost. As with most other forms of consumption, the USA appears to be the chief offender. "With less than 5 percent of the world's population the USA is responsible for a large share of the world's fossil fuel burden (26 percent of global oil use, 25 percent of coal consumption, and 27 percent of natural gas use). We own one fourth of the world's cars. These cars alone emit roughly as much carbon as the entire Japanese economy, Japan being the world's fourth larges carbon emitter. In the case of fossil fuel consumption, when we "connect the dots," we see a coming

together of issues of environmental degradation, inequitable resource distribution, consumer demand, and armed conflict.[1]

Global Warming

2002 was the second hottest since record keeping began in 1880. The nine warmest years have occurred since 1990. Scientists have linked the warming trend that accelerated in the twentieth century to the buildup of carbon dioxide and to the heat-trapping gasses.[2] By burning fossil fuels, people released some 6.44 billion tons of carbon into the atmosphere in 2002. Weather experts in the working groups of the Intergovernmental Panel on Climate Change, 2001 indicated that we can expect an overall increase of 1.4 to 5.8 degrees Celsius by 2100 relative to 1990 (Worldwatch Institute, 2003, p. 40). This does not seem like much, but the last Ice Age was only 5-6 degrees Celsius cooler. Small changes in temperature wreak havoc with the ecology. This change represents an average of what will be distributed with relatively little change predicted at the equator and much greater change predicted elsewhere. Scientists do not predict a slow and steady change that might be accommodated with careful advance planning, but erratic weather patterns. The effects will include several troubling developments. Desertification will occur wherever species are close to their biological limits regarding temperature and moisture. This will destroy habitat for wildlife and accelerate the extinction of plant and insect species already occurring. Precipitation patterns will change, resulting in desertification of some areas and flooding of others. Large areas now usable for agriculture will become unusable with resultant famine. The sea level will rise, threatening low islands and coastal zones displacing tens of millions of people who will become "environmental refugees."

The irony of global warming in connection with consumption of non-renewable fossil fuels is that, in a sense, "the world has *too much* oil for its own sustainable well-being."[3] While we are at present, consuming non-renewable resources—a practice we might generally discourage—the damage of this consumption of fossil fuels is such that their absolute limitation is a blessing of sorts.

Diminished Biodiversity[4]

At present we are in the midst of the greatest mass extinction since the dinosaurs perished 65 million ago. The statistics are shocking. From 1850-1950 one species vanished per year, in 1989 it was one per day, in 2000 it was one per hour.[5] Most of the loss is a result of human activities (i.e. habitat destruction, climate change

1 Worldwatch Institute. "Economy," *Research Library*.

2 Worldwatch Institute. "Carbon Emissions and Temperatures Climb," *Vital Signs 2003*, pp. 40-41.

3 William Gibson, "Global Warming as a Theological Ethical Concern," *After Nature's Revolt*, ed. Dieter Hessel (Minneapolis: Fortress, 1992), p. 113.

4 Worldwatch Institute, "Nature," *Research Library*.

5 Park, Seong-Won, "Shocking Figures," Geneva: WARC, 2004.

accompanying global warming, introduction of "exotic species"). Habitat destruction is multifaceted. One example would be the freshwater ecosystems that are imperiled. 20 percent of all freshwater species globally are at risk, 40 percent in North America. Huge increases in water withdrawals for human use, extensive pollution, proliferation of dams, draining of wetlands, all contribute. Water scarcity becomes its own problem to an unprecedented extent as groundwater is being pumped faster than it is being replenished. Another instance of habitat destruction is attributable to deforestation. The world has lost nearly half its forested area in the past 8,000 years and the majority of that loss has occurred in the 20th century, with resultant habitat destruction as well as increased risk of erosion and flooding. In tropical rainforests alone today roughly 50,000 species become extinct each year, that is 140 per day.[6]

Global warming is also a significant threat to biodiversity. As global warming "heats up," entire ecosystems—and consequently the life forms they support—will be adversely affected. Areas that, though arid, currently support many life forms may become deserts. Temperate zones are already experiencing changes in flora and fauna and their schedules as a result of moderate temperature change. Over the past few decades, scientists have documented earlier blooming, migrating, and egg-laying schedules.[7] This has been a gradual change, but as habitats change more suddenly, species may not be able to adapt. Global warming will also increase the frequency and severity of weather anomalies that will adversely affect habitats upon which various species depend. It is estimated that within 50 years 25 percent of animal and plant species will vanish due to global warming.[8]

Introduction of "exotic species" is yet another danger. A case in point is the introduction of the kudzu vine in the southern USA. Introduced with all the best intentions, it was touted as an inexpensive feed for cattle. It was introduced, but cattle did not take to it and as southerners observe the kudzu just grew right over them! Now it is ubiquitous and overtakes and shades out native vegetation. Exotics can destabilize or overrun ecosystems where they have no natural checks.

Armed Conflict Over Resources

Roughly one fourth of the world's recent armed conflicts have involved a struggle for control of natural resources. A case in point would be recent conflicts over the strategic commodity of oil.[9] A suspicious reading of the armed conflict in Iraq, for example, declares it to be about oil resources, with "national security" and the "threat of terrorism" providing a pretext for military presence and intervention in the region. The United States consumes one quarter of global oil production, and the Persian Gulf

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6 This estimate is according the *Harvard University* biologist E.O. Wilson's calculations. J.C. Ryan, *Worldwatch Paper #108: Life Support: Conserving Biological Diversity*.

7 Howard Youth, "Watching Birds Disappear," *State of the World: 2003* (New York: W. W. Norton and Company, 2003), p. 30.

8 Park, Seong-Won, "Shocking Figures," Geneva: WARC, 2004.

9 Thomas Prugh, Christopher Flavin, and Janet L. Sawin, "Changing the Oil Economy," *State of the World 2005: Redefining Global Security* (New York: W.W. Norton and Company, 2005), pp. 100-119.

still supplies one fifth of U.S. imports. The British were instrumental in creating the country of Iraq, partly with an eye toward controlling the flow of oil from the region. "In 2001, an energy policy report to the U.S. Vice President prepared by a think tank with Republican Party ties, noted that at a time of tightening oil supplies and declining excess production capacity, Iraq had become a key "swing" producer and a destabilizing influence on oil supplies."[10] The costs of maintaining "oil security" since 1993 has been (according to one mid-range estimate) 49 billion. These costs are not paid at the pump, and do not include the human costs in loss of life and limb to soldiers and the grief of loved ones.[11]

Many armed conflicts over resources have occurred in poor countries where a particular ethnic group or economic elite has gained control of resources at the expense of the poor majority. "The world's failure to reduce poverty levels is now contributing to global instability in the form of terrorism, war, and contagious disease. An unstable world not only perpetuates poverty, but will ultimately threaten the prosperity that the rich minority has come to enjoy."[12] According to UNEP Executive Director Klaus Toepfer, "It is almost impossible to ensure lasting peace and stability when massive inequalities exist and the natural systems that support us remain under threat. Little will ever be achieved in terms of conservation of the environment and natural resources if billions of people have no hope, no chance to care."[13]

Another consideration is the ecological destruction that armed conflict itself *generates*. Nancy Frankenberry argues that it is militaries the world over that in fact constitute the biggest threat to the environment. She notes several instances. According to EPA estimates, 10 times as much air pollution was emitted over Kuwait, following the Gulf War bombing of the Kuwait oil fields as by all US industrial and power generating plants combined. In Vietnam, the US dumped 25 million gallons of defoliants and environmental toxins as well as 25 million bombs, virtually wiping out the topsoil in 25 million acres of farmland (Frankenberry, 1996, p. 46).

II. The World is in a state of Economic Crisis

One of the most complex and troubling issues before us today is the global economic crisis in which an increasing proportion of the world's population lives in grinding poverty. This is all the more troubling in contrast to the affluence of an elite minority. The need to address the causes and consequences of poverty must accompany any concerns for ecology, as ecology and economy are inextricably connected.

Rich-Poor Gap

1.2 billion people still have to get by with incomes of less than a dollar a day. "The global economy has grown sevenfold since 1950. Meanwhile the disparity in *per*

10 Prugh, Flavin, and Sawin, p. 109.

11 Milton R. Copulos, *America's Achilles Heel: The Hidden Costs of Imported Oil* (Washington D.C.: National Defense Council Foundation, 2003), p. 42.

12 Michael Renner. *Vital Signs 2003*.

13 Klaus Toepfer. *Vital Signs 2003.*

capita gross domestic product between the 20 richest and the 20 poorest nations more than doubled between 1960 and 1995."[14] In 1980, the richest 20 percent of the world's people earned 45 times more than the poorest 20 percent, in 1990, 60 times more, and in 2000, 80 times more.[15] "Of all high-income nations, the United States has the most unequal distribution of income, with over 39 percent of income in the hands of the richest 10 percent and only 1.8 percent going to the poorest 10 percent."[16] In 2001, the average annual pay of USA CEOs was 350 times as much as the average annual pay of a factory worker, who earned on average $31, 260.

Evidence indicates that *both poverty and wealth* can be bad for both the environment and for the human community. In relation to ecological considerations, affluence in the wealthy fifth of the human population has fostered an ecologically destructive consumer lifestyle. We have become "car drivers, television watchers, mall shoppers, and throwaway buyers." The circle is completed as the desire to maintain a lifestyle that insures power to purchase and consume, many will seek to gain wealth even at the expense of the environment, mining the resources of the earth without regard to preservation or sustainability. A case in point would be cyanide heap-leach mining in the extraction of gold. This method is used from South Africa to Nevada. Cyanide is mixed with water and then poured or sprayed over heaps of crushed ore—known as tailings to separate out the gold. While the chemically laced waste is supposed to be treated, it is never completely diluted, and the process is costly. In some locations, the waste is simply dumped into the rivers, streams, or oceans. In the US 130 million kilograms of cyanide were consumed between 1983 and 1999. A teaspoon containing a 2 percent cyanide solution can kill an adult.[17] In some locations, veritable rivers of this toxic mix are poured on huge piles of ore to extract the gold. In Romania, at an Australian-owned gold mine, in 2000, a dam holding back heap-leach waste broke and dumped 22 million gallons of cyanide into the Tisza River. The disaster has been called the worst environmental catastrophe since Chernobyl, yet heap-leach mining is on the increase around the world.[18] The conspicuous consumption of the affluent and the *pursuit* of affluence are destructive to the environment.

The opposite extreme of poverty also devastates the environment as, in desperation, people level rain forests to grow more beef to sell. The connections between poverty and ecological destruction form a similar circle of destruction. While it is clearly the case that poverty may lead to indifference to ecology and desperate exploitation of natural resources, it is also arguable that environmental degradation exacerbates poverty. For example, as the early effects of global warming are being felt, "weather related disasters brought on by land clearing, deforestation,

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14 *Worldwatch Institute*, "Rich-Poor Gap Widening".

15 Reformed Churches of *Bern-Jura-Solothurn, Switzerland* Jura-Solot, "Toward the Globalization of Justice," 2003, p. 9.

16 *Worldwatch Institute*, "Rich-Poor Gap Widening".

17 Robert McClure and Andrew Schneider, *Golden Dreams, Poisoned Streams* (Washington D.C.: Mineral Policy Center, 2001).

18 "Modern Conquistadors Plunder On," www.worldwatch.org/press/news/2003/12/18/

and climate change are most catastrophic for the world's poorest citizens."[19] In 2002, rains in Kenya displaced more than 150,000 people and drought in China displaced 800,000. Floods and other weather-related disasters were among factors prompting the migration of 10 million people from Bangladesh to India. It is those living on the edge economically that are most likely to be displaced and further impoverished. At present there are roughly 50 million such environmental refugees.[20]

Wealth and poverty both take their toll on the human community in ways beyond simple economics. There are accompanying differential health problems that are different for the overfed minority and the underfed majority, but both are in fact "malnourished." Both share high levels of sickness and disability, shortened life expectancies, and lower levels of productivity. "Diseases of affluence" such as cancer, heart disease, and diabetes are on the rise. The diseases of poverty and the diseases of excess have an enormous public health impact and economic impact.[21] The ways in which poverty and inability to provide basic needs for oneself and one's family may crush the human spirit are obvious to us. Less obvious is the destructive effects of affluence. The tragic irony is that while the consumer society has been stunningly effective in harming the environment, it has failed to provide us with a sense of sufficiency or fulfillment." [22]

Economic Globalization

Many would argue that the growing gap between rich and poor is exacerbated by economic globalization. "Globalization is a term for the emergence of world-wide markets, the increasing internationalization of trade and of the financial, goods and services markets as well as the international interlinking of national economies."[23] It is made possible by a number of factors: new information and transportation technologies, new ways of organizing production, and the financial liberalization and deregulation measures being taken in many countries. The chief protagonists are multinational corporations. Some view this as an opportunity to improve quality of life for all, and insure a wider participation in global economic life. For others, globalization has become an economic nightmare that recognizes neither social nor ecological values, and aims only at creating market values.

Globalization has come to be associated not only with the rise of the global market economy, but also with the human exploitation and environmental degradation that has accompanied it. It has meant the "commodification" of all things—people and

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19 *Worldwatch Institute*. "Carbon Emissions and Temperatures Climb," *Vital Signs 2003*, pp. 40-41.

20 *Worldwatch Institute, Vital Signs 2003.*

21 Gary Gardiner and Brian Halwell, *Underfed and Overfed: The Global Epidemic of Malnutrition* (New York: W.W. Norton and Company, 2000). In the developing world one in three children is underweight and this statistic is rising. In the USA, 55 percent of adults are overweight by international standards. 23 percent are considered obese. One in five American children is overweight.

22 Alan Durning, *How Much is Enough?: The Consumer Society and the Future of the Earth* (New York: W.W. Norton and Company, 1992).

23 Reformed Churches of Bern-Jura-Solothurn, Switzerland, "Toward the Globalization of Justice," 2003, p. 4.

their labor are treated as commodities, nature is commodified as well. It has meant the annihilation of local cultures and the creation of a kind of consumer monoculture—what Thomas Friedman has referred to as the "McDonaldization" of the world.

Under especially sharp criticism is "neo-liberal economic globalization"(WARC, 2004, #9). Its elements include: unrestrained competition and consumerism, privatization of public utilities and natural resources (like water), unlimited economic growth and accumulation of wealth—all without social obligation. This is to be distinguished from classical liberal economics in which, though the state existed, in large part, to protect private property and contracts in a free and competitive market, the system was to some extent humanized. Struggles like the labor movements required the state to provide for the common welfare. "Safety nets" were created for those whom the system did not serve well. It was capitalism with a compassionate face. The new thing in "neo" liberal is the transnationalization of corporations and capital, so that there is no "state" to enforce provision for the common welfare and no regulation. Labor and nature can be exploited with abandon. To whom is the multinational corporation accountable? It exists to make profits for its shareholders. This is a goal that does not give place easily to competing goals such as social justice and environmental sustainability. Transnational corporations hold more economic power than is generally realized. Of the 100 largest economies in our world today, 49 are nation states and 51 are corporations.[24]

After many years under this system, the situation is one of lavish wealth for the few alongside grinding poverty for the many. It is not a matter of a few people "falling through the cracks" of an otherwise workable economic system, rather the vast majority "fall through the cracks." Perhaps there was a time when it could be convincingly argued that this system would lead—with a kind of inevitable progress, led by an "invisible hand"—to a production of wealth that would mean better conditions for everyone. Wealth would "trickle down." But illusions of such progress have been dashed by the present reality in which the inequities are only increasing. The poor have observed that there is a whole lot more "trickling up" than trickling down. Such a statement is well-substantiated by the statistics on transfer of resources from South to North globally. Over an eight year period, the South received $927 billion in aid. It paid out to the North $1.3 trillion in interest and principle. Yet, at the end of that eight year period the debt of the South to the North was greater by 61 percent.[25] This is a "free market economy" in name only. In fact, barriers to trade flowing from rich to poor countries are removed (often under pressure), but protectionist policies remain in place for the reverse flow. Competition is manipulated and globalization becomes a one-way street.

Business activities of transnational corporations are directed toward the maximizing of profit, but the effect of their policies on the lives of people, human rights, and the environment are enormous.[26] The market may not be the best instrument for determining the goals of society. It seems not to distribute income, goods, and

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24 Reformed Churches of Bern-Jura-Solothurn, Switzerland, "Toward the Globalization of Justice," 2003, p. 13.

25 Park, Seong-Won, "Shocking Figures," Geneva: WARC, 2004.

26 Reformed Churches of *Bem-Jura-Solothum, Switzerland*, "Toward the Globalization of Justice," 2003, p. 13.

services fairly and often leads to spoiled environments. It is not a simple matter to dismantle the present system and the damage that has resulted from it. Realistically, many of the underlying changes that have occurred in the global economy are now irreversible.[27] The question at hand is how to engineer a better balance between market and society that will allow greater participation in decision making by those whose lives are affected, a more equitable sharing in the fruits of this system, and a greater concern for environmental sustainability. How can such values and concerns be incorporated into the system? How can globalization be humanized?

Debt Crisis

A central concern in this situation is indebtedness. Since WWII the richest countries have lent the poorest ones hundreds of billions of dollars. Together these countries now owe $422 billion ($380 per person). At present the "highly indebted poor countries" owe $220 billion. The debt has quadrupled in the last 20 years (up from $55 billion in 1980). Many severely impoverished countries are spending 30-40 percent of their GNP just to service the debt. The cost in terms of their inability to meet basic needs of their peoples (health, education, and social services) greatly diminishes the quality of life and portends a future of poverty for generations to come. In some cases even this high proportion of the GNP does not cover the interest on the debt so that "revolving debt" becomes a reality—the debt is never reduced but actually continues to rise. An example would be Nigeria, a nation that borrowed $5 billion, paid $16 billion to date and still owes $32 billion.

In addressing the situation of spiraling debt, international organizations such as the International Monetary Fund have thrown the lifeline of "stabilization" and "structural adjustment" loans if they will agree to such things as removing trade barriers, deregulating their economies, reducing government services and other arrangements that are disadvantageous to them, but make these debtor countries more "market friendly."[28] For example, the IMF and the World Bank, as part of their structural adjustment program, calls upon heavily indebted countries to privatize water resources as a condition of receiving the needed loan. The goal is profitability for the corporations concerned. This is without regard to sustainable use of water or public access to water. The result is that fewer people have affordable access to clean drinking water. Worldwide the privatization of water resources is intensifying an already troublesome problem. At present more than a billion people the world over have no access to clean drinking water. If the current trend continues, in 2025 this will be true of one person in three on the planet.[29]

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27 Douglass, Gordon. "The Globalization of Economic Life: Challenge to the Church" (Louisville: Advisory Committee on Social Witness Policy, PCUSA, 2001), p. 11.

28 Douglass, Gordon. "The Globalization of Economic Life: Challenge to the Church" (Louisville: Advisory Committee on Social Witness Policy, PCUSA, 2001), p. 7.

29 Reformed Churches of Bern-Jura-Solothurn, Switzerland, "Toward the Globalization of Justice," 2003, p. 17.

AIDS Pandemic

Although AIDS related mortality has fallen dramatically in high income countries since antiretroviral treatment became widespread in 1996, only four percent of those who need treatment in low and middle-income countries receive it. While the price of the antiretrovirals has fallen dramatically, from $10,000-$12,000 a year per person in early 2000 to $350 per person by December 2001, the expense still places treatment out of the reach of the world's poor."[30] "Experts estimate it would take an annual commitment of $10-15 billion a year to reverse the AIDS crisis in Africa that claims 7,000 lives a day. Sub-Saharan Africa pays almost $15 billion in debt service to the wealthy nations and institutions every year."[31] The number of people living with AIDS has risen to 42 million in Africa and is still on the rise. In 2002 average life expectancy in 16 African nations was at least ten years lower than it would have been without the advent of AIDS. In sub-Saharan Africa, home to 70 percent of the world's HIV-positive people, AIDS is now the leading cause of death. In these locations, those dying of AIDS are often either in the early or prime years of life. This reality tears at the fabric of both social and economic life. Young parents are lost to the disease and lost in their most productive years. Thus the disease—not treated due to poverty—further impoverishes these nations.

Population Explosion

The human family has grown more in the last 50 years than in all of previous human history. It topped 6.2 billion in 2002. The United Nations global population projection for 2050 is 8.9 billion. In the 49 poorest countries the populations are still increasing at a rate of 2.4 percent each year, nearly ten times the annual growth rate of 0.25 in industrial nations.[32] In locations of poverty, inadequate access to public health, and inferior status assigned to women the population is exploding. All three of these factors seem to worsen the population explosion. Where basic needs are met and where there is access to public health and where women have achieved some degree of gender equity, the growth rate is moderated.

III. Where do We Go from Here?

Re-envisioning the Common Good: Who is Included?

Herman Daly and John Cobb, in their book, *For the Common Good: Redirecting the Economy toward Community, the Environment and a Sustainable Future*, have proposed a thoroughgoing economic reorientation. They are critical of current practices of economic goal setting and measurement of economic well-being. For example, they point out that there is a distinction between what Gross National

30 *Worldwatch Institute*, "HIV-AIDS Pandemic Spreads Further," *Vital Signs 2003*, pp. 88-89.

31 www.jubileeusa.org "Why Drop the Debt?"

32 *Worldwatch Institute*, *Vital Signs 2003.*

Product (GNP) measures and real economic welfare. There are social and ecological indicators that are not being taken into account with the GNP. In fact, there are places where social or economic welfare may be adversely affected in connection with an increase in the GNP. For example, excessive consumption of alcohol, tobacco, and fatty foods are all counted positively in the GNP but few people assume these add to welfare. A wider circle of considerations needs to be included in these sorts of assessments; otherwise the indices operate at a level of abstraction that falsifies the reality.

Positively, Daly and Cobb propose that the larger biosphere and its well-being should be included in our vision of the *common* good. The wider community of the earth and other living beings must be considered in setting economic goals and assessing economic well being. The vision they propose would see the world as a "community of communities." They make several basic assumptions (Daly and Cobb, p. 376 ff) with which I concur and which help to shape the larger project of this book. They assume that the value of the non-human world is *intrinsic* and is not dependent upon its usefulness for human purposes. They differ from some in the "deep ecology" movement, as do I, in that they do recognize distinctions (i.e. that a human being may have more intrinsic value than a mosquito or a virus). They urge that these distinctions be acknowledged and allowed to guide practical life and economic policy. But those distinctions are not based upon the usefulness or serviceability of the species to the larger whole. They differ also from those (at the other end of the continuum) who would oppose a focus on the well-being of the whole biosphere for fear that this would distract from concern for social and economic justice among human beings. They insist that the matter of sustainability is also a matter of social and economic justice when; it is, in a sense, that justice extended to the future, thus taking a wider human community than the present day into account in seeking the common good. As they urge the expanding of horizons of concern, this is not at the expense of attention to individuals within the system so that particular instances of suffering become lost in the vision of the well-being of the whole. Rather the vision is balanced in the way that process theology ordinarily does to emphasize the "interconnectedness of all things" on the one hand and "fellow feeling for all who suffer" on the other (Daly and Cobb, p. 386).

If we conceive the world as a "community" then, as Larry Rasmussen puts it, "all that exists, coexists" (Rasmussen, 1996, p. 324). This principle becomes a "premise for future actions and outlook" (Rasmussen, 1996, p. 324). When nature is seen whole, in its integrity and interconnectedness it no longer makes sense to think and act as if "the common good" could exclude the non-human parts of nature and still be "common" or "good." The human being is reframed as a "link in the vast communitarian chain of the cosmos" (Boff, 1995, p. 36). Nature is seen in its integrity and human beings cannot be abstracted out of this larger web of being as a species apart. The whole and its parts "bear an integral dynamism and spirit" (Rasmussen, 1996, p. 324).

More holistic visions readily connect economy and ecology and see these as inextricably linked to one another. Initiatives like that of "The Earth Charter," for example, recognize these connections and join four central themes together: respect

and care for the community of life, ecological integrity, social and economic justice, democracy, nonviolence, and peace.[33] It is this kind of wholistic vision that is needed to offer hope for a global future that is both just and sustainable.

Reconsidering "the Good Life": Wealth or Well Being?

Patterns of consumption in affluent nations go well beyond meeting real needs The mass media holds out the promise that self-worth and happiness can be enhanced through a life-style of high consumption, "living large." The consumerist culture encourages us to meet all psychological needs through increased consumption. The pattern is addictive and destructive (both to persons and the environment), but like other addictions it involves denial of consequences. Paul Wachtel, in his book *The Poverty of Affluence*, has demonstrated that one reality of how the "growth economy" is constructed, is that it "creates more needs than it satisfies and leaves us feeling more deprived than when we had 'less'." There is a desperate striving for more. As Wachtel observes in his section on "false profits," "It is not what we have that determines whether we think we are doing well; it is whether we have *more*—more than our parents, more than we had ten years ago, perhaps more than our neighbors….Wanting more remains a constant regardless of what we have" (Wachtel, 1983, p. 16-17).

Jay McDaniel has made the point that consumerism or "economism" is, in effect, a kind of religion, if religion is understood as a way of organizing life. "Its god is endless economic growth, its priests are economists, its missionaries are advertisers, and its church is the mall….Salvation comes by shopping alone" (McDaniel, 1997, p. 105).

Psychologists studying various measures of life satisfaction have largely "confirmed the old adage that money can't buy happiness—at least not for people who are already affluent."[34] Statistically, there seems to be a correlation between wealth and life satisfaction up to the point where basic needs are met, after that there is little increase of life satisfaction as wealth increases. Studies indicate that happy people tend to have strong, supportive relationships, a sense of control over their lives, good health, and fulfilling work."[35]

The Canadian House of Commons in 2003 actually picked up this theme in legislation (the Canada Well-Being Measurement Act). Elements included in "well-being" are (generally):

- the basics for survival, including food, shelter, and a secure livelihood;
- good health, both personally and in terms of a robust natural environment;
- good social relations, including an experience of social cohesion and of a supportive social network;

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33 The Earth Charter Commission, *The Earth Charter*, 2000.

34 Gary Gardiner and Erik Assadourian, "Rethinking the Good life," *State of the World 2004: The Consumer Society* (New York: W.W. Norton and Company, 2004).

35 Michael Bond, "the Pursuit of Happiness," *The New Scientist*, 4 October 2003, pp. 40-47.

- security, both personal safety and in terms of personal possessions; and
- freedom, which includes the capacity to achieve developmental potential.[36]

The challenge of meeting basic needs and finding a more just and equitable distribution as well as patterns of consumption that are sustainable long term are major economic challenges with obvious ecological implications. It may be necessary to rethink questions of what constitutes "the good life?"[37] and ask ourselves "how much is enough?" These questions lurk beneath a growing discontent with consumer society. In affluent contexts, the invitation to "super size it" has not led to the "happiness" that was implied in the advertisement. Rather people are over-served and overweight. They are exhausted from overworking to "have it all."

Religious faith may address the crisis of meaning that underlies compulsive consumption and offer alternative visions of "the good life" and alternative lifestyles that are life-affirming and community conscious encouraging concern for sufficiency and sustainability in our patterns of consumption.

> People start to question more deeply the direction of their lives and the system that steers them in that direction…many of us are looking for something more from life than a big house and a new car. People long for something deeper: happy, dignified, meaningful lives—in a word well-being (Gardiner and Assadourian, 2004, p. 178).

A guideline worth considering is one from the Chinese philosopher Lao-Tzu: "To know when you have enough is to be rich."

Enrique Penalosa, Mayor of Bogotá, whose administration is credited with a remarkable increase in "quality of life" for that troubled city, uses an unusual yardstick to evaluate his development strategy. As he says, "A city is successful not when it's rich, but when its people are happy." Prosperity may be redefined to emphasize a higher quality of life rather than the mere accumulation of goods; the good life may be built around well-being rather than wealth (Gardiner and Assadourian 2004, p. 164). The word "wealth" is finds its root in "weal" "—a synonym for 'well-being' that traditionally had a community orientation (Gardiner and Assadourian, 2004, p. 165). Now the term wealth has devolved into association with accumulation of money and goods by individuals. It is a far narrower concept than its roots would imply. "Building a society of well-being essentially involves recapturing the original broad-based understanding of the term wealth (Gardiner and Assadourian, 2004, p. 165).

The Logic and Law of the "Household": Eco-Justice

How may we revive in the public arena a commitment to well-being and the common good (broadly defined to include not only human beings but the whole creation)? There are resources in Christian theology that may aid our thinking here. This is not

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36 Gary Gardiner and Erik Assadourian, "Rethinking the Good life," *State of the World 2004: The Consumer Society* (New York: W.W. Norton and Company, 2004), p 178.

37 Gary Gardiner and Erik Assadourian, "Rethinking the Good life," *State of the World 2004: The Consumer Society* (New York: W.W. Norton and Company, 2004), p. 165.

to say that getting our theology right will in itself solve these formidable problems. But if we are to do theology in this day and under these circumstances it is incumbent upon us to do theology responsibly with a view to the present crises and how we might make a difference for good in this context.

Christian theology has resources that potentially inspire and motivate a revitalizing of concern for well-being and for the common good. These will be presented throughout the present project. One such resource is in the biblical notion of the *oikos.* The Greek word *oikos* means "household." It is the root in all the "eco" words including both ecology and economy. Ecology finds its etymology in *oikos* + *logos* or the "knowledge" or "reason" of the household. It is about "the logic of the house," how it has been configured and how it runs (Rasmussen, 1996, p. 93). Economy finds its etymology in *oikos* + *nomos* or the "law" of the household, we might say "household rules." Sharing, providing for one another, doing our part in upkeep and care are an implied ethic of the metaphor of the world as "household." *Oiko* or "eco" justice is "household" justice wherein the logic or law seeks well being in a wholistic sense. Concern for ecology and economy are one concern.

This household metaphor is promising, I think, as a new way of understanding human beings in relation to one another and in relation to the rest of nature. I think it has advantages over other variations that are also in use in the present discourse about ecology and economy. For example, one often hears of the "human family" and of the earth as "our home." Each of these has its own merits, but in the service of eco-justice they may be subject to a misconstrual that proves problematic. The picture of human beings as the "family" that lives in the "home" that is nature, makes an object of the rest of nature and puts the human being in the center of concern yet again. If human beings care about the upkeep of their property it is for their own benefit and their children's. A better way of thinking, I believe, is to recognize *all of nature* as one "household;" we co-habit with the rest of nature in a common life together. Human beings are included among the inhabitants, but all the inhabitants have intrinsic value and rightful claims to respect and care. Earth is a vast and varied household (not the house but its inhabitants) joined in a common life together. The household's thriving depends upon a right and healthy relation among the inhabitants and a willingness to seek the common good.

Conclusion

In many instances, clear directions are emerging regarding changes that are urgently needed if we would move toward a more just and sustainable future. Even so, the moral will to change seems to be lacking. How can such a moral will be forged? It seems that the threat posed to future generations does not move us very far, even threats of imminent disaster fail to motivate sufficiently. How is it that we can be so selfish and short-sighted? How is it that we are so caught up in present patterns as to be paralyzed? We seem unable to do what is necessary to "do the good we want" (Rom. 7:19). McFague has helpfully illustrated how even good and compassionate people are subject to this paralysis. The systems and structures of our society are formed by a "model that focuses upon individual human beings bettering themselves," in

which the human being is understood to be first and foremost a "consumer" with a *vocation* to make money in order to consume (McFague, 2001, p. 81). Such a self-understanding pervades our lives and orients them in a destructive direction. A radical reorientation then, will require operating out of an entirely different model (McFague, 2001, p. 71). Theological reflection grounded in resources of Christian tradition may help us to envision a new model and urge a new orientation. This is why a theology of nature is needed.

Changes in behavior must grow out of changes at a deeper level. A reorientation akin to conversion is needed. How we think about God and the world as well as how we think about ourselves in relation to one another and in relation to the rest of nature are decisive for how we orient ourselves. Underneath our decisions about how we will live, lie assumptions regarding key questions of our existence:

- what is the nature of the human being?
- what is the good life?
- how should we live together as human beings?
- what is our place and our calling in relation to the rest of nature?
- what is of ultimate value?

These are theological questions. If there are changes needed in how we live, as would seem to be indicated by the above brief description of the state of the world, then we must revisit these more fundamental life-orienting theological questions. Religious values—for better or worse—orient us for living. A number of voices have arisen to charge that Christian tradition has in fact oriented us "for worse" in relation to nature. To the extent that this is the case, critical reflection is needed. If the "problem" is to some degree theologically rooted, then an effective address must meet the theological contributors to the crisis. The present work, while it may have implications that point in the direction of an ethic and set of actions, is primarily a work of theological reflection that means to lay groundwork for ethical decision-making.

The next step in this project will be to look carefully at some of the complaints that have been raised. Then having received and evaluated these criticisms, the larger project will proceed to consider whether there might be better ways to go theologically and whether there may be untapped resources in Christian tradition that could serve well to ground our struggle for the fate of the earth. An effective address must involve many diverse partners in cooperation. Some unlikely coalitions grow out of shared concern for the global future and the urgency of the present crisis. Traditional theology, as we will see, can profitably make common cause with other perspectives such as feminist ethics, process philosophy, contemporary science.

Chapter 2

Why We Need a New Theology of Nature: The State of Theology

The "state of the world" as presented would be reason enough to revisit the question our theology of nature. There is, however, another compelling reason to undertake this work which could be expressed as the "state of theology." In the wake of the ecological crisis, Christian tradition faces a charge that its influence on how nature is viewed and treated has been mostly negative. Our history and our theology are weighed and found wanting in their failure to provide a theology of nature that could under gird concern for the environment and the flourishing of all things. What they have offered, these critics charge, has in fact been more damaging than helpful.

To respond appropriately to these charges, it is necessary that we first understand how they arise and whether and to what extent they may well founded. These challenges must be effectively addressed if we are to propose a more viable theology of nature.

I. Critical Assessment of Our Predominating Theology of Nature

A. The Historical Roots of Our Ecological Crisis

Since Lynn White's article on the "Historical Roots of Our Ecological Crisis,"[1] it has been commonplace to hear that the wanton exploitation of nature is rooted in the Judeo-Christian theology of creation and the license to "subdue" the earth and have "dominion." There have been a few critical responses to White's analysis, though many have suggested that it is an oversimplified analysis of a complex problem. Lewis Montcrief, for example, argues that our relation to the environment has been influenced by many more varied and complex cultural/historical phenomena, and that the result we see today cannot simply be reduced to the influence of the Judeo-Christian tradition.[2] Furthermore, the role played by religions is generally in establishing a broad set of allowable beliefs and behaviors and providing systems for reinforcing them, but they do not determine beliefs and behaviors in an automatic and highly particular way as White's article seems to imply. This does not even begin to ask the question whether what White describes is a good accounting of

1 Lynn White, "The Historical Roots of our Ecological Crisis," *Science* 155 1203 (1967).

2 Lewis W. Montcrief, "The Cultural Basis of our Environmental Crisis," *Western Man and Environmental Ethics*, ed. Ian G. Barbour, Menlo Park, CA: Addison-Wesley Publishing Company.

what Christian theology actually teaches on the subject. While White's analysis is somewhat simplistic and open to criticism from a variety of directions, it still poses questions to which responsible theology needs to give attention.

Responses from theologians have been two-pronged. First, they argue that these out-comes result from a misinterpretation and a misappropriation of the tradition and not from the tradition itself. The claim is that the criticisms do not strike at the heart of the matter but rather invite us to reconsider interpretations and uses of the tradition that have proven so damaging. Second, they work toward reinterpretation and a more viable theology of nature. The present project is in that genre.

When we take the long view in the history of nature a few disclaimers are in order. We discover, for example, that change and process in nature are not new—the dinosaurs came and went long before human beings entered the picture. Change and process seem to be the way the world works; there is nothing new in living things modifying their environments. Nor is it the case that all modifications are negative and destructive. For example, there is coral polyp which, serving its own ends and survival needs, "has created a vast undersea world favorable to thousands of other kind of animals and plants" (White, 1967, p. 1203). What human beings are doing in relation to the environment is at one level not qualitatively different from what other life forms do. Human beings in transplanting a form of plant life to a new location merely participate in and accelerate what wind and water and other animals are already doing in the natural distribution of seeds.

The question is not whether the natural world will evolve and change or whether human beings will impact that process. The questions worth asking concern what kind of impact human beings—intentional and responsible beings that we are—will introduce. However, there has been a decisive shift in relation to that question of which we need to take note. The rate and character of change which human beings are *today* introducing represents such a *quantitative* increase that we may even need to speak of a *qualitative* difference between human impact on nature and that of other species. So what has produced this change? Lynn White's theory merits a hearing.

> Natural science, conceived as the effort to understand the nature of things, had flourished in several eras and among several peoples. Similarly there had been an age-old accumulation of technological skills sometimes growing rapidly sometimes slowly. But it was not until about four generations ago that Western Europe and North America arranged a marriage between science and technology, a union of the theoretical and empirical approaches to our natural environment. (White, 1967, p. 1203)

With this change, the function of science is no longer one of understanding and working with nature. The goal has become understanding in order to manipulate and control. Scientific knowledge of nature which has come to mean technological power over nature. Manipulation of the environment for human ends emerges full force with remarkable consequences. This change has changed our relationship to nature decisively—and some would argue disastrously—and many fear permanently.

White dates this change around 1850 and notes that the English term "ecology" was only coined in 1873. Now ecological impact is on another level altogether. War in the 14th century when the canon was first used affected the ecology—with cutting down trees and mining of potash, sulfur, and iron ore—resulting in small

scale erosion and deforestation. War in the 20th century with the hydrogen bomb could conceivably alter the genetics of all life on the planet. Smog was a problem as early as 1285 in London from the burning of soft coal. But our present combustion of fossil fuels threatens to change the chemistry of the globe's atmosphere as a whole with consequences we are only beginning to contemplate.

The population explosion and "the carcinoma of planless urbanism" (White's wording) have led, among other things, to a deposit of sewage and garbage of huge proportions. Surely no creature other than the human being has ever managed to foul its nest to such a degree in such short order.

This is the present state of things—a qualitatively different and disastrous relation with nature. More could be said, some such litany of the disaster on the horizon is needed to remind ourselves of the realities that our best theological thinking must today address. The preceding presentation on the "state of the world" made an illustrative exploration.

B. The Theological Roots of Our Ecological Crisis

There are so many calls to action in response to the crisis—ban the bomb, ban pesticides, ban chlorofluorocarbons. Such specific proposals, however worthy as individual items, seem too partial, palliative, and negative to address the disaster. These things are probably a good idea, but when it all adds up will they be enough? We need to find a way to get at the deeper difficulty of our *relationship with nature*? This is where the theological considerations come to the fore. What people do about their ecology depends on what they think about themselves in relation to things around them. This is a fundamentally theological question.

We may begin by asking what elements from Christian tradition have shaped the prevalent view of the human beings' relation to nature—for good or for ill? Even in this post-Christian age, the values of our culture—including attitudes toward nature—are deeply grounded in Western Christian tradition. The task of analysis hits with an added urgency in face of the widespread criticism that Western Christian tradition has in fact contributed to the present crisis. A brief recap of the criticisms is in order.

Many of the issues elaborated below have an articulation in White, but this presentation will venture beyond his analysis and draw upon other thinkers as well.

Lack of Thematic Attention to Nature

One of White's critiques is the notable neglect of reflection upon nature in Western Christian tradition. There are exceptions, but overall, as Harold Oliver observes, Protestant theology "having abandoned and even derided the Roman Catholic synergism of nature and grace...focused its energies wholly on the latter"[3]. Roman Catholic theology however did not fare much better as its "interpretation of nature

3 Harold Oliver, "The Neglect and Recovery of Nature in Twentieth Century Protestant Thought," *Journal of the American Academy of Religion*, Fall 1992, vol. LX, no. 3, pp. 379-402.

and grace became increasingly focused on soteriological and anthropological issues at the cost of neglecting the metaphysical and cosmological implications" (Oliver, 1992, p. 379). Furthermore, in the Roman Catholic expression of Western Christian tradition we have the legacy of its "regressive stand against Copernicus and Galileo." In the Protestant expression we have seen an equally problematic "laissez-faire attitude toward science that lends it an air of progressivism" (Oliver, 1992, p. 379). Thus nature becomes "the ward of science and technology, with little interference—and less wisdom— from the Church" (Oliver, 1992, p. 379).

Overvaluation of History in Contrast to Nature

Another criticism is that Western Christian tradition has fostered an overvaluation of history in contrast to nature. Part of the difficulty is the element of teleology (a purpose in things) introduced by the Judeo-Christian tradition. The claim is that history—in contrast to nature—is not a circular, mechanistic, meaningless repetition, but is linear, moving forward progressively toward divine ends and purposes. It is *history* rather than nature that is the vehicle of divine activity and revelation. This overvaluation of history in contrast to nature may have contributed to an increasing "marginalization, at times even denigration of nature" (Hiebert, 1996, p. 39).

Furthermore, some are now saying that this teleological investment has been a contributor to the secular "myth of progress" ("every day in every way things are getting better"). What was "purpose" in the theological tradition becomes "progress" in the vocabulary of the wider society. A consequence of this myth is that every technological advance, every triumph of science "over nature" has been received uncritically, greeted with enthusiasm as representing the anticipated "progress."

A Creation Story that Places the Human Being at the Center

The tradition is also criticized for the way our creation story seems to place the human being at the center of things—as the veritable "crown of creation." As the ones created *imago Dei* (in the image of God) the human beings share, in some sense, God's transcendence over nature. In its Western expression, Christianity has been a very anthropocentric religion. Preoccupations have been with what sets the human being apart from nature rather than those aspects that show the place of the human being within nature. Attention has been given, for example to "morality and value, agency and will... all traits that have been regarded as characteristic of human, but not of non-human, nature" (Hiebert, 1996, p. 37).

The human being is taken to have a monopoly on spirit. Philosophical currents and theological agendas have pushed in this direction. Idealism prevalent in the late nineteenth and early twentieth centuries split the spiritual and the material and identified human beings and God with *spirit* over against non-human nature—which was mere *matter*. In the climate of the times the world's religions were thought to be progressing from being religions of nature to becoming religions of spirit. Consequently, "non-human nature—excluded from the distinctive essence that defines humanity and God—recedes into the background" (Hiebert, 1996, p. 37).

Sometimes in the development of doctrine it appears that all the rest of creation is just a stage drop for playing out the drama of God's relationship with human beings. There is a primacy attached to human interests and well-being. It is as if the world and all its creatures exist for us—for our *use*. A *utilitarian* relation to nature is supported by this anthropocentrism.

An Invitation to "Subdue" the Earth and "have Dominion" over its Creatures

The injunction to the human being in Genesis 1:28 does not help in this regard: "Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth." Some interpretations of this text might promote license in relation to nature—divinely sanctioned. The problem is exacerbated when combined with the dualistic framework common to Western Christian tradition. Polarities are set up between God-world, man-woman, and culture-nature. These are taken to be graded differentiations in which one of the two is taken to be superior to the other and has the right to rule over it. As God rules of the world, man rules over woman, and culture rules over nature.

Desacralizing of Nature

Christianity affirms an "infinite qualitative distinction" between God and the world. God is not the world and the world is not God. In this step nature is desacralized. Here we differ from many other religions.

> In antiquity every tree, every spring, every stream, every hill had its own *genius loci*, its guardian spirit....Before one cut a tree, mined a mountain or dammed a brook, it was important to placate the spirit in charge....By destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects. (White, 1967, 1204)

The desacralization of nature that we find in Christian tradition may make thinkable the exploitation and violation of the nature which has been the legacy of Western classical tradition.

C. Sharpening the Critique

Elements of these initial criticisms have been sharpened by important voices in the wider conversation. Each of these voices offers particular criticisms and distinctive contributions that will give shape to the constructive proposal of this project. They will be revisited in later chapters to draw out the resources they have to offer in approaching the needed reconstruction of a Christian theology of nature.

From a Feminist Perspective

Feminists have seen the destructive downside of the dualistic framework of Western classical tradition. A substantial and damaging critique of the classical formulation

of God's relation to the world has been brought by feminist thinkers. Examples of the analysis I present below could be found elsewhere. The classical construction of God's relation to the world assumes a dualism. It is part of a larger and interconnected dualistic schema of graded differentiations:

God	world
man	woman
soul	body
culture	nature
mind	matter
light	darkness
good	evil

The dualistic framework is not to be viewed as a harmless, though false, over-simplification of reality, for in each of its manifestations it leads to a justification of domination of one in the pair over the other. This is a *graded* differentiation in which it is assumed that one in each pair is superior and by all rights should *rule over* the other (man over woman, culture over nature, etc.). This schema hangs together tightly so that the lesser valued in each pair come to be associated with one another (vertically). Man is associated with God, the soul, and culture. Woman is associated with the world, the body and nature.[4] Examples of this usage go way back.

In Greek philosophy, women are symbolized as analogous to the lower realm of matter or body to be ruled or shunned by transcendent mind. In Aristotle's *Politics*, ruling class Greek males are the natural exemplars of mind or reason, while women, slaves, and barbarians are the naturally servile people, represented by the body and passions which must be ruled by the "head" (Ruether, 1983, 79). All kinds of oppressions and exclusions are justified on these grounds and they are mutually reinforcing. Because the schema of dualistic, graded differentiations hangs together as it does, these social dominations (of women, slaves, and barbarians) and the exploitation of nature go hand in hand.

As the effort to dominate and control persons and groups of people has led to disaster in the human realm, so it is with the natural realm. High priority has been attached to subduing and controlling nature. An adversarial "man-against-nature" (using the term man advisedly) relation is fostered. Each cultural advance in technical, controlling, knowledge is greeted as a triumph. The operative understanding seems to be that nature is there to subdue and press into the service of human beings. Yet the domination and control of nature has led us to the brink of disaster.

> Within a brief century and a half the optimistic vision of expanding control, leading to Paradise takes on the frightening visage of global disaster, the universal outbreak of

4 Sherry Ortner's article "Is Female to Male as Nature is to Culture?" notes that the universal devaluation of women is connected with assumed superiority of culture, as the sphere of human control, over nature (and the natural processes which we do not control but depend on). Woman is viewed as closer to nature due to here greater physical investment in the biological procreation that reproduces the species and the extending of this physical role to confined social roles of child nurture and domestic labor (Ruether, 1983, p. 2).

> uncontrollable pollution, famine, poverty and warfare, which threatens the very survival of the planet. (Ruether, 1983, p. 84)

The oppression of woman and the oppression of nature are part of the same web of oppression and the one cannot be addressed without the other. The feminist project is larger than the liberation of women. The dualistic system of graded differentiation must be unmasked and dismantled. The dominant system must yield to radically transformed relations of human beings with one another and with nature. Feminists who readily recognize the interconnection of this web of oppression tend to cast their discussion of environmental ethics in terms of "eco-justice," that seeks at the same time to systematically undo social/economic/political dominations. This entails a re-thinking of the whole dualistic framework and all its component parts. The present project addresses the relation between God and the world.

From a Process Perspective

Process thinkers make an interesting analysis that combines a critique of philosophical dualism with the problem of the desacralization of nature, also working at the downside of the dualism note how formulations of the God-world relation which have emerged from classical theism are infected by dualistic thinking. Divine perfections have been defined over against the attributes of the natural world in a dualistic and oppositional framework: supernature *over against* nature. Whatever can be said of the world must be denied in relation to God. Intended theologically as apophatic reserve, preserving the mystery of God as being beyond anything we might know and describe in the world, the denials become evolve into positive attributes. They are taken to be descriptive of deity and seem to place God and the world in a kind of polar opposition.

God is	The *World* is.
necessary	contingent
eternal	temporal
unchanging	changing
absolute	relative

A mutual exclusion and opposition has been "structured in." This arrangement makes difficult any credible account of divine presence or activity in the world. How can an unchanging being relate to a changing world? How can a being who is eternal (in the sense of atemporal) act in a world that is caught up in time? There is an "infinite qualitative distinction" between God and the world. The world is not God and nothing in the world is God.

This way of conceiving the God-world relation may contribute to the "desacralization" of nature noted earlier. But it goes further in that it seems to effectively remove God from presence and activity in world process. Divine transcendence is preserved at the expense of divine immanence. Going beyond the refusal to confuse God and the world, it seems to find no place for God in world process. This may contribute to a clearing of the way for the brutal violation and exploitation of nature that has attended Western classical tradition.

From a Scientific Perspective

Conversation partners from the field of science have been especially concerned with the issue of the lack of thematic attention to nature. Theology—even theologies of nature--have, in some cases, proceeded as if it did not need to pay attention to how the world has come to be and how it actually works. It is charged that some interpretations of the biblical texts and the accompanying theological accountings of the origin and operation of the world do not take the findings of science into account and are simply not credible given what the empirical evidence reveals. Rightly or wrongly, it is widely assumed that these are the interpretations Christians in fact hold and Christianity is thereby discredited in the wider public intellectual arena. Three areas in particular invite closer scrutiny.

1. An understanding of how the world has come to be that takes into account such things as the big bang. This would involve reconsidering creation as a "seven-day wonder" brought into being by divine fiat. What would be the implications for our theology of creation?
2. An understanding of the human being that takes our evolutionary history and continuity with the rest of nature into account. This would involve reconsidering notions of the human being as a kind of "special creation" separate from and ruling over the rest of nature. What would be the implications for our understanding of the human being as *imago dei*?
3. An understanding of the way the world works that takes into account quantum mechanics, chaos theory, and scientific understandings of causation. This would involve reconsidering views of divine governance as entailing a pre-existing cosmic blueprint working itself out inexorably or divine action as entailing external intervention, manipulating and even overriding laws of nature. What would be the implications for our doctrine of providence?

Each of these areas of discussion will have bearing upon a reconsidered theology of nature. The caution is that a theology of nature, while it may not be the same thing as a scientific accounting of nature, ignores the scientific accounting at its peril. It is an impoverished theology of nature that does not give thoughtful attention to nature *as such*. Science provides our best resource for insight and understanding. A relevant theology of nature will need the best that science has to offer.

II. Responding Responsibly: False Starts, Critical Engagements, and Theological Prerequisites

The first part of this chapter explored the serious charges being levied against Christian tradition concerning its role in relation to the ecological crisis. It began with a review of Lynn White's groundbreaking article charging that the roots of our ecological crisis are historical/theological and then sharpened the challenge by adding criticisms from other perspectives (feminist theology, process theology, and science). The next part considers three possible ways of responding to these challenges. I will argue that

either denial of the charges posed or easy acquiescence to them would constitute a "false start" that does not advance the project of formulating a theology of nature that is both relevant and Christian. A posture identified as "critical engagement" holds more promise. Sallie McFague and Gordon Kaufman are named as examples of theologians who take this approach and have made substantial contributions to this endeavor. Their work deserves a significant role in future reflection on the subject. There is much with which I fully agree. My presentation will focus, however, on the points at which my own perspective diverges. When re-considering elements of the traditional Christian vision of God with the present crisis in view, both McFague and Kaufman have laid aside elements that I argue should rather be reclaimed and reconstructed. The chapter closes with a proposal of prerequisites for a reconstructed Christian theology of nature.

A. False Starts

Broadly speaking, I see three forms of response among theologians in the face of these challenges. Two of these forms of response I consider to be "false starts". Each is, it seems to me, a form of posturing that opts out of a full and honest grappling with the issues at hand.

Denial

The first "false start" would be adopting a posture of denial, refusing to allow the blame for the ecological crisis to be laid at the door of Christian tradition. Those who adopt this stance make two legitimate points. First, the causes of the present crisis are many and complex. It is possible that some other factors (i.e. materialism/consumerism) are the primary culprits here. Second, the lines of connection are not that easily traced between theological doctrines and ethical action. One cannot simply point to a particular doctrine (i.e. the doctrine of creation) and show by clear lines of argument that it has issued in a particular set of abuses. The argument is based on conjecture.

Granting that there may be other factors involved; might it still be the case that certain aspects of Western Christian tradition may be among the factors contributing to the present ecological crisis? To too quickly cast the blame elsewhere is to miss an opportunity for self-examination and self-correction. Denial as a final word seems at best defensive and at worst dishonest.

Even if there are other factors at work, i.e. human selfishness as reflected in materialism/consumerism, then should we not consider to what extent these same factors might pervade our doctrinal formulations? Might it shape our doctrine in such a way that it is skewed toward justifying and legitimating practices of conspicuous consumption with disregard for the well being of all creation? It is often the case that religion gets pressed into service to provide the ideological underpinnings for the values and practices prevalent in its cultural context. If this much is admitted, then there is still work to do in critically reassessing our theology of nature and inquiring whether and to what extent it may be not only a causal factor but an ongoing support for our problematic relation with the rest of nature.

Granting also that the lines of connection are not always clear between doctrine and practice; if there is conjecture involved here, is it reasonable conjectures? Is there any reason to believe, for example, that the central place of the human being in the Genesis accounts may contribute to an anthropocentrism that plays out negatively in the way we then live in relation to the rest of creation? It is a legitimate point that lines of connection are not always clear cut between doctrine and practice, but most believers would find it deeply troubling indeed to discover that there is *no connection whatsoever* between our theology and the way we live our lives.

Acquiescence

Another false start would be to adopt a posture that simply admits to the charges and uncritically accepts the conclusion that Western Christian tradition is to blame for the present crisis. I agree with Montcrief that the widespread acceptance of this simplistic analysis is "based more on fad than fact." [5] While this stance avoids defensiveness, it fails to do its homework in a careful critical examination either of the tradition or of the charges being made.

This is the response I actually see more often where I sit in the circles of Protestant liberalism. There seems to accompany it a companion assumption that Christian tradition is theologically bankrupt when it comes to being able to point a way forward through the present crisis. There is a ready move to look elsewhere for theological resources. Native American traditions and eastern traditions become the primary sources for reflection. This actually has been a productive exploration and has provided a very helpful broadening. These sources have much to offer.

But I think we are overlooking a great deal. There are ways of responding from within Christian tradition that are responsible. One is not forced to simply start over or look elsewhere. Not that there is no wisdom to be gained elsewhere or in fresh starts, but there are also untapped resources at the heart of our tradition. We have not yet "drunk deeply from our own wells." When we fully and carefully explore the resources of Christian tradition, we find it to be rich and various and to have a built in self-corrective potential. Beyond a few voices crying in the wilderness like Saint Francis of Assisi there are in fact also promising streams of thought in prominent figures like Irenaeus, Augustine, and Calvin. This exploration will be undertaken in the next chapter by way of illustrating the resources that are to be found in Christian tradition.

B. Critical Engagement: Two Representative Thinkers

Both denial and acquiescence are postures that opt out of a full and honest examination of the issues at hand. Fortunately, there is a path between the Scylla of denial and

5 Lewis W. Montcrief, "The Cultural Basis of our Environmental Crisis," *Western Man and Environmental Ethics*, ed. Ian G. Barbour, Menlo Park, CA: Addison-Wesley Publishing Company, p. 32.

the Charybdis of acquiescence. It is to be found in critical engagement, in respectful listening to the charges and thoughtful rereading of the tradition in terms of its part in the ecological crisis and its potential for providing a new theology of nature that would under-gird a commitment to the well-being of all creation.

There are thinkers who seek to walk this path and much productive work on a Christian theology of nature is being offered today. Two thinkers who have avoided the postures criticized above and have made important contributions in the area of rethinking the God-World relation as it impacts our theology of nature are Sallie McFague and Gordon Kaufman. Each has offered tremendous insights that have helped to set the course for reconstruction. One thinks especially of Kaufman's clear articulation of the importance of theological imagination and the critical/constructive nature of the theological enterprise. McFague's work on models and metaphors as they function in theology and science is fundamental to the work of reconstruction. In relation to what is needed for reconstructing a Christian theology of nature, both Kaufman and McFague make substantial proposals. Both thinkers object to the extreme views of divine transcendence in the tradition as preserving transcendence at the expense of divine immanence. Such views, as many have argued, may desacralize nature, clearing a path for the brutal violation and exploitation that has attended Western classical tradition.

Kaufman is concerned to show that the traditional bifurcation that separates God as *Creator* from all else as *created* is unhelpful and misleading. He moves to resolve the difficulty by suggesting that we no longer think of God in anthropomorphic terms as a person-like agent who creates things, but think of God as the "serendipitous creativity in the biohistorical process" (Kaufman, 2004, p. 45ff). I concur that the bifurcation he describes is problematic, but I have some reservations regarding his constructive proposal. The constructive conclusion of the book will urge an alternative along the lines of a process-panentheism.

In McFague's analysis of the problem, she shows how in Western classical tradition God and human beings are essentially spiritual and thus separated from material reality. This way of thinking expresses and perpetuates a devaluing of both nature and embodiment as such. We need to free our "Western, spiritualized, body-hating minds." She commends—in a deeper embrace of the Christian affirmation of incarnation—that we should instead think of the world as God's body. I completely agree with her analysis of the problem and the promise of exploring incarnational theology as a way forward. However, I will recommend a different appropriation of incarnation on the way to a revaluing of nature. I will detail my reservations concerning the world as "God's body" and will present an alternative that grants to nature a value *in its own right*, rather than because it is God's body or a part of God. A way may be found that affirms and respects nature in its alterity and integrity. Here again, process thought will assist in the formulation.

To reiterate, in both cases I concur with the analysis of the problem, but there are particulars within their respective proposals with which I wish to take issue. The criticisms I have center on points where I sense that something vital to Christian tradition is being unnecessarily and unhelpfully compromised in effort to accommodate the challenges at hand. My criticisms should not be construed as a

repudiation; rather it is because I so highly value their contributions toward a new theology of nature that I take the trouble to start this argument with Kaufman and McFague. This is only a lover's quarrel—but it is a quarrel nevertheless.

In what follows, I have done an appreciative, even if critical, appraisal of the work of McFague and Kaufman. Both affirm panentheism, as I do, as the most promising way of proceeding. While I proceed to differentiate my position from theirs, this remains a conversation "within the family of panentheists." Panentheism is not a monolithic position, but has a rich history and many variations. Some forms, it seems to me, are more viable for a Christian theology of nature than others. I will argue that McFague's view of the God-World relation particularly as expressed in her work *The Body of God* tends toward *pantheism*. The world is God's body. Kaufman proposes that what we should mean by "God" is the "serendipitous creativity in the biohistorical process." I believe this view tends toward *pancosmism***.** God is the world's internal own process. I will claim that there are problems with both of these approaches, namely the loss of the integrity and alterity of nature in the first instance and the collapse of transcendence in the second. My own challenge is to find how we may better maintain both the integrity and alterity of nature and divine transcendence, while avoiding the separation of God and the world that attends classical theism and may indeed have "desacralized" nature and contributed to the present crisis.

1. McFague: The World as the Body of God[6]

Proposal

Sallie McFague proposes that we think of the world as God's body.[7] This has a number of advantages in light of the challenges before us. First, the metaphor entails

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6 McFague's later work is much more arguably panentheist than pantheist. See *Life Abundant: Rethinking Theology and Economy for a Planet in Peril.* She explicitly claims that her model of the world as God's body is a form of panentheism.

7 McFague sets forth this proposal in a preliminary form in her 1987 book *Models of God* and then elaborates more fully in her 1993 book *The Body of God: An Ecological Theology*. Grace Jantzen had argued for a reconsideration of God's corporeality in her 1984 book, *God's World, God's Body*. It is through McFague's work that this view has gained currency.

Grace Jantzen means to lay aside fully and finally any dualistic perception of reality. She takes a holistic view of the human being as her point of departure and there refutes the traditional mind-body dualism. She perceives the human body as an embodiment of the self and works analogically to claim that the cosmos is the embodiment of God's self. Jantzen seems to work from an unquestioned assumption that the mind *really is* to the body as God is to the world. Here she differs from McFague who adopts the model more heuristically than ontologically and maintains the "is-is, not" (metaphorical) character of the model. Jantzen holds the metaphor with a much tighter grip. If we can understand how the mind and the body are related we will understand how God and the world are related.

As Jantzen argues for the world as the embodiment of God, what seems to be at stake in this for her is the conviction of 1) God's personal nature and intimate relation with the world and 2) God's action in the world as being something other than supernatural intervention from

an affirmation of embodiment and an elevation of nature in general that offer a stark contrast to the anti-matter, anti-body stream within Christianity which may have contributed to the present crisis. A chief benefit of the model is "the power it carries to begin to think and act differently, to think and act as if bodies matter" (McFague, 1993, p. x). The world must be treated with greater reverence if it is God's body. Divine immanence is vividly portrayed here, as is divine vulnerability in the world. "God is at risk in human hands" (McFague, 1993, p. 72).

Another advantage McFague sees in this alternative has to do with maintaining that God is personal in ways *congruent* with our contemporary understanding of personhood for which embodiment the *sine qua non*. This alternative also serves well in giving an account of God's knowledge of and action in the world. God's knowledge of the world is internal, empathetic, and intimate knowing, like unto our knowledge of our own bodies. God's action in the world is similarly interior. The mode of action suggested by classical theism is that God acts on the world by direct intervention or indirectly through other agencies. But if the world is God's body, we may think of God acting from within, through complex physical and historico-cultural evolutionary processes of the world rather than intervening and manipulating from outside.[8]

The positive values that McFague draws from this metaphor are very appealing indeed. Maintaining God's personal nature, finding coherent ways to talk about God's knowledge of and action in the world, witnessing to God's vulnerable, suffering love, and revaluing nature and embodiment seem to me to be essential to a reconstruction of a Christian theology of nature. My quarrel is not with the project and intentions but rather with the metaphor itself that I believe entails losses as well as gains. I question whether declaring that God's world is God's body is the only or even the best way to make the gains it achieves.

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outside. She seeks to disestablish classical theism in part because it cannot offer a coherent articulation of these two convictions.

After her thoughtful and thoroughgoing critique of classical theism she seems to assume that the obstacles to God's corporeality have been effectively removed. For her it seems to be enough to say that God's *corporeality can no longer be dismissed* by a syllogism that:

> God is supremely Real and supremely Good.
> Matter is least real and least good.
> Therefore God must be immaterial (Jantzen, 1984, p. 23).

While I grant that Jantzen's book makes a good and well-argued case against classical theism.

This is not in itself a positive case for divine embodiment. Removal of certain obstacles does not establish the necessity of adopting this alternative. Furthermore, there may be other obstacles than the ones she has removed that still stand in the way, as I will elaborate later.

McFague has taken a similar stance, that the world may indeed be thought of as God's body. She, however, articulates the positive case for this alternative vision more fully.

8 Sallie McFague, *Models of God.* Philadelphia: Fortress Press, 1987.

Questions

McFague understands her position to be panentheistic rather than pantheistic. In her later work, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril* (2000), she explicitly claims that her model of the world as God's body is "a form of panentheism" (p. 141). There is certainly ambiguity and variety in the way panentheists understand how God is "in" the world. McDaniel has made a helpful distinction between "emanationist" and "relational" panentheism.[9] The "emanationist" understanding sees the world as a direct expression of God's own being. "Relational" panentheism assumes that the world is an "other" in relation to God and grants the world a degree of autonomous action. McFague's position assumes an emanationist understanding. Placed on a continuum this understanding is arguably closer to pantheism than is the relational form of panentheism which I prefer.

The analogy of mind-body pulls, perhaps unavoidably, in this direction. I wonder if this particular analogy is not ill fated from the outset. Is it not more than a little risky to borrow the old mind-body duality that has carried dualistic baggage with it for so long? From a feminist perspective, when mind has historically been associated with the male principle and body with the female principle, to take mind for God and body for the world seems a dubious step. We could easily fall back into the very thought habits of graded differentiation and domination which feminists generally, McFague included, are trying to unmask and dismantle. In her later work McFague is careful to use "spirit" rather than mind but in terms of the dualistic framework this seems a fine point of difference.[10]

I also want to ask whether this analogy rings true to our experience. We experience our bodies as having the unity that attends organisms and we know something of how an organism behaves. But do we experience the world behaving in this way as a unified organism?[11] The beings inhabiting the world seem rather to go their own way and to have minds of their own. While they may be interconnected and interdependent they do not seem to be a "unity" analogous to a single organism's unity.

Furthermore, I question whether we in fact experience ourselves as being in a "part-to-whole" relationship with the world or with God. Do we not rather experience ourselves as having a greater degree of personal wholeness, integrity, and autonomy (and consequently moral responsibility) than such an analogy would allow? We experience ourselves as another "Thou" in relation to God, not as parts of God.[12]

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9 Jay McDaniel, *Of God and Pelicans: A Theology of Reverence for Life (Louisville, KY: John Knox/ Westminster*, 1989.

10 Although it is perhaps arguable that mind is more readily connected to will and thus evokes images of God as ordering and controlling whereas spirit in its association with life and breath evokes images of enlivening.

11 The world does not have "as much unity and coordination as the body of an organism" (Barbour, 1990, p. 177). "My body is an organism; to all evidence, the universe is no such thing.... the universe is not a whole" (Farrer, 1961, p. 207).

12 (T)he relation of our activity to God's causality.... cannot be the simple relation of part-to-whole; for if our will, our action is a mere part of God's, we can have no adjustment to

The body-mind/spirit analogy runs into greater difficulty in that we do not traditionally think of God as emergent from the world in the way that mind/spirit is emergent from body.[13] Nor do we ordinarily, in Christian theology, think of God as made up of matter in the way that bodies are made up of cells and atoms.[14]

Another objection that can be raised is that many of the anomalies that attended the God-world relation portrayed in classical theism reassert themselves with this metaphor. If what goes on in the world is really not other than the conscious, purposive activity of God's own body, then two difficulties arise. First, how do we make sense of human freedom? Second, how do we make sense of the pervasive presence of evil in world process? The theodicy problem would seem to be exacerbated in this model. The mind-body/spirit relation, while it does not imply absolute control, may imply more "control" than we may wish to attribute to God in God's relation to the world.

A more fundamental question I would pose to the use of this metaphor is whether it does not entail too close an identification of God with the world. Is there here a "domestication of transcendence" (to borrow William Placher's phrase)? When the ontological distance between God and the world is let go, transcendence collapses into immanence. The metaphor of the world as God's body articulates well the religious intuition that God is really "in the world," but does so at the expense of another equally important religious intuition, that God is "more than" the world.

When McFague wants to fend off the charge of collapsing transcendence she appeals, though it may seem odd, to a modified form of mind-body dualism.[15] She says, "Other animals may be said to be bodies that have spirit; we may be said to be spirits that have bodies" (McFague 1987, p. 71). Can it really be said that we "have" our bodies, is it not more that we are embodied? According to Whitehead, no one ever says, "Here I am, and I have brought my body with me" (Whitehead, 1938, p. 114). If there is a "more than"[16] that can be claimed in the mind body analogy, it is a very modest "more than." Is this very modest "more than," enough to justify the use of the term transcendence? It seems to me that Christian tradition has usually meant *more than that* by the term (Kaufman 1993, p. 268).

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make of ours to his.... It is taken to be a moral relation.... to another active self, only not "out there," but in the ground of our being (Farrer, 1961, p. 202).

13 Kaufman in *Creativity* begins to explore this option.

14 Keith Ward has also made this observation in "The World as the Body of God." (Peacocke, 2004, p. 69).

15 Jantzen raises another level of defense against the charge that all transcendence is let go by reiterating her critique of traditional notions of transcendence that totally separated God from the world. "Then the world is totally other than God; the universe is desacralized and God no longer has any part in it" (Jantzen 1984, p. 113). My question to her would be whether there is not a great span of unexplored territory between the stark separation we see in classical theism and the complete identity that she is proposing.

16 Jantzen (1984, p. 125) reminds us that our thoughts are "more than" our brain waves and our feelings are "more than" chemical imbalances. But this defense does not take us very far for if brain processes or chemistry are tampered with or obliterated, so are our thoughts and feelings.

There is a double danger here in identifying God and the world. The emanationist panentheist option not only compromises divine transcendence it also compromises the alterity (otherness) and integrity of nature. It is the second danger that does not seem to be recognized generally and this may be the deeper difficulty of McFague's position as compared with Kaufman's. Here traditional Christian theology—that is, a relational panentheistic reading of traditional Christian theology—may be essential to our present project. Without genuine alterity and integrity for the world, how can we speak of a God-world relationship in any ordinary meaning of that term? Such basic affirmations as, "God is love," become nonsensical unless there is an indissoluble "other" with whom God is in mutual relation.

Furthermore, how can we speak of human responsibility for creation (or anything else)? For it would seem that whatever human beings do is really only God's action and not their own. All creaturely acts lose their moral significance. How can this model of God's relation to and interaction with the world serve as a model for our own? Without alterity there is no relation or interaction and no viable model for a different kind of relation between human beings and the rest of nature. At the very least a new theology of nature will need to be able to articulate nature's integrity/alterity and human responsibility with and within nature modeled upon modes of relation and interaction that promote the flourishing of all others. In terms of the pursuit of eco-justice, it seems to me; this resolution hands over what should rather be handed on. Other options should be explored.[17]

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17 McFague in *The Body of God* seems to see the difficulty and offer correctives as she makes stronger claims for the unity of mind/spirit with body. "We do not *have* bodies….(w)e *are* bodies. Whatever we say about that part of ourselves we call brain, mind or spirit, it evolved from and is continues with our bodies" (McFague, 1993, p. 16). She also further clarifies the kind of transcendence she understands herself to be articulating. "God would not be transcendent over the universe in the sense of external to or apart from, but would be the source power, and goal—the spirit— that enlivens a (and loves) the entire process and its material forms. The transcendence of God, then, is the preeminent of primary spirit of the universe" (McFague, 1993, p. 20). Therefore "God is the inspirited body of the whole universe" (McFague, 1993, p. 22).

But the difficulty re-emerges later as she recognizes that the organic model she is presenting really is pantheistic unless one adds an agential model to it, "which suggests a center of being not exhausted by or completely identified with the world or universe" (McFague 1993, p. 140). As she attempts to refute a pantheistic reading, she reverts to the dualistic separation between body and mind/spirit/agency that she had earlier seemed to be setting aside. Agency and transcendence (and God) come to be equated with spirit. "God is related to the world as spirit is to body" (McFague, 1993, p. 141).

Perhaps we are here up against the limits of the analogy. McFague's strongest denial is found in the chapter on God and the world. "Using the model of the universe as God's body is neither idolatry nor pantheism: the world, creation is not identified or confused with God. Yet it is the place where God is present to us….God is neither enclosed in nor exhausted by the body shown to us, but it is a body that is given" (McFague, 1993, p. 134). There is a recognition that even as we contemplate the universe as the body of God what we have is not God's "face" but God's "backside" (Ex. 33:23). It seems to me the sensibilities she expresses would be better served by a model that is more clearly panentheistic.

2. Kaufman: God as the Serendipitous Creativity and Directional Movements in the Bio-historical Process

Proposal

Gordon Kaufman is also making a substantial contribution toward rethinking the relation of God and the world. He is seeking to address key challenges named and sharpened in the first half of this chapter: the ecological crisis, the systems of oppression that have been theologically grounded, the separation of God and the world in classical theism, and the need to be responsible in engaging the scientific picture of the world.

He has been particularly helpful in arguing for and demonstrating the critical/constructive nature of the theological enterprise. Like many theologians working at the tag end of the 20th century and into the 21st, located in the postmodern era (or late modernity depending on how one interprets the signs) he has acknowledged that there is no privileged and unassailable place from which to begin in theology. Neither revelation (a la Barth) nor religious experience (a la Schleiermacher) provides such a foundation. There is no standpoint outside cultural and historical embeddedness. There is no location immune from social and political interests that shape our thinking. This is no less the case for science than for theology. Even contemporary science acknowledges this embeddedness, and less often claims a privileged and unassailable standpoint in universal reason and objectivity.

Kaufman has embraced these realities. He has shifted the grounds of argumentation in theological discourse from testing claims on the basis of these foundations to testing them pragmatically. Do they serve as orientations for human life? What modes of life do they make possible? These questions require theology to move beyond its study of authoritative texts to a study of culture and social consequences. Claims are argued in a wider public arena beyond the ecclesial confines. His work has pointed the way for a variety of contemporary projects of reconstruction. The work of contemporary theology is deeply indebted to him. Again, what follows represents a deep—though critical—appreciation.

Kaufman, in his book *In Face of Mystery*, notes that the Bible portrays a conception of God "constructed on the model of the human purposive agent, capable of self-conscious creative work" (Kaufman, 1993, p. 268). He argues that this model is problematic for several reasons and should be reconsidered. His proposal is that we think rather of divine creativity on the model of the "broad ranging creativity manifest in the historical process as a whole the serendipity of history" (Kaufman, 1993, p. 268). My fundamental reservation concerning this proposal is the collapse of transcendence that it entails. God is no longer *more than* the world and its processes. As in pantheism God is all there is, Kaufman's view, which I am calling pancosmism, the cosmos/world is all there is. Kaufman makes the proposal he offers partly in response to what he sees as significant problems with the traditional personal/agential model. Below are three of his objections, briefly put, and my own responses.

Questions

First, when we imagine God as personal and agential, this gives a primacy to the human being. It is both anthropomorphic and anthropocentric. Furthermore, if we imagine God as an *all-powerful* personal agent, the human image that is most called to mind is that of the tyrant. If this becomes our image of God, then tyranny is in a sense "authorized" by association and this has disastrous consequences in the ordering of human life.

For clarity, I wish separate the discussion of God's personal/agential nature from the discussion of God's power. Thinking of God as personal and agential is indeed anthropomorphic; Kaufman has a strong point here. But there are several considerations that need to be taken into account before this admission is allowed to disqualify personal and agential ways of thinking about God. First of all, I wonder whether anthropomorphism is avoidable in any human conceptualization of God—whether in personal/agential terms or as serendipitous creativity. It is not only our images but also our ideas/concepts that are human-formed. To think that a particular concept of God, because it is an idea and not a personal image, is somehow *not* anthropomorphic seems to me a dubious assumption. Are there any fully *non*-anthropomorphic ways for human beings to think?

Second, if anthropomorphism *were* avoidable, would complete avoidance be the best course for theology? Would not our thinking and speaking be extremely constrained? Would it not be better to simply admit that anthropomorphisms reflect a limitation of human thought and language—and are never straightforward *description* of ultimate mystery? This latter would, I think, be consistent with views Kaufman has expressed. Furthermore, there is a downside to theology's historic attempts to avoid anthropomorphism. As Hartshorne expressed it,

> Retreating from popular anthropomorphism classical theology fell backward into an opposite error. Intent on not exaggerating the likeness of the divine and the human, they did away with it altogether…. Love became mere beneficence, totally unmoved…by the sufferings or joys of the creatures…. A well-meaning attempt to purify theology of anthropomorphism purified it of any genuine, consistent meaning at all. (Hartshorne, 1984, p. 29)

Hartshorne decried what he called the "metaphysical false modesty" of "seeking to honor deity by refusing to apply any of our positive conceptions."[18]

Regarding Kaufman's observation concerning how we think about divine power, I would submit that the deeper difficulty does not lie with God's being thought of

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18 Hartshorne, 1948, p. 35. Hartshorne commends what he refers to as the "principle of eminence," which includes in unsurpassable form positive creaturely attributes. "Whatever is good in the creation is, in superior or eminent fashion, "analogically not univocally," the property of God. Thus knowledge, purpose, life, love, joy, are deficiently present in us, eminently and analogically present in God. It is only in this manner that the idea of God acquires any positive meaning controllable by analysis, and yet free from anthropomorphic crudities" (Hartshorne, 1948, p. 77). In this, Hartshorne echoes Whitehead's concern that God not be thought of as the single exception to whatever characterizes the rest of reality but as the "chief exemplification" of those characteristics.

as personal or agential, but rather with our way of understanding what it is for God to be all-powerful.[19] What kind of power are we attributing to God? It seems to me that in our theological constructions we have taken power in the mode of domination and control as our fundamental meaning for power. When this is projected onto God and intensified in the way we usually do when applying attributes to God we end up with a notions of *omni*-potence and a reification of tyranny. I agree completely with Kaufman that this notion of divine power is unworthy and to be rejected.

What if God's power is not like that, what if God's ways are not our ways? (Isaiah 55.8) What if we have, as Whitehead suggested, rendered unto God the properties that belong to Caesar? (Whitehead, 1929, 1978 p. 342) Are there not other ways of conceiving personal power that would be more worthy of attributing to God and more worthy of emulation? What if God's power is exercised as "life-giving" and "world-generating", empowering rather than overpowering? What if this power is social power shared with genuine others and not a monopoly of power? What if it is a "strength made perfect in weakness," evidenced in compassion and vulnerability, demonstrated in capacity for solidarity and suffering love? These elements are also available in the biblical texts as corrective to some other elements. It seems to me that it is our notion of power that stands in need of reconstruction, more than our vision of God as personal/agential.

A second objection Kaufman brings is that to picture God as the personal agent, who is the Creator of all things, is to create a world picture that is fundamentally dualistic. There is an "underived and ultimate (God) and all that is derivative and finite (the created world)" (Kaufman, 1993, p. 217). There is an "infinite qualitative distinction" between the two. In this arrangement, all the dynamism and productivity are on God's side. Here Kaufman is naming the dualism both feminism and process thought have charged. He names a charge from science in this connection as well. If we say God is outside and other than the world, how can this make sense in relation to the scientific picture of the world as a self-contained whole? The universe is by definition "all there is." How then can we speak of something *outside* it?

These are indeed difficult questions. Kaufman has fairly represented the tradition's commitment to affirming divine transcendence—that God is not the world or anything in the world but always "more than" all this. However, at its best, I think the tradition has kept this in tension with divine immanence the sense that God is really in the world. There has been a compelling reclaiming of the transcendent-immanent poles of divine life in process theology. In challenging classical theism with its arbitrary elevation of one side of the metaphysical polarities, process thought has proposed ways of converting the either/or to a both/and, allowing that God is both changing and unchanging, active and receptive—and each in the sense in which it is most excellent to be so.

The question whether there is anything "outside" the universe is a more complex one. Of course terms like "outside" or "eternal" are metaphors that stretch to speak of transcendence in terms of spatial and temporal dimensions. When it comes to the universe we probably would not want to say God is *only* outside and not also inside.

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19 For a fuller treatment see Case-Winters, *God's Power: Traditional Understandings and Contemporary Challenges.*

The best course for answering this question is not clear to me, but I do wonder whether we want to go so far as to cede to science all rights to the naming of "all that is." If I were naming theologically, I would rather say that God is "all there is" and the universe is somehow in God—a panentheist proposal. The challenge here is one of how to walk the razor's edge between the dualism we wish to avoid and a monism (pantheism or pancosmism) which, as I am claiming, has its own set of pitfalls.

Kaufman's third objection is more easily addressed. He argues that the things we traditionally affirm about God (aseity/self-subsistence, etc.) simply do not fit well with the contemporary notions of personhood that evolves and is socially defined. There are (at least) two ways to address this conundrum. One could, as Kaufman suggests, drop the personal model as a way of thinking about God. On the other hand, one could revise the concept of God to be more congruent with contemporary understandings of personhood. Either entails radical reconstruction. Contemporary visions of the human being would affirm that we are beings in process, relational, socially-constituted beings. If we were to scan the contemporary theological landscape, I think we would find that, generally speaking, contemporary theologians (especially feminist and process theologians) are already working with a dynamic and relational model of God. Trinitarian theology has always had the potential for dynamic/relational (perichoretic) construal and is today being retrieved as a model for human personhood and life in community. Thus, it would seem that the habits of thought Kaufman is criticizing in our thinking of God (analogously) as personal could be—and are being—revised.

Kaufman would have us make a positive argument for keeping a personal/agential model for God. For Kaufman, it is not enough to establish that this model has greater continuity with the tradition and texts of the Christian faith. Nor is it enough to observe that the model resonates with human religious experience and has a great religious viability. He is the first to admit that it "evokes from men and women a powerful affective response—to love God, to serve God, to trust God, to commit ourselves without qualification to God's will for us" (Kaufman, 1993, p. 270). For Kaufman the surest test is rather the pragmatic one. How does this concept of God serve as an orientation for human life? What modes of life does it make possible? Here, he has already granted so much that I would reflect his own words back to him.

> The conception of the perfectly loving/faithful/just God becomes now the model and standard by which women and men are to measure themselves…. And notions of responsible selfhood, and of loving and forgiving interpersonal relations, become social and cultural ideals and standards in those societies devoted to this God…. (a) significant and powerful world picture, one which orients individual existence toward justice, equal respect for all persons, and peace. (Kaufman, 1993, p. 270)

I would simply want to ask whether a concept of God as "serendipitous creativity" has as much promise and compelling power for the orientation of human life. Might it not serve better as a way of talking about how God is active in world process (continuously within the process rather than occasionally by intervention from outside it)? Need this metaphor carry the full freight of a concept of God? Can it not be helpfully complemented by a personal/agential model?

Regarding personal metaphors, while I am convinced of the import of rejecting notions of God as just a "big person in the sky," I do not think that anthropomorphism is altogether avoidable. Our impersonal as well as our personal metaphors are equally constructs of the human imagination. Furthermore, I would want to urge another sort of test, the time-honored theological test based upon Anselm's ontological argument. If God is "that than which nothing greater can be conceived" how then do we evaluate these alternatives? While there is some debate about whether the evolutionary process that evolved *us* can rightly be called "progress"; it seems that there is at least "directional movement" toward greater complexities and toward the emergence of conscious purposive beings. Maybe it reflects an anthropocentric viewpoint, but do we not, in fact, attach a higher value to more complex (personal/agential) life forms? Pragmatically, we act as if we do. Many people would very readily swat and kill a malaria-carrying mosquito rather than risk infection and would do so without many pains of conscience. If indeed we do more highly value personal and agential being, why should we revert to impersonal, non-agential attributions when we imagine God? In terms of metaphors we employ—to speak of that which is and remains holy mystery—would we not rather think of God as "at least" conscious, purposive, and agential? It seems that our most highly valued attributes should be claimed and intensified in relation to God. God would be thought of more appropriately as the "chief exemplification" of personal agency?

In his later work, *In the Beginning…Creativity*, Kaufman raises the added concern that personal metaphors lend a special connection between God and the human being that may play into the overvaluation of the human being in relation to the rest of nature. There are tendencies to anthropocentrism in Christian tradition (reflected in such things as the use of personal metaphors and the doctrine of the *imago dei*) that need to be overcome. I share his concern about anthropocentrism. We need to look rather for metaphors that will draw a clear line of distinction between God and the human being. I do not see that the impersonal notion of God as "the serendipitous creativity in the biohistorical process," standing alone, meets that requirement. Creativity is an attribute that human beings in fact share with God we are "created, co-creators" as Philip Hefner has effectively argued. As such, it also seems to connect rather than distinguish us from the divine.

Speaking maximally, apart from personal/agential attributions, I see no reason to keep using the term "God." Why not just speak of world process as such, why call it "God"? This seems the logical conclusion of what I am calling Kaufman's "pancosmism." Speaking minimally, I would (at least) not want to exclude personal metaphors. They, alongside non-personal (or, as I prefer to say, transpersonal) metaphors, may be useful pointers to God. Can we think of God as both/and rather than either/or? Taking a page from process thought, could God be thought of as possessing both personal and transpersonal aspects and each "in the sense in which it is most excellent to be so?" Or, thinking with Nicolas of Cusa, is there a God beyond the wall of this "coincidence of opposites?"

If God is to be thought of as "that than which nothing greater can be conceived," then the concepts proposed should, at the very least, point us toward something that is worthy of worship and emulation; something that provides an appropriate orientation for living. Kaufman's pragmatic tests should be applied. If we are assessing ways

of thinking about God in terms of their ability to provide orientation for human life (which is personal and agential), then it seems that by that criterion concepts which are personal and agential would have a decided advantage. This is not to say that transpersonal metaphors such as the compelling one Kaufman presents should be excluded or that when we use personal/agential models we are "describing" God in some direct, non-metaphorical way. Kaufman has insisted that the pragmatic test of how our concepts serve in orienting our lives be applied. When it is, I think that transcendent and personal/agential concepts serve best in our re-orientation for the work of eco-justice.[20]

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20 The challenge, for me, of this critique of Kaufman, is that his motivating concerns, criticisms of Christian tradition, and intuitions regarding needed revisions are so very close to my own. At the same time, I am drawn to different conclusions about how to get there from here. I am stammering to articulate those and have found my thought illumined and sharpened by having Kaufman's work to think with. Places of convergence in his work and mine include intentions of:

- thinking of God as ultimate mystery—beyond all the metaphors (even my favorite ones)
- desiring to overcome dualisms (including resisting the bifurcation of God and the world into a dualism of Creator and created)
- motivating transformed relation to nature, to see that we are embedded in this web of life that is nature, and more than that that we *are* nature,
- overcoming anthropocentrism that has been so destructive to us and to the rest of nature
- speaking of God, the world, and human beings in ways that are conversant with scientific understandings of the world (i.e. refusal of external interventionist modes of thinking and speaking and preferring ways of thinking about divine acting as internal to the process)
- articulating a vision of God that is not so easily undone by the theodicy problem (critiquing notions of divine power that is all-controlling)
- reconsidering the *imago dei* as a way of thinking about the human being (However, I do not jettison it, as Kaufman does, I seek to rid it of distortions to which it is prone).

In thinking about divine acting in relation to creation, as I will demonstrate in a later chapter, I am in agreement with Kaufman that the traditional bifurcation that separates God (as Creator) from all else (as creation) is unhelpful and misleading. But where Kaufman moves to resolve the difficulty by suggesting that we instead think of God as the "serendipitous creativity in the biohistorical process," I want to suggest another way of avoiding the bifurcation along the lines of process-panentheism.

That "creativity" is a shared quality is perhaps most obvious in consideration of human beings and their exercise of creativity. Human beings are biohistorical beings, created by our biological evolution and by our history. We have emerged as self-consciousness and self-transcending beings who therefore have greater freedom/power and consequently responsibility such that we are surely co-creators. (Hefner's term) Serendipitous creativity characterizes our activity also. Or does Kaufman mean to imply that our creative activity *is* God's creative activity? If so, then the theodicy problem is exacerbated. The alterity and integrity of creaturely existence is collapsed and we have a panentheism that leans toward pancosmism. Creatures, and most obviously human beings, exercise creativity also, this

C. Theological Prerequisites

Whitehead speaks of "religious intuitions" that human beings have in our moments of finest insight. They flow out of special, super normal experiences but have such elucidatory power that they come to order all other experiences.[21] In this exploration, I am led by two, perhaps competing, human intuitions about the relation of God and the world. The first has its origin in the experience of the wonder and beauty of nature. All that we see seems to declare that God is really *in* the world—that "earth's crammed with heaven and every common bush on fire with God."[22] The other intuition that arises—even in the middle of our wondering—is the intuition that God is still *more than* all this. How may we make sense of both these intuitions?

Classical theism, it seems to me, errs in the direction of compromising the first intuition that God is really *in* the world and the pantheistic/pancosmic alternatives err in the direction of compromising the second, that God is *more than* the world. It is these two intuitions that have led me to seek to steer a course somewhere between classical theism which so sharply separates God from the world and pantheism/pancosmism which so completely identities God with the world.

There are some very basic theological prerequisites that I will employ in seeking to articulate a Christian theology of nature:

- a critical appreciation of Christian tradition should be evidenced
- the anthropocentric and dualistic habits of thought that are embedded in Christian tradition should be addressed
- the alterity and integrity of nature should be respected
- an accounting that is fully conversant with scientific perspectives on the origin and operation of the natural world should be developed
- the picture presented of the God-world relation should give an adequate accounting of the religious intuitions that God is really in the world (immanent) and yet more than the world (transcendent)
- the concept of God should be one that is worshipful and worthy of emulation "that than which nothing greater can be conceived"
- a model for living with and within the rest of nature should be provided.

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is not what distinguishes us from God, but a shared quality—though one God possesses unsurpassibly.

21 Religion claims that its concepts, though derived primarily from special experiences, are yet of universal validity, to be applied by faith to the ordering of all experience. Rational religion appeals to the direct intuition of special occasions, and to the elucidatory power of its concepts for all occasions. These intuitions derive from the super normal experience of human beings in their moments of finest insight (Whitehead, *Religion in the Making*, p. 31).

22 "Earth's crammed with heaven, And every common bush on fire with God; But only those who see take off their shoes...The rest sit round it and pluck blackberries, And daub their natural faces unawares...." (Elizabeth Barrett Browning, "Aurora Leigh").

Conclusion

This chapter, like the first, has posed the question "why do we need a new theology of nature?" It has answered from another perspective, the perspective of "the state of theology." Challenges have been presented concerning the historical/theological roots of the ecological crisis and sharpened from feminist, process, and scientific perspectives. These challenges deserve a considered response. It is imperative that some accounting be made if we would continue to affirm the intellectual credibility, religious viability and moral adequacy of Christian faith. If it is the case that even a portion of the responsibility for the present crisis can be laid at the door of Christian tradition, responsible theology will seek to undo the damage.

This chapter has also evaluated current theological responses to the challenge. Denial and acquiescence are "false starts" in this endeavor. Far better is the kind of critical engagement we see in the work of Sallie McFague and Gordon Kaufman. The chapter challenges certain aspects of their respective proposals and concludes with a proposal of prerequisites for a reconstructed Christian theology of nature. Now it is possible to go forward to assess traditional Christian theology of nature and inquire into its problems and the possibilities we find there for a reconstructed theology of nature. If indeed our theology of nature impacts how we live in relation to nature, then the work of reconstruction represents not only a responsibility but also an important opportunity to make a positive impact for the good of all creation.

Chapter 3

Distinctive Challenges and Distinctive Contributions: A Close-Up on Reformed Tradition

There have been thoughtful and significant responses to the charge that the wanton exploitation of nature is rooted in the theology of creation articulated in Christian tradition and that the responsibility for the ecological crisis is to be laid at our door. Responses have come from both theology and biblical studies to claim that, if this is the case, these outcomes result from a misinterpretation and a misappropriation of Christian tradition both internal to the tradition and offered by critics of the tradition. The argument is that these misinterpretations and misappropriations stand in need of correction and that they do not come from what is "authentic" to the tradition in its highest moments and best insights. This present project joins such responses. It will offer an interpretation of the tradition that seeks to show that we have (or can have) a viable theology of nature and may actually have much to offer in the struggle for the fate of the earth. I work from within the Reformed stream of the broader Christian tradition wherein I locate myself. This standpoint brings the difficulties into even sharper relief, for the Reformed have been singled out for special opprobrium in relation to the charges named above. In part it is the price we pay for having been so influential in our culture in the past (Kaiser, 1991).

I. Reformed Tradition: Distinctive Challenges

The charge is that some of the themes the Reformed hold most dear that have had a negative outworking. For example, our Reformed conviction that "only God is God" has led us to insist that the world is not God and nothing in the world is God. The "infinite qualitative distinction" way of thinking has pressed a separation of God and the world. God is defined over against the world. This pulls in the direction of a desacralization of nature. Our historic emphasis on providence has kept the focus on history and perhaps entailed insufficient attention to and valuation of nature. Our commitment to vocation, when translated as the Calvinist "work ethic," has led to our association with free enterprise in economics and the profit motive in business. Whether Weber's analysis[1] is on track or not, this association has, since the late 60s,

1 Christopher Kaiser has offered this observation and noted that Reformed apologists have been at work reevaluating Max Weber's thesis in *The Protestant Ethic and the Spirit of Capitalism*.

been something of an embarrassment. Lastly, our thematic attention to covenant and election has placed the human being at the center of things rather decisively. Certain ways of construing covenant and election have transmogrified in such a way that where we have gone—whether its "manifest destiny" in the US or apartheid in South Africa—we have gone subduing and having dominion with a vengeance.

Even Santmire in his work, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* seems to see more ambiguity than promise when he comes to Reformed tradition. He has been fairly generous with others. And he does give the Reformershe is dealing with Calvin and Luther here—credit for a "limited but powerful testimony to the wonders of God in nature, to human solidarity with nature, and to the final renewal of nature in the end times."

As he begins to differentiate between Luther and Calvin he credits Luther with a more extensive ecological motif and sees Calvin primarily pursuing "vocational-domination" in relation to nature. I am not convinced that it this is a fair representation of the situation between these two magisterial reformers when their treatment of the relevant themes are set alongside one another. While I would not deny that there are elements of what Santmire labels as "vocational-domination" in Calvin's work, it can be argued, as I will more extensively in this chapter, that Calvin also has a strong ecological motif. In the comparison between Calvin and Luther, I would interject a brief counterpoint to Santmire's unfavorable analysis of Calvin.

Luther, unlike Calvin "identifies the created order with the rule of the hidden God, the *Deus absconditus*" (Santmire, 1985, p. 124). It stands under the "left hand of God" the wrathful, alien hand of God (Santmire, 1985, p. 125). And he seems to take quite literally a divine curse on all of nature due to human sin. Thus he sees thorns and thistles as well as "flies, fleas, and bedbugs" as messengers of God's wrath (Luther, WA 42, 155f). Nature seems a hostile environment on the whole driving human beings to seek out and cling to God's right hand.

Calvin, on the other hand, sees nature as an arena of God's gracious provision for human beings. The doctrine of creation has its correlate in the doctrine of providence. Admittedly, this is still a pretty anthropocentric view of nature, but it is at least a positive view of nature. And the world engagement characteristic of Reformed tradition—which gets misconstrued as vocational domination—has as at its source Calvin's world-affirming, world-engaged orientation.

Another point of differentiation between Calvin and Luther is in the consideration of whether the natural world may be a vehicle of divine self-disclosure. In Luther's view, Adam and Eve (before the fall) were able to understand creation and to know God through in nature. However, in the fall, this condition was dramatically altered. Human beings lost the image of God and their knowledge of nature so that they can no longer find knowledge of God through the creation but in fact they come to rely upon and even worship the creation in the place of God.[2]

Calvin, by contrast, as will be argued more fully below, held that divine self-revelation in creation (the theater of God's glory) is everywhere and always apparent. Due to the fall, we are "blind as moles" in relation to it, but through the use of

2 Schreiner (116) lays this out working from Luther's Commentary on Romans (WA 56.372.3).

the "spectacles" of Scripture, we may come to see aright. He also believed that in redemption, the noetic effects of the fall are in process of being corrected, so that we may come once again to see God's revelation in nature. Just as in Scripture God accommodates to our capacity for understanding, so it is also in God's self-revelation in nature.

Santmire acknowledges some appreciation of nature in the theology of both these reformers, but, in the final analysis, he finds this to be at the circumference rather than the center of their thought. He takes their central themes to be anthropological and soteriological. Then he goes on to argue that it is *only* the center that really carries forward in the centuries that follow. His claim is that in Kant's philosophy with its separation of the noumenal and the phenomenal. God is not an object of theoretical knowledge—which gives us access to nature and the world of appearances. God rather is subjectively necessary for our practical or moral reason to postulate. God and the human being are to be treated apart from nature. A "highly spiritualized theanthropology" develops on the one side and a highly objectified, mechanical view of nature develops on the other. Kant's framework in effect acts upon the theology of the Reformers as an ecological sieve (Santmire, 1985, p. 135) so that the ecological-theological circumference is filtered out and only the soteriological-anthropological center remains. The resultant inattention to nature may have consequences in the 19th-20th century where Protestant theology seems to wash its hands of nature. Furthermore, what was a theology of vocational-domination for Calvin shaped by classical Christian symbols and norms, in later centuries becomes in the nineteenth century a secular ideology of domination. An unbridled quest for domination over nature becomes the hallmark of nineteenth-century culture in the West, (Santmire, 1985, p.137) that some would argue may in turn have cleared the way for the spirit of modern industrialism working its will on nature. Santmire concludes, "In retrospect, we can see the ambiguity we have been tracing in this study emerging in a particularly poignant way in the thought of the Reformers" (Santmire, 1985, p. 132).

II. How May We Respond?

There is a thoughtful analysis in Santmire's book. While it may be mixed with some contestable elements—like whether the problem is really with the Reformers or with the Kantian sieve—I think it still adds up to a substantial challenge that needs addressing.

The piece of this that I want to take on is to argue that the center of Calvin's theology is not anthropological and soteriological, but theological. The picture Calvin paints of God's relation to the world constitutes a substantial contribution to a Christian theology of nature that holds real promise as a resource in our struggle for the fate of the earth. Calvin's theology of nature is far too pervasive to be called circumferal. Furthermore, we may see the fruitfulness of Calvin's theology of nature in the work of several contemporary Reformed theologians and as well as in Reformed church efforts to articulate a fully operational theology of nature. If it is the case that, even after the run through the Kantian ecological sieve, there remains a robust theology of nature among the reformed, then maybe its place was more central than has been acknowledged.

There are certain interlocking problems of interpretation in Calvin that mislead Santmire and others. These difficulties are encountered fairly broadly, but Santmire's presentation is illustrative.

1. The Reformed tradition on this issue has for too long been read through the lens of Barth's refusal of natural theology.
2. Complicating this is the common misunderstanding of what Barth was actually doing in this refusal. The refusal, if rightly understood, may even contribute important insights to a Christian theology of nature.
3. There is also considerable confusion over how natural theology and theology of nature are related to yet also different from one another. Some people identify the two and assume that reservations about natural theology must necessarily entail a weakened theology of nature.
4. Skewing the reading of Calvin in a Barthian direction thereby misplacing the center of Calvin's theology and obscures Calvin's potential contribution as a substantial resource for developing a Christian theology of nature.

In the sections of the chapter which follow, I hope to begin the task of untangling these knots a bit and then illustrate from Calvin, some particulars that Reformed tradition has to offer to a theology of nature.

III. The Ambiguity of Barth: Challenges and Contributions

A. Barth's Refusal of Natural Theology

Many external observers are easily sidetracked by Barth's refusal of natural theology. They assume that he speaks for the whole of Reformed tradition in this step. Furthermore, they misunderstand why he takes this step. Perhaps Barth's refusal of natural theology is telling, but, in itself, it is perhaps not "telling" what many have assumed it is telling. A little clarifying work is needed at this juncture. Barth has some important insights embedded in his rejection of natural theology that should not be lost along the way but rather retrieved and appreciated. After having done so, we may proceed to consider the deeper difficulties that lie in Barth's "theology of nature"—as a separate and distinct topic.

Barth himself may have thought that in rejecting natural theology he was in fact speaking for all of Reformed tradition. As he says, "Both the Reformation and the teaching of the Reformation churches stand in an antithesis to Natural Theology."[3] He worries over whether admitting natural theology jeopardizes Reformed commitments to *sola scriptura*[4] *and sola fidei; sola gratia*. He assumes it will lead us, not to God,

3 Barth, *The Knowledge of God and the Service of God*, p. 8.

4 It should be remembered that *sola scriptura* was a principle established in response to the overreaching claims of the Roman Catholic church that went beyond what was found in Scripture. It was an insistence that the church must be founded solely on the Word of God as attested in Scripture. It was not, in that context a rejection of natural theology (unless it were to pose another competing foundation). For Calvin and Luther there was no contradiction in

but to idols. The belief that human beings have the capacity to read divine revelation from the "book of nature" does not take into account either the human condition of total depravity[5] or the sovereign freedom and graciousness of God[6] in the event of revelation. As he saw it, "human reason is as blind to the truth of God as the human will is unfree to do what is right before God" (Barth, 1949, p. 97). In both cases divine gracious intervening is required. For Barth, there are some fundamental principles of the Reformation at stake in this discussion.

Ironically, Barth readily acknowledges that both Luther and Calvin made use of natural theology.[7] It would appear that Luther and Calvin did not see a problem here, did not realize that they were jeopardizing central Reformed commitments! In a way, it is odd to refuse natural theology on principle of *sola scriptura* since the Bible regularly refers to God's self-revelation in nature (Job 37-41, Ps 19:1-4, Mat 5:44-45, Rom. 1:20) (DeWolf, 1958, p. 97).

It helps to remember that Barth's meaning for natural theology is distinctive here. Many who affirm natural theology do not mean by it what Barth in fact rejects. For him, it is "what we know concerning God and the human being on our own, apart from revelation." It represents independent access to God in the creation bypassing revelation in Jesus Christ. It assumes a union of God and the human being apart from Christ. It implies some other "point of contact." When viewed in this way, it becomes clear that rejecting natural theology is a necessary corollary of Barth's thoroughgoing christological orientation.

Barth is also concerned to preserve God's freedom in the event of Revelation. Revelation is never to be seen as simply a *given*—not in any human capacity, not in the creation, not even in the Bible. Revelation is always a miracle of grace apprehended in faith. As Barth insists in his debate with Brunner over natural theology, "We must learn again to understand revelation as *grace* and grace as *revelation* and therefore turn away from all "true" or "false" *theologia naturalis* by ever making new decisions and being ever controverted anew" (Barth, 1949, p. 71).

Barth rejects anything that implies direct access through something that is a given or a human capacity. This is why he lambastes Roman Catholicism with its direct access through church authority, and protestant orthodoxy with its direct access through Scripture, and protestant liberalism with its direct access through universal religious experience, and pietism with its direct access through personal relationship with Christ. There are not many left standing on the theological landscape when Barth finishes his critique! They all find "God in the given." All religion, according to Barth, is in fact "our attempt to lay hands on God." Thus Barth declares, "revelation is the abolition of religion."

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affirming *sola scriptura* and making use of natural theology as a source for the knowledge of God.

5 "The image of god in man is totally destroyed by sin. Every attempt to assert a general revelation has to be rejected. There is no grace of creation and preservation" (Barth, 1946, p. 74).

6 "If nevertheless, there is an encounter and communion between God and man, then God himself must have created for it conditions which are not in the least supplied (not even "somehow," not even "to some extent") by the existence of the formal factor" (Barth, 1949, p. 89).

7 Here I am helped by DeWolf's article on the "Theological Rejection of Natural Theology."

Barth sees a danger here for some very practical reasons. Where there is a partial revelation of God given in nature, reason, conscience[8] or orders; this can provide an independent validation for beliefs and practices that protects them from the judgment of the gospel. A case in point was the synthesis of theology with nationalism of the German Christians in Barth's own day. One danger of a natural theology is self-deceit. If we begin looking for God's revelation in nature or culture, the risk is that what we find will not be God but our own reflection. It is too easy to find God in our race, our culture, and our interests. This, it seems to me, is one of those profound insights embedded in Barth's rejection of natural theology that should not be lost and is in fact tremendously useful in the work of eco-justice. Among other considerations, it cautions against the habit of finding divine blessing of our interests—as these are pursued without restraint in relation to nature, for example. It insists that there be sufficient prophetic distance to be self-critical in this regard.

Barth would have us reject the *analogia entis* and its presumed access to God from below. This approach was grounded in the view that we may know something of a cause from its effect and therefore something of the Creator from the creation and something of God from the image of God in the human being. Barth's objection is that we cannot place God's being and any other being under one category—even the broad category of being—and make analogies or claim that we may infer something about the one from the other. We cannot know God in God's being, but only in God's act of self-revelation. The contact point between God and the human being does not exist outside of Christ.

Having swept *analogia entis* away in a fairly thoroughgoing manner, Barth gives us back analogical thinking—though in a very qualified form—when he introduces the *analogia fidei*. As he says, "later I brought in natural theology *via* christology." One of the meanings of God's revelation in Jesus Christ is that analogy becomes possible here. God ordains some things to be the means of affecting the God-human relation. This is never a *given* always a *gift*. It happens when and where God wills. It is extrinsic, not intrinsic to nature—it has the character of act, not being. It is a miracle of grace apprehended in faith (thus *analogia fidei*). He illustrates with the phenomenon of cat's eyes. A cat's eyes have no light of their own from within, but when light shines into them they reflect it, it is as if they light up. The lights of creation are like cat's eyes. They have no light of their own but God kindles these lights and gives them power to shine. Thus it is not the case that created reality *cannot* reflect divine glory—as some have charged that Barth holds—but rather that when this happens it is a gift of God, apprehended in faith—God's freedom in the act of self-revelation is preserved. Thus Barth's position allows room for nature to serve as a location for divine self-revelation when and where God wills it. This is not a view that Barth pursues to its conclusion, and its full potential remains unrealized. Implications might have been drawn out further. For example, if God can and sometimes cause revelation to happen through the vehicle of nature, should

8 Natural knowledge of God is traditionally divided into two categories: *notitia insita* (innate knowledge) and *notitia acquisita* (acquired knowledge). The first is direct and the second is mediated knowledge. Both are presumed to be naturally available. This knowledge is taken to confer wisdom but not salvation and blessedness (Moltmann, p. 57).

that not affect the attitude toward nature and its status? Would believers not live differently in relation to nature in anticipation that God's self-revelation might happen in nature?

B. Barth's Theanthropocentric Theology

While it is theoretically possible that Barth could have constructed a strong theology of nature while at the same time rejecting natural theology as he defines it, he does not do so. I cannot defend Barth from Santmire's charge of making nature peripheral to his theology. The human being in relation to God seems to be a more central focus. When Santmire describes Reformed theology as "theanthropocentric," he is taking his cues from Barth. "Theanthropology" is a term, coined by Barth himself, and given currency in the 20th century. Barth would claim for himself a "christological concentration,"[9] Jesus Christ is God's self-disclosure to human beings. "The Word is not first and foremost the principle of creation (the *logos asarkos*) which gives all created things their being; the Word is first and foremost God's direct address to humanity in Jesus Christ" (Santmire, 1985, p. 149).

It would seem, then, that the locus of Barth's theological attention really is on God and the human being. The natural world is strictly instrumental to that relation. It is because of the human being's election in Jesus Christ that the world is created and sustained. As Barth says, "Because *servatio*, therefore *creatio* and therefore *conservatio*. For this history to take place the creature must have space and time and permanence" (III/3, p. 80). In CD III/1 Barth briefly acknowledges that the Noachic covenant is with the earth. However, he then moves on to ask, "What purpose does the earth serve?" and answers, "to be inhabited specifically by man."[10]

Although both Barth and Calvin speak of creation as a theater of God's glory, they use this image very differently. For Calvin creation provides the stage upon which God's wondrous works are displayed. The human being is a spectator in relation to this witness to God's glory ("blind" spectators though we be). For Barth, the human being is very much *on stage*. Creation is the stage on which the drama of the God-human relation will takes place. Creation's role is diminished to that of a backdrop. The history of the covenant of grace is the main thing. "[P]rovision has been made and is continually made for the history of the covenant of grace, for time, space and opportunity for the divine work of grace and salvation" (III/3, p. 48). Creation is the "external basis of the covenant." "But the theatre obviously cannot be the subject of the work enacted on it. It can only make it externally possible" (CD III/3, p. 48). When it comes to creation as such, it is fashioned as a "dwelling place" for human beings (III/1, p. 157) and bears its value by virtue of this function, not in its own right.

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9 Karl Barth, "How My Mind Has Changed," *Christian Century* 56:37-38 (September 13, 20, 1939).

10 This insight from George Kehm in "The New Story: Redemption as Fulfillment of Creation" (1992, p. 203) is accompanied by numerous evidences of the theanthropocentricity of Barth's doctrine of creation.

There is, in Barth, especially the early Barth's notion of god as "wholly other," an accent on the transcendence of God, the "infinite qualitative distinction" between God and the world. Such an emphasis on transcendence need not, in and of itself, have weakened Barth's theology of nature. In fact, acknowledgement of transcendence has advantages for a theology of nature as I have argued more fully elsewhere. Without a full sense of divine transcendence, God and the world may be over identified and the alterity and integrity of nature are compromised. When God and the world are too closely identified, it is difficult to speak meaningfully of God in *relation* to the world at all, for there is no genuine *other* there with which to be in relation. One could work well theologically with the separation and the otherness of nature. Stacy Johnson[11] has shown the potential for an "other-centered ethic" in Barth's theology. One could similarly construct an ethic for relation with the natural world as *other*.

This remains an unfulfilled promise in Barth, however, because of the way he interprets the separation entailed in divine transcendence. As he says, "all we know about created beings outside of humanity, is that God 'stands over against them in his majestic dissimilarity " (III/2, p. 137). God is not only separate from but *over against* nature. Such a view certainly feeds the modern secularized, desacralized view of nature. The objectification and exploitation of nature cannot be far behind. Barth's revisions of his earlier vision of God as "wholly other" do not substantially affect the character of God's relation with nature. They do not alter the theanthropocentric cast of his theology. As he says in *Humanity of God*, God's deity rightly understood includes God's humanity. The distance between God and the human being is bridged from God's side and this divine-human relation is thereby made possible. The relation with the rest of nature, however, is not fundamentally altered. It is only humanity that is "in God."

One important contribution Barth makes should not be overlooked in the midst of this criticism. When he comes to the point of presenting his anthropology, he does so in ways that seek to avoid the body/soul, material/physical dualism that has also been problematic for Christian views of material existence. He directly contradicts the dualistic conception and deals at length with the interconnectedness of soul and body. He even goes so far as to say that even the materialistic reading that is a reaction to dualism has the advantage of being closer to the biblical view and of maintaining the unity of the human being. There is an affirmation of embodiment and material existence in Barth that is a good corrective to the anti-body, spiritualizing streams of thought in Christian tradition.

As Santmire observes, "Barth does not deal with the theology of nature substantively at any one place. He believes, indeed, that dogmatic theology cannot rightly contain a substantive doctrine of nature as such" (1985, p. 148). Barth's treatment of the creation stories in Genesis would be a logical place for this to appear, but these interpretations are primarily christological and covenantal in their direction. He does not take the opportunity to wax eloquent about the beauty and wonder of the natural world. It is not that he is lacking in a strong aesthetic sensibility as his appreciation of the music of Mozart demonstrates.

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11 Stacy Johnson, *The Mystery of God*. Louisville: Westminster/John Knox, 1997.

There is promise in Barth for a Reformed theology of nature, but it is largely unrealized promise. It may well be that nature really does become peripheral for him. But Barth does not speak for the whole of Reformed tradition. There is a rich heritage here, from which very valuable insights can be retrieved as we may see by taking a closer look at Calvin's thought—without the Barthian lens. Calvin's work, in fact, may be better understood as a revival of Augustinian Christian naturalism[12] than rather than as a prelude to Barth.

IV. The Promise in Calvin: Recovery of Distinctive Contributions

For Calvin, creation has its own status in relation to God, its own divinely bestowed meaning. It goes without saying that Calvin had a very different context and set of questions than Barth's or those we now bring to his writing. I do not mean here to read our current eco-justice agenda back into Calvin. Nor do I mean to imply that all Calvin has written on these themes is unambiguously helpful for the present project. Nevertheless, Calvin's work on nature represents a rich and too seldom consulted resource for any who work at a Christian theology of nature. What we find in Calvin (just speaking minimally here) effectively counters the charge that the Reformed are without a theology of nature.

A. Calvin's Understanding of the Natural World in Relation to God

In Calvin's theology, God has a relation to *all* of creation not just to human beings. While others may incline toward a theanthropocentric theology, Calvin's theology remains decidedly theocentric.[13] All things have a shared purpose in reflecting the glory of God. "For our salvation was a matter of concern to God in such a way that, not forgetful of himself, he kept his glory primarily in view, and therefore, created the whole world for this end, that it may be a theater of his glory" (CO 8:294). The human being has an important part in this theater of God's glory, but we are by no means the whole show.

Three elements will underscore the substantial relation between God and the whole of nature: the world's revelatory potential, God's providential activity in the world, and the anticipated restoration of all things. Other aspects of his theology could serve as well—particularly his theology of the incarnation and of the sacraments—but these three will suffice to show the richness of this heritage.

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12 A fuller discussion of Augustine's Christian naturalism will appear in Chapter 8.

13 Calvin's response to Cardinal Sadoleto reminds us that our orientation is not toward the salvation of our own souls, but the glory of God. We really need to shake off the theoanthropocentric tendencies where they arise in our theology and reclaim a fully theocentric orientation. I would commend this quite apart from our present concern. But perhaps our critics are right and putting the human being center stage has distorted our proper relation to the rest of nature, thereby providing ideological underpinnings for the objectification and exploitation of nature. If so then our reclaiming a theocentric orientation, really seeing God's relation to all of nature and not just the human parts a balance may be restored.

Theater of God's Glory[14]

If Spinoza has been called the "God-intoxicated philosopher," then Calvin surely must be the creation-intoxicated theologian (Wyatt, 1996, p. 91). One has only to read through Book I of the Institutes to see evidence of this. Everywhere we turn our eyes we see creation in all its vastness and variety reflecting the glory of God. The problem with nature as a source of divine self-revelation is not that it does not show forth God's glory (it does), but we do not see what is right before our eyes. In our fallen state, we confuse and misconstrue what is there. Calvin uses the analogy of "weak vision" to talk about our incapacity. Scripture then functions as corrective lenses or "spectacles. (B)ut with the aid of spectacles (we) will begin to read distinctly; so scripture, gathering up the otherwise confused knowledge of God in our minds having dispersed our dullness, clearly shows us the true God" (I, VI, 1). The natural world, viewed through the spectacles of Scripture becomes a valuable source for knowledge of God.[15] Furthermore, as we are day by day more and more restored in God's continuing work of redemption/sanctification, "the noetic effect of sin is gradually corrected…so that once again the cosmos can serve as a 'stage,' 'theater,' or 'book' from which believers are encouraged to learn about their Creator" (Schreiner, 1991, p. 107). Through these means nature moves from being a potential source of revelation to becoming an effective source.

As Schreiner observes, "The anti-speculative thrust of Calvin's thought, therefore, did not function to prohibit the contemplation of nature" (Schreiner, 1991, p. 107). If anything Calvin encouraged people to contemplate God in nature. Calvin exhorted his congregation and readers to attend to this testimony[16] and not to Scripture alone. In his Sermon on Job 5:8-10 he says,

> While it is true that God declares himself to us by his Word, nevertheless we are inexcusable when we have not at all considered him in his works. He does not at all leave himself without witness here…Let us then only open our eyes and we will have enough arguments for the grandeur of God, so that we may learn to honor him as he deserves." (CO 33:569).

God's "skillful ordering of the universe is for us a sort of mirror in which we contemplate God who is otherwise invisible" (I.5.1). "In respect of his essence, God

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14 For a truly excellent treatment of this theme I commend the work of Susan Schreiner, *The Theater is His Glory*. It is a work that is tremendously helpful in reclaiming what Calvin has to offer here.

15 Gerald Postema, "Calvin's Alleged Rejection of Natural Theology," *Scottish Journal of Theology*, 24 (1971) 423-434. "The metaphor of the spectacles is a good one, for I believe (and this is Calvin's point too) that we do not and will not find God in the *Bible*, but, rather, that it is from the Bible that we discover where to look for God in our own experience, in history, in the creation, and in our own moral life." (p. 429).

16 "Meanwhile let us not be ashamed to take pious delight in the works of God open and manifest in this most beautiful theater. For, as I have elsewhere said, although it is not the chief evidence for faith, yet it is the first evidence in the order of nature, to be mindful that wherever we cast our eyes, all things they meet are works of God and at the same time to ponder with pious meditation to what end God created them" (I.14.20).

undoubtedly dwells in light inaccessible; but as he irradiates the whole world by his splendor, this is the garment in which he, who is hidden in himself, appears in a manner visible to us" (Commentaries Psalms 104.1). "God…clothes himself, so to speak, with the image of the world, in which he would present himself to our contemplation" (Commentaries Psalms 104.1). Read in this light, the text so often quoted as prohibition of speculation reads more like a "mandate" (Postema, 1981, p. 430) for natural theology!

Consequently, we know the most perfect way of seeking God and the most suitable order, is not for us to attempt with bold curiosity to penetrate to the investigation of his essence, which we ought more to adore than meticulously search out but for us to contemplate him in his works whereby he renders himself near and familiar to us, and in some manner communicates himself (I.5.9).

Schreiner has also pointed out (1991, p. 107) a parallel between God's self-revelation to us in nature and in Scripture. Even as God is said, as it were, to "lisp" to us in Scripture, like a nurse speaking to an infant (I, 13, 1). So also the invisible God *appears* to us robed in the fabric of creation—an accommodation for our sake. Both are accommodations to our capacity. With respect to their ability to communicate a knowledge of God they are like mirrors which give a true reflection but do not impart the thing itself (Case-Winters, 1990, p. 81-86). The limits and the possibilities of these two vehicles of revelation are more similar than usually admitted. The parallel extends further as Calvin insists that what we discover about God in Scripture is really already evident in the natural world. "Now we hear the same powers enumerated there [in the Scriptures] that we have noted as shining in the heaven and earth….(N)othing is set down there that cannot be beheld in his creatures. Indeed with experience as our teacher, we find God just as he declares himself in his Word" (1.10.2).

The Locus of Providential Activity

Another crucial ingredient in the evidence of God's relation to the natural world is God's providential activity in this sphere.[17] God's providential care is not restricted to human beings. It is all encompassing in its scope and particular in its exercise. Calvin is fond of quoting Matthew 10:29 "That not even a little sparrow, sold for half a farthing, falls to the ground without the will of the Father" (Calvin, *Concerning the Eternal Predestination of God*, p. 163). All things in nature and in history are governed by God's personal and particular care.

Calvin works out his doctrine of providence in full awareness of the competing perspectives of his day and is concerned to rule out certain alternative interpretations popular among the Stoic and Epicurean philosophies as well as those prevalent among the Libertine Christians. He is concerned to promote *the personal nature of God's providence*. So he refutes the view that nature is somehow on autopilot and left to function independently according to natural law. Rather, "natural law" is only a descriptive phrase connoting God's self consistency in exercising power (Reardon, 1975, p. 525). God is no spectator deity but is involved in a continual relation of

17 For a fuller treatment of Calvin's doctrine of providence see Case-Winters, *God's Power*, chapter 3.

sustenance and governance. If for even one moment God were to withdraw, the world would "immediately perish and dissolve into nothing" (Calvin, *Commentaries*, Genesis 2:2).

Calvin was also concerned to promote *the particularity of God's care*. This is more than a general ordering, it attends to details. Nothing is left to chance (*fortuna*). *God acts in freedom*; there is no external necessity (*necessitas*) *to* which God is subject. So Calvin is steering a path between the *fortuna* of the Epicureans and the *necessitas* of the Stoics. In doing so he is preserving the two truths he finds in Scripture: God is active in nature and history and God is distinct from them both. If God is not the former, the Epicureans are right. If God is not the latter, the Stoics are right (Reardon, 1975, p. 525).

The significance of this for the present project is that Calvin is ruling out certain ways of thinking about God's relation to the world—God is not excluded from the processes of nature and history on the one hand, and God is not to be identified with them on the other. Most significant for the ongoing argument with Santmire and others, is the understanding that God's providential activity does concern nature as well as history—the whole natural world and not just its human part. As important as the God-human dimensions of divine providence are in Calvin, these need to be set alongside God's relation with the whole of nature and all its particulars.

The Object of Eschatological Renewal

Another element that illustrates God's relation to the *whole* natural world is the shape of Calvin's eschatological hope. His eschatology is more fully presented in his commentaries than in the *Institutes*. Both resurrection of the body and new creation are thematized. Commenting on Romans 8:20, the passage about the creation waiting with eager longing, and the whole creation groaning in labor pains, Calvin attributes the hope of resurrection and restoration to *all creation*. "No part of the universe is untouched by the longing with which everything in this world aspires to the hope of resurrection" (Calvin, *Commentaries*, p. 173). In Calvin's interpretation, the whole creation "is an example of obedience." It is only by virtue of the fall of the human being that the creation is subjected to vanity. Speaking of the rest of creation, Calvin comments, "as he has given them the hope of a better condition, with this they sustain themselves, deferring their desire, until the incorruption promised to them shall be revealed." (Calvin's Commentary on Romans, 1948, 8:20.

For Calvin, the eschatological renewal of all things is already begun in the advent of Jesus Christ. What happened on the cross is decisive for that transformation that has begun. In his Commentary on John 13:31 he says,

> For in the cross of Christ, as in a splendid theatre, the incomparable goodness of God is set before the whole world. The glory of God shines, indeed, in all creatures on high and below, but never more brightly than in the cross, in which there was a wonderful change of things—the condemnation for all men was manifested, sin blotted out, salvation restored to men; in short, the whole world was renewed and all things restored to order.

Calvin's frequent references to *heaven* and *heavenly* are sometimes misread as shifting focus from created reality to another heavenly world unrelated to this one.

On the contrary his use of the word *heavenly* more often refers to the new creation, the "celestial condition" of God's creation (Holwerda, 1976, p. 125).

When speaking of the final judgment, Calvin reads redemptive purpose into this term. As he says, "some view the word *judgment* as denoting *reformation*, and others as denoting *condemnation*. I rather agree with the former, who explain it to mean, that *the world* must be restored" (Calvin, *Commentary on John* 12:31, p. 36). Calvin is convinced that there will be a "reformation" or "renovation" of the world not just of human beings. The "restoration of all things," whatever else it may entail, will be restoration to their original purpose (Schreiner, 1991, p. 97). The whole creation will at last fully reflect the glory of God.

Thus the theme of God's glory does two things at once: it keeps the focus theocentric as opposed to anthropocentric and it unifies creation, redemption, and the consummation/restoration of all things. This unifying feature helps Reformed theology to avoid a single-minded emphasis on redemption (and human beings) to the neglect of creation on the one hand or new creation on the other. Matthew Fox and others have charged that a single-minded emphasis on original sin and redemption to the neglect of original blessing and creation may contribute to the ecological crisis (Matthew Fox, *Original Blessing: A Primer in Creation Spirituality*. Sante Fe NM: Bear and Co.). There are places, such as his response to Cardinal Sadoleto, where Calvin actually cautions against such preoccupations. Cardinal Sadolet was urging that the reformers and their company should return to the true church lest they endanger the salvation of their souls. Calvin's response was, "it is not very sound theology to confine a man's thoughts so much to himself, and not to set before him as the prime motive of his existence zeal to show forth the glory of God. For we are born first of all for God, and not for ourselves" (Calvin, *Theological Treatises*, p. 228).

As the theater of God's glory, the locus of God's providential activity, and the object of redemptive transformation, the whole natural world is in relation to God. This relation is not through human beings or for their sake only. Our theological anthropocentrism is severely chastened if not ruled out altogether in this larger view. Where it is argued that the eternal, unchanging God of classical theism cannot be related to a temporal changing world, then I can only inquire whether Calvin is a "classical theist." As strong as Calvin's view may be on the transcendence of God, as I read with these questions in view I am struck by the emphasis on divine immanence in Calvin's portrayal of God's relation to the world. Indeed, God is transcendent—more than the world—but God is also immanent—really in the world. God is revealed *there*, active *there*, moving toward redemptive transformation *there*.

Calvin says some things that seem rather radical about God in this relation. At some points for example he speaks of, "the divine nature with" in us (I.V.6).[18] He goes further still in allowing that one can even say "reverently, provided that it

18 "The little birds singing are singing of God; the beasts cry unto him; the elements are in awe of him; the mountains echo his name; the waves and fountains cast their glances at him; the herbs and flowers praise him. Nor do we need to labor or seek him far off, since each of us finds [God] within himself, inasmuch as we are all upheld and preserved by his power dwelling in us" (CO 9:791).

proceed from a reverent mind, that nature is God" (I.V.5). [19] That such a thing could be said at all (however reverently) strikes me as remarkable. This pulls in a direction of a reverent resacralization of nature.

B. Human Being Before God and in Relation to the Rest of Nature: Gratitude and Stewardship

If God is related to the world in this more fundamental and pervasive way, does that not change the way the human being *imago dei* should relate to the rest of nature? If the rest of nature has value to God beyond its usefulness to us, it seems a substantial shift in our relation to the rest of nature is implied. Instrumental value thinking gives way to intrinsic value thinking. If we are to pattern our mode of relation to the world after God's mode of relation then the work of providential caring, renewal, and restoration are set before us.[20]

When Calvin shifts to draw out implications of his theology of nature for the human being in relation to nature there are some other notes that should be sounded, for these are strong notes in Calvin. One note is the extravagance of this creation. God "has so wonderfully adorned heaven and earth with as unlimited abundance, variety, and beauty of all things as could possibly be, quite like a spacious house, provided and filled with the most exquisite and at the same time most abundant furnishings" (I.14.21).

In his discussion of the human being in relation to nature, Calvin does at times revert to anthropocentrism. There are places where he seems to imply that God has created all things for the sake of humanity (I.14.21-22) and or that divine providence has special concern for human beings (I.16.6). However, many of these texts seem designed to evoke *gratitude* in the human being more than to convey an intent to set the human being above the rest of nature.

He says, for example, that "God himself has shown by the order of Creation that he created all things for man's sake" (I.14.22). In the context, however, this way of speaking seems designed to inspire to *gratitude* by commending God's "fatherly solicitude" in preparing everything that would be "useful and solicitous" for us (I14.22). What has been given goes well beyond what is needful to human beings in any utilitarian sense. There is pure sensual delight in this good creation. God has "clothed the flowers with great beauty that greets our eyes, the sweetness of smell that is wafted upon our nostrils." Calvin comments, "Did he not, in short, render many things attractive to us apart from their necessary use?" (III.10.2). Such extravagant generosity goes well beyond providing what is purely needful. How can the human being respond with anything other than awe and gratitude? A spirit of awe and gratitude should exclude abuse and exploitation.

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19 It is to avoid confusing God with God's works that we hold ourselves back from speaking in this way and speak of nature as the "order prescribed by God" (I.5.5).

20 If God's relation with creation is one of creative interaction, immanence in all creation, concursus/accompanying, "befriending" (Santmire, p. 119) then so also should be the relation of the human being—as *imago dei* with all of creation.

Calvin urges that we should meditate upon the created order and "contemplate in all creatures, as in mirrors, those immense riches of his wisdom, justice, goodness, and power" (I.14.21). If we meditate upon the "powers which God shows forth in his creatures" and do not pass over them in "ungrateful thoughtlessness" then our "hearts will be touched" (1.14.21). We will also be moved to care in relation to the rest of nature, in a spirit of wonder and profound gratitude. is another note that Calvin sounds. He viewed human habits of unhindered exploitation and unlimited growth is a symptom of an immoderation that was to be avoided. "We are not to use these blessings indulgently, or to seek wealth greedily, but to serve dutifully in our calling" (III, 10, 3-6).

For Calvin our having "dominion" seems to has nothing to do with our "Lording it over" the earth and all its creatures. It has more to do with good gifts being entrusted to us than with being in the place of God on earth. It is much more readily connected with stewardship. "Things were so given to us by the kindness of God, and so destined for our benefit, that they are as it were, entrusted to us, and we must one day render account of them." For many of us in the eco-justice movement stewardship still sounds a bit too managerial given human proclivities. How might the emphasis on gratitude reshape this orientation?

Calvin makes clear connections between stewardship and care for the earth.

> Let those who possess fields so partake of their yearly fruits that they do not allow the ground to be injured by their negligence. But let them endeavor to hand them down to posterity as they received them, or even better cultivated. Let them so feed on their fruits, that they neither dissipate them by luxury, nor permit them to be marred or ruined by neglect. Moreover…let all people regard themselves as the stewards of God in all things they possess. Then they will neither conduct themselves dissolutely, nor corrupt by abuse those things which God requires to be preserved (Commentary on Genesis 2:15).[21]

Calvin also makes clear the connections between stewardship and economic justice. When he talks about economics what he says does not sound much like the views on economics which we Reformed folk have been accused of holding![22]

> But Scripture…warns that whatever benefits we obtain from the Lord have been entrusted to us on this condition: that they be applied to the common good of the church. And therefore the lawful use of all benefits consists in a liberal and kindly sharing of them with others. No surer rule and no more valid exhortation to keep could be devised than when we are taught that all the gifts we possess have been bestowed by God and entrusted to us on condition that they be distributed for our neighbor's benefit. (III.7.5)

Such injunctions offer a heavy critique of "vocational domination" or unbridled pursuit of profit as a way of relating to the rest of nature.

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21 *Commentaries on the First Book of Moses Called Genesis*, by John Calvin, Trans John King (2vols. Edinburgh, 1847), 1:125.

22 If everything we have is God's gift to us we live in a state of permanent indebtedness. Since God needs nothing from us our debt is "payable to the poor in God's stead" (III.7.5) (Kaiser, p. 8).

V. Contemporary Directions: Intimations of a Fully Operational Theology of Nature

The final piece of evidence I would draw in to support my claim that Reformed tradition has a viable theology of nature is the work of contemporary Reformed thinkers. Of course there is a wealth of Reformed theology written between times of Calvin and our contemporaries. A brief survey would, however, reveal that there is a consistency in the fundamental claims regarding God's relation to the whole of creation. One thinks of Jonathan Edwards in calling upon the pious to consider nature, from the loftiest stars to the lowliest insects, expecting to see in them the care and goodness and wisdom and glory of God. The glory of God is reflected in them. "The refulgence shines upon and into the creature, and is reflected back to the luminary. The beams of glory come from God, are something of God, and are reflected back to their original" (Edwards, 1998, p. 76). Or one might take note of Friedrich Schleiermacher's insistence that genuine Christian piety is not threatened but rather nourished and strengthened by the scientific investigation of the universe (Zachman, 2001, p. 2). This attitude has pervaded reformed theology and finds its effect in the large number of reformed theologians involved in the theology and science dialogue. Many other important thinkers between Calvin and our contemporaries could be brought forward as evidence of Reformed theologies' engagement with the natural world and with theology of nature.

A major contemporary theologian of the Reformed tradition who has worked extensively in this area is Jurgen Moltmann. In his book, *God and Creation* he has reengaged a theology of nature. He works out his doctrine of creation in full recognition of the ecological crisis. His approach is to discover God *in* all created beings and to find God's life-giving Spirit *in* the community they share. Moltmann refers to his doctrine of creation as "pneumatological." It takes as its starting point the "indwelling divine Spirit of Creation" (Moltmann, 1993, p. xiv). As he says elsewhere, "The life-giving Spirit of God is poured out on all creation and forms the community of creation in which all creatures live for one another and with one another and in one another" (Moltmann, 1989, p. 57). He quotes Calvin in support of such a vision. "The Spirit is everywhere and present and sustains, nourishes and gives life to all thins in heaven and on earth…It is manifest and divine that he pours out his powering all things and through this gives nature, life, and movement to all things (I.13.14).

The God-world relation Moltmann articulates is decidedly panentheistic. He insists that such a view does not entail departing from biblical traditions (Moltmann, 1993, p. 14) and that it is not a lapse into pantheism. As for how it is that the world can be "in God" and yet "not God," Moltmann points to a divine self-limitation exercised in creation wherein God, as it were, pulls back and makes a space in Godself for the creation. Attending this panentheistic orientation, Moltmann finds an ethic that requires us to reverence all life and serve the creation as part of our worship of and service to God (Moltmann, 1993, p. xi-xii).

Consistent with Calvin, he views the goal of creation, not as a return to paradise but as "the revelation of the glory of God" (Moltmann, 1993, p.207). As with Moltmann's theology elsewhere, his doctrine of creation is eschatologically oriented.

Both the *creatio originalis* (the beginning of creation) and *creatio continua* (God's work in creation's history) have their meaning and purpose in the *creatio nova* (the new creation). In the new creation, "When 'the whole earth is full of his glory' (Is. 6.3), when God is 'all in all' (I Cor. 15.28) and when God 'dwells' in his whole creation (Rev. 21.3), then creation and revelation are truly one. God is then manifest in the whole creation and the whole creation is the manifestation and mirror of his glory: that is the redeemed world" (Moltmann, 1993, p. 288).

Moltmann seems to deepen and extend the convictions expressed earlier in Calvin that that the whole of nature is the theater of God's glory, the locus of providential activity, and an object of eschatological renewal. Furthermore he draws out ethical implications of the doctrine of creation in his book, *The Future of Creation*, and elsewhere. He gives attention to the concern for justice in the realm of human affairs in his "politics of peace." There he is concerned to convey that justice[23]—and not security—creates peace (Moltmann, 1989, 38). He urges an ethics of creation that is guided by an understanding of "reciprocal community" and does not engage in a one-sided domination (Moltmann, 1989, p. 55ff).

Moltmann is not the exception to the rule among Reformed theologians in giving sustained attention to the themes of eco-justice. In the North American context, reformed thinkers such as Douglas John Hall, Dieter Hessel and Holmes Rolston have from different standpoints, been profoundly engaged in the work of eco-justice.

Douglas John Hall in his book, *Imaging God: Dominion as Stewardship*, has worked constructively with the theme of "dominion," urging that it be reinterpreted. He inquires into what it means to be made in the image of God and what content we might give to our creaturely reflection of the *gloria Dei*. He sees the potential for reconstructing the meanings of both *imago Dei* and dominion through the recognition of Jesus as the one who reveals God's glory (II Cor. 4.6) and as the one who is *dominus*, Lord. In this light we see that "our imaging of God within the creation entails a form of *dominion* that is radically distinguishable from the manner in which the injunction to have dominion in the text of Genesis 1 has been regularly received within Christendom" (Hall, 1986, 187). It takes the form of stewardship grounded in "sacrificial, self-giving love." More common ways of thinking about dominion are radically transformed from relations of mastery to relations of "exceptional and deliberate solidarity" (Hall, 1986, p. 186). This kind of self-critical, reconstructive reflection coming out of Reformed theology is a welcome, though not unexpected, development in keeping with a commitment to "always being reformed according to the word of God." In this contemporary thinker, one sees an illustration of how Barth's christocentric orientation might bear fruit for the present project in ways Barth himself did not pursue.

There are a number of other Reformed thinkers working in the area of eco-justice. I will mention only two more by way of example. Dieter Hessel, is the Director of The

23 Moltmann's brief excursus on justice is threefold. It includes: just distribution in which everyone gives what they can and receives what they need, the mutual recognition and acceptance of one another, and provision for those most in need as the foundations of a just social order.

Ecumenical Program in Ecology, Justice and Faith and Co-Director of Theological Education to Meet the Environmental Crisis. He has written and several works on these issues such as: *Theology for Earth Community: A Field Guide, The Church's Public Role: Retrospect and Prospect; and After Nature's Revolt: Eco-justice and Theology*.

Holmes Rolston, III is a Presbyterian minister who is widely known as the "father of environmental ethics." His 1987 book on Environmental Ethics is widely hailed for reopening the question of a theology of nature. Some of his books include: *Genes, Genesis, and God, Philosophy Gone Wild, Conserving Natural Value, and Biology, Ethics, And the Origins of Life*.

The Reformed family of churches is certainly awakening to these issues. The World Alliance of Reformed Churches has lately been on the forefront in work for ecojustice. The General Council in Hungary in 1997, where the theme was "Breaking the Chains of Injustice, adopted "The Declaration of Debrecen." This declaration is grounded in a theme that recurs in Reformed confessions, that "we are not our own."[24] The Reformed commitment to justice in both its ecological and economic dimensions is straightforwardly declared:

> *We are not our own*. We belong to the living God who made all things and declared them to be very good. We will not exploit and destroy that creation. We will be stewards of creation for God….
>
> *We are not our own*. We know that in Jesus Christ we were bought with a price…. We declare our solidarity with the poor, and with all who are suffering, oppressed, or excluded".

At the subsequent meeting of the General Council in Ghana in 2004, where the theme was "Fullness of Life," what has been termed the "Accra Confession" was adopted[25] and commended to the churches for consideration and action. This confession acknowledges the "increasing urgency of global economic injustice and ecological destruction," and invites the churches of the World Alliance to a work of "Covenanting for Justice in the Economy and the Earth." Consistent with the direction of this confession, the Mission Statement adopted called the churches of the World Alliance to a "missiology of life" in response to the "groaning of creation and the cries of the poor and marginalized."

The denominations represented in the World Alliance are also at work in distinctive ways on the issues at hand. My own denomination, the Presbyterian Church, USA for example, has provided study documents that are designed to bring these issues before the church and commend strategies for addressing them.

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24 It draws particularly from first question of the Heidelberg Catechism, perhaps the most widely shared of Reformed documents. It sets the Declaration of Debrecen within a framework which affirms: "We belong—body and soul, in life and in death—not to ourselves but to our faithful savior Jesus Christ."

25 While the General Council may adopt a confession as a council, it cannot act on behalf of the churches. Each in turn must consider for itself the commended confession and take its own action.

Examples include *Restoring Creation For Ecology and Justice* (1990) and *Thinking Globally: Toward a More Just and Sustainable Future* (1996). At present an updated and strengthened study document is under construction. Confessions written in the PCUSA in recent years have highlighted the theme of eco-justice as well. This began as early as the Confession of 1967, which declares that, "enslaving poverty in a world of abundance is an intolerable violation of God's good creation" (9.46). This confession also reiterates the expectation of new creation when it affirms in the section on "Fulfillment of Reconciliation" that "God's redeeming work in Jesus Christ embraces all of man's life….(I)t includes man's natural environment as exploited and despoiled by sin" (9.53). "A Brief Statement of Faith," adopted in 1985 confesses—as worthy of God's condemnation—that we "exploit neighbor and nature and threaten death to the planet entrusted to our care" (10.3).[26]

Conclusion

From the above evidences it would seem that among the Reformed there is a fully operational theology of nature at work. For whatever reason, Reformed folk do seem to care about eco-justice. Two disclaimers are needed at this point. I am not claiming that Reformed folk are less prone to "exploit neighbor and nature"—though given this heritage perhaps they ought to be less prone—but that there are within the tradition ample resources for self-criticism and self-correction in the light of our best insights. Nor am I claiming the Reformed have "owned the field" in relation to this work of eco-justice, but only that we are well represented there. Perhaps these more modest claims may count as evidence that Reformed tradition is at least not bankrupt when it comes to a theology of nature that could bear fruit for the work that lies ahead.

I remain hopeful that Reformed tradition can make a substantial contribution to this endeavor. We can have and, I would maintain, do have a fully operational theology of nature that can serve us well amid the interlocking crises of our day. "Wherever people of faith are found among those imagining and working for the healing of the earth, none ought to be more committed than those who have learned from Calvin" (Wyatt, 1996, p. 158). These efforts are gathering momentum. I take it as evidence that the rich heritage of Reformed tradition can have a positive trajectory into our day. A work of recovery and reconstruction is indicated. When undertaken I think it will reveal that Reformed tradition is not all "ambiguity" but also holds much *promise*.

26 As pointed out by George Kehm in "The New Story: Redemption as Fulfillment of Creation" (1992, p. 199-201), the earlier confessions are more strikingly anthropocentric in focus and even these later two do not name the intrinsic value of nature (apart from its usefulness to human beings) in an unambiguous declaration. I wonder whether the claim that this is "God's good creation" does not already entail such an affirmation.

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Chapter 4

Beyond the Dualisms, Rethinking Relations: Insights from Ecofeminist Sources

Feminist theology faults Christian tradition for buying into a hierarchical dualism that sets man above woman and culture above nature and spirit above body in ways that are mutually reinforcing and destructive in their effect. Chapter four will look at the critique from a feminist perspective as well as distinctive insights found in ecofeminism that may aid and abet this reconstructive effort. There are many thinkers today who would identify themselves as ecofeminists. Resources for this reflection are primarily those ecofeminists who work at the issues theologically. After a brief introduction to ecofeminism as such, and women in the work of ecojustice, this chapter will look at three problems uncovered by the feminist critique and then proceed to offer constructive approaches to address them.

I. Introduction: What is Ecofeminism?

Ecofeminism (Howell, 1997, p. 231) is a broad and diverse movement, but there are a number of commonly shared presuppositions:

1. that there is a connection between the oppression of women and the oppression of nature
2. that hierarchical dualism has led to a "logic of domination"[1] which underlies both these (and other) forms of oppression
3. that it is this system of domination that must be dismantled for the sake of social justice and ecological responsibility and
4. that in its place should be a "transformative worldview in which reciprocity and mutuality, equality and solidarity, function as the new norms for society" (Bouma-Prediger, 1995, p. 36).[2]

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1 Karen Warren has identified a "logic of domination" according to which "superiority justifies domination." Eliminating a logic of domination is part of the feminist agenda—whether patriarchy or white supremacist culture, or imperialism or naturism (Warren, 1990, 132).

2 Themes of relationality and mutuality and solidarity are regularly sounded. "Solidarity does not require complete understanding of those who are victimized by social domination; it entails respect and a willingness to assess one's own role in perpetuation domination and, upon discovering what that role is, changing it" (Adams, 1993, 8).

Ecofeminism emerged in the 1970s and gets its name from French feminist Francoise d'Eaubonne. She coined the term *ecofeminisme* in her 1974 book *Le feminisme ou la mort* (roughly translated "feminism or death!"). There she names patriarchal systems and male power as the real culprits in destruction of the environment. She advocates egalitarian relations between men and women and between humans and nature as a resolution to the crisis. "To the issues of sexism, racism, classism, and heterosexism that concern feminists, ecofeminists add naturism—the oppression of the rest of nature" (Adams, 1993, p. 1).

Rosemary Ruether was one of the first Christian theologians to make the connection between the oppression of women and the oppression of nature. Her claim is that it is the same system of domination that allows the oppression of women, people of color, the world's poor, and nature. As she expresses it,

> Women must see that there can be no liberation for them and no solution to the ecological crisis within a society whose fundamental model of relationships continues to be one of domination. They must unite the demands of the women's movement with those of the ecological movement to envision a radical reshaping of the basic socioeconomic relations and the underlying values of society. (Ruether, 1975, p. 204)

Unless the *system* of domination is dismantled, and the values that justify it set aside, exclusive attention to any particular oppression will not be successful in the long run. Ruether attacks the ideological underpinnings of this system. She, more than most, has seen the connections between liberation theology and ecology. In her view, which she was already articulating in the late 1960s, these are not separate and competing projects—the third world liberation movement and the first world ecological movement—but must be are in fact integrally related (Ruether, 1972, p. 18). "It is not accidental that the most devastated environments, whether in Appalachia or in the ghetto, are found where poor people live" (Ruether, 1972, p. 18). An adequate ecological theology must also concern itself with social justice. With her work the term ecojustice came into vogue.

Ecofeminists point out that in joining these issues and giving attention to nature we may actually learn new patterns for social existence from the ways of nature. Nancy Howell[3] has suggested that nature itself teaches non-dualistic and non-hierarchical systems of relation and a valuing of diversity and interdependence. Perhaps reflection on these systems may light the way toward the needed social transformations, and a new relation with nature that is cooperative rather than controlling, respectful rather than rapacious, and intrinsic rather than instrumental.

I concur with Howell's hopeful suggestion but with some reservations. I think what we see in nature is mixed. In the food chain, "nature" teaches both hierarchy and mutuality. Predation, on the face of it, has a kind of top-down quality to it, and it would be dishonest not to admit that nature is "red in tooth and claw." The important point to make, I think, is that this does not tell the *whole* story. There is as much evidence of symbiosis and interdependence as of competition and aggression in the

3 A helpful overview of ecofeminism is given by Nancy Howell in her Zygon article, "Ecofeminism: What One Needs to Know."

"struggle for existence," and the lion—a "top of the food chain" animal—eventually becomes food for the microbial life at the bottom of the food chain.

Models for understanding the way things are in nature vary, and we must select carefully from among them if we seek from them light on the way of social transformation. One model sees in nature "survival of the fittest," a struggle waged by individual entities against their environments and in competition with other entities. An alternative model sees in nature a "matrix of life" (Case-Winters, 1997) in which communities of entities cooperate both to adapt to and to modify their environment. What feminists can gain from a closer look at the evidence and by entertaining alternative models, is grounds for challenging claims that hierarchy, competition, and aggression are unquestionably "nature's way" and that selfishness is normative while altruism is a bit of an anomaly.[4] This is an important step for when one is able to say something is "natural" it gains a kind of moral advantage. Beyond finding evidence for alternative visions of what is "natural" feminists may do well to question the "naturalistic fallacy" that too quickly associates the "is" with the "ought."

In addition to careful critical analysis of the logic of domination and the way in which it generates a web of oppressions and thoughtful consideration of what resources there might be to light the way to new patterns for life together, feminists also offer ethical reflection as to how we might overcome the seeming inability to significantly address issues of ecojustice. Sharon Welch, for example, in her *Feminist Ethic of Risk*, helps us understand why there is a paralysis that keeps us from doing even the most obvious things to move ahead in this work. She proposes that part of the paralysis in our ability to formulate an ethical response is in the patriarchal cultural equation of responsibility with control. What one cannot control—guaranteeing outcomes—one is not responsible for. There is such an emphasis on final perfect solutions—which are not apparent in the ecological crisis—that one is incapacitated. Such thinking does not help us to see our responsibility to take the small steps in good directions that are in fact open to us. It leaves us lacking in energy and imagination. Welch urges a "feminist ethic of risk" that acknowledges our finitude and our constraints but still calls us to move forward with self-critical and committed action without the certainty of guaranteed outcomes that are in our control to bring about.

II. Women and the Work of Ecojustice

A. A Gender Gap

There is a gender gap in environmental groups. Statistics show that women constitute 60-80 percent of the membership of most environmental organizations. Many of the women activists came to the environmental movement out of their social roles as

4 For a fuller discussion of these issues see Anna Case-Winters, "The Question of God in an Age of Science: Constructions of Reality and Ultimate reality in Theology and Science," *Zygon*, vol. 32, no.3 (September 1997) 351-374.

mothers and caretakers. Countless examples of both group and individual women's initiatives could be mentioned here, a few illustrations must suffice.

In Kenya, women have begun the "Green Belt" Movement to work for reforestation. By 1999, 50,000 women had planted 20 million trees, and the work continues. In addition to this very successful undertaking, they have persuaded local farmers to grow native food crops (millet, groundnuts, and sweet potatoes) rather than cash crops. Many of these crops had been put aside to grow coffee, tea, and flowers for export (McDonald and Nierenberg, 2003, p. 51). The profits were minimal and benefited a small minority. There was also recurrent disaster as entire harvests were sometimes lost to drought. The native food crops are better adapted to local conditions and can withstand droughts that devastated the cash crops. The availability food crops has meant a better food supply and has benefited many more people than the cash crops ever did.

Feminist philosopher, Nancy Frankenberry, shares an account of two individual initiatives that are exemplary. Both of these, incidentally, bear out the connection Ruether had observed between situations of poverty and environmental devastation. Race was a relevant issue in both these cases as well. One initiative is from Warren County, NC. It is a small, poor community, 85 percent African American. It was the dumping ground for 31 gallons of PCB in 1978 and there were plans to bury 42 more containers of soil laced with PCB in a landfill. The two requirements the EPA usually imposes (placement 50 feet above water, in clay rich soil) were to be waived so that the state could proceed. Dolly Burwell, local mother-activist, organized civil disobedience in opposition to the toxic dumping. She was arrested five times. One of her detractors called her an "agitator." She thanked him and said, "If you don't believe that is a compliment, the next time you wash your clothes, you take the agitator out of your washing machine. You will have a bunch of wet, dirty clothes. Thank you for calling me an agitator, because what I'm going to do for North Hampton Count is get all the dirt out and leave this county clean" (Frankenberry, 1996, p. 27).

Another account comes from Yale, OK where the government offered $100,000 to the Fox tribe to accept "temporary" storage of high-level nuclear waste.

The federal government, for a time, had an unpublicized policy of targeting reservations as places for this kind of storage. Sac and Fox activist and grandmother, Grace Thorpe, retired and 72 years old, mounted an opposition. She called a meeting of the tribe and spoke against the decision. Among other things, she said, "First they stole our land; then they gave us smallpox and other diseases that killed so many of our people, and then later on they assimilated us into the boarding school system and stole our culture. Now they are giving us their nuclear waste." She succeeded in persuading her tribe to withdraw its agreement to receive a "nuclear waste grant" (Frankenberry, 1996, pp. 28-29).

The disproportionate number of women involved in this kind of advocacy and in the environmental movement, has caused Frankenberry to ask whether there was in fact a deeply rooted assumption that women, especially mothers, are uniquely responsible for cleaning up and for "healing the wounds" of creation (Frankenberry, 1996, p. 39). She queries further: where does the presumed association of women with nature (and nature, as "Mother Nature," with women) leave men? "If there is such thing as the male collective unconscious, I hypothesize that it consists almost

entirely in the single, simple, subterraneously-rooted supposition that women, especially mothers, are uniquely responsible for *cleaning up*. Making motherhood a monolithic metaphor of nature may let men off the hook too easily" (Frankenberry, 1996, p. 39). A fine example is the response after the Valdez oil spill given by Charles Sitter, senior vice-president who said, "I want to point out that water in the (Prince William) Sound replaces itself every 29 days…Mother Nature cleans up and does quite a cleaning job" (Frankenberry, 1996, p. 39).

Would scientists/industrialists/corporate executives who had to "clean up after themselves" approach things differently? Grace Thorpe suggested regarding nuclear waste there was a simple alternative; that until they could figure out what to do with it, they should stop producing it.

Whatever the reason, there are statistically more women than men involved in the work of ecojustice. Ecojustice has become a feminist issue. There are other dynamics involved that bring this issue to the forefront in feminist agendas.

B. The Feminization of Poverty

Vandana Shiva, in her article *Development, Ecology, and Women*, has argued convincingly that on the global horizon, "development" has in fact been a continuation of colonization and has had disastrous impact on women and ecology. It is, she says, "an extension of the project of wealth creation in modern western patriarchy's economic vision, which was based upon the exploitation or exclusion of women, the exploitation and degradation of nature, and on the exploitation and erosion of other cultures" (Shiva, 1995, p. 169). The forced commercialization of resource use for commodity production has been touted as a way to overcome "poverty" in third world locations. Shiva distinguishes between poverty as prudent subsistence living and poverty as deprivation. She observes that where a subsistence economy exists, it meets basic needs in a way that depends upon and values the productivity of women and is also easier on the environment. These indigenous technologies are treated as "backward" and "unproductive."

Development projects that commodify and commercialize, take the resource base out of the hands of women by removing land, water, and forests from their management and then further by the ecological destruction of these resources. Long-term survival options are sacrificed in the interest of short-term over-production and over-consumption. This "development" has posed a threat to the long-term survival of the majority through resource intensive and resource wasteful economic growth. The displacement of "ecologically sound traditional technologies, often created and used by women," along with the destruction of their material basis is generally believed to be responsible for the increase in the "feminization of poverty." The costs are unequally divided among various economic groups within the society and fall most heavily upon women and those who are accustomed to satisfying basic needs directly from nature and have no purchasing power to do otherwise. Their new impoverishment, which is now a matter of *deprivation* (as opposed to prudent subsistence living) "lies in the fact that resources which supported their survival were absorbed into the market economy while they themselves were excluded and displaced by it" (Shiva, 1995, p. 170).

Women's ecology movements in the third world are now seriously challenging the assumptions and effects of "development." They advocate, among other things, a recalibration of such things as GNP to take the productivity of women into account ("economics as if women counted"). They insist that cost/benefits analyses consider negative environmental impact as a cost factor. They are urging that there be a redefinition of growth and development that will take into its accounting the degree to which life is enhanced or diminished.

C. Environmental Consequences of the Subjugation of Women

It is important to make another relevant connection here. Although the interplay among population growth, gender roles, and environmental impact is a complex matter, at the core, it is clear that gender inequality tends to exacerbate population growth and that population growth puts pressure on the natural environment (McDonald and Nierenberg, 2003, p. 40). Where women are free to determine when and whether they will have children, they have fewer. Where women are educated, the children they have are healthier and better educated. This is sufficiently broadly acknowledged that a series of global agreements hammered out in the last decade that have acknowledged the importance of population realities in sustainable development have also acknowledged that achieving gender equality has a central role in lowering fertility and ensuring sound management of resources. The links between gender and ecology are especially strong in rural areas of developing countries where women often experience more immediately the effects of environmental degradation. They also have more limited access to resources and decision-making regarding how they are used. As Amartya Sen has pointed out:

> The population problem is integrally linked with justice for women in particular…. Advancing gender equity through reversing the various social and economic handicaps that make women voiceless and powerless, may also be one of the best ways of saving the environment, working against global warming and countering the dangers of overcrowding and other adversities associated with population pressure. The voice of women is critically important for the world's future—not just for women's future. (Sen, 2000, p. 18)

It is clear from the above that women are crucial players in the work of ecojustice, that women are particularly affected by the present crisis, and that changing their situation of oppression is crucial to the work of establishing a just and participatory economy and to forming ecological habits that ensure both sufficiency and sustainability.

III. Feminist Critique: The Problem with Dualisms

A. Double Domination: Mind-Body Dualism

Perhaps the most important contribution which feminist thinkers have made to this conversation is to show how the dualistic framework of Western classical tradition lends support to the oppression of nature. Feminist thinkers have brought a substantial and damaging critique of the classical tradition in noting the effects of the dualistic

framework that pervades Christian theology. That framework may be represented by a listing of what are taken to be binary opposites.

God	world
man	woman
soul	body
culture/history	nature
mind	matter
light	darkness
good	evil

The dualistic framework is not to be viewed as a harmless—though false—oversimplification of reality, for it has led historically to a justification of domination of one in the pair over the other. The logic of domination is that superiority bestows the right to rule. It is not a simple duality, it is an ideologically constructed set of *graded differentiations* in which it is assumed that one in each pair is superior and by all rights *should* rule over the other (man over woman, culture over nature, etc.). This schema hangs together tightly so that the more valued in each pair come to be associated with one another (vertically), likewise the less valued in each pair come to be associated with one another. Man is associated with God, the soul, and culture. Woman is associated with the world, the body, and nature.[5]

Karen Warren (1990) has observed that there may not be anything inherently wrong with "hierarchical thinking" as such. To say, for example that human beings are better able to radically reshape their environments and therefore more able to address the environmental crisis than are rocks and plants is rather important for assigning ecological responsibility. Similarly, duality may be one way of describing assorted differences we find. It is when the hierarchy and the dualism are framed within an "oppressive conceptual framework" that they become problematic. Then they serve to promote a logic of domination in which differences justify subordinating one to another and grant the "right to rule." Apart from this the duality and the hierarchy could be simple descriptions of difference. That difference must mean inferiority/superiority, subordination/domination is where the problem lies. Beyond the dismantling of the schema of hierarchical dualisms we will need to find a meaningful notion of difference that does not breed domination.

Examples of this usage go way back to Aristotle who said that, "While the body is from the female, it is the soul that is from the male, for the soul is the substance of a particular body" (Aristotle, "Generation of Animals" 1984, II738b). That this is in fact a graded differentiation rather than a different-but-equal proposal is evident when Aristotle declares that "soul is better than body, and the living, having soul,

5 Sherry Ortner's article "Is Female to Male as Nature is to Culture?" notes that the universal devaluation of women is connected with assumed superiority of culture, as the sphere of human control, over nature (and the natural processes which we do not control but depend on). Woman is viewed as closer to nature due to here greater physical investment in the biological procreation that reproduces the species and the extending of this physical role to confined social roles of child nurture and domestic labor (Ruether, 1983, p. 72).

is thereby better than the lifeless which has none…" (Aristotle, "Generation of Animals" 1984, II:732a). The presumed closer connection of male with soul and female with body was used to justify the secondary status of women in society.

> And it is clear that the rule of the soul over the body, and of the rational element over the passionate, is natural and expedient; whereas the equality of the two or the rule of the inferior is always hurtful…Again, the male is by nature superior, and the female inferior, and the one rules, and the other is ruled; this principle, of necessity extends to all mankind. (Aristotle, "Politics", 1984, 1:1254b)

Thus in Greek philosophy women belong to the lower realm of matter or body to be ruled or shunned by transcendent mind. Ruether comments, "ruling class Greek males are the natural exemplars of mind or reason, while women, slaves, and barbarians are the naturally servile people, represented by the body and passions which must be ruled by the head" (Ruether, 1983, p. 79).

All kinds of oppressions and exclusions are justified on these grounds and they are mutually reinforcing. Because the schema of dualistic, graded differentiations hangs together as it does, these social dominations (of women, slaves, and barbarians) go hand in hand with the exploitation of nature. It is on the *basis* of their being closer to "body" and "nature" that their domination is justified.

As the effort to dominate and control persons and groups of people has led to disaster in the human realm, so it is with the natural realm, as well. High priority has been attached to subduing and controlling nature. An adversarial "man-against-nature"—I use the terms advisedly—relationship is fostered. Each advance in technical, controlling, knowledge[6] is greeted as a triumph. The operative understanding seems to be that nature is there to subdue and press into the service of human beings. Yet the domination and control of nature has led us to the brink of disaster. It should be noted that Lynn White's article has significant challenges for science as well as theology as it charges that the recent wedding of science with technology is a part of the problem. Science *might* have been oriented toward *scientia*, knowing and understanding the world, but once wedded to technology however, knowledge is ordered toward control.

What was already well formed in Aristotle in the way of a mind-body dualism, is later reinforced by French philosopher Rene Descartes. He is credited with promoting the *deus ex machina* way of thinking about the human being, which sharply contrasts body and mind.[7] In his Sixth Meditation he states,

> I correctly conclude that my essence consists in this one thing: that I be a cogitating thing. And, although I might perhaps…have a body which is very closely joined to me, because I have—on the one hand—a clear and distinct idea of me myself, in so far as I am only a cogitating thing and not an extended one, and because I have—on the other hand —a distinct idea of [the]body, in so far as it is only an extended thing and not a cogitating

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6 Ruether makes this point and draws a connection between dominating nature and domination of "women, workers, peasants, and conquered races" (Ruether, 1983, p. 83).

7 For Descartes "mind" refers that within the human being which things, imagines, and remembers. Thus it does not mean "mind" in a narrow sense of intellect but has a fuller sense more akin to what we name as "soul."

> one, it is still certain that I am really and truly distinct from my body, and that I can exist without it. (Descartes, 1992, 76)

He has in effect said what no one can ever really say, according to Whitehead (1938, p. 114), that is,"Here I am, and I have brought my body with me."

In the wake of this mind-body dualism comes the whole set of dualisms bound up together. The entire system must be dismantled if we would question the foundations of the historic oppression of women and nature. All kinds of oppressions and exclusions are justified on the basis of this mind-body dualism and they are mutually reinforcing. Because the schema of graded differentiation hangs together as it does, social dominations (of "women, slaves, and barbarians") go hand in hand with the exploitation of nature. It is on the *basis* of their being closer to "body" (and "nature") that their domination is rationalized.

B. The Feminization of Nature and the Naturalization of Women

Another dimension of the problem with dualisms came to light as early as 1947 when Simone de Beauvoir observed that there was a connection between the attitude of men (under patriarchy) toward nature and their attitudes toward women. A dimension of this difficulty is what Elizabeth Dodson Gray (1979) named as the "feminizing of nature." It is the kind of move we see in the "common and seemingly benign" (Bouma-Prediger, 1995, p. 25) naming of nature as "Mother Nature." When the full effects are taken into account the move proves to be very problematic. Subjugation of the female by the male is the primary psychic model for many other forms of oppression (Ruether, 1972, p.118). It has been called the "paradigm of all oppressions" for it cuts across race and class. To feminize nature is to invite its subjugation and exploitation. In this way the naming "Mother Nature" turns out not to be so benign.

It is important to critically assess this association and the habit of using feminine images and descriptors in relation to nature. Descriptions are "ethic-laden." There are tacit assumptions hidden within descriptions in such a way as to be invisible, yet they still function has moral permissions and restraints. Any *absolute* distinction between "is" language and "ought" language may not recognize this dynamic. Carolyn Merchant has observed that philosophers of language have critically reassessed earlier positivistic distinctions between descriptive and normative language. Given the power of descriptors and metaphors in play to function in this way it is imperative that we reconsider the effects of the feminization of nature and the naturalization of women in a patriarchal context.

The analogy "man is to woman as culture is to nature" (Ortner, 1974) cuts both ways; it does not come out any better for woman than it does for nature (as noted above). For when women are "naturalized" in a context where there is already a presumed superiority of culture over nature, then they are devalued in relation to men who are associated with culture.

As a habit of thought, this association of women and nature is deeply ingrained. It appears in children's books. One classic instance is *The Giving Tree*, by Shel Silverstein. It is a sweet and sentimental book about loving and giving, some have

even used it as a kind of remythologizing of God's own self-giving nature. The "giving" tree is depicted as female. It is both woman and nature or perhaps "Mother Nature." There is a child in the book, depicted as male, who uses the tree to meet his every need. What the tree does is give, give, give. What the boy does is take, take, take with no apparent concern for the tree and its well-being. In the end, all that is left is the lifeless stump of what was once a living, growing, flourishing tree which the boy, now an old man, sits upon. Read through the lens of the exploitation of woman and nature this harmless children's story becomes a "text of terror."[8]

Tracing a bit of the history of the association between nature and women may be instructive at this point. In the era in which the primarily model of understanding for nature was organic, the earth was identified on the one hand with a nurturing mother, kindly and beneficent, providing for all the needs of the human race (Merchant, 1983, p. 2). In some ways, this might have provided a check on thoughtless treatment and exploitation of nature, for how should one treat one's mother. Nevertheless, these associations still conveyed that the earth lives to serve us and provide for us having no claims of its own—as in the patriarchal idealizations of "motherhood." Another image of nature as female presented nature as wild, chaotic, and dangerous and therefore in need of taming and controlling. Like the image of the earth as nurturing mother, this too was a projection from human experience in patriarchal society. As Carolyn Merchant has argued, both these images were affected by the scientific revolution. The image of nurturing mother became less compelling when the organic model shifted to a mechanistic model. Whatever constraints it might have imposed on how "Mother Earth" is to be treated dissolved as the world came to be rationalized as a great mechanism. Concern for control and mastery of nature became core modern concepts and the technological capacity to do just that was daily increasing in its power.

"Naturism' has been the life-long partner of sexism: the feminization of nature and the naturalization of women have been crucial to the historically successful subordination of both" (Warren, 1990, p. 133). This dynamic illustrates why "we cannot criticize the hierarchy of male over female without ultimately criticizing and overcoming the hierarchy of humans over nature" (Ruether, 1983, p. 73). The fate of women and the fate of the earth are one.

C. The Objectification of Nature: Nature-Culture Dualism

The problem with nature-culture dualism for purposes of ecology, is the framework of graded differentiation in which it is embedded. Nature is devalued in relation to culture and culture is granted the "right to rule" over and to use nature. Culture is granted a monopoly on spirit. Nature is objectified as "mere material existence." If nature is allowed only instrumental and not intrinsic value, then the human being is free to "use" nature and does not have ethical obligations to nature. Holmes Rolston proposes that valuation profoundly affects how human beings relate to nature. When

8 Carol Lakey-Hess has done an excellent critique of this text as well in her book, *Caretakers of Our Common House: Women's Development in Communities of Faith.* Nashville, TN: Abingdon, 1997.

we are able to affirm that nature is *good* in its own right (and not just good for us in some instrumental relationship) then the valuation creates a *moral* relationship. "We follow what we love, and the love of an intrinsic good is always a moral relationship. Value generates duty" (Rolston, 1988, p. 41). Objectifying nature works against this valuation and generation of duty.

This dynamic of objectifying nature is consistent with the larger schema of graded differentiations. In the hierarchical, dualistic schema, the first in each pair is named as subject while the second is named as object. Embedded in the dualistic ideology is the unwillingness to treat the "other" as subject. God is subject, the world is object; mind is subject, body is object; spirit is subject, matter is object; man is subject, woman is object. So also nature becomes the realm of objects and culture is the realm of subjects.

Carolyn Merchant in her historical work, *The Death of Nature: Women, Ecology, and the Scientific Revolution*, points to the shift in orientation that occurred when the medieval view of the world as a living organism gave way to a mechanical model. Nature became an object and knowledge of the world came to be based upon a subject-object dualism, the knowing subject and the known object. The problem is not so much the striving for *objectivity*, the aim to know the world "as it is;" the aim of objectivity is understanding. The problem is rather *objectification* which is ordered toward *controlling*. Knowledge in the post-Enlightenment scientific age has come to be a matter of distancing, objectifying, and controlling. Objectivity and objectification come to be conflated. One seeks to understand things in order to control them for one's own ends. As long as these two are conflated, science may hide its objectification of nature under the cloak of objectivity (McFague, 1997, pp. 75-76).

It is imperative then, to overcome the culture-nature dualism that assigns intrinsic value to culture and instrumental value to nature, that treats culture as subject and nature as object. There are at least two directions from which nature-culture dualism can be countered. These will be discussed in the constructive section.

IV. Feminist Insights: Rethinking the Relations

Thoughtful response to these dualisms and the problems that arise from them invites us to a rethinking of key relations. Ecofeminists have made substantial contributions toward that end.

A. Rethinking the Self as Integrated and Connected

The work of overcoming mind-body dualism begins with asking appropriate questions. How are body and mind joined? Is the human being a unity? Are we whole in the Hebrew sense of the *nephesh* (living being)? Can we find ways of thinking outside the mind-body box? What is the self, and how is it connected to all else? Additional help on this work will be forthcoming in chapter 5 where Whitehead's panpsychism is explored and in chapter 6 where some contemporary proposals regarding the mind-body relation in neuroscience will appear along with

reference to the work of Nancey Murphy on non-reductionist physicalism and that of John Polkinghorne on dual-aspect monism. This chapter will draw primarily from feminist resources and insights.

The task for feminist theologians is to question the disintegration of mind and body and urge a reintegration as well as a new affirmation of embodiment as such. A companion to these efforts should be a redefinition of the self as more than the isolated individual; the self as a being-in-relation to others.

Integration of Mind and Body

There are a number of important insights coming out of feminist theology in this connection. Some are focused on an affirmation of embodiment as such to counter the anti-body streams of thought within Christian tradition. Feminists are reclaiming the body as good. Multiple loci for theological affirmation of embodiment are there to be recovered in Christian tradition. In our creation theology, for example, we affirm that God created bodies and called them good. In our theology of the incarnation, we proclaim that in Jesus Christ, God even took on human flesh (John 1). In our sacramental theology, we discern that such ordinary bodily experiences as washing and eating may become symbols for and vehicles of God's grace in baptism and the eucharist. Given the wealth and centrality of these resources, it is somewhat baffling that Christian theology has taken and continues to take an aversion to the body.

Yet that aversion has been there and has had theological, social and ecological consequences. As Mary Grey observes, "The sheer weight of this Western tradition of a God transcendent to the world, a God outside and above the whole dimension of bodyliness can hardly be overemphasized. This under girds the teaching that the true home of the Christian is beyond this physical world, with the implication that the earth is ultimately expendable" (2004, p. 126). The consequences are of course compounded as women are taken to be closer to body, while men are closer to mind. "Women are supposed to be closer to the body, matter, earth, sexuality and bodily processes, with all the presumed weaknesses, inferiority and proneness to sin that follow" (Grey, 2004, p. 124). The mind-body dualism of Western culture has harmed both men and women and also harmed the environment. The task of reconstructing human personhood more holistically, with a full integration of mind and body is an urgent one that is an essential ingredient of rethinking our theology of nature.

Feminist biblical scholars have pointed out that the Hebrew word *nephesh* that is used in the second creation story for the newly created human being, is a term that bespeaks integration rather than separation of body and spirit. In Hebrew thought, there seemed to be little interest in distinguishing the self, soul, spirit, or mind from the body. *Nephesh* is simply translated "living being" in the NRSV and the Oxford Annotated notes comment that the human being is "not body and soul (a Greek distinction) but is dust animated" by the spirit or breath of God which constitutes it a living being (Gen. 2.7).

In addition to reconstructing understandings of the self that join rather than separate body and mind, it is important as a corrective step to engage in work that affirms embodiment as a positive rather than a negative thing. Stephanie Paulsell's book *Honoring the Body*, is a helpful and practical book in this regard. It is, among other things, a recognition and celebration of embodiment.

Elizabeth Johnson has proposed that the human being is much more complex and multilayered than either mind-body or male-female dualities will admit in their way of thinking. The alternative she proposes is that we think instead of "one human nature celebrated in an interdependence of multiple differences" (Johnson, 1992, p. 156). With regard to gender, for example, we should not limit ourselves to a "binary view of two forever predetermined male and female natures, nor abbreviation to a single ideal, but a diversity of ways of being human: a multipolar set of combinations of essential human elements, of which sexuality is but one" (Johnson, 1992, p. 156).[9]

These approaches all contribute to feminist reconstructions of the self in modes that begin to overcome mind-body dualism. Some have said that this dualism is more basic than other dualisms by virtue of its being internal to us; that it is at the base of all the other dualisms. If this is indeed the case then it becomes all the more important to engage this reconstruction on the way to dismantling the whole schema of graded differentiations. One hopes that successful efforts in addressing mind-body dualism may, as tugging at the loose string in a knitted garment, cause the entire fabric to unravel.

Connection of the Self to the Natural World

A second step is also essential a reconstructed understanding of the self. In addition to achieving a fully integrated understanding of the mind-body relation, it is also important to begin to see the self as connected to the wider web of life. Today there is an increasing recognition of the sense in which human beings are socially constituted; that we are always beings-in-relation or "persons-in-community" as Rasmussen (2000) has put it. But there is not yet a full realization of the breadth of the "relation" and the extent of the "community." An ecologically sound understanding must broaden to include the wider natural world in these concepts. The *community* is not just human community but "earth community." The self is internally related to the rest of nature. The self *is nature* through and through and is connected to all else that is nature.

In the anthropocentric separation from nature we have lost a sense of our place within the larger picture. Feminist scientist Lynn Margulis has been intent on providing a more realistic picture of human beings in connection with the rest of nature. Life as a phenomenon on the earth is four billion years old. Present day humans represent "four billion years of evolution from our bacterial ancestors" (Margulis and Sagan, 1991). We are a very recent phenomenon, only some three million years old and only thirty to forty thousand years old as modern groups of people. "We have an extraordinarily short-sighted 'mammalocentric' view" (Margulis and Sagan, 1991, p. 5). Part of the challenge is for people to see themselves as one very small and very recent part of a much larger and older system. We have emerged out of and remain part of that larger system.

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9 In my work on the mind-body duality I am helped by an unpublished paper entitled "The Mystery of Human Identity from a Feminist Christian Perspective" by Wendy Mathewson, a student in "Feminist Theology" course at McCormick Theological Seminary.

There is much in the scientific evidence Margulis has presented that would counter our tendency to think of ourselves as isolated individuals. "All of the living organisms on the face of the earth are connected. …Organisms are not so much individuals as part of systemic life at various levels of integration" (Margulis and Sagan, 1991, p. 5). "Even one human being in (theoretical) isolation from all other human beings cannot be said to be an *individual*. Of all organisms on earth, only bacteria are individuals." (Cowley, 1989, p. 38) The rest of us are forged by symbiotic processes and are dependent upon our constituent microbes. "Every plant and animal on earth today is a symbiont" (McDermott, 1989, p. 76). Here is one of the places feminist thought draws upon what we know of nature to provide a model for human interrelating. As it turns out that from Margulis's analysis of the evidence, there is much more of cooperation and symbiosis in nature than there is of cutthroat competition.

Gregory Bateson (in Grey, p. 133) has referred to the problem of the "false reification of the self" and how it contributes to the ecological crisis. We have wrongly assumed that the unit of survival we should seek is individual or even the human species. A broadened perspective would have significant ecological repercussions. A better focus of concern would be the "expanded self" that more accurately assesses the place of the human being in the larger system and recognizes and values the symbiotic interconnectedness of all things.

Our interconnectedness is a reality biologically, but it is also a theological consideration. As Mary Grey has observed, in contemporary theology it is now *de rigueur* to image the Trinity in terms of Relational Being. The famous icon by Andre Rublev that images the Trinity as a gathering around table, is regularly referred to as a model of the intertrinitarian life. Relationality is taken to be fundamental in the divine relations *ad intra* and *ad extra*. This is especially true of process theology. In process approaches the God–world dualism is questioned alongside all the other dualisms and a panentheistic God–world (internal) relation is proposed in its place. The advantages of this perspective will be discussed more fully in chapter 7. God is not envisioned as strictly external to the world but as the "power of life" engendering, sustaining, and energizing the whole natural world. While transcendence is affirmed it is a *relational* transcendence. The roots from which we form the word "transcendent," come from the Latin *trans* (over) + *scandere* (to cross or climb). Transcendence is a *crossing over.* The grounding of our relationality is in the divine relationality; the divine relational power *crosses over* and empowers us to *cross over* to the other. We discover that we are all connected as we cross over from the reified self into the community of belonging which is all of nature. As we come to see ourselves in fundamental relation with God and with the rest of nature, we may also come to see more deeply into the reality of all *nature* in relation to God.

There is in biblical tradition a recurrent theme of nature in relation to God.

Old Testament scholar Terrence Fretheim[10] has underscored this theme in his work as has historian Richard Bauckham.[11] The basic understanding is that all creatures praise God and humans are to join in that larger chorus of praise. This is

10 T.E. Fretheim, "Nature's Praise of God in the Psalms," *Ex Auditu 3* (1987).

11 R. Bauckham, "Joining Creation's Praise of God," *Ecothoelogy* 7.1 (2002) 45-59.

a very different picture than the hierarchical anthropocentric view that sees humans as the "priests" of creation. Fretheim understands that creatures praise God by being what they are, what God has made them and by doing what they do, what God has created them to do.

Writings on Christian spirituality also highlight the dimension of nature's praise of God. There is a striking legend emerging from Greek Orthodox spirituality about an elder on Mount Athos distracted in his prayer by the chorus of frogs from a nearby marsh. He 'sends a disciple to tell them to be quiet until the monks have finished the Midnight Office. When the disciple duly transmits the message, the frogs reply, "We have already said the Midnight Office and are in the middle of Matins; can't *you* wait until *we've* finished." (As cited in Elizabeth Theocritoff, "Creation and Salvation in Orthodox Worship," in *Ecotheology* 10 (January 2001), p. 100.)

Rethinking relations in such a way as to see the connectedness of all things (God and the world, the human community and the rest of nature) enables us to go more deeply than some popular responses to the ecological crisis. One such response is the assumption Christianity is ecologically bankrupt and what is needed is a nature romanticism or neoanimism. The other is a defense of Christian tradition by reinterpretation (i.e. dominion as stewardship). As Ruether has argued, neither countercultural primitivism nor stewardly conservationism really takes into account the socioeconomic relations and how they contribute to relations of exploitation. Ecojustice must go deeper than adopting a personal ethic of "enjoyment of nature" (Ruether, 1981, p. 60) or conservationist projects that preserve the wilderness—usually for the enjoyment of the leisured classes. There must be recognition of what Leonardo Boff has called "social ecology, the ways that human social and economic systems interact with the natural eco-system" (Boff, 1995, p. 88).[12]

There are, within Christian tradition themes that, if thoughtfully retrieved, may help to underscore the connectedness of all things. One such theme is "covenant" particularly as it is interpreted in the story of Noah where the covenant is clearly a covenant with all creation. Ruether points out that a recovery of certain aspects of pre-exilic Hebrew religion might be helpful. For, although it was patriarchal, it was not dualistic and did not foster an alienated view of nature. "Society and nature cohere in a single created community" bound together by a "single socionatural covenant" (Ruether, 1975 p. 187). There is a single covenant with creation, it includes human

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12 John Cobb in "Economism or Planetism: The Coming Choice" in *Earth Ethics* 3 (Fall 1991) has observed as summarized in McFague (1997, p. 13-14) that the economic system that rules the globe, the gospel of unlimited growth, refuses to acknowledge "social ecology." It refuses to acknowledge the limitations of our finite planet and the radical inexorable interconnection between our will being and natures. John Cobb calls our devotion to this economic system the religion of "Economism": its god is endless economic growth; its priests are economists; its evangelists are advertisers; its laity are consumers. The cathedral is the shopping mall; virtue is the competitive spirit and sin is inefficiency. The way to salvation is to "shop till you drop." The religion of Economism is not just an amusing metaphor for how we spend our leisure time but a serious analysis of a deep and deadly sickness in the soul of Western (and increasingly, global) culture. In such a religion nature *and* people are objectified, seen as either "raw materials" or "human resources" for the production of consumer needs and desires.

beings and the rest of nature and entails both "norms of harmony with nature and justice in society" (Ruether, 1981, p. 68). Another such theme would be the Hebrew ideal of "jubilee" as a vision of recovery of just balance has much to offer in this connection.

Ruether also picks up the theological theme of "conversion" though not in the ordinary usage of the term. She advocates a *turning away* from dreams of a past primordial paradise or dreams of a future of infinitely expanding wealth and power. There is a sense in which we are paralyzed between these two false options looking back or looking ahead. As Ruether expressed it, we need to get beyond both "motherearth and the megamachine," beyond both the "romanticized primitive jungle" and the "modern technological wasteland" (Ruether, 1971). The former romanticizes and mystifies nature. It seeks a return to Eden. The latter mechanizes and objectifies nature. It anticipates a future of complete mastery. Neither of these is a realistic option. Neither of these lets nature "be" what it is. Neither of these really sees us as a *part* of nature. Neither of these invites us to deal with the here and now. Instead we must *turn toward* the present with a view to creating a just and sustainable existence in the here and now. Ruether advocates a concept of social change as "conversion to the center, conversion to the earth and to each other" (Ruether, 1983, pp. 255-256). The hope is that earth shall be fair and all her people one.

B. Rethinking the Relation of Women and Nature

Ideological association of women and nature is complex, deeply rooted, and needs a thoroughgoing feminist critique which it is beginning to receive. Feminists do not all agree as to whether this association of women and nature should be reconsidered. Some feminists if asked whether women are closer to nature than men will say yes. Mary Daly, Susan Griffin, and Starhawk hold this view and urge that we celebrate that connection and find ways to be even more in tune with nature. Others would answer "no," and insist that men and women are both connected to nature (as to culture) and bear co-responsibility for the fate of the earth. The question itself seems to assume as true the nature-culture dualism that is part of the system of graded differentiations. Under the "logic of domination" this system oppresses women. Thus to admit a closer relation between women and nature reflects an "unwitting complicity" in the patriarchal system that we seek to expose and dismantle.

Nancy Frankenberry does a careful critical assessment of those strands of ecofeminism that are perpetuating the notion that women are closer to nature than men. She is concerned that North American feminism "has been overtaken by an emergent women's spirituality movement which valorizes the identification of women with nature, celebrating both the actual mothering and maternalist behavior of women, as well as the archetypal nurturing power of Mother Earth" (p. 41). "Insofar as ecofeminist spirituality veers toward essentialism in its anthropology, toward inverted dualism in its epistemology, and toward ahistorical simplistic equations of 'maleness' with militarism/aggression/competitiveness/ and of 'femaleness' with peace/nurturing/caring/ and environmental responsibility, it is not clear to me how it can help us 'heal the wounds' or 'reweave the world'" (p. 42). She has put her view

very straightforwardly in the title of her article "The Earth is Not our Mother." She believes this way of thinking as "a misleading mystification and romanticization of both nature and women."

It certainly does not help in our treatment of the rest of nature to align nature with woman in a culture as patriarchal and misogynist as ours. When, for example, earth is imaged as mother earth, it is the patriarchal vision of motherhood that is being invoked. It is a conception, as Val Plumwood has argued, of the mother who "provides without cease; whose needs, if they exist at all, always come second; whose value is determined by the child she produces; whose work is both expected, devalued and invisible" (Plumwood, 1992, p. 36). It is an image shaped by a history of inequality and a secondary status for women and a glorification of self-sacrifice of mothers. By extension, the rest of nature takes a secondary status in relation to human beings and to culture. The expectation of self-sacrifice is underscored.

Thankfully motherhood is an image being rehabilitated by feminists who are reinventing that role and living it rather differently. But allowing the old association to stand while the reconstructive work is underway may not be wise. The wider culture has not yet caught on to the rehabilitated, reconstructed meaning of motherhood. For now, it seems rather that the feminine images and metaphors will be so laden with their traditional associated stereotypes that their positive potential may be severely compromised. Perhaps, for the time being, a moratorium on feminine imaging of nature is a better way to go, at least until the images may be balanced with masculine ones and the feminine images themselves depatriarchalized. A similar strategy was employed by feminist theologians with respect to God language in recent decades. Many adopted a temporary moratorium on masculine images of God until these could be seen as genuinely metaphorical and on a better balance with feminine images. This strategy has the prospect of breaking (linguistically) the chain of associations in the schema of graded differentiation.

Another consideration is the way in which images borrowed from *any* human relations may be so heavy laden with associations (for good and ill) that they have an effect of narrowing rather than expanding our vision in relation to nature.

The problem of anthropocentrism is already there to be contended with, and the exclusive use of personal metaphors may not help in this regard. They may certainly have positive consequences as in one slogan of the call to ecological responsibility "love your mother." There may be some commendable transfer depending upon how functional or dysfunctional was one's relation with one's mother. The use of exclusively personal metaphors as our primary ways of imaging nature, however, may continue to reinforce that it is "all about us;" about persons and their relationships to their significant others. Expanding beyond the personal will augment what is available to us out of this realm of experience. When relating to the rest of nature, we are drawn into something that is vastly larger than human existence. Metaphors that reinforce what an infinitesimally small part of the larger cosmos we are may be more to the point. "Knowing our place" in the immensity of it all.

Patrick Murphy has expressed well both the risk of engendering earth and the risk of using personal metaphors exclusively.

> "Sex-typing a gender free entity invokes and reinscribes…a cultural dualism that hierarchically divides…. Sex-typing a gender-free entity also reinscribes an anthropomorphism that *alienates* Earth by trying to render it in our image. To say that we must describe it in human terms in order to understand it is to say claim that we and it are separate and other. A division that alienates male and female can hardly serve to unity Earth and humanity. To end the division on both planes we must remove the question of gender as a valuing determinant" (p. 165).

C. Rethinking the Relation of Nature and Culture

The Nature-Culture Split: a False Report on Reality

There are at least two substantial arguments against the traditional nature-culture dualism that come from a careful study of nature itself. Here, if we take our cue from what ecofeminist Nancy Howell has suggested and seek to learn from the "ways of nature" the evidence is very instructive. When we carefully consider the way things are in the natural world we discover that nature-culture dualism is a false report on reality. What comes to light is evidence that culture is *natural*, and that nature is already enculturated.

A bedrock of contemporary evolutionary theory is that whatever is now on planet earth (including human beings and what we call culture) has come from the same "starry stuff" of the universe and has come to be what it is over eons of evolutionary development and differentiation. Philip Hefner (1999, p. 6) has used the word *bricolage* to describe how nature works in this process. Paleontologists have documented how the bones in our jaws and ears developed from the bone structures of primitive fishes' gill slits. Brain researchers tell of how the human brain caries within it the fossil remnants of ancestral brains, the reptilian and the early mammalian are included in the present day human brain. Cell biologists tell how even the cells of our bodies show traces of amalgamation, or symbiosis. Geneticists have shown that we share a large portion of our DNA with other creatures—over 80 percent with earthworms, over 95 percent with higher primates. "Nature's evolution makes new things by putting together the parts and mechanisms that are at hand" (Hefner, 1999, p. 6). Whatever human beings and their "culture" may be has its ground in this evolutionary process and emerges from it. Culture is *natural*. Furthermore, culture is expressed in gradations across several species. It is no human invention.

Franz de Waal and Peter Yack, in their book *Animal Social Complexity: Intelligence, Culture, and Individuated Societies* (2003), have shown both the presence of cultural expressions across species and a variety of expressions of culture within the same species in different locations. The presence of the phenomena of "culture" among the animals has become increasingly apparent in the study of higher primates. These studies have shown not only the closeness of our genetic heritage but also forms of culture that include such elements as symbolic communication, tool use, social economy, aesthetics, language, morality and spirituality (Howell, 2003, p. 179). Franz de Waal has worked extensively to show the precursors of moral behavior in primates and has documented patterns of conflict resolution, cooperation,

inequity aversion, and food sharing. Instances of exercising discipline, forgiveness, and reconciliation have been observed and documented in these studies.

Language, which has long been taken to be emblematic of culture, and is thought to be one of those things that separates human beings from the animals, turns out to be something rather that they have *in common*. Gorillas and chimpanzees, although they do not have vocal chords and do no speak as humans do, are linguistic beings. They communicate effectively with one another. Furthermore, they have the capacity to learn and use sign language (Howell, 2003) and to use a keyboard with lexigrams to communicate. This is not a function of the presence of researchers prepared to reward them for doing so. Those who have learned sign language use it among themselves when they do not know they are being observed. Interestingly, offspring communicate more with their peers than with their parents (Howell, 2003). The work with sign language and keyboards has enabled human being to see manifested, what is already the case about these creatures—they are cultural-linguistic beings.

Culture is present and pervasive in nature. It cannot be extricated from its natural roots and myriad instantiations in the wider natural community. To do so is to falsify our natural and cultural reality. This situation has caused Philip Hefner to speak of the human condition in terms of our "bio-cultural" heritage. Two streams of information come together and co-exist within us. One is genetic information and the other is cultural information. "The cultural and the genetic have co-adapted to each other and to their common environments so as to co-evolve, in a relationship that may be termed symbiotic" (Hefner, 1993, p. 29). Thus the human condition is not adequately described if we are placed on the "culture" side of a culture-nature dualism any more than if higher primates were placed on the "nature" side. Both are bio-cultural beings.

Nature is a Subject, Not an Object

One of the problems with nature-culture dualism has been the graded differentiation that is being assumed. Culture is granted intrinsic value and subject status while nature is only allowed instrumental value and object status. Thus the human being as the purveyor of culture relates to nature as a subject to an object. This pattern of relation between the human being and nature has far-reaching effects ecologically. If nature is allowed only instrumental (object) and not intrinsic (subject) value, then the human being is free to "use" nature and does not have ethical obligations to nature.

This element of the hierarchical dualistic system may be questioned from several directions. One step is to insist on placing the human being (clearly granted subject status) on the nature side of the duality. We have learned from contemporary science that we are *in and of the natural world*, coming to be like all other life forms within the long process of evolution. It is not just that we are dependent upon nature for our sustenance and well being. We *are* nature through and through. Both Ruether and McFague have argued extensively that we need to rethink the relation of the human being to the rest of nature by seeing the human being as very much a part of nature on the way to advocating that we treat nature more as a subject, less as an object.

Ruether speaks of our needing to respond to the "thou-ness" in all beings (Ruether, 1983, p. 87).

McFague has worked at this particular reconstruction more extensively. In her book, *Super, Natural Christians*, she draws upon insights from process philosophy, feminist epistemology, and ecological science to make a substantial proposal. She argues that the "Christian practice of loving God and neighbor *as subjects*, as worthy of our love in and for themselves, should be extended to nature" (McFague, 1997, p. 2). Her intention is that we replace the subject-object model that characterizes relation to nature in Western culture. We have valued nature only in relation to its usefulness to human beings and treated it accordingly as a means to our ends. This instrumental habit of thought needs to be replaced by intrinsic valuation. A subject-subject relation is what should exist instead.

While she decried the breakdown of the medieval model of the world as organism, she does not really advocate that this model be reinstituted. It may serve rather as an example of a coherent worldview that integrated God, the human being, and the natural world. What is needed is not that *particular* model but rather a new integration that in a similar way sees all things as interconnected. Her proposal is that we see each and all as subjects in relation. As Martin Buber eloquently and simply says, "In the beginning is relationship (McFague, 1997, p. 21, quoting Buber). The model for understanding nature which she commends is "evolutionary, ecological, relational community" (McFague, 1997, p. 21). This would be a functional cosmology appropriate to our time.

McFague draws upon the work of feminist philosopher Marilyn Frye who has contrasted the "loving eye" and the "arrogant eye" (Frye, 1983, p. 66). According to Frye, the "loving eye" knows the independence of the other and pays a particular attention to that other. This eye can tell its own interests from those of the other and does not "make the object of perception into something edible, does not try to assimilate it, does not reduce it to the size of the seer's desire, fear and imagination and hence does not have to simplify. It knows the complexity of the other" (Frye, pp. 75-76). The "loving eye" is not an invasive, coercive eye which annexes others to itself, but one which "knows the complexity of the other as something which will for ever present new things to be known." The "arrogant eye," by contrast, presupposes and maintains sameness. The community of care expands only so far as to include those beings who are thought to be "like us" resemble human beings in some morally significant way. The "arrogant eye" does not see things in their own right. It "simplifies in order to control, denying complexity and mystery" (McFague, 1997, p. 33). The "loving eye" pays attention, wants to know more, respects, cares.

This change of "sensibility" that Frye and McFague are commending could have far-reaching consequences. If we were to look upon nature with the "loving eye" rather than the "arrogant eye" the whole orientation of the human being to the rest of nature would be transformed. Subject status and intrinsic value would be accorded to nature. Both the alterity and integrity of nature would be respected. Chapter one has argued that these elements are essential in our reorientation for ecojustice. This approach acknowledges difference in a way that does not breed domination. The chapter which follows will pursue the matter of the subject status of nature in greater depth through the insights of process philosophy.

Conclusion

Ecofeminist thinkers have made a substantial contribution in the thoroughgoing analysis and critique of the system of graded differentiation and hierarchical dualism that has set man above woman and culture above nature and spirit above body in ways that are mutually reinforcing and destructive in their effect. They have shown how, under the "logic of domination," this orientation has led to a web of oppressions—including the oppression of nature. They are clear that the entire system with its logic of domination must be dismantled. Ecofeminists have also gone a long way in commending alternatives. This chapter takes the approach of "rethinking the relations" between mind and body, women and nature, and nature and culture as a way forward drawing from a variety of sources.

In summary, I have argued that the dualism of mind and body should be overcome through a reintegration of the concept of self and that the "self" should be understood, not as isolated individual, but rather as a being in relation not only to other human beings but to the whole natural community. Regarding the traditional assumption that women are closer to nature than men, I have shown how this association has been destructive for both women and nature and should be reconsidered. I highlighted the problem of feminine images such as "Mother Nature" and urged a temporary moratorium on such associations. My position is that men and women are both connected to nature (as to culture) and bear co-responsibility for the fate of the earth. In the discussion of nature-culture dualism, I brought forth evidence that this split is a false report on reality and that culture is *natural* and nature is enculturated. I underscored the importance of granting subject status and intrinsic value—that have traditionally been assigned to culture—to nature as well. The consequences of these reconstructions could be far-reaching for how we think about and live out our relation to nature.

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Chapter 5

The Alterity and Integrity of Nature: Insights from Process Thought

Whitehead's philosophy has proven itself very influential in the work of ecojustice. While the process approach has its grounding in philosophy and metaphysics, its interests are wide ranging, including moral, aesthetic, religious and scientific dimensions of knowledge and experience. It has had a profound impact in orienting its adherents toward issues of ecojustice. To make the claim more modestly, it seems that many who are concerned for ecojustice are also drawn to process thought and make use of its resources in their endeavors. Among the many significant theologians of our day who have come under the influence of a process-relational worldview, many have found themselves thinking and writing on the themes of ecojustice. This has been the case for Charles Hartshorne, John Cobb, David Griffin, Jay McDaniel, Nancy Howell, John Haught, Charles Birch, Daniel Dombrowski, Ian Barbour and far too many others mention each. The International Process Network has actually formally adopted *The Earth Charter* (McDaniel, 2006, p. 74) and accepts its call to universal responsibility "to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace" (*The Earth Charter*, Preamble). Center for Process Studies in the USA makes clear its commitments to this work in its statement of purpose. "Process thought offers an approach to the social, political, and economic order that brings issues of human justice together with a concern for ecology."

This chapter will uncover some very basic assumptions of process thought that may in part account for its commitments to ecojustice and its usefulness in this endeavor. After a very brief introduction to process thought, I will revisit its damaging critique of classical theism's construal of the God-world relation as having a negative outworking in Christian theologies of nature. I will then draw in resources from process thought for reconstructing a Christian theology of nature. I will argue that there are three theological/philosophical considerations—ones that are essential for furthering this work and the larger project of ecojustice—that are helpfully illumined by Whitehead's philosophy. These considerations are: the alterity (or "otherness") of nature, the integrity of nature, and the subject status of nature. Insights from process thought will be introduced in this chapter for their impact on how we view nature and will be revisited in chapter 7 for their impact on our understanding of God's relation to nature and God's presence and activity in world process.

I. Introduction: What is Process Thought?

From the outset, it is perhaps helpful to enumerate some of the basic assumptions of process thought. As the chapter unfolds, some of these elements will need to be treated at greater length. Alfred North Whitehead is process thought's chief philosopher, with Charles Hartshorne[1] following after as one who has most ably interpreted and extended process thought. An entire school of philosophers and theologians would now identify themselves as process thinkers. The most fundamental assumption of process thought is that "reality is process."

Whitehead held that the chief purpose of philosophy was to elucidate the meaning of the phrase "all things flow." In the process view, the world is not composed of "vacuous actualities" that are self-contained. Rather, all actualities are "events" and they are internally related to one another. Reality is social/relational. Its models for understanding the world tend to be organic rather than mechanistic. Process thought rejects determinism of all sorts and affirms that actuality is relatively free. All actual entitles are to some extent self-creating, though always in response to the givens in its past environment and in the future possibilities offered to it by God (who is the Ground of both Order and Novelty). Process thought rejects mind-body dualism and attributes physical and mental poles to all events. Process theology is panentheistic and revises traditional understandings of God in social/relational directions. For example, divine power, as a social/relational power, is not a monopoly on power; it actuality entails power. God influences the world and the world influences God.

As a school of thought, process philosophy is intentionally conversant with contemporary science and has been significantly shaped by that conversation. Ian Barbour has pointed out that, consonant with evolutionary theory, process thought is becoming an activity more fundamental than being and substance. The continuity of evolutionary history is reflected in process reluctance to separate by absolute distinctions. The theory of relativity may have influenced Whitehead's habit of thinking in terms of relations and the assumption that all things are constituted by their relations. Quantum physics informed the process portrayal of the "discrete, episodic, an indeterminate character of all events" (Barbour, 2002, p. 31). This science friendly posture has allowed process thought to serve as a bridge to science for many philosophers and theologians.

II. Process Critique: God and the World

A common complaint of those working for ecojustice is that nature has been desacralized in Christian tradition. Process thinkers have observed that classical theism's formulation of the God-world relation that have emerged from classical theism are permeated with dualistic thinking. Divine perfections have been defined over against the attributes of the natural world; supernature *over against* nature. Whatever can be said of the world must be denied of God. Intended theologically as an apophatic reserve (preserving the mystery of God) the negations have evolved

1 For a fuller treatment of Hartshorne's contributions to process thought, see Case-Winters, 1990, Chapter 4.

into positive attributes. This way of framing the attributes of God seem to place God and the world in a kind of polar opposition.

God is...	The *World* is...
necessary	contingent
eternal	temporal
unchanging	changing
absolute	relative

A mutual exclusion and opposition has been "structured in." As process thought observed, this arrangement makes difficult any credible account of divine presence or activity in world process. How can an eternal and unchanging deity relate to a temporal and changing world? There is an "infinite qualitative distinction" between God and the world. This way of thinking may have contributed to the "desacralization" of nature and which in turn may make thinkable the exploitation and violation of nature which has been the legacy of Western classical tradition.

In response to these criticisms some thinkers have sought a haven in pantheism and a *resacralization* of nature. As noted in chapter two, I take the contemporary proposals articulated by Sallie McFague (that the world is God's body)[2] and Gordon Kaufman (that God is the serendipitous creativity in the bio-historical process) to be leaning in that direction. God and the world come to be closely identified. There are positive contributions in these proposals. There is an increased reverence for nature. Nature cannot be treated in a cavalier manner as alien or devoid of intrinsic significance and worth and having only instrumental value if the world is God's body or world process is God's own process. The metaphors entail affirmation and elevation of nature that offers a stark contrast to the anti-nature, anti-body stream of thought within Christian tradition which contributes to the present ecological crisis.

There are, however, as I have argued, two theological losses worth mentioning which accompany this particular way of responding to the criticisms of classical theism: the collapse of transcendence and the loss of alterity/integrity for nature. As was argued earlier that in employing the analogy of the world as God's body we must admit a substantial disjunction between mind and body if divine transcendence is to be preserved in this analogy, and yet it we do so, we risk falling back into the mind-body dualism that has been so destructive for a theology of nature. If we make no such disjunction, we so identify God and the world that transcendence is collapsed. This particular analogy lands us between a rock and a hard place. Too closely identifying God and the world has another pitfall in addition to collapsing transcendence. It also has the effect of compromising the alterity and integrity of nature. This second danger, which has received much less attention may be every bit as problematic for the work of ecojustice as the desacralization of nature to which the world as God's body is a considered response. In what follows I will show how process thought addresses the problems inherent in classical theisms delineation of

2 As argued by Grace Jantzen in *God's World, God's Body* and by Sallie McFague in *The Body of God*.

the God-world relation while maintaining the alterity and integrity of nature as well as of divine transcendence.

III. The Alterity of Nature

Without some genuine alterity it is difficult to speak meaningfully of God's relationship with the world—there is no "other" with which to be in relation. This predicament places us back in the position of classical theism which, having so sharply distinguished between God and the world (desacralizing it), then had difficulty accounting for a genuine relation between God and the world. If nature is just God's body and not in some sense a genuine other for God, then God is just a divine "lonely dancer." Unless the natural world has some degree of genuine otherness it is difficult to speak meaningfully of human responsibility; for whatever human beings do is really God's action and not their own.[3] Creaturely acts lose their moral significance. How then do we speak meaningfully of ecological responsibility? How can this model of God's relation to the world serve as a model for our own? Without alterity there is no relation and no responsibility. At the very least, a viable theology of nature should to be able to articulate nature's alterity, and offer models of relation and responsibility that the human being might find worthy of emulation. In terms of the pursuit of ecojustice, it seems to me; that pantheistic models do not give as much as they gives up. Other options should be explored.

A. Divine Transcendence Socially/Relationally Conceived

Process thought, particularly in its form of panentheism and its concept of dual transcendence, offers a way of conceiving the God-world relation that does not fall into dualism/opposition on the one hand or identification on the other. Each of these will be briefly treated.

The panentheistic model of God provides a way between classical theism (a dualism that separates God and the world) and pantheism (a monism that collapses transcendence and compromises the alterity of nature). The process form of panentheism—as is consistent with its other process concepts—is socially/relationally conceived. Among the prevalent forms of panentheism, this one relies more upon a social analogy than an "organic union" analogy. We are members of a cosmic community of which God is the pre-eminent member. This allows for every entity in the natural world to have "its own indissoluble reality, activity and value" for itself and not only for others (Griffin). This rendering of panentheism better portrays real relations with real others. Furthermore, it allows for greater divine transcendence on the one hand and greater alterity (including freedom and autonomy) for creation on the other.

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3 The relation of our activity to God's causality….cannot be the simple relation of part to whole; for if our will, our action is a mere part of God's we can have no adjustment to make of our will to his….It is taken to be a moral relation….to another active self, only not "out there," but in the ground of our being (Farrer, 1961, p. 202).

Whitehead observed that "The philosophy of organism is mainly devoted to the task of making clear the notion of "being present in another entity" (Whitehead, 1978, p. 50). In the God-world relation, "It is as true to say that the World is immanent in God, as that God is immanent in the World" (Whitehead, 1978, p. 348). God is in the world and the world is in God. When we think in substantialist categories this is exceedingly difficult. How can one thing be "in" another without displacing it in some way? However, process approaches refuse substantialist ways of thinking the panentheistic relation. It is not a matter of one object or substance being added to another *simpliciter*. Joseph Bracken has used the analogy of fields of force coming together as an alternative, non-substantialist way of thinking this through. Each is the distinctive field of force that it is and each is affected by the other as they are joined. "The world lives by its incarnation of God in itself" (Whitehead, 1926, p. 149).

Whitehead's treatment of the primordial and consequent nature of God also portrays a transcendence that is social/relational. It assumes real (internal) relations with real others, thereby preserving the alterity of nature. The primordial and consequent natures of God are not finally separable but are two ways of viewing the unity of the divine life. Viewed as primordial, God is "eminent reality," an absolute wealth of potentiality, composed of conceptual feelings, the ground of all order and novelty. Viewed as consequent, God is the "principle of concretion," composed of physical feelings sharing with every new creation this actual world (Whitehead, 1929, p. 344). The distinctions between primordial and consequent natures are not dualistic, mind-body distinctions. They are more like the distinction between character and its expression, person and present state. For example, divine faithfulness is primordial, its consequential expressions are many and various in relation to world process.

Process thought avoids the traditional separation of God and the world and does not posit the traditional "infinite qualitative distinction" between God and the world—with the opposition/dualism and separation this has entailed. Yet it maintains divine transcendence.

The notion of "dual transcendence" or "dipolar theism" represents a significant innovation in understanding. Rather than setting up metaphysical polarities—eternal vs. temporal, changing vs. unchanging—and assigning one metaphysical pole to God and the other to the world, divine perfection is conceived as embracing both poles, manifesting each attribute in the way in which it is most excellent to do so. For example, God is *unchanging* in faithfulness, but as the divine faithfulness is expressed in relation to a changing world, it must necessarily be *changing* in its modes of expression. The primordial and consequent natures of God roughly correspond to a differentiation between divine character/being and divine responsiveness/action. These are analogous to the dipolar character of all actual entities in their mental and physical poles. An "analogy of being" is allowed here in which God is not the exception to all the metaphysical rules but their chief exemplification. As Whitehead insisted, "God is not to be treated as an exception to all metaphysical principles, invoked to save their collapse. He is their chief exemplification" (Whitehead, 1978, p. 343).

With this analogy in place, relation with the world is more readily conceivable. At the same time, God's transcendence is maintained–for God is the only all-inclusive, all-surpassing reality. God is transcendent, but this is a social/relational

transcendence. God's transcendence does not lie in being separate from all else, but in its "surrelativity" (Hartshorne, 1948, p. 88). That is, God is supremely relative, internally related to all that is and therefore "all in all." This is a transcendence that includes rather than excludes relation. This distinctive understanding has resonance with the understanding of transcendence (presented in Chapter 4) as a "crossing over to the other." God is not the world and the world is not God. But neither are these two mutually exclusive.

B. God as the Leader in the Creative Advance

Whitehead's treatment of "creativity" which applies to both God and the world may also have potential for re-casting another set of poles in the traditional dualistic framework for thinking of God and the world. The habit of making an absolute separation into categories of *Creator* on the one hand and *created* on the other, also issues in the opposition/exclusion that has proven problematic. *Creativity* is not a being or an agency for Whitehead; it is what actuality exhibits in the creative advance. All "being is becoming." The universe is itself a creative process—a verb rather than a noun. God might be thought of as the chief exemplification of creativity or even as the leader in the creative advance, but God does not have a monopoly on creativity, for creativity characterizes all actual entities. The old duality of Creator and created is rejected. "It is as true to say that God creates the World, as that the World creates God" (Whitehead, 1978, p. 348). All actual entities participate in creativity in their becoming and transition, and God's interaction with the world is a mutual dynamic creativity (Whitehead, 1978, p. 21). God and the creatures are co-creators. God is present in the unfolding of every event but does not intervene to unilaterally determine its outcome.

Nevertheless, God is preeminently Creator in the sense that God is perennially and perpetually creating. God is involved in *all* creative processes (as the Ground of Order and Novelty; as the lure to ever greater harmony and intensity). This is a mode of God's own self-expression and self-creation as well as a participation in the self-expression and self-creation of each actual entity. Observing that over eons the universe has evolved ever richer forms of subjectivity and has manifest tendencies toward both order and novelty, some process thinkers speculate that the nature of God's creativity is as persuasive influence in world process, a luring toward ever greater subjectivity, complexity, and diversity, that invites creation to become all that it can be. Process thinkers do not hold that this implies a "divine design" imposed from outside world process. Rather, this *telos* is an influence at work *within* the natural processes of coming to be that always include the subjective self-determination of the entity in relation to elements of the past and novel possibilities from the future which "dwell within the heart of the universe, namely God" (McDaniel, 2006, p. 82). "The aim of the sacred dimension of the universe for each living being is to live, to live well and to live better" (McDaniel, 2006, p. 87). All actual entities in their own self-creativity already include both these elements, thus it can be said that there is nothing that exists outside and apart from God's creative activity.

Process thought has come under fire for its reassessment of the doctrine of *creatio ex nihilo*. Christian tradition has invested much in the view that God is the sole Creator of all that is. However, it must be remembered that this stance was formulated in part as an adaptation to combat the views of Manichean dualism. Manichean dualism explained the presence of evil in world process by claiming that the Creator had to contend with preexistent matter that was evil. It also assumed that there were two co-eternal opposing forces of good and evil, light and darkness. Augustine, when he left the Manicheans, left this worldview behind and formulated a Christian naturalism claiming instead that God is the Creator of *all* that is—even the unformed matter is God's creation. Thus creation is good, all the way down. This is an arguably helpful perspective for the work of ecojustice.

However, there are difficulties that arise with the *creatio ex nihilo*. In the first place, there is lively debate even now as to whether the doctrine of *creatio ex nihilo* is genuinely biblical. The Genesis texts present a picture rather of "creation out of chaos." The *tehom* (the deep, the sea, chaos) which in Hebrew thought was taken to be threatening, was ordered by divine creativity. Indeed this tehom was no–*thing* (meontic non-being) but not in the sense of "mere blank nothingness" (oukontic non-being). As Catherine Keller has pointed out, there is an alternative accounting in Scripture that affirms the watery chaos in its creative potential. This view also has the advantage of being more consonant with *creatio continua*. Both Jon Levenson (1988) and Gerhard May (1994) argue that *creatio ex nihilo* is a post-biblical theological embellishment that is not well founded.

Also problematic is the effect of this way of thinking about God in relation to the world. To many it seems to imply unilateral divine determination of originating conditions and perhaps even present states of affairs in world process. Some argue that since God determined the laws of nature, God can intervene supernaturally and overturn these laws. This becomes deeply problematic in relation the problem of evil, for if God can act in this way, why are such things as natural disasters permitted? If there is a greater assumed alterity for the creation there is a greater assumed autonomy and the theodicy problem is less intractable. The world has its own creativity and thus self-determination. With these things in view it may be good to reassess the notion of *creatio ex nihilo*.

Positively, this doctrine maintains the goodness of the Creator God and therefore the goodness of creation. Negatively, it may deny any degree of self determination to creation. Is it possible to maintain the values early Christian thinkers were promoting in this embellishment without risking the self-determination of creation? In my view, Whitehead's view succeeds in maintaining the most fundamental affirmations embedded in *creatio ex nihilo* in his particular vision of God's relation to the world. Whitehead does not assume that matter is evil or preexistent or that this world is coeternal with God. Only God is eternal. There is no matter that exists *prior to or apart from* God's creative interaction in it. There is nothing that does not have God as its source and its end. God is the ground of all possibility and the lure toward realization of all values. John Cobb speaks of God as "the One who calls us to what we might be" (Cobb quoted in Cousins, 1971, p. 126). Perogatives of necessity and eternity of existence remain God's alone. God has precedence, not temporally, but ontologically.

It is important here to make clear the different senses in which the world is and is not necessary for God. In the process view, God's own nature as a social being requires that there be some actual world. This constitutes a metaphysical necessity, though it is one that is *internal to the divine nature* and not in any sense imposed from the outside. Furthermore, this particular world is not in any sense necessary for God. The fact that the essence of God is compatible with infinite possible universes lends an appropriate freedom to God. God's character is not determined by the state of this world. It also lends a freedom to the world, since its becoming is not unduly restricted by God's character (Hartshorne, 1948, p. 89).

It is worth underscoring that this perspective represents yet another important difference between the pantheistic option I am rejecting and the panentheistic option I am proposing. For pantheism the world—even this particular world—is necessary for God. God and the world are so identified that one cannot be without the other. This significantly restricts freedom for both God and the World. Process thought, in its panentheistic understanding of the God-world relation, in its social/relational understanding of transcendence and its rethinking of the sense in which God is Creator, has created space for the alterity of nature without sacrificing divine transcendence.

IV. The Integrity of Nature

Another essential ingredient that process thought illumines for the work of ecojustice is the *integrity of nature*. The recognition that all things are integrated in the sense of *connected* and that human being is part of an interdependent web of life is crucial to our reorienting ourselves in relation to the rest of nature. We are kin to all others by virtue of our evolution and our moment by moment coming to be as process thought suggests.

Whitehead's philosophy of organism understands all things to be utterly connected. "In fact if we allow for degrees of relevance, and for negligible relevance, we must say that every actual entity is present in every other actual entity" (Whitehead, 1978, p. 50). Substantialist thinking, that process thought is contesting, has assumed that the final real things are substantial things which, according to Descartes, "need nothing but themselves to exist." Relations then are not necessary. Recent mechanistic-substantialist models for understanding the world have proven less than helpful for ecological thinking in their assumption that things exist as independent entities or substances that are only externally (accidentally, incidentally) related to one another. This is at the base of the mechanistic-materialistic as well as the dualistic worldviews (Cobb, 1995, p. 241). In a machine, the parts themselves are truly independent; they do not need relations with other parts for their own existence. A machine can be disassembled without damage to the parts and then reassembled with the function restored, not so with organisms where the parts are fundamentally interdependent. In organisms, relations to other parts are essential and cannot be severed without affecting them and the life of the whole organism. "Organisms cannot be disassembled and reassembled" (Hozinski, 1992, p. 34). The integrity of nature is crucial to rethinking the place of the human being. A sensibility that teaches

interdependence and how we and the rest of nature belong to one another would be much more conducive to the reintegration that is needed at this juncture.

For Whitehead, relation is the way things are. Whitehead's philosophy of organism assumes that relations are *internal* rather than only external. "(E)very item of the universe...is a constituent in the constitution of any one actual entity" (Whitehead, 1978, p. 148). These internal relations are essential to what the entities are in themselves. Each entity is socially constituted, vitally connected with others, drawing completion from others in reciprocal relation, and yet having its own identity.

Each actual occasion or event of experience is always a coming together of past events, divine initial aims, and self-determination, into the "concrescence" that is a new occasion/event. Every moment, in every occasion of experience, there is a receiving of the universe into one's own experience and thus being causally affected by it. "The many become one and are increased by one" (Whitehead, 1978, p. 21). All creativity, all coming to be, is in a sense an *integration*. "Each moment of experience is a concrescence of the universe" (Whitehead, 2006, p. 51). Griffin uses the illustration of "inflowing" to describe the way the *influence* of the past upon the present is internal (Griffin, 1994, p. 197). "Each moment of experience is a microcosm, taking into itself, at least to some slight degree, all prior events. For the momentary self to realize its true nature is to realize that it is akin to all other things" (Griffin, 1994, p. 198). The past is always already present with us consciously or unconsciously and it links us with our deeper evolutionary origins. All actualities have both internal and external relations. "They are internally (constitutively) related to prior actual entities, then externally related to (constitutive of) subsequent actual entities. As each entity is present in every other, the evolving universe is a network of inter-being, of interconnectedness, of mutual presence" (McDaniel, 2006, p. 79).

Process thought embraces a relational perspective that could be associated with an *ecological* perspective. It is a habit of thought that views all actual entities as constituted by their relations. Nothing is self-contained, not even God, for God is *internally related* to the world. God is present in every event persuading it toward its best (satisfaction) and toward the creation of novel experience. God does not unilaterally determine outcomes of events in a coercive manner. God is not conceived as an all-powerful (in the sense of having all the power) ruler but rather as the leader of the creative advance in the company of inter-dependent beings who exercise a relative freedom in their coming to be.

This interdependence between God and the world goes beyond what classical theism has affirmed. In classical theism, the world might be said to be dependent upon and affected by God, but the reverse is not admitted. God is not in any sense dependent upon the world or affected by the world. It is important to clarify what is and is not being claimed here. God and the world are internally related, co-constituted, but this is not a *symmetrical* relation. This is not a relation of equals. There is a built in asymmetry; for God is "surrelative," (supremely related, related to all, including in Godself all the relative items). This is much more than is claimed for actual entities in their relations to one another. The proposal is rather that the integrity of nature and the integrity of the divine life include and do not exclude relation.

Temporal actualities are made possible by God, who is the eternal Ground of Order and Value; and they gain final meaning, harmony, peace, and everlastingness from their inclusion and transformation in God. Hozinski summarizes this aspect of the God-world relation as follows, "God is the transcendent-immanent ground of all actuality and the final concresing union and harmony of all actuality. God is the Alpha and the Omega, the beginning and the ever-developing end, the Creator and Redeemer of all creation" (1992, p. 274), but the eternal and everlasting God depends on the finite passing creature of the temporal world for actualized value. The growing actualization of God's eternal vision of possible beauty depends on how creatures exercise all possibilities (Hozinski, p. 274). Since God is internally related to the world, the more value attained in the world, the richer the divine life (Cobb, 1995, p. 246). The world is also internally related to God which makes possible the achievement of higher values for God is the Ground of Order and Novelty holding out to the world fitting and novel possibilities for being that are not simply available from its incorporation of its past.

Maintaining the integrity of creation entails seeing it *whole*, as a web of relations. If we see nature whole, in its integrity, we avoid the usual bifurcations—mind-body, spirit-matter, nature-culture—so common in Western classical tradition. If we view it as a web of relations then we ask distinctly relational questions. When any particular course of action is advocated as good, we ask: good in relation to what? Good in relation to whom? We are pushed to consider the effects of our actions upon those others to whom we are internally/utterly connected. Pursuing purely "selfish interest" is revealed to be an irrational habit of thought and action—living as if we were not co-constituted—the "reified self" criticized in Chapter 4.

A corollary to the habit of seeing things "whole" is the ethical task of *making things whole* in the sense of healing—healing the damage that has been done—reversing the *dis*-integration of ecosystems and social systems. The whole ecojustice project is an insistence that we affirm the integrity of nature and therefore "make the connections." For example in the North-South global conversation, people from the Northern hemisphere are accused of not making the connections between ecology and economics when they insist on preserving the rain forest without acknowledging the economic needs that impinge upon persons living in and near the rainforests causing them to turn rainforests into pastures and farmlands. To think in this way is to artificially separate ecosystems from social systems. Whitehead's philosophy of organism is suggestive for conceptualizing and interpreting the integrity of nature–seeing things whole, and making things whole.

There is another sense in which the integrity of the world is respected in process approaches, that is, in relation to how God acts in the world. God does not act through external intervention overriding natural processes. In Whitehead's system every actual entity "prehends" all the actual entities in its environment. God, in keeping with Whitehead's panentheistic vision, is already in the environment of every actual entity. All actualities are partially constituted by their prehensions of these actual entities. There is a degree of self-determination, the final self-creation of each actual entity, but divine influence would be among the influences that would be taken into account. As Whitehead put it, "Every event on its finer side introduces God into the world….The world lives by its incarnation of God in itself (Whitehead, 1926,

p. 149). God provides "initial aims," for each actual entity, that is divinely envisioned purpose appropriate to it. The actual entity necessarily takes this into account along with all the other influences of its past environment and becomes what it will be through a process of integrating all these in its own self-determination. Some events are more expressive of the divine vision/intention than are others. In this sense as well, the integrity of the world and its processes is affirmed and respected. This way of approaching divine action in world process has the advantage of not assuming supernatural intervention or unilateral divine determination that compromises the integrity of creation.

V. The Subject Status of Nature

Another philosophical/theological consideration that has contributed to the present ecological crisis has been—to use Moltmann's shorthand—"the subjectification of the human being" and the "objectification of nature" (Moltmann, 1985, p. 25). The subjectification of the human being is the declaration of the human monopoly on spirit. The anthropocentric interpretation of the tradition has placed the human being in transcendent God-like relation to nature, in some sense lifting the human being out of the natural world as a "spiritual creature" in a "material world." This way of thinking about nature treats it as a world of objects in contrast to human beings who (like God) are subjects. Such a view admits only instrumental value and not intrinsic value to the rest of nature and thereby contributes to its exploitation. A non-anthropocentric ecojustice ethic will base the call to responsibility, not upon how dependent human beings are on "our natural environment" and "our natural resources" as the basis for preserving and protecting, but upon the *intrinsic value* of species, ecosystems, the biosphere, etc.

Whitehead insists, by contrast, that "Value is inherent in actuality itself" (1929, p. 100). All beings have a capacity for inwardness and subjectivity, inwardness and relationality. Consequently they possess intrinsic value and an ethic of respect and care is invoked as a natural response. Process thought admits of "degrees of intrinsic value relative to capacities for sentience, thus offering guidelines for decision-making when lives are at stake" (McDaniel, 2006, p. 78). All things have intrinsic value. This is not to deny that they do not also have *extrinsic value* that is, value beyond themselves to others and or to the ecosystem—"ecological value" (Griffin, 1994, p. 192 ff). Temporally speaking, for Whitehead, every actual entity has a dual aspect of being both subject and object. It is subject in itself, in its coming to be, and thereafter object to others in their incorporation of it in their coming to be. This is a very different picture than a reality divided into subjects and objects.

Griffin offers an interesting observation regarding a kind of equalizing of value among species. He notes that we need to take into account not only which creatures are capable of the richest experience and thereby have the most value to themselves, but also "ecological value." Some creatures (like plankton, worms, bacteria etc. that may not be capable of the richest experience have, in fact great value in the ecosystems. Whereas, human beings, who are capable of the richest experience may have little "ecological value." "In fact the ecological value of negative: Most of the

other forms of life would be better off and the ecosystem as a whole would not be threatened, if we did not exist" (Griffin, 1994, p. 203).

Whitehead's philosophy of organism with its proposal of "panpsychism" (a term coined by Hartshorne)[4] affirmed that there are physical and mental "poles" present in varying degrees in all actual entities. Those who do not realize Whitehead is working with a meaning for "mentality" that is not anthropocentrically defined often misunderstand this step. Mentality here is the "ability to experience" and this admits of degrees. Even a rock may be said to have the "experience" of being thrown into a pond. For this reason David Griffin (2001) has suggested that "panexperientialism" might be a clearer and better way of naming what Whitehead actually intends and Hartshorne found this term agreeable. Whitehead never used the term panpsychism and it seems to imply the form of subjective experience in self-conscious beings, so it may not be as good a match for Whitehead's meaning which intends the broadest applicability. The physical and mental poles of each actual entity are on a continuum, but there is no "vacuous actuality" as was assumed in Cartesian thought. Griffin has observed that Whitehead's proposal is much misunderstood: "Panexperientialist doctrines are regularly dismissed by pundits who suppose that they are saying something devastating by intoning, 'rocks do not have feelings.' But panexperientialism, at least of the Whiteheadian type, does not hold that they do. Rocks and other inanimate objects are mere aggregates with no unified experience" (Griffin, 1994, p. 97). "It holds that all integrated entities have an objective, external aspect and an experiential, internal aspect. Interiority or experience is present in lower forms, but only at higher levels of complexity does mind or consciousness emerge" (Barbour, 2002, p. 131).

The final real things are "occasions of experience" entailing physical and mental poles. Those things which, to our way of thinking are enduring, are in fact serially ordered societies of occasions. Whitehead's philosophy organism goes a long way toward solving the mind-body problem. Those working with an ontological dualism of mind and body, in which the mind is something qualitatively different than simply brain cells at work, always have difficulty linking the two without some appeal to the supernatural or the soul. Materialists, on the other hand, having rejected supernaturalism and concluded that the final real things are strictly material, had difficulty explaining how such things as mentality and experience emerge from vacuous, material actualities. With Whitehead's innovation, where *units of experience* are taken as fundamental, the duality of mental and physical poles could be admitted without an ontological dualism.

As Whitehead follows through on his insight the old spiritual-material dichotomy dissolves. There can no longer be such an absolute distinction drawn between the human being and the rest of nature. In the process view, the human being has no monopoly on spirit. As Cobb notes, process theology "does not commit monopoly."

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4 David Griffin has pointed out that the term panpsychism is disadvantageous because it implies that the ultimate units of the world enduring things as are psyches when in fact for Whitehead the ultimate units are occasions of experience. The term also evokes images of higher levels of mentality including consciousness. This is not intended in his usage. For these reasons, Griffin believes the term *panexperientialism* is preferable (Griffin, 2001, p. 97).

We are rather on a continuum and one in which there is not even an absolute gap between non-living and living (Whitehead, 1978, pp. 101-102 and Whitehead 1933, p. 207). "The simplest forms of living things are not so vastly different from the most complex forms of non-living things" (Hozinski, 1992, p. 188). If we think in terms of continuity rather than absolute dichotomy then there are no pure spirits and there is no "dead" matter only matter with varying capacities for experience from the sentient to non-sentient.

From this standpoint we may question whether it is the case that human beings have monopoly on spirit/subjectivity? Is there really such a great divide between the spiritual and the material? Contemporary science does not think so. Science of late has been establishing more clearly the continuities between things taken to be sharply discontinuous (i.e. life and non-life, human being and other animals).

> As cognitive ethnologists such as Donald Griffin point out (1984, 133-153), the recognition of sentience and internal needs in nonhuman organisms with nervous systems is not mere human projection. It is a sound inference from biological evidence. Analysis shows that birds such as pelicans have the nervous systems and the biochemical endowments to enjoy pleasure, to suffer pain, and to have interests in avoiding pain and preferring pleasure. Moreover evolution itself posits continuity between human mentality and nonhuman psychic life. (McDaniel, 1989, p. 20)

This approach does not necessarily entail that all of nature possesses the consciousness or feeling or reflective capabilities that we find in the human being. Seeking those attributes in particular reflects an anthropocentric understanding of subjectivity. We do not have to declare that nature is "human" in order to grant it the status of *subject* rather than object. The important point is that in Whitehead's philosophy of organism, interiority extends all the way down to the submicrosopic "wherever there is actuality of any sort, it has a spontaneity and capacity for prehending its environment, albeit in a non-conscious way" (McDaniel, 2006, p. 78). This interiority, grants what I am referring to as "subject status" to the rest of nature and counters the habit of subjectifying human beings and objectifying the rest of nature. "By virtue of their capacities for inwardness or subjectivity, all living beings have intrinsic value, which means that all living beings deserve respect and care on their own terms and for their own sakes, not simply for their usefulness to human beings" (McDaniel, 2006, p. 70). Earth community is as Thomas Berry has said, "a communion of subjects."

This reorientation provides a way of "giving face" to nature. Here I will shift to some other sources to draw out theologically and ethically the implications of what Whitehead has proposed in his philosophy. In my appeal for the alterity and integrity of nature as well as its subject status of nature I am indebted to the thought-provoking work of Immanuel Levinas and Edward Farley. What they have so helpfully done in their work on interhuman relations, I want to see taken and applied in terms of human relations with the rest of nature.

As Farley puts it, the other is an "I" which is "not I" (Farley, 1990, p. 35). The existence of such an "other" disputes any claim I have to be the one "I, the only perspective, the autonomous actor" (Farley, 1990, p. 36). The uninterchangability and irreducibility of the other makes clear the alterity of the other. This primordial

structure of alterity at the heart of the inter-human, is a most helpful analogy for thinking through human relations with the rest of nature. The recognition that I am not the only I, I am not the center of the universe has a destabilizing and decentering effect. The subjectification of the human being and the objectification of nature must be countered so that we find in nature another "'I' which is 'not I'"

The whole discussion of alterity and encounter with the other as subject is useful in modeling a more fitting relation with the rest of nature. For Martin Buber, it is the turning to the other in the "I and Thou" encounter and becoming aware of the other that breaks the order of mere observing or onlooking. Gabriel Marcel thinks the move outward from egocentricity to experience the "summons" or "invocation" of the other requires a kind of "reflective break," *a kind of redemption* (Farley, 1990, p. 38). Levinas has proposed that when we encounter the "face" of another we experience a claim, a call to commitment and responsibility.

Farley expands this in the direction of *compassionate obligation* a concept I find rich with meaning in the human encounter with the rest of nature. Compassionate obligation characterizes the face to face encounter because in being together we become for one another "mutual interlocutors" (Levinas). We experience ourselves as vulnerable before the interpretations and actions of the other, and we experience the other as vulnerable to our interpretations and actions. Thus what is disclosed in the encounter is our "*mutual fragility*." A response of compassion then is called forth from us. Then, once summoned by the face, we become alert to the objective predicament of the other and our obligation to "join with the other in her or his fragile struggles against whatever threatens and violates" (Farley, 1990, p. 43). Through the suffering face of the other we are awakened to an ethic of love (Levinas, "Ethics as First Philosophy," 1989). The "suffering-with" (of compassion) flows into a "suffering-for" (of obligation). Thus according to Farley, "the sphere of the face is the sphere of empathy and emotional participation." In this sphere one cannot respond to the face of the other as if it were a mere externality, a thing, or an artifact (Farley, 1990, p. 42). This is a subject, an "I."

It is precisely these themes and these directions that could steer us toward a new model of the relation between the human being and rest of nature. The recognition of "mutual fragility" and the response of compassionate obligation are essential to the work of ecojustice. There are at least some hints of this wider frame into which I am urging the discussion in Farley's own analysis. What he is presenting here is his theological anthropology and the work is directed toward the sphere of the interhuman. Nevertheless, Farley does speak of a "*universal face*" that is "attested to through and mediated by communities of the face" (Williams, 1992, p. 292). "In the Christian paradigm of redemption, the transregional face is experienced in connection with the experience of the sacred" (Williams, 1992, p. 289). It is the presence of the sacred that draws situated peoples to transcend though not to repudiate their self-reference. "It is the sacred manifested through the face that lures regional (familial, national, tribal) experiences of the face *toward compassionate obligation to any and all life-forms*" (Farley, 1990, p. 289). I think the connections and applications I am making are at least arguably consistent with Farley's direction here.

Conclusion

Process thought assumes that at this stage in our history, we human beings are called to live in ways that are socially just, ecologically wise and spiritually satisfying, not only for the sake of human life but for the sake of the well-being of the planet" (McDaniel, 2006, p. 80).

I am convinced that it is essential that we conceive God's relationship to the world and the place of the human being within nature in ways that respect and affirm the alterity and integrity of nature and grant subject status to nature. Is it possible to maintain differentiation without objectification? Connection without identification? Subjectivity without sacralization? The constructive proposal of this chapter is that Whitehead's philosophy has substantial potential here. Whitehead's concept of God, in its panentheism, dual transcendence, and shared creativity, presents a pathway for the conceiving of God and the God-world relation in ways that maintain the relational transcendence of God. Whitehead's philosophy of organism provides a way of granting subject status—"giving face"—to nature. It effectively counters the habit of subjectification of the human being and objectification of nature that gives the human being a monopoly on spirit. It is possible to "give face" to nature, affirming its alterity, integrity, and subject status without resacralizing nature. The theological/philosophical considerations Whitehead's philosophy illumines are of paramount importance as we seek to formulate a new theology of nature that may assist in the struggle for the fate of the earth.

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Chapter 6

The Place of the Human Being in Relation to the Rest of Nature or Rethinking the *Imago Dei*: Insights from the Religion and Science Dialogue

Introduction

How can there be a viable theology of nature without sustained attention to what empirical evidence in fact reveals about nature and its processes? Conversation partners in the field of science have been critical of what they see as a decided lack of theological attentiveness to scientific understandings of the natural world. They charge that certain ways of interpreting the biblical texts and certain theological accountings of the origin and operation of the world are simply not credible given the empirical evidence. Being fully conversant with the science of the day is essential for developing a responsible theology of nature. What we offer by way of a theology of nature must be intellectually credible if it is to be religiously viable and morally adequate. This chapter will first give a sampling of what theology and science have to offer one another in a critical and mutually illuminating engagement. This will be illustrated by brief review of three questions that have important bearing on a theology of nature. The next step will be to draw upon scientific findings to illumine two recurring issues in the theology of nature: the mind-body relation and the relation of the human being to the rest of nature.

I. A Critical and Mutually Illuminating Engagement between Theology and Science

A new day is dawning in the relationship between theology and science. We have traversed conflict ridden decades that followed publication of Darwin's discoveries. We have lately entered an uneasy truce that declared science and theology were "non-overlapping *magisteri*" (Stephen J. Gould)—different questions, different methods, with nothing much to say to one another. There was a retreat from engagement into the safety of isolation. Now there seems to be a readiness for constructive engagement. What has changed?

If we take the longer historical view, this is not so much a "new day dawning," it is a normalization of relations. Even the briefest review of history shows that neither the decades of conflict nor the more recent period benign indifference is really characteristic. The evidence of history reveals that (speaking broadly) all the great theologians were fully conversant with the intellectual currents of their day and allowed those currents to significantly shape their work. This is certainly the case for Augustine, Thomas Aquinas, and Calvin (and countless others.) The fearful isolation of theology from the wider human quest for truth is truly an anomaly. As Ulrich Zwingli affirmed, "The truth, wherever it is found and by whomever it is brought to light, is from the Holy Spirit" (Treatise on Providence 1530). In his Commentary on Titus (1:2) he says, "All truth is from God who is the fountain of all truth." Theology has nothing to fear from the pursuit of truth in science or anywhere else. So I am saying the new relation is really the old relation, finally restored.

In this newly engaged and mutually illumining conversation each has much to contribute to the other. At the very least we may each challenge the excessive claims of the other. For example, theology may helpfully critique certain kinds of reductionism in science and science rightly criticizes theology when make claims that ignores scientific understandings of the way the world works. I will illustrate one instance of the former and two instances of the latter.

A. Is Scientific Naturalism a Methodological or Metaphysical Commitment?

Scientific naturalism, in my opinion, is to be welcomed and encouraged by theologians. A maximal methodological naturalism is kind of reductionism that actually aids in the understanding of nature (and in doing so will also assist the development of an informed theology of nature). Such a stance does not necessarily entail a metaphysical reductionism that concludes "nature is all there is" or "there is no God." The discussion of what is ultimately real, places us in the realm of metaphysics and theology. There should be no claims that this reflection is "science." As John Haught has argued, to claim to know (one way or the other) the answer to the question of what is ultimately real is to go beyond science. This is the case whether one makes that claim for supernaturalism or materialism or anything on the continuum between. Science, as science, can neither endorse nor refute the existence of God.

Thus, there may well be theistic and non-theistic naturalists, but these orientations are a function of metaphysical commitments that should be recognized as such. Naturalistic reductionism as a *methodology* in science contributes to the endeavor of knowing about the natural world and is to be affirmed. Naturalistic reductionism as a *metaphysical conclusion* however, overstates what the scientist may know by investigation. It is one thing to claim "this is all we may know" and another to claim "this is all there is." Furthermore, in terms of its consequences, metaphysical reductionism in science may function in much the same way as the desacralization of nature has in of theology. Nature objectified, makes exploitation more thinkable. Here theology may bring a needed critique.

B. What About Intelligent Design?

ID is the concept that "certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection" (Discovery Institute). In particular, those instances of irreducible complexity,[1] specified complexity[2] and the fine-tuning of the universe (that makes life as we know it possible) commend themselves to ID proponents. Put simply, the improbability of such things occurring by chance and through natural causes justifies, they believe, the inference of intelligent design.

An overwhelming majority of the scientific community views intelligent design as unscientific.[3] In fact, prior to the hearing of Kitzmiller v. Dover (the case in Pennsylvania where the question was whether ID would be taught in public schools as part of the science curriculum) thirty-eight Nobel laureates issued a statement to this effect saying that ID is "fundamentally unscientific." It does not meet even the very basic qualifications as a scientific theory: it cannot be observed, repeated, tested or falsified; it does not generate any predictions; and it does not yield new hypotheses.[4] In stating the decision of the courts in this case, Judge John E. Jones, III said, "We have addressed the seminal question of whether ID is science. We have concluded that it is not, and moreover that ID cannot uncouple itself from its creationist, and thus religious, antecedents."[5]

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1 Behe's examples of irreducible complexity include such things as the blood clotting cascade and the adaptive immune system. According to Behe an irreducibly complex system is one that is "composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning" (Ayala, 2006, p. 77). The idea is that these could not develop a piece at a time since the pieces cannot function until the system (i.e. the eye) is whole. Therefore it has to come into being "in one fell swoop."

2 Demski defines specified complexity as anything with less than 1 in 10 (to the 150th power) of occurring naturally. William Demski author of *The Design Inference: Eliminating Chance Through Small Probabilities*. Cambridge: Cambridge University Press, 1998.

3 ID proponents have yet to publish an article in any established, peer reviewed scientific journal. Even Templeton Foundation, which actively seeks to reconcile religion and science, has withdrawn funding. (Wikipedia)

4 The Wikipedia article on ID lists the criteria for a theory to qualify as scientific, it must be:

- Consistent (internally and externally)
- Parsimonious (sparing in proposed entities or explanations, see Occam's razor)
- Useful (describes, explains and predicts observable phenomena)
- Empirically testable and falsifiable
- Based upon multiple observations, often in the form of controlled, repeated experiments
- Correctable and dynamic (changes are made as new data are discovered)
- Progressive (achieves all that previous theories have and more)
- Provisional or tentative (admits that it might not be correct rather than asserting certainty).

5 Ibid.

If it were scientific it would fail on other grounds. ID argument is in fact an "argument from ignorance." We do not clearly and directly observe the sequence of causes that yielded these complexities in nature. But that does not permit jumping to a conclusion that intelligent design must therefore be at work. An explanation must stand on its own evidence, not on the failure of alternatives (Ayala, 2006, p. 76). Methodologically, it is more sound and responsible to say, "We do not see," than to fill in the blanks with an intelligent designer outside the system of natural causes and their ordinary operation. An important principle in science is that, "the absence of evidence is not evidence of absence."

As questionable as ID may be as science, I think the deeper difficulties are theological. The proponents are careful not to claim that they know scientifically that the intelligent designer is God. But as they speculate upon the conclusion that there is an intelligent design, the implication of an "intelligent designer" is implicit and takes us in some troubling directions. My question is what is at stake theologically in this whole conversation?

First of all, the argument from ignorance that we said was "bad science" is a very close relation to the theological maneuver called "God of the gaps" which has never gone well for us. The "gaps" keep getting filled and the space for this kind of God closes in. It is ill advised to consign the divine to the restricted spaces of the unknown, uncontrollable, unpredictable. Such a God is too small—and too likely to get smaller with every scientific advance.

Secondly, if there is any doubt, I do not think this approach *works* as a "proof for God." That in itself is not so damning. The alleged "proofs for God" only make sense to people who already believe on other grounds. Whether one believes or not is a question for faith; any conclusions we reach are always "underdetermined by the data." Where ID intends to function as kind of evidence or proof for God, its reach exceeds its grasp. As with all the other arguments, we end up, with, at most, a *pointer* toward God and not a *proof* for God. A pointer can, at least, give us reason to believe that we are not being unreasonable in believing. However, the deepest theological difficulty here is with the *kind of God* to which ID points. The God of Christian faith is not conceived as a "Designer" primarily, but rather as a loving and generous Creator; one who creates a space for an "other" to be and upholds creation in its integrity and autonomy (*concursus*). One who manifests compassionate solidarity with us in our finitude and fragility. To speak of God as a "Designer," conjures up a very different vision. We begin to entertain notions of a pre-existent blueprint in the mind of God that is working itself out inexorably.

This is doubly difficult for process theologians and other open theists. It seems too constraining and coercive. The freedom of creation in its semi-autonomous unfolding is compromised. The future is not genuinely open. Furthermore, such a picture pushes us to ask about the "defects and imperfections that pervade the living world" (Ayala, 2006, p. 85). In so many instances, a good engineer might do better—consider the mismatch between the human birth canal and the size of an infant's head. Is *this* an *intelligent* design? (Ayala, 2006, p. 87). Theologically, this sort of thing is very problematic, if it has to be assigned to divine design. How much better to know that the mismatch is a function of natural causes as human cranial capacity has increased over eons! On the larger scale, what about the waste and

carnage of our evolutionary history (99 percent of the species that have ever existed are extinct). One is tempted to say that if this is a *design*, it is *not a very good one*! It is certainly not one compatible with a designer reputed to be benevolent, omniscient, and omnipotent. It is, however, compatible with a process of natural selection.

With these theological quandaries in view, theologian John Haught has spoken of "Darwin's gift to theology." Arthur Peacocke has reminded us of what theologian Aubrey Moore said way back in 1891, "Darwinism appeared, and, under the guise of a foe, did the work of a friend" (Ayala, 2006, p. 89).

I think there are important forces at work contextually, to which some Christian theologians are responding when putting forth Intelligent Design: namely, scientific materialism and its reductionist tendencies, and the challenge of making truth claims in an age wherein "truth" is equated with scientific truth. We need to understand what it at stake for those who urge such a view. Nevertheless, I believe this particular response is misguided and ends up doing more harm than good with respect to the viability of belief in God in our day. It is not good science and strains credibility when it claims to be. Furthermore, when it seeks to enlist science to impose religious teachings in public schools it engenders an understandable resentment and resistance in the wider society.

I agree with Arthur Peacocke's comment that "the retreat to conservative positions is not so much a recovery of faith as a loss of nerve before the onslaught of new perceptions of the world" (1993, p. ix).

ID is not good theology; it does not yield a religiously viable vision of God. It yields instead a "Designer" who is not the Creator God of Christian faith, and not a God worthy of worship. The Designer God compromises creaturely freedom and exacerbates the problem of evil. A case might even be made that evolutionary theory is more compatible with Christian faith than is Intelligent Design. Alternative is to recognize the interplay of natural selection and self-organization that seem to be the naturalistic account of how things evolve. God is not so much designer as the ground of order and novelty that serves as a matrix out of which emerge complex autopoietic systems. Or, as John Haught urges, we might think of God, not as a "designer" but as the "infinitely liberating source of new possibilities and new life" (2000, p. 120).

C. What about Miracles?

Another subject receiving considerable attention in the theology and science dialogue concerns whether and in what sense God may be said to act in the world. If theologians pay attention to what science teaches about the way the world works (laws of nature, cause and effect relations, the interplay of chance and necessity) divine providence in general and miracles in particular may prove to be problematic. This is especially true where they are conceived as divine intervention from outside what is an apparently closed system. Is there any way around this apparent standoff? The traditional doctrine of providence has affirmed that God in some sense acts efficaciously in world process. But how important is it to conceive of this action as divine intervention from outside that violates natural processes? Might there be, for example, ways of re-conceiving divine action as internal to the process? Some

scientists working in quantum physics, when they consider the uncertainty at the heart of things, are posing the question of how closed the "system" really is.

Important features of this discussion may hinge on how concepts of "divine action" and "miracle" are conceived. Here theologians differ. In the view of some, it is precisely the overturning of laws of nature that make a miracle miraculous. Such a view would clearly conflict with the scientific picture of how the world works. Other theologians work with different understandings. Calvin, for example, understood "laws of nature" to be God's own self-consistent activity. The "miraculous" is not a function of particular interventions here and there now and then from outside. What is *miraculous* is God working everywhere and always, within world process. (To multiply loaves and fishes is not qualitatively different than providing daily bread, it is just more calculated to strike the eye.) Much hinges upon how divine action and miracle are conceived. Can these be reconceived in ways that are more attentive to how the world works from a scientific perspective?

There are not only scientific but also *theological* objections to the notion of divine action conceived as occasional divine intervention from the outside. Such a view brings in its wake the unwonted affirmation of the ordinary absence of God. One also has to ask whether, if God can and sometimes does act this way in world process (overturning natural processes), then why does God not intervene more often? Much suffering and evil could presumably be prevented by divine intervention. The problem of theodicy is exacerbated by this traditional understanding of divine action.

Both the scientific and the theological objections invite us to reconsider notions of God's activity as occasional intervention from outside. A number of candidates present themselves for consideration as alternatives. Polkinghorne proposes divine action as "active information" functioning within the unpredictabilities that quantum physics has uncovered and that, he believes, reveal openness in the system. Process thought proposes divine action in providing to world process the Ground of Order and Novelty and "initial aims" that function as persuasive influence within a self-creating creation. Other proposals could be considered. The important point is to take the scientific accounting seriously in the formulation of any understanding of how God acts in the world.

II. The Mind-Body Relation

One of the challenges of theological anthropology with which science may offer significant help is the challenge of the relation of mind and body. In chapter four, the problematic nature of a mind-body dualism was illustrated in terms of social consequences. To these difficulties we now adds the observation that it is difficult to understand how two realms conceived as being so different (material and mental) may relate in such a way as to constitute the degree of unity we observe in the human being. Descartes and his successors were "driven to the rather desperate expedient of invoking God's direct action to synchronize events in the separate realms of the material and the mental" (Polkinghorne, 1998, p. 54). Furthermore, as scientific research reveals the extent of the effects of drugs on mental processes, it become increasingly difficult to maintain a dualistic understanding of mind to body

as the "ghost in the machine." Several alternatives for rethinking this relation in a more continuous and integrated framework are current in the theology and science dialogue. I will present three such proposals here. Each in its own way assumes that the mental may "emerge" from the material through complexification in ordinary evolutionary processes.

Physicist and theologian John Polkinghorne urges that we think in terms of there being two aspects of one material reality. He calls this dual-aspect monism. In this way of thinking, mind is not some other additional reality alongside the material reality; rather, mind is a function of the increasing complexification of material reality. At the same time, mind is not epiphenomenal but a real aspect of material reality. In fact, physical and mental aspects may be thought of as different poles (or phases, as a physicist might say) of the same reality (Polkinghorne, 1995, p. 155). Polkinghorne draws upon the concept of complementarity introduced in quantum physics by Niels Bohr. The dual aspects of mind and matter are somewhat like the dual aspects of light as both wave and particle. As he says, ask "a particle-like question and you will get a particle-like answer; ask a wave-like question and you will get a wavelike answer" (Polkinghorne, 1998, p. 55). Contrasting accounts can be given of the same set of phenomena.

Philosopher of science, Nancey Murphy has advocated non-reductive physicalism as a way of thinking about the mind-body relation. As she suggests, "statements about the physical nature of human beings made from the perspective of biology or neuroscience are about exactly the same entity as statements made about the spiritual nature of persons from the point of view of theology or religious traditions" (Murphy, 1998, p. xiii). The difference is perspectival. Her view rejects the notion that we need some concept like the soul to explain consciousness. The "human nervous system in concert with the rest of the body is the seat of consciousness" (Murphy, 1998, p. 131). She uses the concept of "supervenience" as a way of avoiding causal reductionism (the view that brain events always cause mind events). In her view the relation is more interactive, thus the mental as well as the physical can be causally efficacious. In her most recent work, she suggests that "inspirited bodies" is a better way of thinking about the human being than the traditional language of bodies and souls.

A third approach argues very directly that *consciousness emerges* in the material evolutionary process; spirit emerges from matter. Philip Clayton has advocated this approach (Clayton, 1997, p. 248). Emergence describes the arising of a "new property" from "lower-level phenomena" due to an increase in complexity (such as the emergence of consciousness in the brain). The new property is not simply reducible to the phenomena themselves. A genuinely new structure has arisen from lower level structures that preceded it. This provides a way of accounting for how there emerges "*something more* from *nothing but*" (Goodenough and Deacon, 2003, p. 802). Emergence allows a way between the claim that mind is "nothing but" the physical workings of the central nervous system and the view that mind is something other than and separate from that activity. To understand human uniqueness in terms of emergence recognizes both continuity and discontinuity in a helpful and balanced way as compared to views of human uniqueness that see only the discontinuity.

Although there are shades of difference among these three proposals there is considerable general agreement that mind and body, understood scientifically, need to be thought of in a more unified and integrated way than the traditional mind-body dualism has done and that the material basis of consciousness should be given its due. Each of these proposals has found a way to do that and each seeks to do justice to the differentiation without allowing mind to be a separate super-added something or simply an epiphenomenal property of the brain. This goes a long way to help in a needed reconstruction of our understanding of the human being that avoids both dualistic thinking and materialist reductionism.

III. The Relation of the Human Being with the Rest of Nature

A. Refusing Separatism and Anthropocentrism

What we are learning from science, especially evolutionary biology, is that human beings are placed in a larger system that evolves and emerges in a process marked by chance and necessity, freedom and determination. We and all else have emerged from an evolutionary process. We and all else are connected. The human being is not separate from or "over and above" the processes of the rest of nature; yet this has been our presumption. We need further reflection in order to "know our place." One point of profitable theological reflection on the relation of the human being with the rest of nature may be the doctrine of the *imago Dei* that affirms that human beings are created in the "image of God."

Our habits of thought in relation to this concept may be part of the problem. Much reflection on the sense in which human beings are *imago Dei* has proceeded as a way of asking: What *distinguishes* the human being from nature? How are we special/different from the rest of nature? What sets us above and apart? When this is the way the questions are framed, the answers may lead to a separatism and anthropocentrism that is destructive. The agenda behind the question seems to be one of establishing human superiority and therefore "right to rule" and exploit the rest of nature. We are *in charge* and whatever else there is, is there for us. Our relation to nature is an instrumental relation. Even the environmental movement sometimes grounds its arguments in these terms. When, for example nature is spoken of as our *natural resources*, it is being viewed as something which exists for our use. We are enjoined to *conserve* these resources, not for their intrinsic value, but so that we will be able to go on using them indefinitely.

These habits of thought are based in a separation of the human being from the rest of nature and a decided anthropocentrism. The habit of thought that looks to our theological definitions of the human being as a way of shoring up this sense of "difference" and "centrality" may be a habit we need to break—a dangerous habit. It is also a way of thinking that is simply untenable in the light of what we know from science about the human being. What science has discovered must necessarily press us to reconstruct our theological anthropology.

There is Continuity between Us and the Rest of Nature

The evidence of science is that connection is "the way of nature." There are many remarkable instances that illustrate this widely evidenced pattern. A few examples must suffice.

Scientists suspect that the great redwoods may be joined at the roots and that smaller redwoods share a common root system with a large redwood nearby. It is possible that underground the root system is fused into a web and that water and nutrients are shared so that, in a sense, they may be thought of as a single living thing (Preston, 2005, p. 220).

The hermit crab and the sea anemone are—for all their difference—vitally connected. The anemone attaches itself to the shell that shelters the crab, this provides its partner with camouflage and stray bits of the crab's food nourish the anemone (Margulis, 1983, p. 49). Lichen is in fact not a single plant but a symbiotic partnership between an alga (the autotroph) and a fungus (the heterotroph). The plant *psychotria bacteriophila* contains its bacterial symbiont in its seed—the phenomenon of *hereditary endosymbiosis*. Even more remarkable forms of symbiosis exist. In the Australian termite, for example there lives a protozoan that is a symbiont (one aiding the digestion of pulverized wood) which is itself host to *three other symbioints* (Margulis, 1983, p. 50). Countless other examples of connection and cooperation could be given.

As for human beings, it is well established that other life forms live on us and in us. Our systems go badly awry when the bacteria that aid digestion are eliminated. The connection and interdependence that characterize the rest of nature characterize us as well.

There is more that connects us with nature than there is that distinguishes us. Our true relation is obscured by language we commonly hear—that we are dependent upon nature for our sustenance. The relation is much deeper than that. We have learned from contemporary science that we are *in and of the natural world*, coming to be like all other life forms, within the long process of evolution from simpler life forms. We are composed of the same "starry stuff" that makes up the rest of the universe. We emerge from "preceding natural processes that include cosmic events (the appearance of physical elements in the galactic furnaces), as well as biochemical (the emergence of life), genetic, and neurobiological events" (Hefner, 2002). There is an unbroken continuity with the rest of nature—separation is a false report on reality. We are part with all else of the rich, diverse, complex, and evolving web of life that has been emerging over the eons on this planet. What made everything from the butterflies to the belugas made us, too. We are nature.

The things that distinguish us are a matter of degree. This is under-appreciated. Even the rationality/freedom and relationality that are ours are not ours exclusively. Some renderings of the God-human being-nature relations place God and the human being on one side of a great divide having a monopoly on spirit, while all else is on the other side as purely material—nature as "backdrop" for the God-human drama. However, science paints a very different picture. We see degrees, quantitative rather than qualitative distinctions. In fact, as referenced in chapter four (Howell, 2000), the very areas that have been historically assumed to make us distinctive from other

primates: our genetics, language, culture, and morality—turn out to be similarities rather than differences. We share 98.4 percent of the same genetic material with our closest relatives. We are closer genetically to chimpanzees than gorillas and orangutans are. In terms of language, while they are morphologically different and therefore cannot speak as we do, they are capable of learning sign language and they teach it to their children who, it is reported, sign more to their friends than to their mothers. In terms of cultures, the seven regions in Africa show similarities in practice and behavior but also differences that seem to be culturally transmitted. In terms of morality, there is evidence of a whole range of things from sympathy/empathy to the ability to devise and carry out a deception.

That human beings are *nature* and that nature's way is the way of connection are crucial insights from science that should inform our understanding of the human beings relation to the rest of nature. It becomes clear that we need to think systemically and not to think exclusively in terms of human agendas and interests. Entire ecosystems involve complex symbiotic relationships that are linked in mutually sustaining connections. There are certain equilibria in the delicate self-regulating systems that keep in balance such things as the oxygen content of earth's atmosphere or the salinity of the seas. Disturbing these equilibria may have severe and irreversible consequences due to the connected/systemic character of nature's way. We must respect the *integrity* of nature in its intricate and inter-related system character. It is important to shift the thinking from accounting for individual species—even human beings—to embrace what is in fact the co-evolution of interacting species in entire ecosystems.

One caveat in this connection is that respect for the integrity of nature may not necessarily entail maintaining a static state. Change is rather inevitable in the natural system. All creatures impact their environment in the course of their struggle for existence. Beavers building a dam are changing their environment. So the aim that respects the integrity of nature is not the aim of "static state"—that would be decidedly "unnatural." The choice is not between change and no change but between good and bad change, and human beings are capable of substantial change for good or for ill. As Polkinghorne has pointed out, it was a "natural" change of disastrous proportions when "a meteorite impact some 65 million years ago destroyed the dinosaurs and gave the little furry mammals that were our ancestors their evolutionary opportunity" (Polkinghorne, 1998, p. 132). Disasters that eliminate human beings in our turn, regrettable though that may be, are not necessarily the end of the epic of evolution. This leads into a set of insights that might challenge our anthropocentrism.

Our Place in the Larger System is much more Humble than we have Heretofore Imagined

Given present patterns of human interaction with the rest of nature, those who view the world as a single organism (Gaia) sometimes liken the human being to a harmful bacteria or even a cancer which must be eliminated for the health of the whole. Bacteria and cancer cells are perfectly "natural," but they may work against their host. Peter Singer's work, The *Darwinian Left*, argues for earthcentrism directly countering anthropocentrism, and assigning the human being a much more humble

place in the scheme of things. Scientific findings go a long way in helping us to "know our place."

The evidence of science reveals that we have made a rather late appearance on this scene. Many species have come and gone before our appearance. If human beings are thought of as being at the center of it all, then what do we make of all those eons and the myriad creatures that were here before us. Was cosmic meaning and fulfillment just on hold until we came along? How unlikely that seems.

Scientific evidence reveals that we have not only a very recent but also a rather precarious existence. Russell Merle Genet has pointed out that:

> We consider ourselves to be highly successful as a species but in actuality we are not. If one is coldly objective about life—about success—it is biomass that counts. Among animals, the insects, not mammals, (let alone mere human), are the biomass winners. Animal biomass, however, even all of it rolled together is inconsequential compared with plants. This is not the worst of it however. Recent research has revealed the actual winners of our planet to be subterranean bacteria. (Genet, 1998, p. 2)

Stephen Jay Gould notes that, as it happens, complex life forms like ourselves are really at a disadvantage. Our very complexity makes us easy prey to the mass extinctions that periodically plague the planet (Genet, 1998, p. 2). Other species are less vulnerable. What are we to make of the fact that among the ten to forty million species of living things, fully a quarter of all know species are beetle variants? (Bouma, 1997, p. 3) Even if we survive until our sun goes out with a bang or a whimper how can it all have been about us with our late appearance and precarious existence?

We are an infinitesimally small part of it all. Those who study the character of the larger cosmos class human beings with the heavy elements. Most visible physical reality is lumped together as "things heavier than helium" in a broad category called "metals." This whole category makes up only .001 percent of what there is in the universe. We are almost "not there" in the grand scheme of things. We may ask with the Psalmist, "what, indeed, are mortals that God is mindful of them?" (Psalm 8)

Our place seems smaller still when we consider that we may not be alone in the universe. With the discovery of other planetary systems around nearby stars, we are invited to wonder whether there might not be myriad other planets with myriad life forms. There is a vast cosmos out there. If we are the "main show" it would seem that, as the theologian in the movie "Contact" was wont to say, "There is a whole lot of wasted space out there!"

Science effectively unseats the separatism and anthropocentrism that has characterized our thinking about the human being in relation to the rest of nature and calls us to a very different understanding of our place in the larger system. Is it possible to revise our theological anthropology in directions that would be attentive to this revised picture? One of the central themes in Christian tradition that has served as the interpretive lens for understanding the nature of the human being is the classical doctrine of the *imago Dei*. A thoughtful reconsideration of this doctrine may help with the revised self-understanding that is needed.

B. The Human Being as *Imago Dei*: Classical Delineation of the Doctrine

The text that launched the whole classical discussion is the account of creation in Genesis 1:26 "Then God said, 'Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth.'" There is a range of interpretations of this text and what it means to be created in the image of God as well as whether we can be said still to possess it after "the fall."

Early theologians of the church (Clement of Rome, *Recognitions*, v.23; Irenaeus, *Against Heresies* 5.16.2; Athanasius, *On the Incarnation*, 14, 20) made a distinction between image and likeness. Allowing that the "image" which was associated with basic human capacities, such as reason, was a universal phenomenon and that was distinct from "likeness" which implied a perfection (moral or in terms of knowledge of God) toward which we strive and which will only be completely attained in the presence of God. Later reflection acknowledges that the use of the two different terms *image* and *likeness* in the text is more likely a literary device of synonymous parallelism that intensifies by means of repetition in other words. This is common in the Hebrew texts and does not necessarily imply a difference in meaning. Nevertheless, the recognition of a kind of double aspect to the *imago Dei*, replays throughout the continuing discussion. There are attributes that define the human being, that are given to us in our constitution (i.e. rationality or freedom) and a "something more" to which we are called (i.e. moral perfecting or true knowledge of God).

Different theologians tend to emphasize the one or the other as the meaning content of the *imago Dei*. Some consistently associate the *imago Dei* with attributes or capacities that are intrinsic to the human being as such: reason/rationality and freedom. Theologians who think in these terms are meaning "image" in the sense of a stamp (as in the image on a coin) indelibly stamped upon the human being as such and something, therefore, that cannot be lost though perhaps it might be damaged in the fall. Theologians who think of the *imago Dei* in more dynamic terms, as a way of living life before God, or a quality of relationship with God, or our orientation toward God, are meaning image in the sense of a reflection in a mirror. If we turn the mirror away from the thing it was reflecting, the image can be distorted or even lost.

Irenaeus located the *imago Dei* in our human attributes of rationality and freedom. For Augustine it was a more dynamic quality of being in right relationship with God. Aquinas connected it with the capacity for reason. Luther identified the imago Dei with righteousness, by which he means living life toward God. Calvin concurs with Luther, for him *imago Dei* consists in our orientation toward God.

Calvin takes the trouble to refute some alternative readings. Some who proposed something akin to a physical resemblance as manifesting the *imago Dei*, Calvin dismisses outright. The "Anthropomorphites were too gross in seeking this resemblance in the human body" (Calvin, 1948, p. 94). All the same, he also denies that the *imago Dei* is lodged in the soul as distinct from the body, insisting that "there was no part of man, even the body itself in which some sparks did not glow" (I.15.3). Calvin strongly refutes the view proffered by Chrysostom that the

imago Dei consists in the human charge to have dominion "as God's vice-regent in the government of the world" (Calvin, 1948, p. 94). It is easy to see how that interpretation could become central since "let them have dominion" is embedded in the originating reference in Gen. 1.26. Nevertheless, Calvin is clear that this is not the meaning content of the *imago Dei*.

What Calvin urges instead is that the divine image lies in our relational orientation toward God. The *imago Dei* is not a permanent attribute "stamped" indelibly into the human being as such; it is rather a dynamic, relational quality. A mirror only adequately images its subject when oriented toward it. The fall has radically *disoriented* us and thereby profoundly affected the sense in which the human being may be said to be in the image of God. As Calvin advocates, "even though we grant that the image of God was not totally annihilated and destroyed in him (*Adam*), it was however, so corrupted, that whatever remains is a frightful deformity" (I.15.4). What the image is, is best seen in its restoration which is a progressive effect of redemption in Christ. Calvin quotes II Cor. 3.18, "We…with unveiled faces beholding the glory of Christ are being transformed into his very image." It is Christ who is the true exemplar of what it is to be in the image of God. "Now we see how Christ is the most perfect image of God; if we are conformed to it, we are so restored that with true piety, righteousness, purity, and intelligence we bear God's image" (I.15.4).

In this brief review of the classical delineation of the meanings of *imago Dei*, we see that there is nothing that requires the peculiar development that our theological elaborations have taken—the practice of taking these descriptions as a means to separate and elevate the human being in relation to the rest of nature.

Whether we think of the *imago Dei* in terms of intrinsic capacities such as reason/rationality or the quality of our living in relationship, these admit of more and less and could be seen as placing the human being on a continuum rather than in absolute distinction. This is especially apparent when we take into account what science has discovered concerning the continuity between the human being and the rest of nature. There are degrees of rationality, degrees of capacity for relationship and these are shared, by degree, with the rest of nature.

Process perspectives also help with making the connections. With regard to rationality, for example, we have seen how Whitehead's philosophy of organism envisions mental and physical poles in all things though in varying degrees. With regard to relationality, the process conviction of the sociality/relativity of all things assumes that human beings—like every other reality—are co-constituted by their relationships. To the degree that humans may have a greater rational capacity (a stronger mental pole) or a greater capacity for relation (since we are more self-transcending), we may, in a sense, manifest the *imago Dei* in ways that are distinctly ours. However, this does not have to entail our being *qualitatively* different from and superior to the rest of nature.

C. Rethinking the *Imago Dei*: Coming "Down to Earth"

As I move to a constructive proposal on rethinking the *imago Dei*, I want to do so in conversation with two thinkers who, in my opinion, have made significant

advance on this issue: Philip Hefner and Douglas John Hall. I want to commend their contributions and then pose some questions and suggest some new directions.

The Human Being as Created Co-creator

Philip Hefner's proposal that we think of the human being as a "created co-creator" is a fruitful one that has much potential for illumining the current discussion of the nature of the human being in relation to the rest of nature. It has good corrective potential in allowing for human responsibility without suggesting superiority to and separation from the rest of nature. This proposal emerges from a long and steady interaction in the religion and science dialogue and will receive an extended treatment here. In this way, we will engage a variety of elements and thinkers in the dialogue that may inform how we think about the human being in relation to the rest of nature.

Hefner's proposal puts "created" first. Our ontological dependency and our status of being like the rest of nature are thereby underscored. Created is a humbling word—it challenges human presumptions of being completely "self-made." Our lives come to us as a gift bestowed by "something much greater than ourselves and our existence is intertwined with the fabric of the natural order" (Cramer, 1997, p. 9). This is a useful course-correction when laid alongside other theological anthropologies. The double aspects of our being both "dust" and *imago Dei* are better balanced in Hefner's proposal and its elaboration.

Hefner reframes the question. Instead of asking about the *imago Dei* in order to discern how the human being is to be set over and apart from the rest of nature, he asks in order to discover what the human beings particular role may be, what we distinctively have to offer to the rest of nature. The motivations of the question, and the outcomes are decidedly different. The separatism and anthropocentrism are effectively countered.

Hefner's proposal is a creative joining of the two traditional categories of image as stamp and image as reflection. On the one hand, we are created and in that sense "stamped" with certain qualities rationality and freedom that attend human being as such.

On the other hand, in the concept of co-creator, we have something more dynamic that has to be lived into if we would reflect the image of God. In image we are to reflect by living in relation with (turned toward) God and others. It is a calling into relationality with God, other human beings, and the rest of creation. There is, with this more dynamic aspect, the prospect of for human beings to "turn away" and become "estranged from their own normative nature" (Hefner, 2002, p. 1). Hefner's proposal embraces attributes of rationality and freedom as well as qualities of life like relationality; in Hefner's own framing, aspects of our being that are genetic as well as aspects that are cultural. We turn out to be in some sense "gifted," and in some sense "self-made."

The descriptive potential of Hefner's proposal for understanding the nature and purpose of the human being is significant. In the larger discussion there is need for a metaphor that will illumine both who human beings are (in relation to God and the rest of nature) and what they should do as the especially free and rational creatures that they are. This model works in this connection. In some ways, for Hefner, the nature and purpose are one—the "ought" can be derived from the "is". Hefner is

clear that we are related "to the entire history of the universe and its evolution." If relationality is constitutive of our very being, then it is both our nature and our calling to live in *relation*. Estrangement and self-centeredness are not normative for us. Readings of "sin" as a failure in relation are given a fuller articulation in the symbol of created co-creator.

Hefner fully accepts the insights of science regarding the nature of the human being. Key among these is the discovery of the extent to which human beings are "natural" beings. He uses the model of "genetic kinship" to express the full implications of what science has uncovered. This is a relationship that is not a function of our choosing to be related to nature or even of our dependency upon our natural environment for our continuing existence. It is rather a genetic inheritance internal to us, it is an internal not an external relation. While we may make a case for "cultural inheritance" as well as "genetic inheritance" as formative for the human being, genetic inheritance has a certain priority. We, along with the rest of nature, are all made of the same starry stuff of the larger universe, and we did not "make ourselves" from cultural sources.

Hefner's proposal that we think of the human being as "created, co-creator" is a workable option, helpful on so many fronts. I have a few friendly questions that express some reservations. Some of these I will introduce at this point in the interest of furthering his very fruitful proposal. Others can be reviewed in the endnotes of this chapter.[6]

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6 More questions for Hefner:

Is the assumption of evolution as purposive and progressive born out by the data of science?

Langdon Gilkey has challenged Hefner's proposal as being "a covert expression of nineteenth century liberal beliefs in progress." This charge comes, in part from Hefner's assumption that evolution is purposive and progressive. There are underlying questions arising from contemporary evolutionary theory concerning whether evolution is progressive or even directional in nature. Michael Ruse has claimed that, "The idea of evolution is the child of the hope of progress. Like the parent, it too incorporated the hope of the upward climb" (Ruse, 1996, p. 72). However, as Terrence Nichols has demonstrated, the idea of progress has been mostly dismissed in modern evolutionary thought (Nichols, 2002, 194). It is rare in contemporary evolutionary biology to think in terms of progress toward a goal (i.e. humanity). Improvement of adaptive fit is admitted by some (Richard Dawkins) and a building upon preexisting order to achieve a "higher degree of sustained complexity" is admitted by others (E.O. Wilson). Generally, however, natural selection is assumed to be a "blind" process. As Dawkins puts it,

> Natural selection, the blind, unconscious, automatic process which Darwin discovered, and which we now know is the explanation for the existence and apparently purposeful form of life has no purpose in mind. It has no mind, and no mind's eye. It does not plan for the future. It has no vision, no foresight, no sight at all. If it can be said to play the role of "watchmaker" in nature, it is the blind watchmaker. (Dawkins, 1987, 5)

Even Stephen Jay Gould who sees natural selection as a necessary, but by no means sufficient principle for explaining the full history of life (Gould, 1997, 1022), and finds purpose in the sense of agency of the organisms involved, still refuses notions of progress in the overall process. As he says, "progress is a statistical illusion fostered by humanity's anthropocentric hopes" (Gould, 1996).

(Footnote 6 continued)

Can the "ought" be derived from the "is"?

Hefner believes that the "naturalistic fallacy" is itself a fallacy (p. 58). The "ought" can be derived from the "is." This strong statement may need more nuancing. For example, if it is the case that in most cultures around the world and down the centuries women have been assigned a secondary status, does this "is" imply an "ought"?

While I concur with Hefner's basic assumption that "all values finally receive their validity from being rooted in and in harmony with the way things really are" my question is whether anyone can get at "the way things really are?" The post-modern context invites acknowledgement that the "is" cannot simply be read off the face of things. Each reading is a construction, in part a function of social location and interests. From the standpoint of divine intentionality, one might indeed see into the deeper reality at the heart of things. That view of the "is" might be sufficiently to guide the "ought." It is not that we should not aim toward such a vision, just that the difficulty of achieving it should not be underestimated. Any claims about the "is" are best stated modestly as the constructions they are. Hefner's particular reading of the "is," that sees altruism at the heart of things is compelling. It is a vision that claims self-giving as "natural" for the human being and our true calling. One admissible test of competing constructions might be the pragmatic one, what does this reading cause people to do? Hefner's reading would stand up well under this test.

To what degree does morality characterize the human being? The evidence is ambiguous. Indeed human beings are more free and consequently more responsible than other creatures. However, altruism does not tell the whole story of the exercise of the human will. High cultures are capable of great injustices, cruelty, and even genocide. Here and there, Hefner's assessment of the human condition feels a little optimistic (especially to a Reformed theologian). Hefner (1997, p. 198) expresses a view that that the crises of the human race can be traced to "our incompetence in constructing adequately the cultural systems of information and guidance that we depend on." The inadequacy of our cultural guidance systems does not seem to convey the seriousness of the human problematic named theologically under the category of sin. Else, if only human beings could construct more adequate cultural systems of information and guidance, the problem could be overcome. Such optimism concerning the human problematic has been severely chastened by historical realities of the twentieth century (two world wars, the holocaust, the dropping of the atomic bomb). The contemporary resurgence of interest in the theological notion of original sin may stem from the tragedies of our history. There is a renewed sense that human beings are born into these ambiguities that they did not ourselves create and from which they cannot extricate themselves (the bondage of the will).

Hefner examines proposals in the book regarding the biosocial evolutionary etymology of such religious concepts as sin and guilt. Don Campbell (p. 134) has proposed that this phenomenon arises from the tension of "human culture contra selfish human nature." It is pressure from cultural evolution that causes genetically predisposed competitors to function as cooperators. This is an interesting proposal and certainly would have some explanatory value, but I agree with Hefner that the themes seem to be imported from free market capitalism in a way that makes "competition" seem natural and sets up a new dualism between our "cooperative culture" and our "competitive nature." The position risks dualism and that concerns Hefner (1993, p. 135).

I would add to Hefner's reservations to Campbell's analysis the objection that recent work with higher primates does not bear out his assumptions. Franz de Waal, in his work *Good Natured: The Origins of Right and Wrong in Humans and Other Animals* (1996) has insisted that cooperation is not a "thin veneer" covering over our "natural" beastly selfishness. Symbiosis and cooperation are in fact manifest all the way down in us, or all the way back in our genetic heritage. Competition and cooperation are both present in our complex social

Given the rethinking of the nature-culture dualism, I wonder if Hefner should go further than he has. Could more of "nature" than human beings be thought of as "cultured" and "co-creative?" Insofar as higher primates, for example, share so much genetic information with us and have a relative freedom, and (some would argue) a degree of self-transcendence and capacity for relation; how do we think about their status here? Can we share, by degrees at least, in the created, co-creator status?

Asking the same question (that of our continuity with the rest of nature) from the other direction, I wonder whether Hefner overestimates the extent of human freedom in his thoughtful defense of it. We experience ourselves as making choices as self-and-world-creating beings. However, we make these choices out of will and a nature that is deeply constrained by genetics and environment. There is something like a bio-cultural *bondage of the will* at work in the human being.

Some of Hefner's discussion of the role of human being and what the human being can contribute distinctively, borders on saying that nature's "purpose" is the evolution of conscious intentional beings like us, that the evolutionary process has *progressed* toward us, or that God's purpose in nature was to bring forth beings who can be these "co-creators." If this is Hefner's meaning, there is risk of falling back into the anthropocentrism he has elsewhere challenged.

Hefner argues that the *teleonomy* (purpose) of a being is to be read from the natural equipment provided to that being. Clearly the human being is capable of a high level of intentionality (and therefore freedom, adaptive plasticity, and culture) due to our highly developed central nervous system. But what about other creatures, could not their teleonomy similarly be read from *their* particular equipment, rather than privileging the capacities of the human being as revealing God's purpose with *all* of nature? Otherwise, it seems that only the human being can fulfill the purpose of nature and that the other creatures, differently equipped (i.e. butterflies), do not have distinctive purposes. What if human beings destroy themselves in a nuclear holocaust, will God's project have failed utterly? Nature in its rich diversity of forms may have *multiple* purposes. This view would be a more consistent application of Hefner's own principle of teleonomy and allow a richer valuation of nature consonant with Augustine's "principle of plenitude" or process theology's "maximal harmony and intensity."

Hefner's proposal of the "created, co-creator" offers tremendous corrective potential in the current discussion. It effectively counters the separatism and anthropocentrism that has predominated. He has in fact is reframed the question of our existence—and therefore the approach to theological concepts like *imago Dei*—by asking not how are human beings separate/different and better than/over-and-above the rest of creation, but rather what is the distinctive contribution human

(Footnote 6 concluded)
systems. Does culture always teach cooperation? Do genes always teach selfishness? Why propose that we are overcoming our natural selves when we are altruistic. Why not assume that being altruistic is also in our genetic repertoire? Such a proposal is reminiscent of theological discussions wherein it was debated whether "original sin" is a biological inheritance or a social inheritance. Do we sin because our first parents did and this is transmitted to us in their procreation, or do we sin because we are "born into sin?" It would seem that there is a sense in which both our selfishness and our altruism are both genetically and culturally transmitted.

beings may make to the rest of creation. Hefner's proposal of the human being as "created co-creator" provides a way of thinking about the *imago Dei* has a number of advantages: it is a way of thinking that is congruent with the scientific picture of the human being, it names our full integration with the rest of nature and at the same time acknowledges the special responsibility that attends our enhanced capacities in rationality and relationality. Human nature, as well as human purpose are given meaningful content here without lifting the human being to a separate and superior status.

The "created" component in this designation can look in two directions. It can embrace the affirmation that we are created *by God*; we did not make ourselves. Our life is a gift that we have received, we live in ontological dependency. It can also acknowledge that we are created *by nature*. That is, we came to be in the ordinary process of nature, we are thoroughly biological, utterly connected to all that is nature; that we are nature—we are dust.

The "co-creator" in this designation recognizes our reality as an emergent consciousness, as nature become aware of itself, as beings of enhanced capacity for rationality and relationality. As a consequence, we are more free and therefore more responsible—we are *imago Dei*.

"Imaging God: Dominion as Stewardship"

Douglas John Hall in his book, *Imagining God: Dominion as Stewardship*, has made a distinctive contribution in rethinking the meaning of *imago Dei*. He sees clearly how the history of its interpretation and of the human being has having "dominion" over nature has gone awry. His most helpful offering, in my view, is in urging that *imago* be thought of as a verb rather than a possession or attribute of the human being so that we see our vocation to "image" God. The true image of God, as seen in Jesus Christ becomes the model for how best to "image" God. As he says, "What we have not yet observed…is how the interpretation of the connection between imaging God and having dominion is altered by the confession that Jesus is Lord" (Hall, 1986, p. 185). The Lordship of Jesus Christ consequently becomes the model for what right exercise of "dominion" looks like (*dominus*-Lord). In his example we see one who does not "Lord it over" but rather lives in sacrificial service. As Hall has contends we need "to begin to emulate our Lord's mode of 'having dominion'" (Hall, 1986, p. 185). "The 'lordship' of the Crucified, if seriously grasped, radically transforms our preconception of dominion, exchanging for the concept of a superior form of being one of exceptional and deliberate solidarity (being-with)" (Hall, 1986, p. 186).

I greatly appreciate the direction of Hall's reflection and reconstruction, and I think it significantly advances the discussion. There are, however two aspects about which I have some reservations. The first reservation I have is with the metaphor of "stewardship" as a way of expressing our relation to the rest of nature. This has much to commend it, particularly as it removes the human being from a standpoint of ownership to one of responsibility held in trust for another. However, I worry that it grants too "managerial" a relation of the human being to the rest of nature. Given human proclivities we have seen in evidence this may be risky. To grant a divinely authorized custodial/managerial role also implies a special relation to God

(a standing in *God's stead*) not shared by the rest of nature. It grants and legitimates a degree of power over the rest of nature which is not well placed in human hands if human history is any indication. This proposal seems to keep the hierarchical dualism in place in a modified form. It envisions human beings as "responsible caretakers or guardians of the earth and all its creatures" (Johnson, 1993, p. 30). This still admits a kind of separation of the human being from nature in which human beings are "over and above."

"Stewardship," as a metaphor for the relation to the rest of nature, may be, at one and the same time, "too little" and "too much." On the one hand, it is too much. It seems to authorize and bless our being "in charge" (even as it invites us to do that differently than we ever have before). On the other hand, it is too little. "Stewardship" is too tame a word to describe many human enterprises in relation to nature (such as genetic engineering, for example). Furthermore, in the context of the wider interaction with science on the nature of the human being, one has to consider nature's evolutionary history. One might well ask why, if the rest of nature needed a "steward," human beings are such latecomers on the scene?

Hall's deeper intentions are much more in the direction of "being-with-nature" and "sacrificial, self-giving love (*agape*)" (Hall, 1986, p. 186). I am unsure whether the metaphor can be easily reclaimed and reinvested with this intended meaning. Its more common (managerial) associations continue to contend with these new meanings. It might be a better strategy to drop the metaphor and talk less about both stewardship and dominion. The themes of "being-with-nature" and "sacrificial, self-giving love" that Hall is commending are compelling in themselves.

My second reservation has to do with the way in which Hall seems to take *imago* to be that to which we are called and should aspire and "dust" as that which we are but should resist. As he says, "the *imago* stands for a life into which they are being called, a way of being that is already (proleptically) made available to them, but which in the meantime struggles with the old way of being, the way that belongs to 'the man of dust.'" I would like to suggest a reinterpretation with a somewhat different approach. What if, instead of contrasting the models we find in Genesis 1 and Genesis 2 we would, letting Scripture interpret Scripture, draw these into a dialectical relation with one another?

It seems to me that some of the distortions that have attended historical interpretations of the nature of the human being as *imago Dei* could be chastened and corrected by holding this in tandem with human nature as "dust." The latter recognizes our material, natural reality which, if we intend to embrace and bless material reality, ought also to be blessed and embraced. This dimension maintains our continuity with the rest of nature and our humble status in relation to it. It could constrain the tendencies of *imago Dei* to promote a notion of separation and superiority.

A "Down to Earth" Proposal: "From the Dust of the Ground"

How did the dominant tradition come to shape a theological anthropology so intent upon setting the human being apart from and above the rest of nature? This direction

in a Christian theology of human nature is not inevitable, for there are alternative readings available in the tradition. For example, there are two different accounts of the creation of the human being, one in Genesis 1 and one in Genesis 2. Why has the former eclipsed the latter? Why has the tradition so focused on the Genesis 1 accounting of our being created "in the image of God," to the exclusion of the reference in Genesis 2:7 "Then the Lord God formed man from the dust of the ground, and breathed into his nostrils the breath of life; and the man became a living being."

Calvin's exegesis of Genesis 1 and 2 sees the corrective potential of keeping these in conversation with one another. In his reading, the account of our being created in the image of God is to be juxtaposed with the account of our being created "from the dust of the earth," lest the former should become for us an "occasion of pride" (Calvin, 1948, p. 111). Calvin's caution has been largely ignored.

Why have these potentially complementary visions not been kept in a better balance? How did the dominant tradition come to shape its theological anthropology almost exclusively under the concept of *imago Dei*? Furthermore, when this concept is employed it is frequently skewed in the direction of showing how the human being is apart from and above the rest of nature. This direction in a Christian theology of human nature is not inevitable. From what has preceded, it is clear that *imago Dei* is open to alternative interpretations in its own right and that its interpretation might profitably be refined by the companion account we find in Genesis 2.

Genesis 2:7 makes an interesting word play as the word '*adam* is used for the first human being who is formed out of the '*adamah* "dust of the ground." It underscores the "earthiness" of the human being, one who is related to the earth. We are "earthlings." Old Testament scholar Theodore Hiebert, in his book *Yahwist Landscape* has revisited the two accounts in Genesis of the creation of the human being. As he observes, theologians have rather decisively favored the Priestly account, wherein the human being is said to be made in the image of God (Genesis 1:26-28). That has become our theological preoccupation. The Priestly writer held a perspective that viewed the human being as a god-like being in relation to the rest of nature, dominating and ruling over all else. The Yahwist account, found in Genesis 2, where the human being is said to be formed "from the dust of the earth," presents a very different picture. The Yahwist writer speaks from an agrarian context wherein the human being is very much a part of and dependent upon natural processes. The perspective is of oneness with the earth and all living creatures. The human being tilling the soil is the servant of the land and not its master.

Why have we not listened as attentively to the Yahwist writer as to the Priestly writer? Why has the insight that "we are dust" taken a back seat to the insight that we are "made in the image of God?" Can it be because the Priestly account aids us in making theological claims that we are set apart from and above the rest of nature, whereas the recognition that "we are dust" calls us back (down to earth) to a much humbler standpoint within nature? Perhaps another look at Genesis 2 would be profitable and help us find a better balance between our being "in the image of God" and our being "from the dust."

There may very well be many such untapped resources in the tradition that would help to reorient us in relation to the rest of nature, so that we come to know our place within nature.

From a scientific standpoint, that we are "formed from the dust" is a fact of our evolutionary history. As has already been pointed out, we are made of the same "starry stuff" from which everything else we encounter is made. Hefner has noted that the product of nature's evolutionary process are a kind of *bricolage*; that nature works with what is at hand to make new things, reconfiguring what is already there into the genuinely novel and unique. The movement from the simplest forms to the more complex is a matter of amalgamation, and symbiosis. The human being is just such a *bricolage*. Paleontologists have documented how the bones in our heads that structure our jaws and our ears develop from the bony structures of primitive fishes' gill slits. Brain research shows how humans carry the remnants of our ancestral brains (reptilian and mammalian) integrated into the human brain. "Cell biologists tell us how even the cells of our bodies show traces of the amalgamation, or symbiosis of two or more earlier organisms that have collaborated to create something new" (Hefner, 2000, p. 6). We are genetically connected; the history of evolution is in us. Excerpts from an address by Vaclav Havel express eloquently this deeper reality of human existence. "We are mysteriously connected to the entire universe, we are mirrored in it, just as the entire universe is mirrored in us" (as quoted in Rasmussen, 2000, p. 19).

Imago Dei as a Common Calling

The nature of the human being and our place within nature—rather than apart from and above nature—becomes more clear when we know that we are formed from the dust, as is all else. *Imago Dei* is helpfully recast when viewed as a calling rather than an attribute or a possession of the human being to the exclusion of all others. Can this be understood as in a sense, "a common calling?"

Thomas Torrence interprets Calvin's understanding of *imago Dei* as being consistently in terms of a mirror reflecting the divine glory. If, as Calvin suggests, our *imago Dei* is a calling to reflect the glory of God, is it really only human beings that share in this calling? In Calvin's theology, particularly in his Commentaries and Sermons, it is clear that God has a relation to all of creation not just to human beings. As discussed in Chapter 3, for Calvin, the whole creation is "the theater of God's glory."[7] The human being has an important part in this theater of God's glory,[8] but we are by no means the whole show. The whole of creation is a locus

7 "For our salvation was a matter of concern to God in such a way that, not forgetful of himself, he kept his glory primarily in view, and therefore, created the whole world for this end, that it may be a theater of his glory" (CO 8:294).

8 Although both Barth and Calvin speak of creation as a theater of God's glory, they use this image very differently. For Calvin creation provides the stage upon which God's wondrous works are displayed. The human being is a spectator in relation to this witness to God's glory (blind spectators though we be). But for Barth the human being is very much on stage. Creation is the stage on which the drama of the God-human relation will take place. Creation's role is diminished to that of a backdrop. The history of the covenant of grace is the main thing. "(P)rovision has been made and is continually made for the history of the covenant of grace, for time, space and opportunity for the divine work of grace and salvation" (III/3, p. 48). Creation is the external basis of the covenant.

of divine revelation[9] and providential activity, and the anticipated eschatological consummation includes not only the redemption of humanity but also the restoration of *all things*—a new creation. Thus, a wider sense of imago is allowable in which "the world as a whole and the tiniest creatures may be said to image the glory of God….And the only reason this sense has been downplayed if not ignored is that due to sin, man has been blind to this imaging in the nature around him and her" (Torrence, 1952, pp. 37, 39-40). Something less anthropocentric is in the way of interpreting the *imago Dei* is available to us.

If *imago Dei* is viewed as the calling to image or reflect God's glory, then it will require the whole of creation and not just the human being. Aquinas articulated such a view,

> But creatures cannot attain to any perfect likeness of God so long as they are confined to one species of creatures; because, since the cause exceeds the effect in a composite and manifold way….Multiplicity, therefore, and variety was needful in the creation, to the end that the perfect likeness of God might be found in things according to their measure. (Aquinas, *Summa contra Gentiles*, II, 45)

All creation together is the "theatre of God's glory," each reflecting "according to its measure" by being what it authentically is and in that sense may be said to be imago Dei.

Human beings do so in our own peculiarly human way. Our distinctiveness, as argued in both the current chapter and Chapter 5, is a matter more of degree than of kind; possessing as we do somewhat greater rationality, freedom, and capacity for relation. How then do human beings live out the calling to be *imago Dei*? I concur with Calvin, Barth, Hall, and others that the clue to this calling is Christological. The image, for human beings, is best seen in its restoration which is a progressive effect of redemption in Christ. "And all of us, with unveiled faces, seeing the glory of the Lord as though reflected in a mirror, are being transformed into the same image from one degree of glory to another; for this comes from the Lord, the Spirit" (II Cor. 3.18). This dynamic understanding of the *imago Dei*, does not assume that it is something we possess and fully manifest. Rather, the transformation is a "day by day, more and more" of our being conformed to this image as we are drawn into deeper union with Christ. Solidarity and self-giving love are implications of this transformation. Such an orientation certainly has ethical implications regarding how the human being should live in relation to the rest of nature. There is a sense in which as Stan Grenz says, "the image of God is ultimately an eschatological concept—it is our divinely given destiny" when God will be all in all (Grenz, 2001, p. 327). In the words of Jonathan Edwards, "Here is both an emanation and a remanation. The

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"But the theatre obviously cannot be the subject of the work enacted on it. It can only make it externally possible" (CD III/3, p. 48). When it comes to creation as such, it is fashioned as a "dwelling place" for human beings (III/1, p. 157) and bears its value by virtue of this function, not in its own right.

9 "In respect of his essence, God undoubtedly dwells in light inaccessible; but as he irradiates the whole world by his splendor, this is the garment in which he, who is hidden in himself, appears in a manner visible to us" (Commentaries Psalms 104.1).

refulgence shines upon and into the creature, and is reflected back to the luminary. The beams of glory come from God, are something of God, and refunded back again to their original. So that the whole is of God, and in God, and to God; and he is the beginning, and the middle and the end" (Edwards, 1998, p. 76).

Conclusion

This chapter has sought to show the importance and the benefit of informed constructive engagement with science in developing a theology of nature. Assorted pertinent issues of contention were briefly reviewed: whether science can conclude that nature is "all there is," whether intelligent design is plausible scientifically and theologically, and whether and how God may be said to act in the world.

Two places where problems have arisen in the theology of nature—the mind-body problem and the place of the human being in relation to the rest of nature—have benefited greatly from the findings of science and the ongoing theology and science dialogue. Science has provided ways of understanding mind and body that allow for both differentiation and integration. Science has also helped in showing the place of human beings *within* nature (rather than separate from and above nature). This reorientation initiated a full reconsideration of the traditional doctrine of the *imago Dei*.

Without a sustained attention to what empirical evidence in fact reveals about nature and its processes, it is not possible to construct a responsible theology of nature. What we offer by way of a theology of nature must be intellectually credible if it is to be religiously viable and morally adequate.

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Chapter 7

"The Promise of Process-Panentheism"

Introduction

The next step in the argument is to elaborate the constructive proposal and illumine the advantages of the panentheistic vision of God's relation to the world. In Chapter two I have done an appreciative, even if somewhat critical, appraisal of the work of McFague and Kaufman both of whom affirm panentheism as the most promising way of proceeding. I have learned much from these important contemporary theologians. After a brief review of that assessment I will proceed to differentiate my position from theirs in this conversation among panentheists. Panentheism is not a monolithic position, it has many variations. Some forms, it seems to me, are more viable for a Christian theology of nature than others. I have argued that McFague's view of the God-World relation particularly as expressed in her work *The Body of God* tends toward pantheism. The world is God's body. Kaufman proposes that what we should mean by "God" the "serendipitous creativity in the biohistorical process." I believe this view tends toward pancosmism**.** God is the world's internal own process. I have claimed that there are problems with both of these approaches, namely the collapse of transcendence and the loss of the integrity and alterity of nature.

My challenge is to find how we may better maintain both the transcendence of God and the integrity and alterity of nature, while avoiding the separation of God and the world that attends classical theism. Many have convincingly argued that this separation may lead to a "desacralization and objectification of nature" that makes exploitation thinkable. In pursuing this challenge, there are some very basic theological prerequisites it would be my goal to meet:

- a critical appreciation of Christian tradition should be evidenced
- the anthropocentric and dualistic habits of thought that are embedded in Christian tradition should be addressed
- the alterity and integrity of nature should be respected
- an accounting that is fully conversant with scientific perspectives on the origin and operation of the natural world should be developed
- the picture presented of the God-world relation should give an adequate accounting of the religious intuitions that God is really in the world (immanent) and yet more than the world (transcendent)
- the concept of God should be one that is worshipful and worthy of emulation ("that than which nothing greater can be conceived")
- a model for living with and within the rest of nature should be provided.

I. A Process Panentheistic Proposal

In my constructive proposal, I want to urge an alternative understanding of the God-world relation that I believe is more promising, especially for the reconstruction of a theology of nature. Mine would be a form of panentheism that agrees with thinkers like Kaufman and McFague in rejecting the God-world separation we see in classical theism but seeks to more clearly avoid the God-world identification we see in pantheism/pancosmism.

A. What is Panentheism?

As this turns out to be a conversation among convinced panentheists, it may be important to clarify the meaning of this designation. Panentheism, simply put, is the view that "God is in all things and all things are in God." It is taken from the Greek terms πάν "all things" έν "in" θεοξ "God." It is "the belief that the Being of God includes and penetrates the whole universe, so that every part of it exists in Him, but (as against Pantheism) that His being is more than, and is not exhausted by, the universe."[1] It claims a transcendent/immanence or an immanent/transcendence of God. It is the transcendent/immanence of God "in, with, and under" all that is (Peacocke, 2001, p. 51).

Panentheism is the option I prefer. It does a better job, it seems to me, of meeting the prerequisites I have laid out. However, as I have said, there are many variations on this theme. Panentheism has a long history as a stream of thought within Christian tradition. Many theologians could be brought forward from other times and contexts, but perhaps two notable examples will suffice.

Augustine, in his *Confessions*, suggests a vision of God as being like the wide sea with the whole of creation being like a sponge floating in that sea. While he had other matters in view than those we explore here, it is a wonderful image to convey both the integrity/alterity of creation and the divine transcendence of it and immanence in it. He writes his vision in the form a of prayer,

> But thou, O Lord, I imagined as environing the mass on every side and penetrating it, still infinite in every direction—as if there were a sea everywhere, and everywhere through measureless space nothing but an infinite sea; and it contained within itself some sort of sponge, huge but still finite, so that the sponge would in all its parts be filled from the immeasurable sea. Thus I conceived thy creation itself to be finite, and filled by thee, the infinite. And I said, "Behold God, and behold what God hath created!" God is good, yea, most mightily and incomparably better than all his works. But yet he who is good has created them good; behold how he encircles and fills them.[2]

In this image there is no part of the sponge that is not filled with the sea, and yet the sponge is not the sea and the sea is not the sponge. It is a beautiful metaphor for a panentheistic vision of the God-world relation.

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1 *Oxford Dictionary of the Christian Church*. F.L. Cross and E.A. Livingstone eds. Oxford: Oxford University Press, 2005.

2 Augustine, *Confessions* (Book VII, Chapter 7). Trans. Albert Outler, 1955. www.ccel.org.

Christian mystics have often been drawn to panentheistic understandings of the God-world relation. This may be because the relation between God and the world that panentheism articulates, illumines so well what the mystics describe as "intimate union with God." Nicolas of Cusa (1401-1464), a 15th century mystic, is a case in point. Nicolas is particularly appealing in his humble approach to theology. He was fully convinced, as mystics tend to be, that God is a holy mystery beyond all knowing and speaking. He agreed with Dionysius the Areopagite that "learned ignorance" is the proper disposition for all our theological reflection—knowing that we do not know. All our theology is conducted in a "cloud of unknowing." According to Nicolas, a "high wall" separates God from all that can be said and thought of God. Nevertheless, his theology is not only apophatic (negative) and agnostic. He speaks of the reconciliation of contradictions in God. In speaking of God's relation to the world, he uses the seemingly oppositional terms *complicatio* and *explicatio* ("identity" or "joining" and "otherness"), thus holding in tension divine immanence in creation and creation's alterity. In his book entitled, *The Vision of God*, there is a prayer

> Blessed be You, O Lord my God, who feed and nurture me with the milk of likenesses, until such time as You grant me more solid food. O Lord God, guide me unto Yourself by these pathways. For unless You guide, I cannot stay on the pathway—on account of the frailty both of my corruptible nature and of the earthen vessel that I carry about. Trusting in Your help, O Lord, I turn once again in order to find you…beyond the wall of the coincidence of enfolding and unfolding.[3]

In this "likeness" we envision God unfolding all things in their created integrity through divine creativity and also enfolding all things created in the divine embrace.

There are many other panentheists down through the centuries and there has been a rebirth of panentheism in our own day. For a fuller accounting of the history and the variety of panentheisms today, the recent collection edited by Philip Clayton and Arthur Peacocke, *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*, is most helpful.

One way to distinguish panentheism from classical theism on the one hand and pantheism on the other is in terms of divine attributes or divine perfections. In classical theism divine perfections have been defined over against the attributes of the natural world in a dualistic and oppositional framework: supernature *over against* nature. Whatever can be said of the world must be denied of God. There is an "infinite qualitative distinction" between God and the world. The world is not God and nothing in the world is God. Intended theologically as apophatic reserve, preserving the mystery of God as being beyond anything we might know and describe in the world, the denials evolve into positive attributes. They are taken to be descriptive of deity and seem to place God and the world in the kind of polar opposition that we have drawn out previously:

3 Nicolas of Cusa, *Vision of God* (Chapter 11, Paragraph 47).

God is	The *world* is...
necessary	contingent
eternal	temporal
unchanging	changing
absolute	relative

A mutual exclusion and opposition has been "structured in." This arrangement makes difficult any credible account of divine presence or activity in the world. How can an unchanging being relate to a changing world? How can a being that is eternal act in a world that is caught up in time?

In terms of a theology of nature, this way of conceiving the God-world relation overemphasizes transcendence at the expense of immanence and effectively separates God from the created order. Such a step likely contributes to the "desacralization" of nature even as it removes God from world process and denies God's real presence and activity there. Going beyond the refusal to confuse God and the world, it seems to find no place for God in world process. When divine transcendence is preserved at the expense of divine immanence in this way, the path is cleared for the brutal violation and exploitation of nature that has attended Western classical tradition.

The corrective response has reacted by minimizing the distinction, collapsing what we might refer to as the transcendent attributes and taking a pantheistic turn. I take the contemporary proposal articulated by Sallie McFague that the world is God's body to be a kind of panentheism that leans in a *pantheistic* direction. In pantheism, God and the world come to be identified. Positively, this results in an increased reverence for nature. Nature cannot be treated in a cavalier manner as alien or devoid of intrinsic significance and worth and having only instrumental value if the world is "God's body". But, as I have argued, there are losses that accompany this particular way of responding to the problems of classical theism: the collapse of transcendence and the loss of alterity/integrity for nature.[4] What I think will hold the most promise for a reconstructed theology of nature, is a view of nature that grants it value *in its own right*, not because it is the necessary context for human flourishing—nature as "natural resources" upon which our continued existence depends and not because it is somehow God or God's body or a little piece of God.

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4 Without some genuine alterity it is difficult to speak meaningfully of God's relationship with the world—there is no "other" there to relate to. This predicament places us back in the position of classical theism which, having sharply distinguished between God and the world, also had difficulty accounting for a genuine relation between God and the world.

If nature is just God's body and not in some sense a genuine other, then God is just a divine "lonely dancer." Furthermore, without this otherness to the world's it is difficult to speak meaningfully of human responsibility for the creation? For whatever human beings do is really God's action and not their own. Creaturely acts lose their moral significance. How can this model of God's relation to the world serve as a model for our own? Without alterity there is no relation and no responsibility. At the very least a new theology of nature will need to be able to articulate nature's alterity, and offer models of relation and responsibility that the human being might find worthy of emulation. In terms of the pursuit of ecojustice, it seems to me; the pantheistic model does not give as much as it gives up. Other options should be explored.

Process theology, offers a panentheist alternative that provides a way of conceiving the God-world relation that does not fall into dualism/opposition on the one hand or identification on the other. Returning to the derivation of divine perfections, the claim is that God possesses *all* these perfections, and each in the way in which it is most excellent to do so. Whitehead drew a distinction between the *Primordial* and *Consequent* natures of God, roughly comparable to the distinction between a person's character (which is an enduring and transcending thing) and its expression in particular concrete instances. We are able to say that God is *unchanging* in the sense of everlastingly faithful—an enduring quality. Yet we may also say that God is *changing* and thereby allow for the many and diverse ways in which God's faithfulness will be expressed in relation to the particulars of changing temporal existence. Whitehead's treatment of the Primordial and Consequent nature of God allows for divine transcendence on the one hand and real relationship (with a real "other") on the other, thus preserving the alterity of nature.

B. How is *Process* Panentheism Distinctive?

The process approach avoids the traditional opposition of God and the world. Instead of positing an "infinite qualitative distinction" between God and the world—with the opposition/dualism this has entailed—an "analogy of being" is admitted. God is not the exception to all the metaphysical principles, but rather their "chief exemplification." In the case of God's Primordial and Consequent natures for example, we have a way of being that is analogous to the dipolar character of all actual entities in what Whitehead called their mental and physical poles. Whitehead, in his philosophy of organism (discussed in Chapter 5), referred to this as "panpsychism." It is important to understand that he did not imply a consciousness, as such, at all levels. Rather a continuum of subjective experience of varying degrees. In this sense, a rock may be said to "experience" being thrown into a pond. Because this is Whitehead's meaning for "mentality," David Griffin[5] has proposed that "panexperientialism" would be a better than "panpsychism" as a way of naming the reality to which Whitehead points. The value of this contribution is in its refusal of a material-spiritual dualism in which God and the human being have a monopoly on spirit and the rest of nature is simply material. Whitehead's insight provides a way of thinking about all of nature on a continuum and having subject status.

Charles Hartshorne, in *The Divine Relativity*, presented a vigorous advocacy for panentheism and is credited with "making panentheism one of the cornerstones of modern process thought."[6] As a process-panentheist, he refers to this dual aspect way of thinking as applied to God, "dipolar theism." Both poles of the metaphysical contraries are embraced and yet they are differentiated (necessary—contingent, eternal—temporal, unchanging—changing, absolute—relative). God is said to be in the one aspect changing and in the other unchanging, in the one aspect being influenced, and in the other aspect influencing. For Hartshorne panentheism was the

5 David Ray Griffin, "Some Whiteheadian Comments," in *Mind in Nature: Essays on the Interface of Science and Philosophy*, eds John Cobb, Jr. and David Ray Griffin. Washington, D.C.: University Press of America, 1977.

6 Peterson, Gregory, "Whither Panentheism?" *Zygon*, vol. 36, no. 3, pp. 395-406.

best vantage point from which to articulate divine relatedness and responsiveness to the world while keeping the distinction between God and the world in tact. Even as God's immanence and relationality are being affirmed, God's transcendence is also being maintained, as God remains the only all-inclusive, all-surpassing reality. God is in "transcendent relation" to the world. Hartshorne speaks of the essence of God as "transcendent relativity." God is not "one more thing," he says, "but the reality by which all things whatsoever actual and possible, are in principle intelligible."[7]

This particular articulation of panentheism has advantages over other options that are on the horizon. Philip Clayton, for example, who argues cogently for panentheism as preferable, uses an analogy that, I think, has some difficulty in terms of maintaining transcendence. For the panentheistic relation of God to the world he proposes the analogy of mind to brain (God is to the world as the mind is to the brain). Mind is dependent upon and emerges from brain, but also in a sense supervenes. Here I must agree with the critique that Willem Drees[8] has offered in a recent *Zygon* article, that, given recent work on mind-brain that speaks in terms of mind as "emergent" from brain, there may be difficulties with this as a workable analogy. The analogy would imply that God is "emergent" from the world, this seems to present God as ontologically secondary. The process-panentheist version allows for God being related to and even influenced by world process without going this far. There is even a sense in which the process-panentheist approach would have a place for "emergence" in the life of God. In God's C*onsequent* nature, God's actual states are emergent, in that they become what they are precisely in the interaction with the world. God's *Primordial* nature though, is not emergent and preserves an ontological priority. This should not lend itself to "before and after" thinking. God's ontological priority is of a metaphysical rather than a temporal sort. God's Primordial nature is the ground of the possibility of any and all concrete states. It is the ground of both order and novelty.

God is not the world and the world is not God. But neither are these two mutually exclusive. God is in the world and the world is in God. There is a genuine relation of mutual influence because God and the world are *internally related*. Internal relations between entities entails there being co-constituted in such a way that what happens in one affects what happens in the other and *vice versa*. This view represents a contrast to the understandings of God's relation to the world inherited from classical theism. There it was assumed that the world is internally related to God (subject to divine influence) while God, on the other hand, is *externally related* to the world (not influenced by the world, impassible).

C. What are the Advantages?

Process-panentheism has a number of advantages. It serves well in relation to the prerequisites set forth for reconstructing a viable theology of nature:

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7 Charles Hartshorne, *The Logic of Perfection: and Other Essays in Neoclassical Metaphysics*. La Salle: Open Court, 1967, p. 127.

8 Willem B. Drees, "God and Contemporary Science: Philip Clayton's Defense of Panentheism," *Zygon: Journal of Religion and Science*, vol. 34 no. 3 (September, 1999).

- a critical appreciation of Christian tradition should be evidenced
- the anthropocentric and dualistic habits of thought that are embedded in Christian tradition should be addressed
- the alterity and integrity of nature should be respected
- an accounting that is fully conversant with scientific perspectives on the origin and operation of the natural world should be developed
- the picture presented of the God-world relation should give an adequate accounting of the religious intuitions that God is really in the world (immanent) and yet more than the world (transcendent)
- the concept of God should be one that is worshipful and worthy of emulation ("that than which nothing greater can be conceived")
- a model for living with and within the rest of nature should be provided.

It also has the advantage of opening up new ways of thinking about God's presence and activity in world process that resist notions of occasional external intervention overriding natural processes. Furthermore, the problem of evil—while not resolved—is at least not made worse by assuming that what happens is God's doing on the one hand or that the process is completely independent of divine presence and activity on the other.

II. New Understandings of the Presence and Activity of God in World Process

It is these latter advantages that will receive primary attention here. Among other things, this approach provides a way of accounting for divine presence and activity in world process that is more consonant with what we are learning from science about the way the world works. It provides a viable alternative to the "external interventionist" constructions.

A. Presence

A very promising discussion is taking place presently on alternative ways of conceiving God's presence in the world. In what sense is God's presence "real presence?" Sacramental and incarnational theologies can be profitably explored and prove to yield deepening insights.

Of the new proposals emerging, one that I find most compelling urges that we think if divine presence through the lens of sacramental theology. God is present "in, with, and under all-that-is" (Peacocke, 2001, p. 57). Arthur Peacocke and several other panentheists, myself included, find that a "sacramental" view of nature illumines the God-world relation and the character of divine presence in world process. Divine presence in a panentheist frame is "real presence." Several points of connection with sacramental theology illustrate the promise of this approach.

In sacramental theology, especially within the Reformed family, we speak of "the sign and the thing signified" and how they should neither be confused nor separated. In a similar fashion, panentheist approaches urge that God is neither to be confused with nor separated from the world. We also speak of "an outward sign of an inward

grace." "Outward" generally refers to material reality that can be perceived by the senses and "inward" refers to the meaning or depth dimensions of that reality that is not straightforwardly perceivable on the surface of things. Divine presence in world process is of this inward sort—we will not find God by looking through the telescope or the microscope. Neither the macrocosm nor the microcosm yields unambiguous evidence for the presence of God. "Only those who believe, receive."

We sometimes speak of sacraments variously as "instruments" and "symbols." As *instruments* we think in terms of how they accomplish God's purposes of grace in us, as *symbols* we think of divine self-revelation that occurs in celebration of the sacraments—to the extent that we even sing with wonder around the table a hymn that begins, "Here, O Lord, we see the face to face." Similarly, the world may be a place of divine purposing and self-revelation—and all this with its alterity and integrity in tact. What is proposed here is a "coinherent" presence of God in the world that does not compromise the distinct being of the world.

Divine presence can be further illumined by making the connection between sacramental theology and incarnational theology. Jesus Christ is said to be God's sacrament. Again sacrament has the double meaning of *instrument* accomplishing God's purposes and *symbol* revealing who God is. The fact that simple elements of bread and wine can take on this instrumental and symbolic character reveals that creation as such has this sacred potentiality/character. So also, in the incarnation, the man Jesus is emblematic of what is possible—even already the case—about the whole of creation. Peacocke makes this connection also, "Jesus identified the mode of his incarnation and reconciliation of God and humanity ("his body and blood") with the very stuff of the universe when he took the bread, blessed, broke, and gave it to his disciples…." (Peacocke, 2001, p. 149).

In the incarnation the potentiality/surpassing value of created existence as such is conveyed. The value is not simply imputed but imparted. What is already the case about nature is the ground of the incarnation and the root of its possibility, God is already *really present* in the world of matter and process. God is manifest in the sacraments and in the person of Jesus Christ, but this is possible because God is *already there* in all things. In this sense incarnation is not the exception, but the sign of what is really the case about God's relation to the world. Incarnation is an instance of transparency to ultimate reality. A place "where the light shines through." The meaning of Christian theology of incarnation has not yet been tapped for its deep significance in conveying God's real presence in world process or for our valuing of material reality in these encounters…

> The incarnation can thus be more explicitly and overtly understood as the God *in whom the world already exists* becoming manifest in the trajectory of a human being who is naturally in and of that world. In that person the world now becomes transparent, as it were, to the God in whom it exists: The Word which was before *incognito*, implicit, and hidden, now becomes known, explicit, and revealed. The epic of evolution has reached it apogee and consummation in God-in-a-human-person. (Peacocke, 2004, p. 154)

Another prospect for deepened insights into the God-world relation comes from the "cosmic christology" tradition. The current predominant understanding of the meaning of the Christ event seems to be limited to the work of redemption. This

work is further limited to be concerned primarily with redeeming human beings from sin. Such a narrowing has led to an "acosmic," Christianity preoccupied with "saving souls" and getting to a better world (Hayes, p. 26.1). However, there is within the broader Christian tradition a vision of the Christ event as embracing the whole of creation. This long-standing tradition is found in a number of biblical texts (Corinthians 8:6; Ephesians 1:13-14; Colossians 1:15-20; Philippians 2:6-11; Hebrews 1:1-4; John 1:1-14). It is also prominent in notable theologians of the early church (Justin Martyr, Irenaeus, Clement of Alexandria) and 12th and 13th century theologians (Bonaventura) and predominates in Eastern Orthodox theology even today (Hayes, p. 26.4). In medieval Franciscan theology for example, the incarnation is no afterthought or emergency measure on God's part to deal with human sin. The incarnation lies in the primordial creative intent of God. Calvin holds this view as well. It is this synthesis of God and the world that God intends from the beginning. Thus the Christ event pertains to the fundamental structure of the universe (Hayes, p. 26.7). The Christ is the one in whom all things "hold together" (Col. 1-15-20) and is the mediator of the reconciliation of all things to God; the harbinger of the *apokatastaseus panton*, the "reconstitution of all things."

In this interpretation, Christ is related to the whole of creation, and that prior to any role in redeeming humankind. The divine *logos*, is related to the very structure of the universe. Christ is the Word through whom God created all things, the one who was "in the beginning" (John 1). Cosmic Christology assumes the entire cosmos is included in the divine purposing, it is not just a context for the outworking of the redemptive drama of human beings. The goal of all creation is its relation in union with God—*theosis*. Christ's work is redemptive precisely because in this union that is intended for all is manifest in him. "He became as we are, that we might become as he is" (Irenaeus). Thus when the symbol of Chalcedon expresses who the Christ is understood to be—"truly God, truly human united in one and the same concrete being"—it at the same time expresses that union with God for which all things are intended.

Salvation in this light is to be understood—not exclusively or even primarily as salvation of human beings from their sins—God's bringing to completion what God has begun in creation. Themes of fulfillment and consummation take center stage. "God creates so that a (final) life-giving synthesis of God and world might be realized" (Hayes, p. 26.6). Here again the religious significance of the whole natural world is highlighted.

B. Activity: Creation, *Concursus*, and Calling

Finding a way of thinking about God's activity in world process is fraught with challenges. Scientific accountings pose a question whether and in what sense God may be said to act in the world. Traditional ways of picturing God's action as intervention from outside the system are difficult to incorporate within the current scientific understandings. Christian tradition has affirmed that God in some sense governs world process, acting in the world with personal and particular care to accomplish good purposes. This much seems important to affirm within the Christian

vision. But how important is it to view this as "intervention from outside world process" that violates the processes of nature? As argued in Chapter 6, quite apart from the dialogue with science theologians have needed to rethink this construction. Are there ways to maintain divine activity in world process without this kind of interventionist thinking? Might we imagine God as present and active in world process in a way that is continuous rather than discontinuous, in a way that grounds rather than violates the creation's own coming to be? This would require rethinking notions of God's activity as coercive exercise of unidirectional power acting on the world from outside and articulating visions of God's creative activity as calling forth a self-creating creation and giving it space for its own becoming.

There are a number of thoughtful attempts to do this at present, but each has particular difficulties that should be recognized. I will briefly summarize two of these (from Peacocke and Polkinghorne) along with the difficulties I see in them that may push us to seek alternatives.

Arthur Peacocke suggests that divine activity be thought in terms of "whole-part influence" in which larger wholes are said to influence the parts which comprise them. Drawing upon the way chemical and biochemical processes work, Peacocke demonstrates how a "system-as-a-whole, operating from its higher level, is a causal factor in what happens to its constituent parts, the lower level" (Peacocke, 2001, p. 52). In nature, the higher levels constrain and shape the patterns of events occurring among the constituent units in the lower level. The world is seen as a "system of systems" (Peacocke, 2001, p. 51) organized in levels of increasing complexity. God encompasses all and can therefore act on the whole in a way that influences all the parts "without abrogating the laws and regularities that specifically apply to them" (p. 51). If taken too literally, however, this part-whole analogy may face some theological obstacles. For example, it compromises the "alterity" of creation. The God-world relation is reduced to a divine self-relation (between the whole and its parts) rather than a relation with a genuine other. Furthermore, if God is the whole of which creatures are "parts," then what creatures do, God, in a sense, "does." Divine responsibility for evil in world process seems to reassert itself.

Where Peacocke pictures divine activity as a kind of top-down, (whole influencing the parts) causation, John Polkinghorne proposes a kind of bottom up causation as a way of thinking about God's activity in the world. Polkinghorne talks about "active information" functioning within the unpredictability/indeterminacy revealed in quantum physics and in chaos theory. This condition may signal an underlying ontological "openness" in creation. Is this an opening for divine acting? Although Werner Heisenberg's original discovery was epistemological, showing only that there were intrinsic limitations to what could be known/measured/predicted, he and most other physicists were soon giving this an ontological interpretation, so that a principle of actual indeterminacy arose (Polkinghorne, 1997, p. 148). These findings and those insights of chaos theory (the "exquisite sensitivity" of chaotic systems to small triggers) underscore an unpredictability (epistemological) in physical reality that, Polkinghorne conjectures, signals an openness (ontological) in the physical world. In chaotic systems, what is referred to as a "strange attractor" provides an "envelope of possibility" in which a range of options are open and the selection of one or another is not predictable. Polkinghorne proposes that this represents a "gap"

in which other forms of causality may be at work. Divine "active information" may have its effect at this level (Polkinghorne, 1997, p. 154). Because this is conceived as an input of information rather than of energy, Polkinghorne believes it avoids the problem of interference with physical laws. As he says, the concept of active information "might prove to be the scientific equivalent of the immanent working of the Spirit on the inside of creation"(Polkinghorne, 1998, p. 89).

There are theological difficulties with Polkinghorne's proposal as well. How different is an *information* input from an *energy* input in terms of the theological problem of divine intervention and supernaturalism? Willem Drees has in fact pointed out that there is no basis in physics for the claim that there is transfer of information without transfer of energy (Drees, 1997, p. 226).

Furthermore, what if unpredictability/indeterminacy turns out to be epistemic rather than ontic? What if that particular "gap for God" gets filled? Unpredictability may not in fact signal an actual indeterminacy, these are separable and any linking is a matter of conjecture. It is risky to stake too much theologically on this. It has all the usual "God of the gaps" vulnerabilities.

Peacocke's view, on the one hand, may risk identifying God and the world (as the whole and its parts) thus compromising alterity and exacerbating the theodicy problem. Polkinghorne's view, on the other hand, may risk supernaturalism and interventionism—God who manipulates things through active information so that they become other than what they would have been on their own. Here again the theodicy problem arises, because, if God can and sometimes does manipulate things in this way, why does God not prevent more of the evil in world process? These difficulties are sufficient to push us to seek alternative accounts.

I wonder whether, in much theological conversation on how God acts in the world, we have not been led astray by the analogy to human acting, as if God is just a human being "writ large." While we may agree with Peacocke that God exercises agency that is, "least misleadingly described as personal," (Peacocke, 1990, p. 161) it is important to maintain a certain reserve that remembers the metaphorical character of this description. In fact, much discussion of divine agency takes as its model human agency. We might be helped by the insights of Paul Tillich to reconsider this approach. In talking about God's "being" Tillich insisted that God is not *just another being* or even a *Superbeing*, but rather God is the "Ground of all being" or "Being Itself." In a similar vein, Hartshorne urged, God is not "one more thing but the reality by which all things whatsoever, actual and possible, are in principle intelligible" (Hartshorne, 1967, p. 127). What if we were to pursue a parallel course in thinking about God's agency? Perhaps God should not be thought of as just one actor among other actors in world process but rather the ground of the possibility of there being any acting whatsoever. In process theology terms, God is both the Ground of Order and the Ground of Novelty. These two are essential to our becoming and our acting. The mode of divine action is not as a finite cause. "God acts as only God can act, universally as object for all subjects and subject of all objects" (Towne, 2004, p. 14).

Among other things, what is needed in our theological constructions is a vision that is more scientifically conversant and comprehensive in its portrayal of God's activity in world process. For example, when science observes that there is both

"chance" and "necessity" in the way the world works, it would seem important to think through God's activity theologically in terms of both—not just the one or the other. Polkinghorne moves in this direction when he offers that "Historical contingency is God's gift to creation of the power to make itself; lawful necessity is God's gift of dependability. Fruitfulness and frustration are both consequences of the resulting interplay" (Polkinghorne, 1998, p. 95). The process understanding of God as both Ground of Novelty and Ground of Order might provide a springboard for a fuller reconstruction.

The sections that follow will attempt to suggest possible directions for a scientifically conversant and comprehensive understanding of divine acting in world process. Arthur Peacocke has proposed that, "God is best conceived of as the circumambient reality enclosing all existing entities, structures, and processes, and as operating in and through all while being "more" than all….The infinity of God includes all other finite entities, structures, and processes; God's infinity comprehends and incorporates all" (Peacocke, 2004, p. 147). I will attempt an articulation of such a "circumambient reality" conducted under more theologically familiar rubrics of creation, concursus, and calling.

Creation and "Creativity"

Jurgen Moltmann, in his book God in Creation also articulates a panentheist position. He puzzles over how it can be that, if God is "all in all," there can be anything but a pantheistic dissolution of the difference between God and creation. He argues that there is a sense in which God creates *within Godself* a space for a genuine other to be (Moltmann, pp. 86-93). He draws upon the Jewish kabbalistic notion of *zimzum* to elaborate. *Zimzum* means "concentration and contraction, and signifies a withdrawing of oneself into oneself" (Moltmann, p. 86). It is, in a sense, a divine self-limitation for the sake of the other. It is this "making room" that is the condition of the possibility of there being an "other" in relation with God. An important conceptual parallel for Christian theology is the divine *kenosis* (self-emptying) that takes place in the incarnation.

Panentheists delineate God's action in creation variously. Some are concerned to maintain that the world is utterly contingent and God could have existed without creating a world (Philip Clayton, *The Case for Christian Panentheism*). Others argue that this is a return to the supernaturalism of classical theism (David Griffin, *What is Panentheism?*). Hartshorne held that both God and the world have both contingent and necessary dimensions. Thus while God is distinct from the world and our particular world exists only contingently, the existence of some world or other is a necessity of the divine being. I wonder whether, following Moltmann's line of thought on the notion of *zimzum*, but detemporalizing it might be a way through this dilemma. That is, while not making a claim that there was a time "before" creation of any world, that there is an aspect of God's nature (this self-giving aspect) that requires that there be a world. This is an internal and not an external requirement; it is the condition of the possibility of there being any world whatsoever. "It belongs to the very nature of God to be in relation to a world" (Griffin, p. 1).

In thinking about divine acting in relation to creation, I am in agreement with Kaufman that the traditional bifurcation that separates God (as Creator) from all else (as creation) is unhelpful and misleading. But where Kaufman moves to resolve the difficulty by suggesting that we instead think of God as the "serendipitous creativity in the biohistorical process," I want to suggest another way of avoiding the bifurcation along the lines of process-panentheism.

In Whitehead's description of the Category of the Ultimate, God is neither one of the elements (the one, the many, and creativity) nor the sum total of them (Whitehead [1929] 1978, p. 20). A closer look the Category of the Ultimate as Whitehead describes it reveals the fundamental dynamism among these three elements. The many and the one continually flow into one another in the creative process. Wherever there is a unity achieved, it is in fact an incorporation of multiplicity, a complex unity embracing contrasts. It does not remain a closed unity, but it becomes in its turn a datum of experience for the multiplicity of other actual entities. Each droplet of experience entails a new integration of multiplicity into a new unity.

In Whitehead's system,[9] God cannot simply be identified with the one, the many, or creativity as such. The most likely candidates, for Christian tradition, might have been "the one" or "creativity." Even a cursory look at the system, however, clearly reveals that neither works in this way. For Whitehead, "the one" is not a being or an agent. It is each subject considered in its private experiencing. Such a "one" arises out of the many; it is a concrescence co-constituted by a multiplicity of events. Upon its completion, it is there to be the datum of the experience of the many. The end of its private experience is the beginning of its public career.[10] In a way, the one and the many are just different ways of looking at the same actual entity.

Neither can God, according to Whitehead, be identified with creativity as such—that other place theologians might seize upon as the location of God. Creativity is simply that drive toward the endless production of new syntheses in which the many become one and are increased by one (Whitehead [1929] 1978, p. 21). Creativity is not a being or an agency; it is what actuality exhibits in the creative advance. God might be thought of—as is Whitehead's habit—as the chief exemplification of creativity, even as the leader in the creative advance, but God does not have a monopoly on creativity for creativity characterizes all actual entities, and not God only. Here Whitehead resists the old duality of Creator and created. God is not the *Creator* as distinct from all other things that are only *created*. "It is as true to say that God creates the World, as that the World creates God…. God and the World are the contrasted opposites in terms of which Creativity achieves its supreme task of transforming disjoined multiplicity with its diversities in opposition, into concrescent unity, with its diversities in contrast" (Whitehead [1929] 1978, p. 348).

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9 For a fuller elaboration of Whitehead's system and how the concept of God fits in see my chapter, "System and Dynamism in Whitehead's Thought: The Category of the Ultimate and the Concept of God," in *Schleiermacher and Whitehead: Open Systems in Dialogue*, ed. Christine Helmer. New York: Walter de Gruyter, 2004.

10 "Experience is a relation between private centers of experience and public objects experienced" (Lowe, 1962, p. 38). "The end of an occasion's private life—its 'perishing'—is the beginning of its public career" (Lowe, 1962, p. 41).

Creativity, then, is not to be identified with God. It is rather the dynamism inherent in all actual entities. Within each entity, becoming and transition manifest creativity. It is manifest as well in the larger scope of God's interaction with the world—a mutual dynamic creativity (Whitehead [1929] 1978, p. 21).

That "creativity" is a shared quality is perhaps most obvious in consideration of human beings and their exercise of creativity. Human beings are biohistorical beings, created by our biological evolution and by our history. We have emerged as self-conscious and self-transcending beings that therefore have greater freedom/power and consequently responsibility such that we are surely co-creators in the way that Hefner proposes (as discussed in chapter 6). Serendipitous creativity characterizes our activity also. Or does Kaufman mean to imply that our creative activity *is* God's creative activity? If so, then the theodicy problem is exacerbated. The alterity and integrity of creaturely existence is collapsed and we have a panentheism that leans toward pancosmism. Creatures, and most obviously human beings, exercise creativity also, this is not what distinguishes us from God, but a shared quality—though one God possesses unsurpassably.

While Kaufman's proposal tends to identify creativity with introduction of novelty, the scientific discussions seems to point rather more in the direction of recognizing both novelty and *order* as essential to creative processes. Again, process approaches seem to offer a more balanced picture here. In Whitehead, God's Primordial and Consequent Nature are the Ground of Order and the Ground of Novelty, respectively.

> God is the unconditioned actuality at the base of things; so that, by reason of this primordial actuality, there is an order in the relevance of eternal objects to the process of creation. His unity of conceptual operations is a free creative act untrammeled by reference to any particular course of things…. His conceptual activity at once exemplifies and establishes the categoreal conditions. (Whitehead [1929] 1978, p. 344)

The steps Whitehead takes here seem not unlike the traditional cosmological and teleological arguments for the existence of God such as we might find in Thomas Aquinas (*Summa Theologiae*, I, q.2, a.3. Whitehead's conclusions are not the same—no Unmoved Mover for Whitehead! His method is similar in that Whitehead, like Thomas, works from experience to the conditions of the possibility of that experience. In Whitehead's system, God is the condition of the possibility of there being any experience whatsoever, the answer to why there is something and not nothing (the cosmological argument). God is also the answer to why the apparent order we see in world process is what it is (the teleological argument) (Whitehead [1929] 1978, p. 88). Thomas argued similarly for the necessity of there being an "Orderer" to account for why there is order in the world process. Thomas's arguments expressed in his "Five Ways" may not function as "proofs" for the existence of God. As *proofs* they are probably only convincing to those who already believe on other grounds. But as *arguments* that offer a reasoned accounting of world process and its workings, these proposals are still *arguable*. Whitehead's presentation of the concept of God in his system operates similarly. Given the order that obtains in world process, he locates its ground in God as "that ultimate unity of direction in the Universe, upon which all

order depends," (Whitehead [1938] 1968, p. 3) bringing order to the possibilities in gradations of relevance. Actual entities prehend this divinely given graded relevance and "the World lives by its incarnation of God in itself" (Whitehead, 1926, p. 149).

Among the functions of God associated with God's Consequent nature are aspects that contribute to the richness and meaning of experience: novelty, value, and concreteness. As the Ground of Novelty, God is the leader of the creative advance. In this, God is not the exception to the rule, as the world can also be thought of as introducing novelty into the divine experience due to the interdependence of God and the world and the final emphasis on creativity.[11] As Walter Lowe has expressed it, "Both are in the grip of the ultimate metaphysical ground, the creative advance into novelty. Either of them, God and the World, is the instrument of novelty for the other" (Lowe, p. 57). God can be the Ground of Novelty because God's Primordial Nature is also the Ground of the Eternal Objects. This repository of all unrealized potentialities offers itself to world process. Novelty arises as actual entitles participate in and thereby actualize these potentialities. God is, in this way, the source of truly novel possibilities and in this sense may be said to be their "Creator."

With this addition, we fill out the sense in which God may be said to be "Creator." It is not by determining what will be but by providing all that actual entities need both in order and novelty to create themselves. Beyond this, God and other actualities are co-creators of the World. God's priority is metaphysical and not temporal (Whitehead [1926] 1996, p. 149).

Another final quibble with Kaufman's proposal is that he seems to put too much weight on the "big bang" as an instance of God at work as the serendipitous creativity in the biohistorical process. He makes some moves that I think could prove problematic. His argument, in brief, is that this event is inexplicable and there is a singularity there at which all laws break down. (True according to current science.), therefore the big bang is a mystery, therefore God is at work. This, to me, seems to be reasoning backwards. The risk is mislocating the mystery. Consider what would happen if science were to find the "cause" of the big bang, then the inexplicable becomes explicable and the "mystery" is in a sense "solved". Kaufman here may unwittingly play into a "God of the gaps" way of thinking that has proven disastrous for theology. It seems to me that the mystery we are stammering to allude to is a mystery is in the heart of even the explicable. We need also to shift our attention from creation as an event that happened at, the beginning of time where T=0 and think in terms of creat*ing*, as the world is still a work in progress creating, making all things new in an ongoing *creation continua*.

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11 A more clearly panentheistic vision might suit the system better. As Joseph Bracken has observed in his book, *Society and Spirit*, Whitehead tends toward a pantheism, where everything is finally absorbed into God. Some appreciators, according to Bracken, (notably Meland and Loomer) have actually tended toward a pancosmism. Bracken's proposal that we think in terms of God and the world acting together in a common field, creatively forming a cosmic society is very intriguing and allows for both to stand in their integrity and alterity even while being utterly connected (Bracken, p. 152).

Concursus and "Letting Be"

If God creates by "letting be" by "making room in Godself for the other," then what are the implications for God's ongoing providential activity in world process? What we see by observation is a world in process, continually changing, even self-organizing in its creative processes, and all this without any apparent "tampering" from outside. If God is at work in creation continua, then it would seem that we can only imagine this action as that of an "immanent Creator creating continuously in and through the processes of the natural order" (Peacocke, 2001, p. 129). There seems to be, a "perpetually endowed creativity" (Peacocke, 2001, p. 137). In this way, as Charles Kingsley said, "God makes things make themselves."

Following out the sacramental themes, if God is "in, with, and under" all that is, then we do not need to look for some gap in the causal nexus, for God to fit in and act upon the creation. One need not expect to find the "mechanism" for God's acting. This would be consistent with the scientific view that the world system is causally closed. There are no dualistic, no vitalistic, no supernatural levels through which God might be supposed to be exercising *special* divine activity" (Peacocke, 2004, p. 147).

God works in the world interiorly and without violating natural law. Not stepping in from the outside to occasionally act by overruling natural processes. One of the implications of this may be that not only the ongoing operation of world process, but also the origin of the universe and the origin of life can be conceived without the old pattern of external divine intervention to account for it. If God does not have to step in and overrule natural processes in the ongoing operation of the world, then did God have to "step in" to make the big bang "go bang?" (as Paul Davies has queried). Did God have to step in at the point of the transition from non-life to life?

Even Augustine seemed intent "to demolish the naïve image of God as a sort of miracle working superbeing immersed in the stream of time" (Davies, p. 2). He resists the picture of God sitting about for eons and then deciding to create. He proposes that time is a property of the universe that God created, thus it could not exist until the universe came into being. This is not altogether unlike what some scientists are affirming when they speak of the "singularity" of the Big Bang as a point at which all physical theories (including space-time) break down. The physical theories only become relevant in relation to the universe. Was there anything at all "before" creation? Augustine, responding to the question about what was God doing before creating the heavens and the earth said that he was tempted to respond that God was "creating hell for those who ask impertinent questions."

Sometimes the way forward is by going back. I would like to go back and reclaim some insight from the older dogmatic concept of *concursus*, which has been present in the Christian tradition as a way of thinking about God's ongoing activity in the world, the *creation continua*. Barth, in his dogmatics, renamed the concept the divine "accompanying." It is a multilayered affirmation. One layer is the sense that God, having called the creation into being does not abandon it (III/3, p.91) but is really continually present in and with the creation. Another layer is that God supports the creation in its freedom. While God does not abandon it, there is a divine "letting be" of the creation. God "affirms and approves and recognizes and respects

the autonomous actuality and therefore the autonomous activity of the creature as such" (III/3, 92). God "goes with the creature and co-operates with it. God is the Creator and Sustainer of the creature" (III/3, 93). It would seem that, however we speak of God acting in world process, if divine concursus/accompanying is taken seriously—then the acting is not an over-riding. Rather it seems that God, "supports us all the day long" if you will, in our relative freedom and relative determination.

The panentheistic model for thinking about God's relation to the world has the advantage of maintaining God's presence and activity in world process but doing so in such a way that the natural processes are not violated. "God acts but does not overrule. The Spirit guides, but with a gentle respect for the integrity of creation… there is a divine letting-be, a making room for the created-other, together with the acceptance of the consequences that will flow from free process and from the exercise of human free will" (Polkinghorne, 1998, p. 95). This is the "concursus" dimension of God's activity in world process.

Calling and "the Lure of God"

The one who accompanies is "always a step in advance of the free creature" (III/3, p. 93). God is calling, leading, luring the creature toward good ends in a future that is genuinely open to the self-making and world-making of creatures. Process theology has a way of picturing this divine leading that is compelling. It maintains the reality of divine persuasive influence without coercion.

Whitehead makes an important contribution to rethinking causality as such. This step may also be of some help in rethinking how God might "act in the world" in ways that are neither coercive nor external interventionist. In interpreting Whitehead, I am much helped by Lewis Ford's work, *The Lure of God*. Whitehead affirmed Plato's conviction, "that the divine element in the world is to be conceived as a persuasive agency and not as a coercive agency. This doctrine should be looked upon as one of the greatest intellectual discoveries in the history of religion" (Whitehead, *Adventures of Ideas*, p. 312).

The shift he makes is from seeing active causes in the past producing passive effects in the present, to seeing "a present event producing itself out of its passive past causes" (Ford, p. 5). The reversal is decisive for thinking about causation and he employs the metaphor of perception as a way of understanding. In perception, one incorporates sense data that is objectively given and is, in a sense, a "cause" of one's perception. However, the *way* in which one integrates any sensory data into a coherent experience requires the active participation of the mind and its meaning-making capacities. Similarly, an event in its "coming to be" creatively incorporates past influences. Of course this metaphor to causality as such, is purged of all notions of consciousness. Consequently, Whitehead takes the word "apprehension" (a *conscious* taking account of things), drops the prefix "ap" and uses the word "prehension" as a way of talking about how the present incorporates the past (without the assumption of consciousness) in the process of causation. It is a process that has both receptive and active dimensions, and individual events emerge out of this process of prehension and selective integration. There is, in the process, a relative determination and a relative freedom, the data is given, but its appropriation is not

predetermined. The past causal events do not coerce the event as there is a creativity that belongs to each event in its integration of these various influences. The causal past may set a framework for what is a "real" possibility, however.

Divine influence is conceived similarly. As Hartshorne put it, "We are influenced by God because we "prehend" him, as we do other actualities, for example our past experiences. God's influence is supreme because he is the supreme actuality, supremely beautiful and attractive….But the direct influence of God is analogous only to the direct power of thought over thought, and of feeling over feeling, and this is the power of inspiration or suggestion" (Hartshorne, 1953 p. 275).

God, as the Ground of Order and the Ground of Novelty is pictured as holding before the events coming to be, the (ideal) possibilities of what they may become. Whitehead speaks of these ideals as the divine "initial aims." These aims are not coercive in that the event may reject ("negatively prehend") or only partially incorporate them. At best they are "persuasive" influences. These aims are not external interventionist in that they are internal to the events (just as perceptions are internal). There is a reciprocity between God and the world. God "prehends" the events of world process. God then holds out to each actual entity appropriate ideals. These initial aims become a "lure" toward which it moves and the event creatively actualizes itself influenced by both the initial aims and the elements of its past.

Jay McDaniel, in his elaboration of the Whiteheadian vision has helpful ways of thinking about this divine persuasive influence in world process. As he says, God influences creation as "an immanent, ever-adaptive, omni-invitational, Lure or Beckoning Presence" (McDaniel, 1994, p. 140). All creatures experience this lure in the depths of our pre-conscious experience. God's "initial aims" are inwardly felt possibilities or goals which we ourselves must actualize and which, if they were actualized, would yield a maximal "wholeness" or "fullness of life" relative to the situation at hand (McDaniel, 1994, p. 140). It is not only human beings that receive and respond to this divine luring. "Animals, too are responsive to the Lure in their ways, as are living cells in plants and even submicroscopic energy-events within the depths of matter" (McDaniel, 1994, p. 141). God's luring is always "conformal" to the best possibilities of each entity in its distinctiveness an in its particular situation. "There are distinctively animal forms of fullness, and distinctively plant forms of fullness, and distinctively protonic and electronic forms of fullness." One of the implications of this discussion is that God has purposes for all things—beyond God's purposes for human beings. Thus the rest of nature can never be cast as *means to human ends*.

In each temporal actualization, God prehends the entire world anew and the process continues. An implication of this is that the world, in what it becomes, may enrich and actualize the divine experience, but it may also produce suffering in the divine life. Such a notion contradicts traditional assumptions that God dwells in unbroken bliss purchased by the exclusion of creaturely misery (Ford, p. 92). There is an assumed divine vulnerability in this give and take with the world. Nevertheless, God is not defeated by evil[12] but overcomes it moment by moment, judging and

12 For a fuller discussion of God's action in relation to the problem of evil, see my chapter "Ends and Endings," in *World Without End: A Process Eschatology* ed. Joseph Bracken, Grand Rapids: Eerdmans, 2004.

transforming as the world's current states are received into the divine life. Whitehead puts it this way, "He saves the world as it passes into the immediacy of his own life. It is the judgment of a tenderness which loses nothing that can be saved. It is also the judgment of a wisdom which uses what in the temporal world is mere wreckage" (PR 525).

God leads the way in the creative advance, all the while supporting the creation in its freedom and respecting its integrity. God's "luring" in the cosmos may be the impetus to greater complexification and diversification and the emergence of genuinely new realities. The traditional theological idea of a "principle of plenitude" illumines this apparent directionality in the evolutionary process. Like a companion or friend who inspires one to achieve the very best that is in one's power, God lures each and all toward fullest actualization, toward harmony and intensity that overcomes discord and triviality. In this way, God acts persuasively within the created order at all levels—with atoms, molecules, cells, and organisms—in ways appropriate to that level.

Whitehead saw the difference between living and lifeless matter as a difference between habitual and novel response. This is a matter of degree along a continuum with the capacity for novelty increasing along that continuum so that such things as motility and consciousness allow a greater capacity for novel response. With human beings, for example, the divine luring appropriately takes a new form. Ethical persuasion regarding the worthiness of particular values and ends, can become a locus of divine luring. Created reality at all levels receives the persuasive influence of the divine initial aims. Each event, in its self-making freedom, will be responsive to divine intentions to a greater or lesser degree. Some events will resist the divine luring and thwart divine purposes, but those events that are fully responsive to the divine intention, in a sense *reveal* God's intentions for the world and activity in the world.

As Whitehead says, "The world lives by its incarnation of God in itself" (Whitehead, *Religion in the Making*, p. 151). Whitehead assumes an "incarnational universe" (Ford, p. 51). In a sense, what is revealed in the divine Incarantion in Jesus of Nazareth is not an exception to God's ordinary way of acting in the world but rather, because of his perfect responsiveness to divine initial aims, we see in him what God is intending and doing everywhere and always. God's intentions and actions for each and all become transparent in Jesus the Christ. He is their "chief exemplification."

This presenting of "initial aims" may be persuasive and in that sense causally efficacious, without being coercive or external-interventionist in character. The metaphor of perception which Whitehead employs preserves the dimension of free and creative appropriation of what is given. The initial aims which persuasively lure in the direction of the divine intentions may be another way of talking about traditional concepts such as "calling" and "vocation."

Conclusion

The insights of process-panentheism hold real promise; it seems to me, for progress in rethinking a Christian theology of nature. I believe this approach provides a way to

better maintain both the transcendence of God and the integrity and alterity of nature, while avoiding the separation of God and the world that attends classical theism. Many have convincingly argued that this separation may lead to a "desacralization and objectification of nature" that makes exploitation thinkable. Process-panentheism also has the advantage of presenting a concept of God that is more compelling and more worthy of worship and emulation than other traditional and popular understandings. It is a view that is also more conversant with what we are learning from science about the way the world works. As divine creation, *concursus*, and calling are reconsidered in its light, there may even emerge a model for how human beings may better live with and within nature: in patterns of creativity, letting be, and luring toward the good. These prospects will be drawn out in Chapter 8.

Chapter 8

Conclusion: Drawing out Ethical Implications

There were several theological prerequisites for a Christian theology of nature that I proposed at the beginning of this project. All but one have been addressed at this point either dedicated chapters or as a recurring theme throughout (or both). The prerequisites and their points of address are as follows:

- a critical appreciation of Christian tradition should be evidenced (Chapter 3 and throughout)
- the anthropocentric and dualistic habits of thought that are embedded in Christian tradition should be addressed (Chapter 4 and 6)
- the alterity and integrity of nature should be respected (Chapter 5)
- an accounting that is fully conversant with scientific perspectives on the origin and operation of the natural world should be developed (Chapter 6)
- the picture presented of the God-world relation should give an adequate accounting of the religious intuitions that God is really in the world (immanent) and yet more than the world (transcendent) (Chapter 7)
- the concept of God should be one that is worshipful and worthy of emulation ("that than which nothing greater can be conceived") (Chapter 5 and 7 and throughout)
- a model for living with and within the rest of nature should be provided.

Resources from Christian tradition as well as conversations with feminist and process thought and the dialogue with theology and science have aided the effort to articulate a Christian theology of nature that would seek to satisfy these prerequisites. This final chapter will first reiterate briefly how some recurring challenges put to a Christian theology of nature have been addressed in this exploration. The second half of the chapter will then undertake to suggest how this proposed theology of nature, especially in its understanding of the God-world relation, may serve as a model for living with and within the rest of nature.

I. Recurring Challenges that a Christian Theology of Nature Must Address

Chapter 3 undertook a close up of my own Reformed tradition as a way of inquiring into the challenges and contributions of Christian tradition. The methodology of examining one stream of thought implicitly acknowledges the irreducible plurality that is Christian tradition. There is no one monolithic "Christian view" of nature.

Other theologians, writing from the particularity of other streams within Christian tradition could similarly offer pointed assessments of where the challenges and contributions lie—in their particularity. This chapter will step back and attempt—while recognizing irreducible plurality—a more panoramic view of Christian tradition with the same questions in view regarding challenges and contributions or, to borrow Santmire's approach. Where are the ambiguities? Where is the promise? The present chapter will show how some of the recurring ambiguities might be redressed *from within* Christian tradition, by attending to some very fundamental convictions and to certain untapped resources and as well as to the voices of conversation partners consulted in the previous chapters.

There are three overarching themes in Christian tradition that keep reiterating themselves in this discussion, and they do so across the particulars of the various streams of Christian thought. These themes are argued to be deeply problematic because they have deleterious effects upon Christian theology of nature and contribute to the ecological crisis. They are: the desacralization of nature, anthropocentrism, and devaluation of "matter" in relation to "spirit." I will briefly review each of these elements in turn and then offer responses gleaned from the present exploration. When we go a bit deeper, it becomes clear that, although the prevalent criticisms tell an unwelcome truth about Christian views of nature, they do not tell the "whole truth."[1]

A. Desacralization of Nature

There is a strong tradition of emphasis on the transcendence of God that issues in a desacralization of nature. While the world is God's good creation it is not God. It is valuable as *created by God*—not intrinsically so. To value it intrinsically is to risk idolatry. God transcends nature and is not to be confused with it.

The Bible and its religions explicitly reject nature religions. The cult of Baal, indigenous to the land of Canaan, was a religion in which rapport with the land and reverence for it and propitiation of the latent powers of the land were emphasized (Kingsley, 1996, p. 107). There is an explicit rejection of this nature religion in the worship of the transcendent God of monotheism.

In a similar vein, Christianity has fairly consistently rejected the belief that nature is permeated with spirit. Wherever Christianity has traveled it has aggressively displaced animism and nature deities where it could. As Lynn White observes, for two millennia, Christian missionaries have been chopping down sacred groves which are idolatrous because the assume spirit in nature (White, 1967, p. 28).

While it is true to say that Christianity has emphasized the transcendence of God and has fostered a desacralization of nature, some of the conclusions drawn out of such a presentation may be misleading. For example, it cannot really be said that this in itself must necessarily lead to a disrespect of nature. In the biblical texts themselves we do not find texts that suggest nature is to be treated in a cavalier

1 I am helped by David Kingsley's article, "Christianity as Ecologically Harmful and Christianity as Ecologically Responsible," in *This Sacred Earth*, ed. Roger Gottlieb. New York, NY: Routledge, 1996.

manner as mere dead matter manipulable by human beings without regard. The Noachic Covenant is an "ecological covenant" that, along with the story of the ark, seems to recognize the interdependence of all creatures and the Creator's intent of providing for all together.[2] Covenant tradition generally assumes human obligations. There are specific references to such obligations that recognize the rest of nature. There are restrictions on cutting down fruit tress (Deut. 20:19-20), killing a mother and her offspring (Deut. 22: 6-7) and on how domesticated animals are to be treated (Deut. 25:4). The provision for the sabbatical for the land in which it is allowed to lie fallow in the seventh year (Lev. 25:1-7) sets limits, as do all the dietary restrictions. It would seem from these texts that while the human being may have a particular place in God's care, God does not care for them to the exclusion of all else. The welfare of the rest of nature is divinely prescribed.

The picture of nature reflected in so many of the Psalms would readily refute a view that nature, because it is not divine, is merely dead matter (see esp. 96:11-13, 104, 148:1-13). These texts speak as if nature, while it is not divine and not to be reverenced or worshiped, is certainly not inanimate. Rather, it invites respect as "alive" and responding to God, in its own way even praising God.

In light of these findings it seems questionable to say that a desacralization of nature must necessarily yield the exploitation and abuse that have been our legacy. There is more at work here. Furthermore, animism and belief in nature spirits, has not proven to be a guarantee that nature will not be exploited. Where this worldview has predominated, there has still been building, logging, canal building, etc. One may find a fairly aggressive program of mastery of nature there as well.

Is there a way of addressing the issue of objectification and the outcome of exploitation that have been attributed to desacralization without resacralizing along the lines of pantheism/pancosmism? Chapter 2 argued that pantheism and pancosmism carry with them two difficulties: the collapse of transcendence and a loss of the alterity and integrity of nature. Chapter 5 demonstrated the importance of maintaining the alterity and integrity of nature and provided a process metaphysical basis for doing so. Whitehead's philosophy of nature grants a subject status to nature that resists objectification. Chapter 7 presented a process panentheistic vision of the God-world. It is responsive to two fundamental religious intuitions: that God is really *in* the world and that God is *more than* the world. This vision maintains divine immanence alongside a reconstructed understanding of transcendence I have called "relational transcendence." Working out of this vision would preclude cavalier treatment of any part of nature.

B. Anthropocentrism

In much of Christian tradition, the human being seems to be elevated above and almost outside of nature. The theological focus of attention tends to be upon the divine human drama of salvation history for which nature is a kind of stage or backdrop.

2 Anderson, Bernard. "Creation and Noachic Covenant," *Cry of the Environment*, Philip Joranson, and Ken Butigan, eds. Santa Fe: Bear & Company, 1984, pp. 50-51.

"Human spiritual fulfillment involves orienting oneself to the transcendent presence of God and not to the mysterious powers of the earth" (Kingsley, 1996, p. 107). Human beings are said to be created in the image of God, and this has been taken to mean that we in some sense share in God's transcendence over nature. Interpretations of the status of *imago Dei* have focused upon what makes the human being distinct from the rest of nature. The human calling in relation to nature is "god-like," as the one in the image of God the human being is "to subdue and have dominion." This seems to authorize a utilitarian relation with the rest of nature.

It is not established that there is biblical license for the thoughtlessness and extremes of exploitation of nature that have in fact been our common history. It cannot fairly be claimed that the Bible teaches a tyranny over nature. As already noted, there are in fact many texts that place considerable restrictions on the human being in relation to nature. Moreover, even those few texts taken to be problematic admit of other interpretations. Jeremy Cohen has made a study of some of the problematic texts that we keep coming to light like "subdue the earth and have dominion." What he has discovered is that, in the history of Jewish and Christian interpretation, it is only relatively recently—no earlier than the 18th century—that this text has been understood as containing a license for human beings to exploit nature.[3] Frederick Ravid has argued that the word *kebash* translated "subdue" has more the meaning of "to preserve, conserve, constrain, discipline and refine." The intention is to promote the earth's fruitfulness and flourishing (Ravid, 1987, pp. 66-79). We have a text here that is not, in itself a "pretext" for the exploitation we have seen. When this text becomes a *pretext*, it does so under the influence of particular interests and agendas.

Chapter 3 challenged theologically the assumption that nature is only a backdrop to the drama of salvation history. In Calvin's theology the whole of nature, and not just the human part, is the "theater of God's glory." Nature is shown to have its own peculiar part as a locus of divine self-revelation, providential activity, and eschatological renewal. The anthropocentrism that would claim human beings as God's exclusive project is chastened by this wider theological reflection.

The fuller history of theological reflection on the concept of *imago Dei* is not reducible to anthropocentrism pure and simple focusing on the attributes that set the human being above and apart from nature. As presented in Chapter 6, some of the classical interpretations have, in fact, focused upon the human calling into dynamic relation with God and all else. This interpretation has the potential for a very different outworking. Calvin saw the need to balance the accounts in Genesis 1 and 2, so that our being created in the image of God is humbled by our being created "from the dust of the ground." Aquinas and Calvin can both be credited with extending the calling to reflect the image/glory of God to the whole of creation. As the *imago Dei* is reconsidered in Chapter 6 it has the potential of bringing the human being "down to earth" in a way that connects us with nature even in our differentiation.

Chapter 6 employs the resources of scientific research to show the scientific untenability of separatism and anthropocentrism, demonstrating that we *are nature*

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3 Jeremy Cohen, *Be Fertile and Increase, Fill the Earth and Master It: The Ancient and Medieval Career of a Biblical Text*. Ithaca, N.Y.: Cornell University Press, 1989.

emerging from the same evolutionary process as all else and genetically connected to other species. Our late arrival and precarious existence challenge the notion of human centrality in nature's history.

C. A Devaluation of Nature as the Spiritual/Cultural comes to be Elevated over the Material/Natural

God, and the human being who is in the image of God, seem to share in a kind of monopoly of spirit over against a strictly material nature. The spiritual is elevated over and valued more highly than the material. While there may be sources for this way of thinking in some biblical texts, its deeper roots are in Neo-Platonism and the notion of the Great Chain of Being. Plotinus (205-70 C.E.) saw a hierarchy in which God, who is pure spirit, is at the apex; the gradations are according do degrees of spirituality. God, angels, human beings are above and the "non spiritual" beings (animals, plants, and inanimate objects) are below. The really crucial divide is not between God and all created beings—as one could argue is more consistently the case in the Bible—but rather between beings that are spiritual and beings that are not.

One early Christian theologian in particular operated out of a Neo-Platonism framework, Origen (185-254). For him, the fall precedes creation as a spiritual rebellion in heaven in which certain spirits turn away from God. God then encases them in material existence to keep them from falling completely into the realm of non-being. The material world is a kind of purgatory that creates in them a longing for release and return to heaven. The material world is a place of travail, trial, and testing, that we are "just a passin' through" on our way back to our true home in heaven with God. When this salvation is accomplished, there will be no need for the material world whatsoever, and it will return to nothingness. The material world serves only to educate, refine, and reorient human beings. Although some of Origen's specific ideas—such as reincarnation—were rejected as heretical, this denigration of material existence seems to have taken hold and remained strongly influential.

While there is this stream in Christian tradition that denigrates material nature and the body, there are counter voices. Even in Origen's own time we have a second opinion. Irenaeus (CA 130-200) held a positive view of material existence. In Irenaeus, the divine plan includes the whole of creation moving toward fulfillment. God tends and nourishes the creation like a loving father. In Irenaeus's view, the situation is not so much one of original perfection from which creation and the human being have fallen. Rather, God has created all things good, and that essential goodness has not been lost. Adam and Eve were created in a childlike state and destined for growth and consummation along with the rest of creation. Creation has not lost its essential goodness because of the sin of the first human beings. Thus, with Irenaeus a very positive reading of nature as created, blessed, and cared for by God, is expressed.

In the Bible more generally, creation (Genesis 1) in all its aspects, is declared to be good. The bounty and goodness of the earth is continually celebrated in the Psalms and elsewhere. The devaluation of material existence in relation to the spiritual has its origins, not in the biblical account of creation, but elsewhere.

Even this very general presentation reveals that Christian theology of nature is complex, containing thematic elements which the tradition itself both presents and challenges. Some light is to be gained by a brief foray into the thought of Augustine. His thought has been so formative in Christian tradition that some even argue that all theology that follows after him is only "footnotes to Augustine." On this topic, as on so many others there is insight to be gained from even a brief treatment.

Augustine has an interesting perspective in view of the contrast I have just drawn between Origen and Irenaeus. On the one hand, he early on inhabits the philosophical thought world of the Manicheans and a predictable valuing of spirit over matter the metaphor of "spiritual ascent" shapes his thinking.[4] Later, as a Christian Neo-Platonist, he sounds very much like Origen and assumes a Great Chain of Being framework for thinking about nature. However, he dwells upon the overflowing divine goodness present in that schema and this shifts his metaphor, according to Santmire's analysis, from "spiritual ascent" to a more ecological metaphor of "fecundity." When Augustine draws in historical reflection, as he does in *City of God*, he sounds much more like Irenaeus, presenting a world affirming view. There comes to be a temporalizing of the great chain of being in the *epochs* of the world in Augustine's mature thought (Santmire, 1985, p. 58). There is a shift to the historical. In the *Confessions*, he describes this transition. Looking back on the otherworldly quest that was championed by the Manicheans, Augustine said of himself, by contrast, "I no longer desired a better world" (7.13).

"For Augustine the most fundamental *telos* of the whole creation is beauty, and the glorification of the God who wills such a magnificent community of being, every part of which has its own divinely validated integrity" (Santmire, 1985, p. 61). The world is the locus of God's originating and sustaining creativity. If we will but order our affections rightly and use our senses, we will see the goodness and wisdom of God in the creation. In Augustine, a thoroughgoing Christian naturalism is born.

As central as the Fall may be for Augustine, it does not disrupt the cosmos. It is the will and not the body that is the root of sin. He speaks of the body as the "spouse" of the soul, which is a decidedly different metaphor than "prisonhouse" or "snare." He has come a long way, by this point, from the time when his own self-confessed struggles with sexuality caused him to think of his body as in rebellion against his spiritual quest.

From this we may discern an evolution in Augustine. In the mature theologian, there is a flowering of a Christian theology of nature that is affirmative in its character. The natural/material world is good. While Christian tradition is certainly more than footnotes to Augustine; in its rich mix of perspectives, there does seem to be a prevalent privileging of Augustine's views as "representative." It is a helpful corrective to the world denying, posture of some other thinkers who denigrate the body and material reality generally. There, is then, a powerful critique of the stream of Christian tradition that takes this turn that is internal to Christian tradition.

Both Chapters 4 and 6 attend to overcoming the dualisms of mind and body, matter and spirit, nature and culture—though from different directions. The eco-

4 Santmire uses the contrasting metaphors of spiritual ascent and fecundity to draw distinctions among positions of various Christian theologians in their theologies of nature.

feminists show how a "logic of domination" is embedded in these hierarchical dualisms that leads to habits of objectification and various interlocking oppressions, including the co-related oppressions of women and nature. Ecofeminists set about dismantling these dualisms and rethinking these relations. Chapter 6 approaches these dualisms from a scientific standpoint. Mind-body dualism is insupportable from this perspective and various thinkers are putting forward ways of reintegrating the two that assume a differentiation without dualism. The nature-culture dualism is challenged by scientific study of higher primates. This research has underscores the sense in which nature is cultured and culture is natural. An extensive argument for the human being as fully *in and of the natural world* further discounts a dualism of nature and culture.

From the above, it can be seen that there are many productive ways of addressing some of the more central challenges put to a Christian theology of nature. We may begin within Christian tradition itself looking for more promising approaches and alternative interpretations to those which have proven problematic. We are helped in this exploration by listening to other voices that have both criticisms and insights to offer that may both challenge and help to shape a more viable Christian theology of nature. The contributions of feminist and process thought as well as the theology and science dialogue have been substantial contributors here. We now turn to consider whether the theology of nature emerging from the preceding pages may serve as a model for our living with and within nature.

II. A Trinitarian Vision of the God-World Relation: A Model for Living with and Within Nature

Among the prerequisites I proposed at the outset for a viable Christian theology of nature were the following:

- the concept of God should be one that is worshipful and worthy of emulation ("that than which nothing greater can be conceived")
- a model for living with and within the rest of nature should be provided.

In this next step, I hope to outline the direction the present proposal would take in relation to these prerequisites. At issue is the question of what vision of God and God's relation to the world is emerging and how this vision may serve to provide a model worthy of emulation as we seek to live with and within nature. As a way of ordering the vision of God, I will follow a Trinitarian pattern. Most elements presented here are an elaboration and consolidation of what has been presented to this point. Ingredient in this discussion is the question, "What kind of God is it whose glory we are to reflect in our relation with the rest of nature?"

A. God *With* Creation

The God of Christian tradition is a God *with* creation, not a God in splendid isolation. God has made room within Godself (*zimzum*) for a genuine other to be. From a

process panentheistic perspective the world is, in a sense, *necessary* for God. I have elaborated this metaphysical necessity to claim that it should not be viewed as an externally imposed necessity, but rather a necessity internal to God's own nature. If it belongs to the nature of God, it would be inconsistent to say God might have chosen not to be so, that there might not have been a "creation." So there is not a God who was once not in relation, loving, self-giving, and creative and then suddenly became so by an act of the will. The metaphysical necessity of there being a creation is internal to God and who God is, not imposed from outside. God requires an "other." Creation is a work of love.

Creation is ongoing. Since science has discovered the evolutionary character of the universe, theologians have been attending more to *creation continua* as a way of thinking about God's creative action. This was always an aspect of traditional theological reflection upon God as creator. When Augustine interprets Genesis 1, vv. 11, 20, and 24 in which the earth and the waters are said to bring forth life, he reflects that God had created the "seeds of life" from which creatures eventually developed. Even though he had no concept of the transformation of one species into another, he speaks of the "seminal reasons" that are in things (as God created them) that lead to an ongoing unfolding. It is important to shift our thinking from a once-for-all act of creation to the creativity that characterizes divine interaction with the unfolding universe full of created co-creators.

In this ongoing creative interaction the "other" is allowed to be itself and make itself. The other is not treated as if it were just an extension of the divine and divine intentionality. Therefore, interaction in world process does not take the form of external intervention overturning the natural processes, it is not a coercive unilateral power that controls and determines what will happen in world process. There is no divine design in the sense of a cosmic blueprint in the mind of God that is working itself out inexorably. Rather, as the Ground of Order and the Ground of Novelty, God provides both the dependability and the freedom requisite for things to "make themselves." There is a divine accompanying of the world (*concursus*) in its continually changing, self organizing processes. There is a divine "letting be" that supports the creation in its freedom and co-operates with it respecting the integrity of creation. As Hartshorne argues in *Divine Relativity|: A Social Conception of God*, God's supreme *interaction* in a social relation is marked by freedom. God does not *make* us to be who we are rather we make ourselves in the process of this social interaction.

Polkinghorne, who shares a similar vision, has used the word *kenosis* (self-emptying) to describe the character of this God-world relation.

> An evolutionary world is theologically to be understood as a creation allowed by its Creator 'to make itself.' The play of life is not the performance of a pre-determined script, but a self-improvisatory performance by the actors themselves. Although kenotic language was not explicitly used, this is a manifestly kenotic conception. God shares the unfolding course of creation with creatures who have their divinely allowed, but not divinely dictated, roles to play in its fruitful becoming. (Polkinghorne, 2001, p. 94)

Haught has spoken of this as "God's humble retreat" in which God, like a loving parent, steps back and allows a child freedom to learn and grow.

This divine "letting be" necessarily entails risk. Divine creative interaction is a work of love, and love entails vulnerability. The vision of God this implies is beautifully articulated in the hymn by W.H. Vanstone, "Love's Endeavor, Love's Expense" (Vanstone, 1977, p. 120).

> Thou art God; no monarch Thou
> Thron'd in easy state to reign;
> Thou art God, Whose arms of love
> Aching, spent, the world sustain.

Divine interaction in world process is not coercive, but it is nevertheless, efficacious. God, as the Ground of Order and the Ground of Novelty is pictured as holding before the events coming to be, the (ideal) possibilities of what they may become. "God's influence is supreme because he is the supreme actuality, supremely beautiful and attractive….But the direct influence of God is analogous only to the direct power of thought over thought, and of feeling over feeling, and this is the power of inspiration or suggestion" (Hartshorne, 1953 p. 275). God is not defeated by evil but overcomes it moment by moment, judging and transforming as the world's current states are received into the divine life. Whitehead puts it this way, "He saves the world as it passes into the immediacy of his own life. It is the judgment of a tenderness which loses nothing that can be saved. It is also the judgment of a wisdom which uses what in the temporal world is mere wreckage" (PR 525). God is calling (*vocatio*), leading, luring the creature toward good ends in a future that is genuinely open to the self-making and world-making of creatures. God leads the way in the creative advance, all the while supporting the creation in its freedom and respecting its integrity.

How may this vision of God and the God-world relation serve as a model for human being living with and within nature? What are the ethical implications?

God's nature entails being in relation, loving, self-giving, and creative. God is not a God in isolation but a God *with* creation, who makes room for a genuine other. The human being should elect to be *with* the rest of nature rather than in isolation—over and above and that *being with* should entail a sense of being in relation lived out in loving, self-giving, and creative ways.

That creation is an act of love has significant implications as well. That "God is love" is central to most core doctrines from covenant to redemption, it is certainly also central to the doctrine of creation. Thus the processes and products of creation are expressions of love, and all creatures are recipients of ongoing love. God's love and compassion covers the whole of it, thus all things that are should be treated with care and concern that attends loving and compassionate relationship. Nature has its value independent of human valuing and human interests as beloved of God. An ethical implication that grows out of this is the calling to love what God loves.

God is engaged in an ongoing creative interaction in which the "other" is allowed to be itself and make itself. The other is not treated as if it were just an extension of the divine and divine intentionality. Therefore, divine interaction in world process does not take the form of external intervention overturning the natural processes, it is not a coercive unilateral power that controls and determines what will happen in world process. Human tendencies seem to be in sharp contrast this vision of divine

interaction. As outlined in chapter 1, controlling, exploitative, rapacious, tendencies mark our treatment of the rest of nature. We are in need of a "humble retreat." If we were to emulate divine "letting be" we would be more respectful of nature's integrity and less intent upon dominating and controlling nature and pressing it into the service of our self-interest.

In balance with "letting be" we are also called to an appropriate use of agency. It is not the case that human beings should or even could interact with nature in ways that produce no change whatsoever. Respect for the integrity of nature may not necessarily entail maintaining a static state—that would be *unnatural*. All creatures impact their environment in the course of their struggle for existence. The choice is not between change and no change but between good and bad change, and human beings are capable of substantial change for good or for ill. The ethical implication we draw out here is that the kind of interaction we have with nature should be characterized by loving and self-giving modeled after *God's* creative interaction. What guides our interaction is God's interaction—divine persuasive influence exercised for good, for the overcoming of suffering and evil and a "tender care that nothing of value be lost" (Whitehead, 1978, p. 346). As created co-creators, the human being is called to work toward similar ends in a context that is genuinely open to the self-making and world-making of all creatures. Assuming an appropriate agency and responsibility is the goal. This exercise of agency should be in balance with the "letting be" described above. Failure to take up our power and use it for good is problematic just as is the abuse of power. As feminist ethicists have observed, our socialization in patriarchy may make women more prone to the former and men to the latter, but either is an alienated way of being. Both overreaching and underachieving are problematic in the human relation with nature.

Many object to the divine "vulnerability" that is assumed in this vision of God's creative interaction in world process. I have argued elsewhere (Case-Winters, 1991) that the understanding of God's power as vulnerable, suffering love that in its exercise is empowering and world-generating is, in fact, a vision that is more worshipful and more worthy of emulation than divine power conceived in the mode of domination and control. It is also more like the power of God as we see it at work in the person of Jesus Christ.

B. God *For* Creation

In Chapter 6, I argued that as human beings seek to live out the common calling to be *imago Dei*, reflecting the glory of God in our distinctly human way; our guide is Christological. In Jesus Christ what we see Jesus Christ. In him we see divine solidarity and self-giving love. This is expressed in the incarnation—God's coming down to earth—revealing that God is with and for creation. There is here expressed a *saving solidarity* in the face of suffering and a *redemptive resistance* in the face of evil. There is invitation into *sacramental life* wherein we see and experience God's "real presence" in common elements of material reality. The divine purposes are revealed as worldly and cosmic in scope. Each of these aspects of what we see in Jesus Christ has implications for how we should live in and with the rest of nature.

Cruciform Nature and the Incarnation

A thoughtful look at the state of the world reveals not only evils of the humanly inflicted sort—injustices of economic oppression and ecological exploitation but also a suffering at the heart of nature itself that is not of human manufacture. The breadth and extent of this suffering merits an observation that nature is itself "cruciform." It is this reality caused theologian John Haught to speak of "Darwin's gift to theology;" for with evolutionary theory, theologians no longer need to explain the imperfections, dysfunctions, and cruelties of the natural world in terms of divine design.

Francis Ayala, refuting Intelligent Design notes that "the world of life abounds in 'cruel' behaviors. Numerous predators eat their prey alive; parasites destroy their living hosts from within; many species of spiders and insects the females devour their mates" (Ayala, 2006, p. 88). In the insect world, sexual cannibalism is common. In some midges (tiny flies) the female captures kills and consumes the male just like any other prey and is fertilized as she digests the male organs. Cannibalism among higher primates is not uncommon. Chimpanzees will tear apart their prey, sometimes taking a smaller monkey and holding it alive and screaming while biting off large flesh morsels (Ayala, 2006, p. 88).

Environmental philosopher Holmes Rolston, III reflecting on this aspect of nature, gives an account of pelican chicks. Female pelicans generally lay two eggs, the second two days after the first. The second chick is allowed to survive only if the first succumbs at an early age. Its usual fate is to be attacked and fed to the larger chick or driven from the nest. The parents will prevent its return and it usually thrashes about until it dies of starvation (Rolston, 1987, pp. 137-138).

Rolston goes on to observe that "life preys on life" and must be perpetually "redeemed in the midst of its perishing" (Rolston, 2001, p. 59). "In the flesh and blood of creatures, each is a blood sacrifice perishing that others may live" (Rolston 2001, p. 59). There is a continual slaughter of the innocents. Individuals are sacrificed and their lives pass over into the river of life. "In their lives, beautiful, tragic, and perpetually incomplete, they speak for God; they prophesy as they participate in the divine pathos. All have "borne our griefs and carried our sorrows" (Rolston, 2001, p. 59).

Life continues only as nature continues to "bring forth." The Greek term for "nature" has its root in "the conditions of birth." The continuation of life entails reproduction that seems inseparable from these elements of struggle and travail and sacrifice. "The whole creation has been groaning in travail until now" (Rom. 8:22). Rolston observes that "we can begin to recognize in creative nature dimensions both of redemptive and of vicarious suffering, one whereby ongoing success is achieved by sacrifice" (Rolston, 2001, p. 58). Rolston's Christological reading of "cruciform nature" is compelling.

> The abundant life that Jesus exemplifies and offers to his disciples is that of a sacrificial suffering through to something higher. The Spirit of God is the genius that makes alive, that redeems life from its evils. The cruciform creation is, in the end deiform, godly just because of this element of struggle, not in spite of it. There is a great divine "yes" hidden behind and within every "no" of crushing nature. God, who is the love toward rationality and sentience in the up currents of the biological pyramid, is also the compassionate lure in, with, and under all purchasing of life at the cost of sacrifice. Long before humans

> arrive, the way of nature was already a *via dolorosa*. In that sense, the aura of the cross is cast backwards across the whole global story, and it forever outlines the future…. The story is a passion play long before it reaches the Christ. Since the beginning, the myriad creatures have been giving up their lives as a ransom for many. In that sense, Jesus is not the exception to the natural order but a chief exemplification of it. (Rolston, 2001, p. 60)

My direction in including these reflections is not to glorify suffering. Suffering is not to be sought out as an end in itself, though it may well be undergone in the service of life-giving. My intent is rather to call attention to the meaning that the cruciform character of nature sheds upon the incarnation—as a divine solidarity in suffering. The affirmation that in him "the word became flesh" is a testimony that God is with and for nature in its suffering and struggle for existence in *saving solidarity*. God has entered into our suffering; the central symbol of the cross takes on heightened meaning. As Joseph Sittler proposed, "Unless you have a crucified God, you don't have a big enough God" (Sittler, 1981, p. 228). It is into this cruciform natural reality of struggle and suffering that God comes to us in the person of Jesus Christ.

Beyond the discussion of suffering that is ingredient to the natural processes there is suffering that is the result of human activity. The malice and cruelty and selfishness of human behavior in relation to one another and the rest of nature is quite another matter. What we see in the life and ministry of Jesus in the face of *evil* is better described as *redemptive resistance*. Jesus sets himself against the oppressive principalities and powers of his day in prophetic denunciation, and he testifies that God is set against them as well. Important ethical implications flow out of following a Christological lead as to what human beings are to do as they live out their calling to be *imago Dei*. From this perspective, we are called to meet suffering with *saving solidarity* and evil with *redemptive resistance*.

Real Presence and Sacramental Life

Other ethical implications may be drawn out from a Christological angle of vision. How we think of nature as such is necessarily transformed by the prospect of divine "real presence" in it. This notion is carried both in incarnational and in sacramental theology.

The incarnation confers a dignity—not only on human beings—but upon all of created existence as such. In incarnation the potentiality/surpassing value of created existence as such is conveyed. The value is not simply imputed but imparted.

If the panentheistic understanding of the God-world relation is accepted then we may take this a step further. In the incarnation, the man Jesus is emblematic of what is possible—even *already the case*—about the whole of creation. The ground of the incarnation and the root of its possibility, is God's "real presence" in the world of matter and process. God's self-revelation in Jesus Christ is a decisive revelation of what is already the case about God's relation with all things. Whitehead assumed an incarnational universe. "The world lives by its incarnation of God in itself" (Whitehead, *Religion in the Making*, p. 151). In a sense, what is revealed in the divine Incarnation in Jesus of Nazareth is not an exception to God's ordinary way of acting in the world but rather, because of his perfect responsiveness to divine

initial aims, we see in him what God is intending and doing everywhere and always. God's intentions and actions for each and all become transparent in Jesus the Christ. He is their "chief exemplification." Because of what God has done in the person of Jesus Christ, he is a place "where the light shines through." As Allan Galloway put it, "Once we have encountered God in Christ we must encounter God in all things" (Galloway, 1951, p. 250).

For the most part, the meaning of Christian theology of incarnation has not yet been tapped for its deep significance in conveying God's real presence in world process. Arthur Peacocke makes the connection, however. As he says,

> The incarnation can thus be more explicitly and overtly understood as the God *in whom the world already exists* becoming manifest in the trajectory of a human being who is naturally in and of that world. In that person the world now becomes transparent, as it were, to the God in whom it exists: The Word which was before *incognito*, implicit, and hidden, now becomes known, explicit, and revealed. The epic of evolution has reached it apogee and consummation in God-in-a-human-person. (Peacocke, 2004, p. 154)

Similar steps could be taken in drawing out the implications of our sacramental theology. A panentheistic vision of God's relation to the world admits sacramental associations—that God is "in, with, and under" all that is. Divine presence in world process is sacramental presence. It is a co-inherent presence that does not compromise the integrity of world process. Sacraments are often spoken of as both *signs* and *instruments*—signs in the sense of showing forth or revealing divine presence and gracious action, and instruments in the sense of accomplishing God's purposes of grace. That common elements such as bread and wine can do this is, in itself, a revelation that material reality has this sacred potentiality.

That God can and does use material elements as means of grace, confers a dignity on all material elements and opens us to expectation of divine presence in all things. In a sense a sacrament may be said to be "an actualization of the potentiality of matter to become fully transparent to the purposes of God" (Knight, 2004, p. 55). This direction of thought is more fully developed in Greek Orthodox theology that sees the sacrament as "an aspect of the cosmos that has been returned or redeemed to its essential significance and purpose. It is a foretaste of the redemption of the whole cosmos" (Knight, 2004, p. 55). It is, in a sense, "a revelation of the genuine *nature* of creation" (Knight, 2004, p. 55).

Both incarnation and sacrament have the impact of conveying "real presence;" they are places of transparency, windows into the deeper reality of God in all things. Peacocke readily connects incarnation and sacrament. "Jesus identified the mode of his incarnation and reconciliation of God and humanity ("his body and blood") with the very stuff of the universe when he took the bread, blessed, broke, and gave it to his disciples…" (Peacocke, 2001, p. 149). Taken seriously, a notion of divine real presence in nature must entail a revaluation of material reality. Nature cannot be treated in a cavalier manner if it is a location of divine presence.

Cosmic Christology

Another prospect for deepened insights into the God-world relation comes from the "cosmic Christology" tradition. The current predominating understanding of

the meaning of the Christ event seems to be limited to "redeeming human beings from sin." Such a narrowing has led to an "acosmic," Christianity preoccupied with "saving souls" and getting to a better world (Hayes, p. 25.1). However, there is within the broader Christian tradition a vision of the Christ event as embracing the whole of creation. This long-standing tradition, is found in a number of biblical texts (I Corinthians 8:6; Ephesians 1:13-14; Colossians 1:15-20; Philippians 2:6-11; Hebrews 1:1-4; John 1:1-14.).

Cosmic Christology emerges most clearly in Col 1:15-20:

> He is the image of the invisible God, the first-born of all creation; for in him all thins were created, in heaven and on earth, visible and invisible, whether thrones or dominions or principalities or authorities—all things were created through him and for him He is before all things, and in him all things hold together. He is the head of the body, the church; he is the beginning the first-born from the dead, that in everything he might be pre-eminent. For in him all the fullness of God was pleased to dwell, and through him to reconcile to himself all things whether on earth or in heaven, making peace by the blood of his cross.

Christ is the agent of all creation; all things are held together in him. He is the mediator of the reconciliation of all things in God. The understanding of the redemption that is ours in him must be, in its full and final form, a cosmic transformation, a new heaven and a new earth.[5] As Sittler put it, "The sweep of God's restorative action is no smaller than the six-times repeated *ta panta*" (Sittler, 2000, p. 52).

Sittler added to the cosmic Christology conversation an insight that Protestant Christianity has particularly constrained grace, making it captive to second article and soteriological concerns. Also, the doctrine of creation has been eclipsed, and the view of nature is consequently truncated and shrunken. Sittler was intent on expanding the picture of grace and nature and claiming a "holy naturalism" in which the world is "a place of grace." As he insisted, grace is not something that begins with Jesus. Sittler sought to restore a theocentric focus to Christology. As he said, "There is no future in Christians trying to be more christocentric than Jesus was" (Sittler, 1986, p. 106). Grace is more than the "holy hypodermic whereby my sins are forgiven" (Sittler, 1986, p. 106). Instead, "the reality of grace is the fundamental reality of God the Creator in his creation, God the Redeemer in his redemption and God the Sanctifier and Illuminator in all occasions of the common life where sanctifying grace is beheld, bestowed, and lived by" (Sittler, 1972, p. 88). Using the image of center and circumference Sittler affirmed that grace could be both "a comprehensive term for the created goodness of all reality, and a term wherewith to specify the incarnated presence and historical focus of that Light which is God" (Sittler, 1972, p. 73).

Cosmic Christology is prominent in notable theologians of the early church (Justin Martyr, Irenaeus, Clement of Alexandria). For Irenaeus, "the Incarnation and saving work of Jesus Christ meant that the promise of grace was held out to the whole of nature and that henceforth nothing could be called common or unclean" (Sittler, 2000, p. 52). 12th and 13th century theologians (Bonaventura, in particular) supported a cosmic Christology and this view predominates in Eastern Orthodox theology

5 George Kehm, "The New Story: Redemption as Fulfillment of Creation," in *After Nature's Revolt*, ed. Dieter Hessel. Minneapolis: Fortress, 1992, p. 102.

even today (Hayes, p. 25.4). In medieval Franciscan theology, the incarnation is no afterthought or emergency measure on God's part to deal with human sin. The incarnation lies in the primordial creative intent of God. It is this synthesis of God and the world that God intends from the beginning. Thus the Christ event pertains to the fundamental structure of the universe (Hayes, p. 25.7). The Christ is the one in whom all things "hold together" (Col. 1-15-20) and is the mediator of the reconciliation of all things to God; the harbinger of the apokatastasis panton, the "reconstitution of all things."

In this interpretation, Christ is related to the whole of creation, and that prior to any role in redeeming humankind. The divine *logos*, is related to the very structure of the universe. Christ is the Word through whom God created all things, the one who was "in the beginning" (John 1). Cosmic Christology assumes the entire cosmos is included in the divine purposing; it is not just a context for the outworking of the redemptive drama of human beings. The goal of all creation is its relation in union with God—*theosis*. At that point, "God will be all in all" (I Cor. 15:28). It is a redemption, reconciliation, reunification, and reconstitution of all things.

Christ's work is redemptive precisely because this union with God—that is intended for all—is manifest in him. "He became as we are, that we might become as he is" (Irenaeus). Thus when the symbol of Chalcedon expresses who the Christ is understood to be—"truly God, truly human united in one and the same concrete being"—it at the same time expresses that union with God for which all things are intended.

In this light, the work of God's grace is to be understood differently—not exclusively or even primarily as salvation of human beings from their sin. Rather God is bringing to completion what God has begun in creation. Themes of fulfillment and consummation take center stage. "God creates so that a (final) life-giving synthesis of God and world might be realized" (Hayes p. 25.6). Here again the religious significance of the whole natural world is highlighted.

In terms of the ethical implications, reclaiming this cosmic Christology broadens our understanding of the divine intentionality and invites us into a much larger work than "saving souls." As Sittler urged, "The way forward is from Christology expanded to it cosmic dimensions, made passionate by the pathos of this threatened earth, and made ethical by the love and the wrath of God" (Sittler, 2000, p. 55). Thus, one of the implications of a cosmic Christology is a decentering of the human being and overcoming of anthropocentrism. Instead of being *incurvatus in se* ("curved in" on ourselves) we are reoriented—turned outward to the wider world and God's purposes in it. A larger view of God's project as a restoration that includes *all things* should imply the work of restoration as part of our vision of the human vocation relation to nature. The goal of *theosis* has implications for how we might live now in closer communion with nature, living into our destiny of reunion of all things in God.

C. God *In* Creation

Life in the Spirit

In the Nicene creed the Spirit is spoken of as *vivicantem* (vivifier, life-giver), "giver of life." In the both Old and New Testaments the words translated "spirit" (*ruach* and *pneuma*) may mean "moving wind" or "breath;" the association is with God's creative, life-giving action. In Genesis 1, at the beginning of creation, God's *ruach* is said to "sweep over the face of the waters." When God breathes the "breath of life," Adam becomes a "living being" (Gen. 2:7). The association of the Spirit with "breath" is an association with life; breath is that which distinguishes living from non-living.

This vivifying presence of the Spirit of God in nature is throughout the Psalms. Psalm 104: 30 "When you send forth your spirit (*ruach*), they are created; you renew the face of the ground." As Denis Edwards has expressed it, "The Spirit is the bountiful excess of the dynamism of the divine life that animates a world of creatures" (Edwards, 2004 p. 172). It fills the earth with capacity for the *creatio continua* (Job 33:4, 34:14-15).

Associations with fire and water are almost as pervasive as those with wind or breath. Images of filling, flowing, outpouring and shining are all used in connection with the Spirit in nature and in human experience. The charismatic presence of the Spirit is described as *dunamis* or *energia* (power or energy). Moltmann likens the Sprit to a "field of force" that conveys a vitalizing power and energy (Moltmann, 1992, p. 195).

The Spirit is associated with images of birth, rebirth, renewal, and regeneration. The birth of the church at Pentecost (Acts 2) is from the outpouring Spirit. The rebirth of the believer is from the Spirit (John 3). The theological focus of attention has been upon the work of the Spirit in the church and in the life of the believer. However, the Spirit's work of renewal and regeneration in the wider creation has received very little attention, even thought it is far more extensive in its reach.

The renewal and regeneration of the earth is the Spirit's doing (Ps. 104:30). When the dry bones come to life in the book of Ezekiel it is because the "spirit" enters them. In the Middle Ages, Hildegard of Bingen thought of the Spirit as that which awakens and reawakens *all* things, causing the whole of creation to flourish. She used the word *viriditas* (greenness) to point to the fecundity of the Spirit's work in creation (Newman, 1990, p. 25).

Freedom and Liberation in the Spirit

Another key association with the Spirit is freedom. The Spirit, like the wind, "blows where it will" (John 3:8). The Spirit is free and makes free. In the Exodus, it was the "wind" that blew across the Sea of Reeds so that the slaves could escape their captors (Ex. 14.21). Many instances associating the Spirit with liberation and setting free could be brought forward. This is certainly a strong theme in the life and ministry of Jesus. In Luke, it was when the Spirit filled Jesus that he was "anointed to bring good news to the poor…to proclaim release to the captives and recovery of sight to

the blind, to let the oppressed go free, to proclaim the year of the Lord's favor" (Lk. 4:16-19).

The hope expressed in Romans is that the whole creation will be "set free from its bondage to decay and will obtain the freedom of the glory of the children of God" (Rom.8:21). As the giver of life, the Spirit is set against the destruction and death-dealing that we see evident in the economic injustice and ecological irresponsibility and in the earth. The many emancipatory movements of our day may, in their direction and intent, lay claim to an inspiration of the Spirit.

Communion in the Spirit

The Spirit has also signified the divine indwelling and the source of communion (*koinonia*). God chooses not only to be with and for creation but also *in* it. The divine presence in the Spirit is a pervasive presence. As the Psalmist queries, "Where can I go from your spirit? Or where can I flee from your presence?" (Ps. 139:7) The divine presence in the Spirit is a loving presence. One of the namings of the Holy Spirit in early formulations of Trinitarian analogies was as the *viniculum amoris*, the bond of love, between God (the Lover) and Christ (the Beloved). By extension, the Spirit may be likened to the bond of love that draws *all creation* into communion with God and consequently with one another.

It is here, in the doctrine of the Spirit, that the panentheistic relation between God and the world is most clearly imaged. God's communion with the world is manifest here in all its immanence and intimacy. Elizabeth Johnson has pointed out that in the writings of early theologians (i.e. Tertullian, *Adversus Praxis*, 8), images of the Trinity associated the Spirit with God's most intimate presence and activity *in the world*. Notably three metaphors from nature were employed. The great unknowable mystery of God was imaged as the sun, with God incarnate in Christ as light streaming to earth, and the Spirit being the point where heat and light actually touch the earth giving it warmth and energy. Similarly the metaphor of water was employed wherein the transcendent God was imaged as a spring of water from which a river (God incarnate in Christ) flows, and the Spirit is likened unto an irrigation channel where the water moistens and nourishes the earth. Again, the triune God is like a plant with its root (God), shoot (Christ), and fruit (Spirit); the flower that opens to spread beauty and fragrance and to give fruit and seed to fructify the earth is the Spirit (Johnson, 1993, p. 30).

As Moltmann has pointed out there is a perichoretic mutuality in our being "in the Spirit" and the Spirit's being "in us." "It is a communion of reciprocal indwelling. In the Holy Spirit, the eternal God participates in our transitory life, and we participate in the eternal life of God" (Moltmann, 1992, pp. 193-194). As we are drawn into communion with God, we are necessarily drawn into communion with all else. To experience the communion of the Spirit "inevitably carries Christianity beyond itself into the greater fellowship of all God's creatures. For the *community of creation*, in which all created things exist with one another, for one another and in one another, is also the *fellowship of the Holy Spirit*" (Moltmann, 1992, p. 10). In this communion of the Spirit, then, we enter a communion of communions that joins all things to one another in God.

Summary of Ethical Implications

A model for living with and within nature emerges from this Trinitarian exploration. The question has been "What kind of God is it whose glory we are to reflect in our relation with the rest of nature?" We see *God with creation* in *creative interaction* with the world exemplifying (in divine creativity, *concursus*, and calling) both a respectful "letting be" and an engaged calling forth or persuasive luring toward the good. We see *God for creation* manifesting in Jesus Christ a *saving solidarity* in the face of suffering and *redemptive resistance* in the face of evil. Saving solidarity is manifest in vulnerable, self-giving love that suffers with and for cruciform nature and exercises a tender care that nothing of value be lost. Redemptive resistance sets itself against destructive principalities and powers in a prophetic denunciation of evil, judging and transforming. Both incarnation and sacrament signify and enact God's "real presence." We see *God in creation* in a *life-giving communion* that renews, regenerates, releases, and reconciles all things in a communion of communions. This vision conceives of a God who is both worshipful and worthy of emulation. If our way of living with and within nature were to be modeled upon this vision, our relation with the rest of nature would be marked by creative interaction, saving solidarity/redemptive resistance, and life-giving communion.

While we are unlikely to solve the complex problems of economic injustice and environmental irresponsibility through theological interventions alone, insofar as what we believe about God and the world and ourselves affects how we live—theology matters. This project joins with others in seeking to formulate a theology of nature that is more credible, more religiously viable, and more morally adequate. Together we need to find a model that might guide us to better ways of living with and within nature. In this modest effort, I take comfort in the words of Rabbi Tarphon, "It is not incumbent on you to finish the task...," but I am also challenged by his conclusion, "neither are you free to give it up" (Pirkei Avot 1.21).

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