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I

Understanding the Problem

What is our relationship to the rest of creation? How shall we live rightly on the Earth? This volume illuminates these ancient and increasingly important questions through the prism of biblical and evangelical faith. As Chris Sugden points out in the introductory essay that follows, evangelicals have not much to date put themselves to the task of developing a theological understanding of Christian environmental stewardship. This collection of essays represents one attempt to do so. It emerges from a Forum held in the summer of 1992, at the campus of the Au Sable Institute of Environmental Studies in Mancelona, Michigan, USA, jointly sponsored by the Institute and the Ethics Unit of the Theological Commission of the World Evangelical Fellowship. The composite document that was developed from that consultation is also provided below. Finally, as any good answer must begin with the question, Calvin B. DeWitt illuminates the threats to the environment, and indicates why Christians must be concerned with them. [p. 119](#)

Guest Editorial: Evangelicals and Environment in Process

Chris Sugden

It is hard for evangelicals to take the environment seriously as a mission concern. Evangelicals are 'gospel people', and the gospel is focused on the salvation of people from sin. Ideas that the trees and the land and the rivers, let alone the foxes and the butterflies are worth the time, attention, and resources of the Christian constituency have struggled to find acceptance in evangelical counsels.

The environmental movement has even sometimes been clubbed together with 'New Age' and other heretical concerns as traps to ensnare people from coming to believe the truth as it is in Jesus.

Nevertheless, the last decade has seen a number of evangelical initiatives and writings on the theme of the environment. The Au Sable Institute of Environmental Studies (which co-sponsored the Forum from which these essays are derived), is a pioneer in considering Christian environmental stewardship in North America. *Transformation Journal* carried articles on the environment in the late eighties. A number of evangelical Christians were involved in environmental concerns as scientists or in mission organizations. Evangelical Relief and Development and Mission Agencies had also been involved in environmental projects. A mission project in Portugal focused on a bird observatory. But this World Evangelical Fellowship Unit on Ethics and Society Consultation (held in conjunction with the Au Sable Forum), was one of the first occasions when a global evangelical organization put the issue of the environment on its theological agenda.

A long series of consultations culminated in a Consultation in March 1990 in Seoul, Korea, on Justice, Peace, and the Integrity of Creation. There were a few evangelical

participants, but not many. Among them were Ron Sider, editor of *Transformation*, Calvin DeWitt, director of the Au Sable Institute, and the author of this editorial.

They have written of these in *Transformation* for July 1990. They were frustrated because in response to the legitimate complaint that some understandings of the creation mandate had led people to exploit creation, JPIC statements sought to dethrone humanity from its unique rôle as 'the image of God', and extended that rôle to all. They were frustrated because in response to the despoilation of God's good p. 120 creation, there was no room for seeking forgiveness and reconciliation, just continual mutual recriminations.

At the same time, this writer was challenged by the scriptural insights brought to the problems by Calvin DeWitt. According to scripture, God will destroy those who destroy the Earth. God charges humanity to be stewards. This view does not inform the current view of seeing the world as resources to be consumed. Above all, DeWitt saw the Earth as an evangelical medium, declaring to all people directly and immediately the majesty and nature of God's divine power.

In June that year, the Theological Commission of the World Evangelical Fellowship met in Wheaton, Illinois. Members of the Unit on Ethics and Society present at that meeting agreed that it was important to address the theological challenges of the environment. In August, the Christian College Coalition held a seminar on the environment attended by Peter Kuzmic (who chairs the Theological Commission), Commission members Rene Padilla and Chris Sugden, and Calvin DeWitt. Plans were further developed and it was agreed to focus especially on the challenge and response to this issue in the Two-Thirds World.

A particular point of contention in the environmental debate is the relation between environmental concerns and concern for issues of poverty. Some have argued that environmental concerns are a way for the Western World to avoid the issues of poverty. Therefore, the Bruntland Report, 'Our Common Future', linked the environment and poverty by suggesting that the poor must be assisted because they despoil the environment; they have to live on the most vulnerable and marginal land which they then till to destruction.

The problem of the environment and the Two-Thirds World is thus stated in terms of scientific and economic reductionism. The Two-Thirds World has to react to Western demands to cut down pollution. The contribution that the Two-Thirds World can make in the area of the interdependence of humanity and the environment is ignored and marginalized by this analysis. Where that contribution is recognized, it is usually at the expense of Christian mission which is complicit in repressing the insights of indigenous peoples and their animist faiths.

Therefore, it became very important as a mission issue that theological and missiological reflection be given to the relation between the environment, the poor, and Christian faith. Support was requested and gratefully received from Tear Fund U.K. and *Evangelisches Missionswerk*, Hamburg to enable Two-Thirds World Christians to participate in and contribute to this discussion. (The contribution of Bishop Wayan Mastra from Bali was most appreciated in this regard, p. 121 giving an example of Christian witness among animistic people that preserves the interdependence of humanity and the creation.)

Evangelicals had no set list of speakers and experts on the topic. Thus, a procedure followed by many professional research groups was adopted—a request was sent out for papers. People with a known interest were invited to suggest topics to which they could contribute, or to suggest the names of others to be invited.

We were greatly blessed by being invited to hold the consultation jointly with the Au Sable Institute of Environmental Studies. This institute has a long track record of pioneering involvement in this field. The experience of the campus in the woods in environmentally friendly buildings, field trips to explore the surroundings, and a communion service under the trees above a lake was conducive to the experience of God and nature.

Two serendipities heightened our awareness. A number of participants had attended the Rio Earth Summit. This provided the first opportunity for many to reflect on and discuss its recommendations. Secondly, the day the Forum began, the Institute director condemned a tree as unsafe. It came down (to his regret), but occasioned a tree planting ceremony as part of the conference. Five trees, one for each continent, replaced the one tree struck down.

Those trees will stand many years from now, as will the two trees my family planted in our garden this weekend. A practical response to the essays and report in this volume might be in the next six months to find an occasion to plant a tree to the glory of God and to the benefit of humanity, at your home, in the churchyard, in the seminary grounds.

An International Evangelical Environmental Network was also established at the Forum, initially facilitated by the Au Sable Institute and the Oxford Centre for Mission Studies as the secretariat. Those wishing to associate with this network are asked to write either to the Au Sable Institute, 731 State Street, Madison, Wisconsin, 53703, USA, or the Oxford Centre for Mission Studies, Box 70, Oxford, UK.

Rev. Dr. Chris Susden is the Resident Director of the Oxford Centre for Mission Studies in Oxford, England. [p. 122](#)

Summarizing Committee Report of the World Evangelical Fellowship Theological Commission and Au Sable Institute Forum

**‘EVANGELICAL CHRISTIANITY AND THE ENVIRONMENT’ 26–31
AUGUST 1992**

This report seeks to summarize the substance of the discussions at the Au Sable Forum, 26–31 August 1992. The Forum comprised 60 individuals from 8 countries and 5 continents. They had a wide variety of expertise, academic disciplines, and current professions, but all were closely concerned in different ways with the natural environment.

The report identifies the many points on which there was substantial agreement between the participants. A few points are identified separately, however, either because it was agreed that further consideration was desirable or because there was substantive

disagreement within the group (these areas of disagreement are noted in the text below). The points are grouped in three sections:

- I. The Biblical theological framework
- II. The *praxis* of sustainable development
- III. Tasks for the Christian community and individuals.

The discussion was undertaken against the background of the creation in the northern part of the lower Michigan peninsula and instruction on the flora, fauna, geography and geology of the area, and on seven specific degradations to which creation is currently subject:

(1) *alteration of Earth's energy exchange* with the sun that results in *global warming and destruction of the Earth's protective ozone shield*. A specific example: Ozone loss each spring over Antarctica, based upon 25 years of nearly continuous measurements by the British Antarctic Survey station at Halley Bay detected slight ozone decline in the late 1970s, greater declines the 1980s, with 30% depletion by 1984 and 70% the total column ozone content in 1989. [Anderson, J., D. Toohey and W. Brune. 1991. 'Free Radicals Within the Antarctic Vortex: The Role of CFCs in Antarctic Ozone Loss.' *Science*. 251: 39–46.]

(2) *land degradation* that reduces available land for creatures and crops by 'adding house to house and field to field' and destroys land by erosion, salinization and desertification. A specific example: [p. 123](#) Infiltration of rain water in eroded soils may be reduced by over 90%; in Zimbabwe water runoff is 20% to 30% greater than on non-eroded soil, with resulting water shortages even during years with good rainfall. [Pimentel, D., et al. 1987. 'World Agriculture and Soil Erosion'. *BioScience*. 37:277–283.]

(3) *water quality degradation* that defiles groundwater, lakes, rivers and oceans. A specific example: In Europe and the U.S. between 5% and 10% of all wells examined have nitrate levels higher than the recommended maximum of 45 milligrams per liter. [Maurits la Riviere, J. 1989. 'Threats to the World's Water'. *Scientific American*. September 1989:80–94.]

(4) *deforestation* that each year removes 100,000 square kilometers of primary forest and degrades an equal amount by over-use. A specific example: In Thailand forest cover declined from 29 to 19 percent of the land area between 1985 and 1988. In the Philippines undisturbed forests have been reduced from 16 million hectares in 1960 to less than a million hectares left at present. [Repetto, R. 1990. 'Deforestation in the Tropics'. *Scientific American*. April 1990:36–42.]

(5) *species extinction* that finds more than 3 species of plants and animals eliminated from Earth *each day*. A specific example: In Ecuador since 1960 the original rainforest has been almost totally eliminated and converted to cash crops; a small remnant at Rio Palenque of less than one square kilometer is the only remaining site for 43 plant species and the adjacent Centinella Ridge that once supported 100 endemic plant species was cleared between 1980 and 1984. [Given, D. 1990. 'Conserving Botanical Diversity on a Global Scale'. *Annals of the Missouri Botanical Gardens* 77:48–62.]

(6) *waste generation and global toxification* that results in distribution of troublesome materials worldwide by atmospheric and oceanic circulations. A specific example: DDT is found in the fatty tissue of penguins in Antarctica and pesticides are found in a remote lake on Isle Royale in Lake Superior between the United States and Canada.

(7) *human and cultural degradation* that threatens and eliminates long-standing knowledge of native and some Christian communities on living sustainably and cooperatively with creation, together with the loss of long-standing garden varieties of food plants. A specific example: A 1975 study of Hanunoo tribe of the Philippine Islands found that an average adult could identify 1,600 different species—some 400 more than

previously recorded in a systematic botanical survey; for Nigeria and elsewhere in the two-thirds world there are similar findings. [Awa, N. 1989, 'Participation and Indigenous Knowledge in Rural Development', *Knowledge*. 10:304–316] p. 124

I. THE BIBLICAL AND THEOLOGICAL FRAMEWORK

God in Creation

1.1 All creatures are deeply intertwined with and dependent on each other, and humans have no right to destroy or despoil other species. However, since Evangelical Christians have affirmed that God is distinct from creation, and has given humans a unique status among creatures, some environmentally conscious people have felt that Christianity has given humans license to exploit other creatures. Some such people feel that the Earth ought rather to be identified directly with divine powers (symbolized by Gaia, the earth goddess) or regarded as God's 'body'. We affirm that God is indeed distinct from creation, yet deeply involved in it. This involvement arises not from natural necessity (as though the Earth were God or part of God) but from the triune God's free love and grace. God the Son, as the eternal Word, gives form to all creatures, and became human flesh, with which all creatures are interconnected; while God the Spirit breathes energy into all.

1.2 We affirm the value of the Gaia hypothesis (that the Earth, or its living creatures, form one interconnected system) for scientific research. While we reject the religious implication sometimes drawn—that the Earth is a divine being—we recognize that many are attracted to it as a result of the spiritual hunger prevalent in secularized industrial societies and of the church's failure adequately to proclaim its living, triune God as both clearly distinct from and intimately involved with the creation.

1.3 Some critics of Evangelical Christianity feel that its frequent use of masculine God-imagery, in contrast to feminine imagery, heightens a sense of God's distance from the world. At the same time, many feel that feminine imagery implies an identity between God and creation. While we did not discuss specific constructive responses to these concerns, we recognize their importance. We also affirm that adequate imagery for expressing God's 'masculine' and 'feminine' characteristics are to be found in Scripture, and that the Bible's main concern in this area is to communicate that God is *personal*.

The Goodness of Creation

1.4 We wholeheartedly affirm that the universe, as created by God, is good.

1.4.1 We experienced some uncertainty and disagreement as to the nature and presence of evil in relation to creation. We did not attain p. 125 clarity as to whether death as experienced before humankind's fall should be regarded as natural or evil, or as to exactly what the 'curse' brought with this fall, or how it operates.

The Fulfillment of Creation

1.5 In the Old Testament, the creation account begins by showing the threefold relationship between God, creation, and humanity. This relationship is later exemplified in the covenant with Israel, which includes the people of Israel, the gift of the land of Israel and their responsibility for it to God. The well-being or despoliation of the land was connected with their obedience or disobedience. In the New Testament, this triadic relationship of God, people of Israel, and land of Israel is reaffirmed and extended as the triad of God, the new people of God and the liberation of all creation. God's call to faith in Jesus Christ includes the call to care for and work towards the transformation of all creation.

1.6 God's purposes for creation include the development of urban areas. Concern for creation should not compete with, but should include and enhance, the development of healthy urban environments.

1.7 God draws all creatures towards a final fulfillment, the bodily resurrection of redeemed humanity and the liberation of all creation. The resurrected Jesus is the 'first fruit' of this liberation. The resurrection enlivens our responsibility for involvement in environmental matters, since it indicates how highly God values material reality, and arouses our hope, giving energy for the task.

1.8 The Sabbath rest is both a replication of God's rest in creation and an anticipation of creation's final perfection when it participates with the people of God in their rest. In both cases humanity is to trust that God will provide what is needed for life.

Humanity and Creation

1.9 Although all creatures receive life ultimately from God, human beings are intertwined with all other creatures, and in this sense dependent upon them for life. Yet humans are also called to a special task of caring for creation in a shepherdly manner, since they reflect God's image in a unique way. Many felt that the traditional term 'stewardship' adequately describes this task. Others cautioned that it can convey the mistaken notions that God is an absentee landlord, and that humans may therefore manage creation in any way that they see fit. [p. 126](#)

1.10 We affirm that all God's creatures are valuable in and of themselves, apart from any usefulness to humans. Though humans may at times use other creatures in the attainment of legitimate purposes, they are (so far as possible) to support the well-being of other creatures.

1.11 Where humankind has significantly damaged creation (see p. 1), the motivation for its restoration comes from our stewardship responsibilities, our hope for the liberation of creation, and the sufferings inflicted on particular groups of people, especially the poor (in the context of the fact that Jesus shared humanity's sufferings and proclaimed good news, especially to the poor).

Spiritual Dimensions

1.12 Humans participate most fully in God's purposes for creation through personal appropriation of the benefits of Jesus Christ's life, death and resurrection, which become present, participatory realities through the Holy Spirit. Essential for this participation is spirituality focused on Jesus's teaching and his cross, enlivened by the Spirit who moves throughout creation and connects our yearnings with those of all other creatures.

1.13 While we do not entirely understand how they operate, we affirm that supernatural forces of evil seek to block the accomplishment of God's purposes for creation. We therefore expect our participation in these purposes to involve struggle with these forces, and sometimes to involve suffering, which we will overcome through reliance on the triune God.

Sections II and III below assemble points for consideration and action by the Christian and wider communities. They should not be read as a complete manifesto, but as points which arose in the course of inevitably time-limited discussions: there were many relevant matters which were not touched upon.

II. THE PRAXIS OF SUSTAINABLE DEVELOPMENT

2.1 We affirm the concept of sustainable development as that which seeks to provide an environment that promotes a life of dignity and well-being compatible with the

continuation and integrity of supporting ecosystems.¹ The concept includes the concern that material **P. 127** blessings should be available to successive generations as a fundamental God-given right. We note that beneath this concern lie absolutes of justice, equity and human responsibility which are not always expressed. Sustainable development cannot depend on the changing values and aspirations of succeeding generations, which may be in conflict with each other and with the divine will.

Population

2.2 We noted the importance of the issue of population as part of care for the environment. This is an issue of culture rather than technology. Current methods of assessing the value of the environment fail to make adequate allowance for the value of the environment where it provides livelihoods. We would urge a culture-specific approach of promoting child-spacing, with due regard for the sanctity of human life, rather than the one-solution approach (of contraceptive techniques or abortion) advocated by some. We welcome the suggestion of providing for new parents non-contributory old age pensions, or life insurance for their progeny, to remove the incentive to have many children to provide for old age.

Over-consumption

2.3 Over-consumption in the North can have a debilitating impact on countries of the South. Consumption of non-renewable resources in the North should be significantly reduced by increasing recycling and reuse of materials and by encouraging transition to less material-intensive technologies.

Poverty and degradation of creation

2.4 The evidence of growing numbers of poor people in the world is unmistakable, as is the evidence of the worsening condition of the creation contributing to and in part caused by poverty. We recognize that a fundamental cause of poverty is the sinful nature of humankind which manifests itself through violence, greed, and self-interest overriding the God-given mandate to meet the needs of both the human and natural creation, and specifically of the poor. Human beings are interdependent with the rest of creation but distinctly unique in that they are made in the image of God. We believe that it is of equal importance when addressing the needs of creation to deal adequately with the needs of the poor, and specifically to address world hunger. **p. 128**

2.5 In poor countries, sustainable development requires first and foremost addressing the following interrelated tasks: the establishment of a just and stable political power; economic development to provide jobs and alleviate poverty; capital investments in human development to stabilize populations and enable people to improve their well-being and their livelihoods; protection of God's creation, in large part by providing poor and landless peoples with alternatives to the over-exploitation of marginal lands; and support for improved development practices that are appropriate both within the culture and to the task.

Development assistance

¹ We recognize that there are many different definitions of sustainable development, and the forum considered a paper that referred in greater detail to the question.

2.6 We recognize the need of low-income countries, communities, and economies in transition to receive technological, educational and financial assistance to meet the incremental costs of caring for the creation while promoting economic development.

Women

2.7 The enormous disparities that exist between opportunities and rewards for men and women, and the disproportionate burden, on women, of poverty and the degradation of creation, mean that expanded opportunities for women can result in substantial gains for them, their families and their communities. Increases in the status of women's education and earnings, along with the availability of maternity and child health care, are also significant factors in improving child nutrition and health, as well as tending to reduce family size and its impact on creation (see Population, 2.2).

Mission and culture

2.8 Christianity is distinctive in not being bound to a particular cultural context. Both Christian mission and development work need to be properly sensitive to the cultural context, while affirming the active role of Christians within all cultures whether representing minority or majority viewpoints. Churches must be aware of and sensitive to existing sustainable patterns of development and indigenous stewardship practices in terms of self-reliance and equity, since Christianity is not an expression of any one cultural pattern. Where there have been situations of dependence and cultural imperialism, steps need to be taken to redress the wrongs of these situations. There needs to be reciprocity and respect between all Christians and cultures. Cultures [p. 129](#) interact and change. Missions and development activities are agents of change, and should work with national churches where they exist. The impact of these changes on the environment—positive and negative, intended and unintended—cannot be ignored, and are of great concern.

2.9 Lessons for the care of creation and methods or practices of Christian stewardship were drawn from the practices of Christians worldwide. An example was given from recent mission history where the outcome of Christian compassionate mission was to remove the hindrances to child survival, without compensating activity to relieve subsequent pressure on the environment. A more positive model is the church in Bali, a Christian community formed in the context of a community with a lively relationship to the surrounding creation. The revelation and love of Christ has expressed this concern for creation by building churches amid gardens and water, establishing experimental farms, and setting up credit unions and employment-creation programs. These innovations have been made without either compromising the uniqueness of Christ's revelation, or obliterating the many positive aspects of the Balinese culture.

Technology and Culture

2.10 Technological possibilities must be in a framework of Christian understanding, the socio-cultural context, and the natural environment. Uncontrolled development of technologies can ultimately threaten the very existence of humanity.

Farming

2.11 Agriculture. Modern methods of agriculture with inputs of chemical fertilizers and pesticides may lead to pollution of groundwater and other problems. Such pollution can produce health problems for human and animal populations. Chemical fertilizers fail to sustain the natural nutrients in the soil, resulting in reduction of crop productivity and eutrophication of surface waters. Often, in past agriculture, pests were controlled and

nutrient status of the soil was maintained by practices such as crop rotation, intercropping, multiple cropping, etc. However, in some cases, as in Ethiopia, traditional practices have resulted in loss of soil fertility and soil erosion. It is necessary to identify successful traditional practices and upgrade them as appropriate in order to develop (or recover) appropriate site-specific **p. 130** technologies which enhance crop productivity without degrading the environment.

2.12 Livestock. When animals or birds are domesticated to provide food or other products or services, attention should be paid to ensure their proper care and welfare. Modern biotechnology techniques have made it possible to introduce changes in animals and birds to enhance the quality and/or productivity of products derived from them like milk, meat, leather, etc., but such changes affect their natural lifestyles and may sometimes cause them considerable discomfort. The ethics of introducing such changes in living creatures needs to be examined in the light of scriptural teachings.

2.13 Wildlife. When animals in the wild are affected or used for human purposes, attention should be paid to ensure their proper care and welfare. Animals in the wild must be recognized as having certain needs for maintaining their life, their 'creatureliness' as willed by their Creator, their habitats, and their kinds. Destroying the animal world upsets not only the animals but also the ecological balance. Such destruction results from poaching, abusive use in entertainment, animal sacrifices, pollution, and destruction of their homes and habitat. Abusive use always takes place when cruelty is involved, and/or the species is over-exploited. Trade in animals and animal parts must always be done in accordance with strict ethical criteria.

Industry

2.14 The principle that the 'polluter pays' and that 'one person cannot exploit or pollute another person's source of living' must take account of who the polluter is—he/she is often the actual consumer on whose behalf the producer acts. Shaping technology so as to prevent pollution and or reduce it at source can often be much cheaper than cleaning it up later.

Military Preparations and War

2.15 Wars (including terrorist activities, military preparations, and some forms of training) degrade the environment. The Bible insists that the environment be protected in case of conflict (for example, olive trees may not be destroyed). If even a small percentage of the resources devoted to armaments, research and development were diverted to environmental conservation, substantial improvement could be achieved in the state of creation. **p. 131**

III. TASKS FOR THE CHRISTIAN COMMUNITY AND INDIVIDUALS

The Kingdom Community

3.1 The church's task is to take part in and give expression to the present and future kingdom of Christ. When that kingdom arrives in its fullness, creation will be set free from its bondage to decay.

Care for Creation and Evangelism

3.2 Many people in the environmental movement are in an intense religious search even though they explicitly reject Christianity. As Christians articulate a biblical view of creation and model loving care for its well-being, they will have significant evangelistic

opportunities. Christian environmentalists should eagerly take these opportunities to point people to Christ.

3.3 When people come to Christ and churches are formed, then in the process of obedient discipleship, care for creation frequently emerges. This care needs to be more consciously and systematically taught and sought as a mark of Christian discipleship, both for the individual Christian and for the Christian community, in place of expressions of discipleship which are limited to the life of the individual. Caring treatment of non-human creation will enhance our care for the crown of creation: men and women.

Youth

3.4 Because they will be around the longest, young people should (and often do) have a special interest in the care of creation. This special interest of the young requires the development of a robust environmental apologetic to be made available to youth and youth ministries. A commitment to evangelism is integral to efforts to care for creation and vice versa. Young Christians need not only to be equipped with evangelistic materials, but to be given practical teaching on issues of lifestyle, as well as opportunities to express their care of creation in a meaningful way. 'Whose Earth', the Spring Harvest initiative in association with TEAR Fund, is a model which has attempted to meet these goals in the United Kingdom.

The Sabbath Rest

3.5 God rested at the end of the creation week; he exemplified for us what 'Sabbath' should mean. In addition, the fourth commandment [p. 132](#) requires us to honor the Sabbath. Observation of the Sabbath may take many forms; however, it should fulfill the purposes of worship, rest, and re-creation. More thought is needed to develop ways in which Christians in differing cultures should observe the Sabbath, for the Sabbath is for creation.

Political Engagement and Education

3.6 The Christian community, who follow the one who is the Truth, must dare to proclaim the full truth about the environmental crisis in the face of powerful persons, pressures and institutions which profit from concealing the truth. Such recognition of hard truths is a first step towards the freedom for which creation waits.

3.7 The Christian community needs to develop practical policy approaches to the environment and environmental issues, based on biblical principles and sound analysis.

3.8 Christians need to form and join environmental organizations that apply explicitly Christian principles to environmental problems. In addition, they have an important witness as participants in secular organizations.

3.9 The Christian community must be willing to identify and condemn social and institutionalized evil, especially when it becomes embedded in systems. It should propose solutions which both seek to reform and (if necessary) replace creation-harming institutions and practices.

3.10 Churches should seek to develop as creation-awareness centers in order to exemplify principles of stewardship for their members and communities, and to express both delight in and care for creation in their worship and celebration. They should particularly aim to produce curricula and programs which encourage knowledge and care of creation.

3.11 The Christian community must initiate and support the process of education (for all its members) on the Christian approach to environmental ethics. In particular, Christian colleges and seminaries should provide teaching in this area. The church's goal

should be the growth of earthkeepers, both in the habits of everyday life, and in the provision of leadership for the care of creation.

3.12 Many other issues which may be the root cause or proximate cause of environmental problems may require similar political and educational initiatives such as those identified in paragraphs 2.2 to 2.7 above (population pressure, over-consumption, poverty, international financial transfers, and the status and role of women). p. 133

We welcome dialogue with all who are concerned with preserving and enhancing our environment (which is God's creation). We pray that these reflections may provide a positive contribution towards achieving the goals which we share.

The Earth is the Lord's ([Psalm 24:1](#)).

He [Christ] is before all things, and in him all things hold together. ([Col. 1:17](#)). p. 134

God's Love for the World and Creation's Environmental Challenge to Evangelical Christianity

Calvin B. DeWitt

For God sent not his Son into the world to condemn the world, but that the world through him might be saved. He that believeth in him, shall not be condemned ... But he that doeth truth, cometh to the light, that his deeds may be made manifest, that they are wrought according to God ([John 3:17](#), [18a](#), [21](#) GB).¹

CREATION'S INTEGRITY AND VIOLATION

'The time has come ... for destroying those who destroy the earth.'² This pronouncement of [Revelation 11:18](#) is one that made little sense to anyone until recently. It has been largely neglected in pulpit and pew, and has had little to do with people's 'manifest deeds'—the way people conduct their lives. This ominous judgement—proclaimed at the sound of the last trumpet—has been unheeded for apparently good reason. For how could human beings possibly destroy the Earth? How could people abuse their stewardship responsibility on such a scale? And why would people ever use their authority over creation ([Gen. 1:28](#)), to destroy creation—thereby to negate their own dominion! And, even if they did abuse their God-given stewardship of creation, certainly people would never gain enough power to destroy the Earth!

¹ The quotations at the beginning and conclusion of this paper designated 'GB', are from *The Geneva Bible: A Facsimile of the 1560 Edition*, Madison, Wisconsin: The University of Wisconsin Press, 1969. Archaic spellings of words have been replaced with modern spellings by the author.

² Scripture throughout this paper is taken from the *Holy Bible, New International Version* Copyright 1973, 1978, 1984 International Bible Society. Used by permission of Zondervan Bible Publishers.

Recently, however, we have been given reason to ponder the composite immensity of human power. Every day now, we learn about new destructions of land and creatures. And, while some reports are dramatized and overstated, professional scientific literature time and again describes new and increasing instances of environmental degradation. In calm and dispassionate scientific language, accounts p. 135 in referred technical literature are building a description of Earth's destruction—scientific accounts that present an unfolding drama of devastation whose depth and extent the popular literature has yet to fathom or express. These accounts, taken together, announce what would have been unbelievable a century ago: human beings have become the predominant destructive force on Earth. Impacts of people, with power of hands and minds amplified by machines, now exceed those of great floods, hurricanes, and earthquakes. We have come to see the reality of our power and the actuality it has created. The time has come that we can envision the end of nature; the time has come to realize that we are able to destroy the Earth.

Seven Degradations of Creation

An analysis of the scientific literature produces a picture of Earth's destruction describable as 'seven degradations of creation'.³ These degradations, all of which interact, include:

1. *alteration of Earth's energy exchange* with the sun that results in accelerated global warming and destruction of the Earth's protective ozone shield.⁴
2. *land degradation* that destroys land by erosion, salinization and desertification, and reduces available land for creatures and crops.⁵ p. 136
3. *deforestation* that annually removes some 100,000 square kilometres of primary forest—an area the size of Iceland—and degrades an equal amount by over-use.⁶

³ Presented here is a listing of these degradations with but one example and one corresponding citation to the literature for each. A more comprehensive listing of these degradations and references to these in the primary literature is given in the *Earthkeeping Papers* of the Au Sable Institute, Issue Number 1, available from Au Sable Outreach Office, 731 State Street, Madison, Wisconsin 53706 U.S.A., Fax/Phone: (608) 255-0950. Other listings of these degradations are given in Chapter 1 of *The Environment and the Christian: What Can We Learn from the New Testament?* C. B. Dewitt, ed. (Grand Rapids, Michigan: Baker Book House, 1991); in 'Seven Degradations of Creation', C. B. Dewitt, *Perspectives* (Feb. 1989): 4-8; and in 'Seven Degradations of Creation: Challenging the Church to Renew the Covenant', *Firmament* 2(1):5-9, 1990.

⁴ A specific example is ozone loss each spring over Antarctica where twenty-five years of nearly continuous measurements by the British Antarctic Survey station at Halley Bay detected slight ozone decline in the late 1970s, greater declines the 1980s, with thirty percent depletion of the total column ozone content by 1984 and seventy percent in 1989. [Anderson, J., D. Toohey and W. Brune, 'Free Radicals Within the Antarctic Vortex: The Role of CFCs in Antarctic Ozone Loss', *Science* 251 (1991): 39-46.]

⁵ A specific example is that infiltration of rain water in eroded soils may be reduced by over ninety percent; in Zimbabwe water runoff is twenty to thirty percent greater than on non-eroded soil, with resulting water shortages even during years with good rainfall. [D. Pimentel, et. al., 'World Agriculture and Soil Erosion.' *BioScience* 37 (1987): 277-283.]

⁶ A specific example is forest loss in Thailand where forest cover declined from twenty-nine to nineteen percent of the land area between 1985 and 1988. In the Philippines undisturbed forests have been reduced from sixteen million hectares in 1960 to less than a million hectares left at present. [R. Repetto, 'Deforestation in the Tropics.' *Scientific American* (April, 1990):36-42.]

4. *species extinction* that finds more than three species of plants and animals eliminated from Earth each day.⁷
5. *water quality degradation* that defiles groundwater, lakes, rivers and oceans.⁸
6. *waste generation and global toxification* that results from atmospheric and oceanic circulation of materials people inject into the air and water.⁹
7. *human and cultural degradation* that threatens and eliminates longstanding human communities that have lived sustainably and cooperatively with creation, and eliminates a multitude of longstanding varieties of food and garden plants.¹⁰

Seven Provisions of Creation

These degradations contrast with what can be called ‘seven provisions of the Creator’ upon which creation, all creatures, and human life depend. These seven provisions—many of which are celebrated in [Psalm 104](#)—are indicative of the remarkable integrity and beauty that [p. 137](#) have engendered awe, wonder, and respect for the Creator and creation through the ages. These provisions—given here in parallel with the seven degradations—are:

1. *regulation of Earth’s energy exchange with the sun* that keeps Earth’s temperatures at a level supportive of life through the longstanding greenhouse effect, that protects life from the sun’s lethal ultraviolet radiation by filtering sunlight through the stratospheric ozone layer.
2. *biogeochemical cycles and soil-building processes* that cycle oxygen, carbon, water, and other vital materials through living things and their habitats and build life-supporting soils and soil structure.
3. *ecosystem energy transfer and materials recycling* that continually energizes life on Earth and incessantly allocates life-sustaining materials.
4. *water purification systems of the biosphere* that distill, filter, and purify surface waters and groundwater upon which all life depends.
5. *biological and ecological fruitfulness* that supports and maintains the rich biodiversity of life on Earth by means of responsive and adaptive physiologies and behaviors.
6. *global circulations of water and air* that distribute water, oxygen, carbon dioxide, and other vital materials between living systems across the planet.

⁷ A specific example is Ecuador where since 1960 the original rainforest has been almost totally eliminated and converted to cash crops; a small remnant at Rio Palenque of less than one square kilometer is the only remaining site for forty-three plant species and the adjacent Centinella Ridge that once supported 100 endemic plant species was cleared between 1980 and 1984. [D. Given, ‘Conserving Botanical Diversity on a Global Scale,’ *Annals of the Missouri Botanical Gardens* 77 (1990):48–62.]

⁸ A specific example is the case for Europe and the U.S. where between five percent and ten percent of all wells examined have nitrate levels higher than the recommended maximum of forty-five milligrams per liter. [J. Maurits la Riviere, ‘Threats to the World’s Water,’ *Scientific American*. (September 1989):80–94.]

⁹ A specific example is the presence of DDT in the fatty tissue of penguins in Antarctica and the presence of pesticides in a remote lake on Isle Royale in Lake Superior between the United States and Canada—both extremely distant from the places in which these materials are used.

¹⁰ A specific example is a 1975 study of the Hanunoo tribe of the Philippine Islands that found that an average adult could identify 1,600 different species—some 400 more than previously recorded in a systematic botanical survey; for Nigeria and elsewhere in the two-thirds world there are similar findings. [N. Awa, ‘Participation and Indigenous Knowledge in Rural Development,’ *Knowledge* 10 (1989):304–316.]

7. *human ability to learn from creation and live in accord with its laws* that makes it possible for people to live sustainably on Earth and safeguard the creation.¹¹

CREATION'S TESTIMONY

These and the many other of God's provisions in creation convincingly proclaim God's love for the world. Creation's telling of God's glory and love is echoed by Scripture's testimony: God lovingly provides the rains and cyclings of water, provides food for the creatures, fills people's hearts with joy, and satisfies the Earth ([Psalm 104:10-18](#); [Acts 14:17](#)). It is through this manifest love and wisdom that creation declares God's glory and proclaims the work of the Creator's hands ([Psalm 19:1](#)). The evangelical words of creation permeate the universe **P. 138** ([Psalm 19:1](#); [Rom. 1:20](#)), and from the very beginning creation's witness to God's integrity and love for the world has been pervasive; its voice has gone out clearly through all the Earth. Creation's evangelical declaration is so forceful that God's eternal power is clearly seen and God's divinity is manifest, leaving everyone without excuse ([Rom. 1:20](#); [Psalm 19:1](#)).

But this powerful statement by creation itself is threatened. First, people are increasingly alienated from creation and its testimony. This alienation comes in part from their increasing separation from the natural world; for example, fewer and fewer people are needed in agriculture, so they move to expanding cities whose growing inner cores often displace and destroy nature. It also comes from the disconnection of human causes from environmental effects, as happens when people come to believe that food comes from the store and gasoline from the pump. Increasingly, this alienation also comes from a diminishing of creation's testimony through environmental degradation, as when once-inspiring rivers supporting diverse life are transformed into waste canals, or when formerly-clear skies are obscured by air pollutants. (How then can we sing the songs of the Creator?) With this increasing estrangement comes complicit involvement in creation's degradation and even energetic work and action that destroys creation. Thus, the long-standing evangelical witness of creation is abandoned, muted, and silenced, accompanied by even greater environmental degradation, in a continuing downward spiral.¹²

Distancing of Redeemer from Creator

Correspondingly, in many churches God as Creator has been distanced from Christ as Redeemer. In the view of some, God has become only one who saves, not the one who created and sustains the world, not the one who expects us to be imaging God in our care of creation. For some—under the continuing influence of the Gnosticism that infected the early church—God has become the one who saves us **p. 139** out of creation.¹³ This

¹¹ A full treatment of the provisions of the biosphere, in addition to a description of environmental degradations and needed responses can be found in G. Tyler Miller, Jr., *Living in the Environment* (Belmont, California: Wadsworth, 1992).

¹² A more comprehensive treatment of creation's testimony and the responsibility of Christians to acknowledge and preserve this testimony is given in C. B. DeWitt, 'The Christian Broadcaster and the Environment', *Religious Broadcasting* (February, 1992):32-35.

¹³ Saving people 'out of creation' has roots in the Platonic idea that physical nature is a source of ignorance and evil and is a snare to the soul. Joined with the idea of human transcendence, this results in a theology which 'laid most stress on the salvation of the *soul*, and which tended to dismiss as insignificant the body and the creation of which it was a part' (Wilkinson, 1992). For verification that all Christian thought does not make this unbiblical distinction between the physical and the spiritual and does not encourage an

distancing of Savior from Creator has gone so far in some minds that belief in the Creator has been reduced to words without deeds. Mimicing the absurd prospect that Rembrandt-praising art critics might somehow find it acceptable to trample Rembrandt paintings while honoring Rembrandt's name, some Creator-praising people now trample creation while proclaiming Christ's name. Having become distant from the Creator and creation, some Christians comfortably have neglected creation's evangelical testimony, and even assist in bringing creation's degradation.

Such behavior, while distressing, is not surprising, say the scriptures. Early on, the Bible tells us, people chose to go their own way, alienating themselves from God and from the consequences of their sin ([Genesis 1–11](#)). Human beings are described as prone to do anything within their capacity, rather than seeking to do what is right. People are more likely to do what they imagine rather than to do truth, rather than to make belief in God manifest in their deeds (cf [John 3:16–21](#)). And so today, what directs human behavior is not so much what *should* be done but what *can* be done, reflecting God's concern at Babel that 'nothing they plan to do will be impossible for them' ([Gen. 11:6](#)). Breaking down the constraints of stewardship—discarding of the biblical principle of caring for creation and keeping the Garden—some pursue the possible instead of the right, relish darkness instead of the light,¹⁴ bringing about the destruction of the Earth. Forsaking godliness, people may seek to become gods. In contrast with the teachings of [1 Timothy 6:6–21](#) where we are admonished to seek godliness with contentment as our great gain, they may regard profit in terms of how much they can extract and take from creation. The creation groans; they destroy the Earth. p. 140

Unheeding of the message of [Revelation 11:18](#)—neglecting to love, keep, and care for, the world—means forsaking everlasting life. Neglecting to love the world, people degrade and destroy the world. Failing to hear God's word and creation's testimony, they degrade creation. Violating the laws the rest of creation observes, and failing to hear modern prophets who merely describe the present, people plunge toward destruction of Earth and thus also themselves. Using godly, technical, and political language, they fail to see and hear; they deny the reality of creation's present degradation. Many of their leaders read the polls, and then tell the people what they want to hear.

At another time of environmental degradation, six centuries before Christ, Jeremiah described a similar degrading and undoing of creation: 'I looked at the earth, and it was formless and empty; and at the heavens, and their light was gone. I looked at the mountains and they were quaking; all the hills were swaying. I looked, and there were no people; every bird in the sky had flown away. I looked, and the fruitful land was a desert; all its towns lay in ruins before the Lord, before his fierce anger' ([Jer. 4:23–26](#)). Neglecting to do God's will in the world is not new and its environmental consequences have been known for over two thousand years (cf. [Jer. 5:22–23](#), [31](#) and [8:7](#)).

GOD'S LOVE FOR THE WORLD

But the scriptures assure us that God loves the world ([John 3:16](#)). Admonishing people to choose life ([Deut. 30:19](#)), God offers a luminous alternative to destruction: everlasting life

understanding of salvation which turns men and women away from creation, see *Earthkeeping in the Nineties: Stewardship of Creation* Loren Wilkinson, ed. (Grand Rapids, Michigan: Eerdmans, 1982), 299–306. For a theological study of the importance of matter and of creation, and of the unbiblical hatred of creation by Marcion, and by Greek and Gnostic leaders, see Raymond C. Van Leeuwen, 'Christ's Resurrection and the Creation's Vindication', in C. B. DeWitt, ed., *The Environment and the Christian: What Can We Learn from the New Testament* (Grand Rapids, Michigan: Eerdmans, 1991), 57–71.

¹⁴ See [John 3:19](#) and its context, [John 3:16–21](#).

([John 3:16](#)). While those who destroy the Earth themselves will be destroyed, those who truly believe in the Creator, Sustainer, and Reconciler of all things will not. Those who believe in the One through whom the world was made, the One who holds the world together, the One who reconciles the world and all things to himself, will receive the gift of everlasting life. To believe in this One is to honor and to follow Jesus Christ.

How does one follow the Creator of all things, the Author of creation that God repeatedly declares good in [Genesis 1](#)? How does one follow the Sustainer of all things, the Provider for creation, the Integrator of all things? How does one follow the Savior who takes whatever is degraded in the world God loves and makes it right again?

Biblical Principles for Creation Stewardship

How to follow Jesus—the Creator, Sustainer, and Reconciler of all creation—is something we learn both from the Scriptures and from the [p. 141](#) working out of the love of God in creation. A number of biblical principles can be identified to help bring disciples of Jesus Christ into proper relationship to creation.¹⁵ These principles are:

1. *We must keep the creation as God keeps us.* The Lord blesses us and keeps us ([Num. 6:24–26](#)); we in turn are expected to keep the Earth ([Gen. 2:15](#)). As God’s keeping of us is a loving, caring, nurturing, and sustaining keeping, so must be ours of creation. Imaging God—exercising dominion in the manner of Christ ([Phil. 2:5–8](#)) we join our Creator in keeping creation (also see and study [Gen. 1:28](#) & [Deut. 17:18–20](#)), caring for the land as God does, keeping our eyes continually upon it ([Deut. 11:11–12](#)). ‘He makes springs pour water into the ravines.... They give water to all the beasts of the field.... The birds of the air nest by the waters; they sing among its branches ... the earth is satisfied by the fruit of his work’ ([Psalm 104:10–13](#)). And so too should it be satisfied by ours.
2. *We must be disciples of the Last Adam, not of the First Adam.* We are part of a lineage that has fallen short of the glory of God ([Rom. 3:23](#)). ‘But’, affirm the scriptures, ‘Christ has indeed been raised from the dead ... as in Adam all die, so in Christ all will be made alive’ ([1 Cor. 15:20–22](#)). ‘For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things’ ([Col. 1:19–20](#)). As disciples of the One, ‘by whom all things were made, and through whom all things hold together’, we participate in undoing the work of the First Adam, bringing restoration and reconciliation to *all things* ([John 1](#) & [Colossians 1](#); [1 Cor. 15](#) & [Rom. 5](#); [Isaiah 43:18–21](#), [Isaiah 65](#) & [Col. 1:19–20, 5:17–21](#)).¹⁶
3. *We must not press creation relentlessly, but must provide for its Sabbath rests.* As human beings and animals are to be given their sabbaths, so also must the land be given its sabbath rests ([Exodus 20:8–11](#); [23:10–12](#)). People, land, and creatures must not be [p. 142](#) relentlessly pressured. ‘If you follow my decrees ... I will send you rain in its season, and the ground will yield its crops and the trees of the field

¹⁵ The biblical principles presented here have also been published in ‘Can we help save God’s Earth?’ *ESA Advocate* (April, 1990): 12–13; ‘Respecting Creation’s Integrity: Biblical Principles for Environmental Responsibility’, *Firmament* 3(3): 10–11, 20–21; and ‘Responding Biblically to Creation and Creation’s Degradation’, *Theology New and Notes*, (forthcoming). They are also available on audiotape from the Evangelical Lutheran Church in America, Environmental Stewardship Office, 8765 West Higgins Road, Chicago, Illinois 60631 U.S.A., telephone number 1-800-638-3522, ext. 2708.

¹⁶ For a theological study of this topic, see Ronald Manahan, ‘Christ as the Second Adam’, in C. B. DeWitt, ed., *The Environment and the Christian: What Can We Learn from the New Testament* (Grand Rapids, Michigan: Eerdmans, 1991), 45–56.

their fruit' ([Lev. 26:3](#)). Otherwise, the land will be laid waste, only then to 'have the rest it did not have during the sabbaths you lived in it' ([Lev. 26:34-35](#))!

4. *We may enjoy, but not destroy, the grace of God's good creation.* The abundant gifts and fruitfulness of God's creation were not enough for Adam or his seed: in pressing for more and yet more there is even a willingness to destroy creation's sustaining fruitfulness. Our Sovereign Lord says: 'Is it not enough for you to feed on the good pasture? Must you also trample the rest of your pasture with your feet? Is it not enough for you to drink clear water? Must you also muddy the rest with your feet?' ([Ezek. 34:18](#); see also [Deut. 20:19](#) & [22:6](#)).
5. *We must seek first the kingdom, not self-interest.* This, then is how you should pray: 'Our Father in heaven, hallowed be your name, your kingdom come, your will be done on earth ...' ([Matt. 6:9-10](#)). It is tempting to follow the example of those who accumulate great gain, to creation's detriment. But the scriptures assure us: 'Trust in the Lord and do good; dwell in the land and enjoy safe pasture ... those who hope in the Lord will inherit the land' ([Psalm 37](#); [Matt. 5:5](#)). Fulfillment is a *consequence* of seeking the kingdom ([Matt. 6:33](#)).¹⁷
6. *We must seek contentment as our great gain.* The fruitfulness and grace of the Garden—the gifts of creation—did not satisfy Adam and subsequent generations ([Gen. 3-11](#)). Even as God promised not to forsake them, they chose to cut out on their own—squeezing ever more from creation. Our Creator wants us to pray: 'Turn my heart to your statutes and not toward selfish gain' ([Psalm 119:36](#)). Paul, who has learned the secret of being content ([Phil. 4:12b](#)), writes: 'godliness with contentment is great gain ...' ([1 Tim. 6:6-21](#); also see [Heb. 13:5](#)).
7. *We must not fail to act on what we know is right.* Knowing God's requirements for stewardship is not enough; they must be practiced, or they do absolutely no good. Hearing, discussing, singing, and contemplating God's message is not enough. The hard saying of scripture is this: We hear from our neighbors, 'Come and p. 143 hear the message that has come from the Lord.' And they come, 'but they do not put them into practice. With their mouths they express devotion, but their hearts are greedy for unjust gain. Indeed, to them you are nothing more than one who sings love songs with a beautiful voice and plays an instrument well, for they hear your words but do not put them into practice' ([Ezek. 33:30-32](#); see also [Luke 6:46-49](#)). Believing on God's Son ([John 3:16](#)), we must *do* the truth, making God's love for the world evident in our own deeds, energetically engaging in work and action that are in accord, harmony, and fellowship with God, and God's sacrificial love ([John 3:21](#)).

Following the Creator, Sustainer, and Reconciler of all creation is much more than reading—or even acting upon—these seven biblical principles. But they can bring us more deeply into the scriptures and into contact with God's wider creation. From this greater penetration and broader comprehension of God's word and world we can become better disciples of Jesus Christ. No doubt, we all are guilty—for 'all have sinned and come short of the glory of God'—but our work is done out of joy and gratitude to God. For we have God's forgiveness—not forgiveness that gives license to continue in sin 'that grace may abound', but rather forgiveness that permits joyful service in doing God's work in the world God loves so much. Joyful and grateful for God's love for us and the world, we expectantly pray, 'Thy kingdom come, Thy will be done. On earth....'

¹⁷ For a related theological study see 'The Kingdom of God and Stewardship of Creation', by Gordon Zerbe, in C. B. DeWitt, ed., *The Environment and the Christian: What Can We Learn from the New Testament* (Grand Rapids, Michigan: Eerdmans, 1991), 73-92.

Stumbling Blocks to Creation's Care and Keeping

There are troublesome stumbling blocks in the way of creation-keeping discipleship. All of us know of these stumbling blocks and most of us have stumbled over them, thereby denying ourselves the experience of full stewardship under God. Some of these we have invented ourselves and others have been devised by our friends. We must identify these to clear the way for doing the service to which we are called. What are these stumbling blocks?

Some of the major ones may be identified as follows:

1. *This world is not my home. I'm just passing through.* (Since we are headed for heaven anyway, why take care of creation?) It is true that those who believe on Jesus Christ (as Creator, Sustainer, Reconciler, and Redeemer), will receive the gift of everlasting life. This everlasting life began with our birth and includes the here-and-now. [p. 144](#) And we in the here-and-now take care of our bodies, our teeth, and our hair, even though 'the length of our days is seventy years—or eighty ...' ([Psalm 90:10](#)). Similarly, we take care of our buildings even though the largest of these—the skyscrapers—are constructed with both a construction plan and a demolition plan on file (to allow their safe destruction a hundred years or more later). Perhaps our learning how to take care of things in this moment of eternity is important for the care of things with which we will be entrusted later? [Revelation 11:18](#) and other biblical teachings on care and keeping of creation certainly move in this direction. A pastor friend of mine sums this up by saying, 'We should so behave on earth that heaven is not a shock to us!'
2. *Caring for creation gets us too close to the New Age movement.* (Isn't concern for the environment and working for a better world what the New Age movement is all about? I don't want people to think I am a New Ager.) The Bible, of course, has the corner on the kingdom of God, not the New Age movement. For thousands of years now, believers have looked forward to the coming of the kingdom of God and it is for this they continue to look when they pray, 'Thy kingdom come....' Many of those in the New Age movement have never been told of the kingdom of God and, not having received the gospel, are doing what they can to invent their own. As the Apostle Paul did for the people on Mars Hill in Athens—connecting their altar to the unknown god to the living God—so also should we do for the people in the New Age movement. We need to tell them that the new age they seek is the kingdom of God, bringing them the Good News. '... how can they hear without someone to preach to them?' ([Rom. 10:14b](#)).
3. *Respecting creation gets us too close to pantheism.* (If you care for plants and animals, and especially if you value the keeping of endangered species, you are close to worshipping them as gods.) Pantheism and panentheism are growing problems and (surprisingly in this age of science), worship of creatures is increasingly practiced. Thus, we must be careful to worship the Creator, and not the creatures; we must be clear in our conveying the good news that God is the Creator and that the awe and wonder we develop from the study of creation is to be directed not at creation but to its Creator. As Paul teaches in [Rom. 1:25](#) and Luke in [Acts 14:14–18](#), it is necessary to make this distinction. But this problem does not mean that we may deny or avoid taking care of creation. The example of Noah is instructive to us here: Noah cares for the creatures, and preserves the species endangered by [p. 145](#) the flood not because they are gods, but because God required it of him to keep the various species and kinds alive on the Earth.

4. *We need to avoid anything that looks like political correctness.* (Being 'politically correct' these days means being pro-abortion and pro-environment, and I'll have nothing to do with that.) The Ku Klux Klan—a racist organization in the United States—uses the symbol of the cross in its terrorizing activities. Does this mean that Christians no longer should use the symbol of the cross on their churches? Some New Age people use the symbol of the rainbow in their literature. Does this mean that Christians who know this to be the sign of God's covenant with 'every living creature on earth' ([Gen. 9:1-17](#)), should stop using this symbol in their educational materials? People who identify themselves as 'politically correct' may advocate saving uneconomic species from extinction. Does this mean that there can be no new Noahs who, in response to God's call to save species from extinction, will act to preserve God's living creatures? Not only must we, as the children's hymn says, 'Dare to be a Daniel, dare to stand alone', but we also must 'Dare to be a Noah', even when we find ourselves complementing the work of a thousand unbelieving Noahs.
5. *There are too many worldly people out there doing environmental things.* (If people who don't share my beliefs in God and Jesus Christ are working to save the Earth, I know it can't be right for me.) God calls Cyrus into divine service. We read in [Isaiah 45](#) that unbelieving Cyrus is anointed to do God's work. Often, if God's people are unwilling or unable to do God's work, God sees to it that the work gets done nonetheless. And so, if there are some worldly people out there clearly doing God's work, it must not be used to excuse ourselves from our God-given task as stewards of God's creation.
6. *Caring for creation will lead to world government.* (If we tackle global environmental problems, won't we have to cooperate with other nations and that will help set the stage for world government.) There is no doubt that cooperation will be necessary in order to address many of our environmental problems. Migrating birds, for example, do not recognize international boundaries; therefore their care requires cooperation. That this does not have to lead to world government is illustrated by the work of the International Crane Foundation through whose work cooperation has been achieved between Russia and China and between North Korea and South Korea, in the keeping of wetland habitats and birds. [p. 146](#)
7. *Before you know it we will have to support abortion.* (Because of the relationship between environmental degradation and growing human population, we will soon find ourselves having to accept abortion as a solution to environmental problems.) Our obligation and privilege to care for God's creation does not give us license to use whatever means we have at our disposal to address environmental problems. The fact that many people use abortion and justify it in terms of the need to reduce population growth does not mean that people who are convicted of a God-given responsibility of stewardship cannot proceed to take care of the Earth, including population problems.
8. *I don't want to be an extremist or alarmist.* (I want to be considered normal and not some kind of prophet of gloom and doom.) Gloom and doom are not necessary components of the message that needs to be brought to people about caring for creation. Frightening ourselves into action is far less desirable than caring for creation out of a love for the Creator and in gratitude and joy in keeping the Earth. As for being called an alarmist, is it wrong to sound the fire alarm when a building is burning? In many cases today it may be necessary to sound the alarm, just as did the prophets in their day.

9. *Dominion means what it says—oppressive domination.* (I think the Bible says that we have the right to destroy things that get in our way; that's what dominion is all about.) Many, particularly critics of Christianity, have pointed to [Genesis 1:28](#) to show that the Bible is the root cause of environmental problems. That this verse has been used in isolation from the rest of the scriptures cannot be denied. But dominion as outright oppression is not advocated or condoned by the scriptures. First, the [Genesis 1:28](#) passage gives the blessing and mandate to people before the Fall. Second, this passage must be understood in the context of the rest of the Bible. If this is done, one must come to the conclusion that dominion means responsible stewardship, to which the biblical principles presented in this paper attest. The Christian model for dominion is the example of Jesus Christ, who, given all dominion, and 'Who, being in very nature God ... made himself nothing, taking the very nature of a servant ... he humbled himself and became obedient to death—even death on a cross!' ([Phil. 2:6-8](#)).
10. *People are more important than environment.* (I'm for people, and that means that people are more important than saving species of plants and animals—if anything is endangered it is people, not furbished louseworts or snail darters.) This is an oftenheard [p. 147](#) rationalization for not saving living species threatened with extinction. Our question here should be 'what does the Bible teach?' We have an actual instance in the account of the flood given in [Genesis 6-9](#). We need to ask: Who perishes, and who is saved? Are species less important than individual people? Is the environment of people less important than the people this environment supports? God respects the environment so much that God calls heaven and Earth as witnesses against people ([Deut. 30:19](#)), witnesses to the fact that God has set before them the choice and admonishes them to choose life.

THEN WHAT MUST WE DO?

A challenge confronts us that emerges from knowing the ongoing and accelerating degradation of the Earth, from the scriptures that require us to keep the Earth, and from stumbling blocks that prevent many evangelical Christians from taking action. Having set forth the challenge that confronts us, we now are prepared to ask, "Then what must we do?"

The simple (yet profound), response to this question appears to be this: Love God as Redeemer and Creator; acknowledge God's love for the world, and act upon this by following Jesus who creates, upholds, and reconciles all things.

But most people have been alienated from the Creator and God's creation, and thus it is difficult to love, uphold, and make right a world that we really do not know. Thus many will have first to become aware of creation and its God-declared goodness. From this awareness, we can move to appreciation, and from appreciation we can move to stewardship. This can be described using the following framework:

1. Awareness (seeing, identifying, naming, locating).
2. Appreciation (tolerating, respecting, valuing, esteeming, cherishing).
3. Stewardship (using, restoring, serving, keeping, entrusting).

Our ultimate purpose is to honor God as Creator in such a way that Christian environmental stewardship is part and parcel of everything we do. Our goal is to make tending the garden of creation in all of its aspects an unquestioned and all-pervasive aspect of our service to each other, to our community, and to God's world. Awareness

stands at the very beginning as the first of three components of creation stewardship. p. 148

Awareness means bringing things to our attention. In a time when so much calls for our attention foreign affairs, local politics, jobs, or traffic—the creation in its natural aspects does not even seem real to us. We might find that it seems real only on some of our travels, and even then it may be seriously obscured. We must consciously make ourselves aware of what is happening in God's creation.

Awareness involves seeing, naming, identifying, locating. It means taking off the blinders provided us by ourselves and society so that we not only see God's creation, but want to name and know the names of the things we see. It means providing ourselves with enough peace and thoughtfulness that we have the time and the will to identify a tree or mountain, bird or river. It means having the sense to enter the natural world intentionally in order to locate and find God's creatures we sing about each week in the doxology, 'Praise God all creatures here below'.

But awareness is not an end in itself. From awareness comes appreciation; we cannot appreciate that of which we are unaware. At the very least, appreciation means tolerating that of which we are aware. We may tolerate worms and hyenas, for example, and in so doing appreciate them. But beyond toleration, appreciation can also mean respect. We certainly respect a large bear, but we also can develop respect for a lowly worm as we learn of its critical importance to the rest of creation (including ourselves). Appreciation can build from tolerating, to respecting, to valuing. We know that God declares creation to be good, and we will find that God does so for good reason! As we become aware of the order of creation, we will find ourselves imaging God's valuing of the creatures. And this will build even further until much of what we discover we will even esteem and cherish. Thus, awareness will lead to appreciation.

But appreciation does not end the matter either, for appreciation leads to stewardship. At first stewardship may mean the use of creation; perhaps our appreciation for a flower will lead us to put it in a vase to decorate our table. But stewardship will bring us well beyond appropriate use to restoration of what has been abused in the past. The widespread lack of awareness and ignorance of creation and creation's integrity means that we and many others have abused and degraded the environment unknowingly, and stewardship means that we will work to set things right again—to reconcile and redeem. We might even buy back something degraded to make it right again.

Beyond restoration, stewardship means serving. As we understand that God through creation is in so many ways serving our own lives, we will return this service with our own. This service will include a p. 149 loving and caring keeping of what we hold in trust. And, our service in creation will ultimately even involve our entrusting others with what we have served, kept, and restored.

Christian environmental stewardship—our loving care and keeping of creation—is a central, joyful, part of the human task. As communities of God's stewards—as the body of the One who made, sustains, and reconciles the world—our churches and our lives can be, and must be, vibrant testimonies to our Redeemer and Creator.

'Thou art worthy, O Lord, to receive glory and honour, and power: for thou hast created all things, and for thy will's sake they are, and have been created' ([Rev. 4:11](#) GB).

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II

Biblical and Theological Reflections

The deep roots of Christian environmental stewardship lie in oft-neglected elements of the biblical record. The Hebrew Scriptures reflect the concern of the Law for the land and its inhabitants, for the goodness of creation and the need for all living things to enjoy a Sabbath. Christian Scriptures draw out the meaning of a Christ whose divine work is for the sake of all creation. They lead to the expectation of a new creation in the kingdom of God. These profound dimensions of the biblical record are drawn together below in essays that confront contemporary culture with the ecological message of the Bible. Chris Wright surveys a number of biblical teachings on land, delineating what that relationship means for humanity and nonhuman creation. Reviewing the several threats to creation, Praveen Kapur sounds the call for Christian churches to wake up and address these issues out of the depth of their biblical faith. Loren Wilkinson, Thomas Finger, and Bruce Nicholls turn their attention (individually) to challenging elements of modern society and Christian responses to them. Wilkinson addresses the 'Gaia' spirituality now emerging from New Age and other movements, and invites us to embrace rather the new creation. Finger helpfully sketches some of the most important modern understandings of psychological, social, and ecological alienation, and of contemporary theological and spiritual responses to them. He then offers a biblically-based interpretation of alienation—including those sins that disrupt our relationship to the rest of creation—and finds an answer in the saving work of our Creator. Nicholls reviews the analyses of scientism, fundamentalism (among all faiths), humanism, Marxism, and the New Age movement, and commends rather a faith that reads creation through the eyes of the Creator. In their totality, these essays make a compelling case that evangelical Christians must be stewards of the creation entrusted to them by their Creator. **p. 153**

Biblical Reflections on Land

Chris Wright

GOD'S EARTH: REFLECTIONS FROM CREATION

This essay does not pretend to be a comprehensive study of the biblical teaching on the Earth or the land, but offers a number of reflections on that theme. Reflections on land obviously have to begin with the biblical theme of creation as it is found in the familiar texts of [Genesis 1–11](#), and also poetic texts such as [Pss. 33, 104](#), etc.

The Goodness of Creation

The goodness of creation is one of the most obvious points of [Genesis 1](#) and [2](#), in view of its repetition.¹ It sets the Hebrew account of creation in contrast to other Ancient Near Eastern accounts where powers and gods of the natural world are portrayed in various degrees of malevolence. Part of the meaning of the goodness of creation in the Bible is that it witnesses to the God who made it, reflecting something of God's character. (e.g. [Pss. 19, 29, 50:6, 66, 104, 148, Job 12:7–9, Acts 14:17, 17:27, Rom. 1:20](#)). Thus, it is fair to make an analogy to the text 'He who oppresses the poor shows contempt for their Maker' ([Prov. 14:31](#), cf. [17:5](#)), along the lines of 'He who destroys or degrades the earth dirties its reflection of its Maker'.

Creation, Distinct and Dependent The affirmation that God created the heavens and the Earth implies a fundamental ontological distinction between God as creator and everything created. This duality is essential to all biblical thought and to a Christian world view. It should not be confused with other kinds of unbiblical dualism (e.g. between body and soul). It stands against both monism and pantheism and thus is a major biblical point of contrast and polemic with a New Age spirituality that adopts a broadly monistic world view.

The Bible not only denies the idea of ontological identity between the world and God, it also denies the idea that the world is a self-sustaining biosystem. The 'Gaia hypothesis', as originally proposed by James E. Lovelock is a hypothesis about the interconnectedness of the [p. 154](#) whole biosphere.² Lovelock himself, while he suggested that the Earth seems to behave like a single organism, a huge living creature, did not personalize nature in the sense of regarding the whole biosphere as a divine being and indeed has rejected such religious metamorphoses of his work. But Gaia has certainly been taken that way in popular presentations of New Age thinking. The Earth itself is regarded as God.

The Bible, however, portrays the whole universe as separate from God and dependent on God for its existence and its sustenance. This is not to deny that God has built into the Earth an incredible capacity for renewal, recovery, balance, and adaptation. But the way all these systems work and interrelate is planned and sustained by God.³

The combination of these two points means that Christian ecological ethics need not be tarnished with some of the implicit or explicit pantheism of certain brands of 'Deep Green' ecology.⁴ Evangelicals are easily repelled by the radical politics of some green advocates or the New Age links of others, and then fall into ecological indifference or

¹ Ron Elsdon makes the theme of the goodness of creation the thread running through his survey of biblical material in both testaments on this issue in his book, *Green House Theology: Biblical Perspectives on Caring for Creation* (Tunbridge Wells: Monarch, 1992).

² James Lovelock, *Gaia: A New Look at Life on Earth* (London: Oxford University Press, 1979). For a survey and critique of New Age ecological views and their influence on recent Christian thought, see Loren Wilkinson (ed.), *Earthkeeping in the Nineties: Stewardship of Creation* rev. ed. (Grand Rapids, MI: Eerdmans, 1991), 181–199, and *idem.*, 'New Age, New Consciousness and the New Creation', in W. Granberg-Michaelson (ed.), *Tending the Garden: Essays on the Gospel and the Earth* (Grand Rapids, MI: Eerdmans, 1987), 6–29.

³ I have enjoyed immensely reading James Gleick, *Chaos: Making A New Science* (New York: Viking, 1987), with its fascinating account of the mysteries of living and dynamic systems, inorganic, organic, and human, and the progress being made in understanding some of their inner simplicities. Gleick refers in passing to Lovelock's hypothesis, but his book is not interested in the religious or philosophical aspects of its topic, but is a historical and descriptive account of 'chaos theory' in several branches of science.

⁴ Cf. Stephen Bishop, 'Green Theology and Deep Ecology: New Age or New Creation?', *Themelios* 16.3 (April 1991): 8–14.

conspiracy-hunting paranoia.⁵ Yet, distortions must be opposed with biblical truth rather than apathy or hostility.

Creation Desacralized

The distinctness of creation from God not only rules out monism, it also ruled out nature polytheism, which was much more prevalent in the cultural and religious environment of Israel. Nature itself and [p. 155](#) natural forces were desacralized in the faith of Israel. That is, they had no intrinsic divine power. Thus, on the one hand, the fertility cults of Canaan were rejected, because Israelites were taught that Yahweh provided the abundance of nature for them (e.g. [Hos. 2:8ff](#)), and on the other hand, the immensely powerful and influential astral deities of Babylon were unmasked as nothing more than created objects under Yahweh's authority ([Isa. 40:26](#)). In both cases, Israel's distinctive belief about creation brought them into severe cultural and political conflict with surrounding world-views. The Hebrew Bible certainly can be seen to inculcate respect and care for nonhuman creation, but it resists and reverses the tendency to sacralize or personalize it.⁶

Creation and Humanity It is not quite true to say that human beings were the climax of God's creation in [Genesis 1–2](#). The real zenith comes with God's own Sabbath rest as God entered into the enjoyment of God's 'very good' creation. Yet even 'the Sabbath was made for man', said Jesus. The Sabbath day, recurrent reminder of the deeper 'rest' that was and remains God's purpose for creation as a whole, is for human benefit, and in that respect mirrors the rest of creation.

It is important to note that the creation is not solely for human benefit. The Old Testament gives it value in relation to God directly, to glorify and to bring delight to God. Creation is good and beautiful independently of our presence within it and our ability to observe it. This is at least part of the thrust of the speech of God in [Job 38–39](#) with its majestic descriptions of created glories and curiosities, some of which are not even observed by humans, let alone for their direct benefit (cf. [Job 38:25ff](#)). It is also significant that in the creation [p. 156](#) narratives of [Genesis 1](#), the affirmation 'It is good' was not made by Adam and Eve, but by God. That is, the goodness of creation (including its beauty), is theologically and chronologically prior to human observation. It is something that God 'saw' before humanity was around to see it. So the goodness of creation is not merely a human reflective response to a pleasant view on a sunny day, but the seal of divine approval on the whole universe.

⁵ Cf. Constance Cumbey, *The Hidden Dangers of the Rainbow: The New Age Movement and Our Coming Age of Barbarism* (Shreveport, LA: Huntingdon House, 1983), and Dave Hunt, *Peace, Prosperity and the Coming Holocaust* (Eugene, Oregon: Harvest House, 1983).

⁶ It is important to distinguish between personalizing and personifying nature. The Old Testament frequently personifies nature as a rhetorical device, a figure of speech, for greater effect. For example, the heavens and earth are summoned to bear witness to God's address to his people (e.g. [Deut. 30:19, 32:1, Isa. 1:2, Ps. 50:1–6](#)), they declare his glory ([Ps. 19](#)), they rejoice at his judgement ([Pss. 96:13, 98:7–9](#)). Most vividly, the land itself 'vomited out' the previous inhabitants for their wickedness, and did the same to the Israelites when they followed suit ([Lev. 18:25–28](#)). But the point of this rhetorical personification of nature is to underline either the personal character of the God who created it and is active in and through it, or to express the personal and moral nature of human beings' relation to God. It is not ascribing personhood to nature or natural forces in themselves. In fact, to personalize nature in that way results in both de-personalizing God and de-moralizing the relationship between humanity and God. To accord to creation the personal status and honor that is due only to God (or derivatively to humans who bear his image) is a form of idolatry as ancient as the fall itself (cf. [Rom. 1:21–2](#)), though now given new characteristically twentieth century dress in the New Age movements.

The Bible does recognize the uniqueness of human beings, however, both in the fact that they alone have been made in God's own image, and in the fact that God explicitly gives human beings a position of priority within creation ([Gen. 1:29](#), [2:9ff](#), [Pss. 65:9](#), [104:15](#), etc.). Indeed, there is a view in science known as 'the anthropic principle' that suggests that the initial conditions at the origin of the universe—as these are understood within Big Bang theory—had to be precisely set in order to produce the relatively recent conditions in which human life on planet Earth has been possible, with its incredible potential for discovering what those initial conditions actually were.⁷

This principle need not be derided as the kind of anthropocentrism that gives us license to abuse, neglect, or destroy the natural environment. The accusations of Lynn White, Jr.,⁸ and others may be justified to some extent in regard to the arrogance of Christian cultures towards creation. But they are not justified biblically.

On the other hand, the anthropic principle gives biblical legitimacy to the priority of human beings within the created order. Rejected as 'speciesism' by some deep ecologists, this principle has to be maintained by Christian ethics in relation to environmental issues and the emotive question of animal rights. The uniqueness of human beings by virtue of their definitive nature as the image of God means that wherever a conflict exists between human needs and those of other animate or inanimate parts of creation—a conflict that cannot be satisfactorily resolved by meeting the needs of both simultaneously—then human beings take priority. This raises enormous issues of justice as well as environmental ethics, as the Rio Earth Summit highlighted. From a Christian point of view, it is this principle that makes the conflict, in some contexts, between developmental and environmental objectives so sharp.

Servanthood The word *stewardship* is commonly misused either as [p. 157](#) appeals for money (in Christian circles) or as a sanitizing euphemism for unscrupulous exploitation of resources (in non-Christian circles). The term *servanthood* reflects two biblical truths: first, that Christ, as Lord of creation exercised his Lordship historically through becoming a servant, so dominion through servanthood is both biblical and Christlike; second, that God's instruction to the man he placed in the garden in Eden was literally 'to serve it and keep it' ([Gen. 2:15](#)). Humans have been given dominion over the rest of creation, but it is to be exercised by serving creation on God's behalf.

God entrusted the Earth to human management ([Gen. 1:28](#), [2:15](#)) and has not revoked the trust deed, in spite of the mess we have made of it. The concept of 'dominion' has been misunderstood (as mentioned above), but biblically it includes both responsibility for the Earth and its non-human resources (cf. the concern for trees and animals in Old Testament law, e.g. [Deut. 20:19ff](#), [22:1–4](#), [6](#), [25:1](#)) and the exercise of justice in human economic relationships.

Elsewhere, I have suggested four basic principles that are threaded through the economic understanding of stewardship (in its proper sense) in the Old Testament:

1. shared access to natural resources (in view of the fact that the Earth was given to humanity as a whole)
2. the right and responsibility of productive work
3. the expectation of growth and the naturalness of exchange and trade

⁷ Stephen Hawking discusses various versions of the anthropic principle (though he disagrees with them) in *A Brief History of Time* (London: Bantam Press, 1988), 124ff.

⁸ 'The Historical Roots of Our Ecological Crisis', *Science* 155 (1967) 1203–1207.

4. justice in the sharing and use of the products of human effort.⁹

Earth Under Curse: the Fall The biblical description of the entrance of sin and evil into human life significantly includes its effect in the realm of the human relation to the Earth, and particularly the soil. I do not enter here into the debate as to whether the fall of humanity can be said to be responsible for all the phenomena in nature that humans regard as threatening or catastrophic.¹⁰ But the event described in [p. 158 Genesis 3](#) is portrayed as having radically distorted and fractured our relationship with the Earth itself, and—as Paul points out ([Rom. 8:20ff](#)), probably echoing Ecclesiastes—as having frustrated the creation’s function in relation to God. In my view, much Christian thinking about the Earth does not take sufficient account of the biblical reality of God’s curse upon it. Perhaps it is an evangelical discomfort with God being associated with anything ‘not nice’. It is easier to lay all the blame on the devil. Perhaps there is also a lack of familiarity with Ecclesiastes.

Earth Under Covenant: Noah Much other Christian thinking about the Earth too readily jumps on the band-wagon of doom and gloom, as if the fate of the entire cosmos depended on which deodorant spray we use. This is to ignore the tremendous significance of the covenant with Noah. God has entered into a covenant commitment with all life to preserve the necessary conditions for life on the planet, explicitly not just human life ([Gen. 8:21ff, 9:8–17](#)). How long God will continue to do so is not stated, except that it will be ‘as long as the earth endures’. The point is that the future of the planet rests finally in God’s hands, not ours.

This is not meant to induce complacency or indifference to urgent environmental issues. As human beings we could contrive to destroy much of the planet or to render it virtually uninhabitable. But such a catastrophe (if it ever takes place), will not be outside the sovereign will and power of God and God’s purpose in history. We live not only on a cursed Earth, but also on a covenanted Earth, and we must cope with the tension. It is tragic that the rainbow has been hijacked as a New Age symbol when it could and should be the symbol of positive, hope-filled Christian affirmation about our world.

ISRAEL’S LAND: REFLECTIONS FROM REDEMPTION

Noah: Prototype of New Creation

Noah got his name (echoes of ‘comfort’ and ‘rest’) because of his father Lamech’s longing for God to lift the curse from the Earth ([Gen. 5:29](#)). This is a clue to the earliest biblical understanding of what salvation should mean. If the effect of sin was to blight and belabor human existence on the Earth by laying it under curse, then this antediluvian longing points to the answer: let God remove the curse from the Earth. The answer is not to let human beings escape to heaven somewhere, leaving the Earth behind. The consistent biblical hope (from Genesis to Revelation), is that God should do something with the Earth so that we can once again dwell upon it in ‘rest’, with God. The Bible speaks predominantly of God coming here, not of us going somewhere else. [p. 159](#)

⁹ See Chris Wright, *An Eye for an Eye* (Downers Grove, IL: Inner Varsity Press, 1983), ch. 4.

¹⁰ This is a deep and complex issue that the Au Sable Forum itself was not able to resolve. One question is whether the curse on the Earth is ontological (i.e. affects the very nature of the cosmos as it now is), or functional (i.e. affecting only our human moral relationships with the Earth and God). Another question is whether features of nature that we as human beings find unpleasant—such as carnivorous species—are the result of the fall or were always part of the way things were long before humans existed, let alone sinned. Cf. the response to Stephen Bishop’s article by Michael Roberts in *Themelios* 17 (October 1991):16.

Lamech did not see the answer to the wish he made on Noah's birthday. In biblical reckoning, he missed it by five years, and was probably glad for it. But when it came, it was an act of simultaneous judgment and salvation that in both dimensions included the natural creation along with human beings. The flood is a prototype of both sides of God's response to the cursed Earth: destruction and renewal. An old sinful world perished. A new world began as Noah's family and his animal menagerie stepped out onto Mount Ararat. The echoes of the creation narrative are strong in [Gen. 8:17](#). It was, of course, still the old world not yet washed clean of its sin, as the narrative quickly shows. But the whole story becomes the sign not only of God's commitment to life on Earth while it lasts (in the covenant tied up with its rainbow ribbon), but also of the coming final judgment and renewal: the new creation (cf. [2 Pet. 3](#)).

The Covenant with Abraham

Given this biblical emphasis upon the renewal of the Earth, it is not surprising that the covenant promise that actually launched the word of redemption in history included land in its terms. In purely statistical terms, land is clearly the dominant note in the ancestral promise. Out of forty-six references to the promise to Judea in Genesis, only seven do not mention the land while twenty-nine refer solely to it (e.g. [Gen. 28:4](#), wherein the blessing of Abraham is simply possession of the land).¹¹

There is thus a continuity and consistency in the total biblical story. [Genesis 1–11](#) shows humanity on God's Earth, but living in a state of alienation from it and longing for restoration and the removal of the curse from the land. The concluding vision of Scripture looks to a new creation in which God will once again dwell with redeemed humanity. The foundational redemptive covenant of grace with Abraham, therefore, includes land in order to make particular and local what will ultimately be universal—blessing not only to all nations but also to the whole Earth itself. [p. 160](#)

Israel's Land as Microcosm of the Earth

It follows from the above point that Canaan, as the land of Israel, has to be viewed in the light of the universality of the Abrahamic covenant as well as its particularity. That is, while the historical gift of the land to the tribes of Israel is certainly described in the Old Testament as the direct action of God in faithfulness to his promise to Abraham, that promise had as its ultimate scope the blessing of all nations. Its other two main ingredients have that in view: posterity (the fact that Abraham would become a nation, which would be the vehicle of God's blessing to the nations); and relationship (the special covenant relationship between God and Israel, which the Old Testament envisages being ultimately extended to the nations). The land element has to be viewed consistently in the same universal context. Israel possessed its land as part of its mission in relation to the rest of the nations and as part of God's redemptive intention for the whole Earth. That is a vitally important point concerning the concept of election.

Now this link between the land of Israel and the whole Earth can be viewed eschatologically. But in my view it is also vitally important as the basis for a *paradigmatic* understanding of the relevance of Old Testament Israel to other cultures and societies separated by history and geography. Israel was created and commissioned to be 'a light to the nations'. There was, therefore, a sense in which everything connected with them was exemplary in principle. The gifts of land to live in and law to live by were intrinsic to

¹¹ A detailed survey of the material is given by G. von Rad, 'The Promised Land and Yahweh's Land in the Hexateuch', in *The Problem of the Hexateuch and Other Essays* (London: SCM, 1966) and (Philadelphia, Fortress, 1984), 79–93.

the way God shaped Israel to be a model people. The particulars of Israel's social, economic, and political structures must be read in light of the universal goal of their existence in the first place. I believe this to be an important hermeneutical principle that helps to unlock the relevance of the Old Testament for our own ethical construction—in many areas, including ecology.¹² p. 161

Among the clearest parallels between creation teaching about the whole Earth and Israel's theology of their land are the twin themes of divine ownership and divine gift. The creation basis of Old Testament teaching gives us two complementary truths about the Earth: on the one hand, it belongs to God who made it ([Ps. 24:1](#), [89:11](#), [95:4ff](#), [Jer. 27:4ff](#), [1 Chron. 29:11](#)); on the other hand, it has been given and entrusted to human beings ([Pss. 115:16](#), [8:6](#), [Gen. 1:28–30](#)). God, as ultimate owner, thus retains the right of moral control over how the Earth is used. As we saw above, human beings, as stewards and managers, are accountable to God for the care and use of the Earth and all its resources.

Israel's system of land tenure embodied the same two principles. On the one hand, the land was God's gift to Israel, an essential part of the promise to Abraham and a tangible proof of his faithfulness. As their 'inheritance',¹³ it was at the heart of their covenant relationship to Yahweh. On the other hand, the land was still owned by God ([Lev. 25:23](#)), so that as divine landlord he retained authority over how it should be used. Hence Israel's whole economic system was subject to God's moral critique. The paradigmatic connection between Israel as a society and the rest of humanity means that we can make positive use of Israel's comprehensive and detailed laws and institutions concerning the distribution and use of land in our own efforts to think biblically about economic and environmental ethics in our day. This gives us a broader and richer set of resources, with a greater degree of practical specificity and sharpness, than the application of the creation principle of stewardship alone. While fundamental and challenging, that principle is higher up the ladder of abstraction, whereas the specific land economics of Israel are at ground level.

Creation Values in Redeemed Economics When we turn to examine the details of Israel's economic legislation, it is possible to see how so much of it was geared to restoring the creation values referred to above. In a fallen world, such a restoration cannot be total, so one finds the same kind of tension in Old Testament economics between the ideal and the given reality that is also there in other aspects of p. 162 Hebrew law and ethics (e.g. on divorce, slavery, etc.). Thus, taking up each of the four principles referred to:¹⁴

¹² This understanding has been pivotal in my own reflection on Old Testament ethics. Cf. *Living as the People of God*, USA title: *An Eye for an Eye*, ch. 2. Recently I tried to summarize the point thus: Given Israel's role in relation to God's purpose for the nations, and given the law's function in relation to that mission of Israel (e.g. [Ex. 19:3–6](#), [Deut. 4:1–8](#)), we can see that the law was designed (along with many other aspects of Israel's historical experience), to mould and shape Israel in certain clearly defined directions, within their own historico-cultural context. That overall social shape, with its legal and institutional structures, ethical norms and values and theological undergirding, thus becomes the model or paradigm intended to have a relevance and application beyond the geographical, historical and cultural borders of Israel itself. The particularity of Israel then becomes not a hindrance to universal application, but serves it. My point is that this paradigmatic nature of Israel is not just a hermeneutical tool devised by us retrospectively, but, theologically speaking, was part of God's design in creating and shaping Israel as he did in the first place.

¹³ The Ethical Authority of the Old Testament: A Survey of Approaches', Part II, *Tyndale Bulletin* 43.2 (1992).

¹⁴ Detailed discussion of the points following will be found in *Living as the People of God* (An Eye for an Eye), 76–87. For a fuller and more technical study of Israel's economic system, cf. my *God's People in God's Land: Family, Land and Property in the Old Testament* (Grand Rapids, MI: Eerdmans, Paternoster, 1990). Israel's economic history has received several specific investigations recently, including: J. A. Dearman, *Property Rights in the Eighth-Century Prophets: The Conflict and its Background* (Atlanta: Scholars Press, 1988);

1. Shared access to and use of the land and its resources was built into the initial distribution of the land among the tribes at the time of the settlement. The purpose was made very clear that each tribe, clan, and family should have sufficient according to its size and needs ([Num. 26:52–56](#), [Josh. 13–19](#)).
2. The right and responsibility of productive work are reflected in the sizable number of laws concerning working humans and animals, slaves, hired labor, conditions of work, treatment by employers, payment, Sabbath and festival rest, etc. (e.g. [Ex. 21:1–6](#), [20ff](#), [26ff](#), [Job. 31:14](#), [Lev. 25:39ff](#), [43](#), [Lev. 19:13](#), [Deut. 24:14ff](#), [Jer. 22:13](#), [Ex. 20:11](#), [23:12](#), [Isa. 58:3–14](#), [Deut. 25:4](#)).
3. Economic growth in material goods and provisions is both validated and put under careful control and critique, from the tenth commandment ('You shall not covet') on. The same chapter of Deuteronomy points to the God-given goal of abundance and sufficiency ([8:7–10](#)), and the dangers of excessive surplus ([8:11–18](#)). Of great practical effect in Israel throughout its whole biblical history (as far as the evidence shows), was the principle of inalienability of family land. Land itself was not to be treated as a commercial commodity for private speculation and profit. It could not be bought or sold, except within kinship groups ([Lev. 25:23ff](#)). The story of Naboth ([1 Kings 21](#)) and its context shows that the violation of this principle involved a capitulation to a foreign religious world-view on the one hand and the invasion of gross rural injustice on the other.
4. Justice in the use and distribution of the product of economic activity is also a major concern of Old Testament law. There can be all kinds of non-normative reasons why some people become wealthier and others poorer. The Old Testament law seeks to redress the economic balance by structural measures aimed at the control of debt, especially ([Ex. 22:25](#), [Lev. 25:36ff](#), [Deut. 23:19ff](#), [p. 163](#) [Deut. 24:6, 10](#)), and other tactics to relieve poverty and to restore the poor to dignified participation in the community—gleaning rights ([Lev. 19:9ff](#), [Deut. 24:19–22](#)), storage and distribution of the triennial tithe ([Deut. 14:22–27](#), [26:12ff](#)), the sabbatical year ([Ex. 23:11](#), [Lev. 25:6ff](#), [Deut. 15:13](#)) jubilee year ([Lev. 25:8ff](#)) etc. All of this was part of the structure of Israel's economic system, to encourage justice and compassion in the ordinary vicissitudes of a functioning economy.¹⁵ There is an even more violent reaction of the Old Testament to poverty and injustice caused by direct oppression and greed—i.e. the economic message of the prophets.

The Line between Human Morality and Ecological Health

The land functioned like a moral and spiritual barometer in the Old Testament. Much prophetic anger is directed at economic injustice and oppression in which the abuse and misuse of the land is dominant. On the one hand, Israel fell into the kind of nature polytheism that characterized the Canaanite view of the land, and thus compromised their unique covenant relationship with Yahweh. On the other hand, they allowed economic practices in the use of land (mostly associated with the monarchy), that eventually polarized the nation into a wealthy land-owning elite and an oppressed peasant population. In other words, the land stood at the junction of the vertical and the horizontal dimensions of covenant relationships. The combination of idolatry and injustice is still

Robert Gnuse, *You Shall Not Steal: Community and Property in the Biblical Tradition* (Maryknoll, NY: Orbis, 1985).

¹⁵ A very thorough survey of this material is provided by John Mason, 'Biblical Teaching and Assisting the Poor', *Transformation* 4.2 (1987): 1–14.

much in evidence in our own world, (although we are careful and comprehensive in our evaluation of what constitutes each).

Sometimes the specifically ecological aspect of the covenant is brought into focus. [Psalm 72](#), for example, positively looks for environmental and economic well-being as a by-product of just and benevolent government. Conversely, [Hosea 4:1–3](#) climaxes the list of social evils with the observation that nature itself is suffering the consequences of injustice.¹⁶ [Habakkuk 2](#), in the midst of a series of woes against the Babylonian excesses, includes gross environmental damage along with the normal victims of war.

The violence you have done to Lebanon will overwhelm you, and your destruction of animals will terrify you. For you have shed man's blood; you have destroyed lands and cities and everyone in them ([Hab. 2:1](#)). p. 164

'Lebanon' almost certainly is a figure for forests, as the parallel with 'animals' suggests.

The American deforestation of vast areas of Vietnam in the course of that war, and the Iraqi ecological atrocities in the Gulf War give the ancient prophetic text a chilling relevance.¹⁷

Jesus' Lordship and the Goodness of Creation

Turning briefly to the New Testament,¹⁸ the incarnation itself affirmed and vindicated the goodness of creation. We must take note of the highly positive attitude of Jesus to nature, both in his direct teaching and in his parables (e.g. [Matt. 6:26ff.](#), [10:29](#), etc.). His miracles of calming the storm and walking on the sea demonstrate not merely the power of the Creator, but specifically that power in relation to the element of creation normally associated in Old Testament thought with the chaotic, uncontrollable forces of nature: the sea. This reality makes sense of the astonished question of his disciples ([Matt. 8:27](#)).

ATONEMENT, RESURRECTION, AND CREATION

Paul affirms that through the atoning death of Jesus on the cross, 'all things' in creation have been reconciled to God ([Col. 1:20](#)). The scope of Christ's redeeming work is thus as universal as the scope of his creating and sustaining work ([Col. 1:16ff](#)). Likewise, the resurrection is not only the vindication of the whole created order,¹⁹ but the first-fruits of a new creation.

NEW CREATION AND REFLECTIONS FROM ESCHATOLOGY

As the prophets spoke about the devastating loss of land that came upon Israel in the early sixth century B.C.E., and then enabled Israel to see beyond it to a restored relationship

¹⁶ I think the text is going further than a mere personification of nature in response to a broken covenant.

¹⁷ Ron Elsdon, *Green House Theology: Biblical Perspectives on Caring for Creation* (Tunbridge Wells: Monarch, 1992), 102–107, gives some staggering statistics in relation to these two wars alone. This book is an excellent survey of the subject.

¹⁸ The inadequacy of this New Testament section of the paper can be rectified by the excellent book edited by Calvin DeWitt, *The Environment And the Christian: What Can We Learn from the New Testament?* (Grand Rapids: Baker Book House, 1991).

¹⁹ A point strongly developed by Oliver O'Donovan in *Resurrection and Moral Order*, (Leicester, England: Inter Varsity Press, 1986).

with God, it was the land itself [P. 165](#) that stood at the fulcrum of their message.²⁰ Thus, in [Jeremiah 30–34](#), [Isaiah 40–55](#), and [Ezekiel 36–48](#), to name just the major text blocks, the promised restoration of Israel after the time of judgment is expressed in terms of return to the land. There are many new dimensions to this fresh promise, but it never evaporates into the spiritual stratosphere. Land was still part of God’s redemptive package for Israel in the centuries before Christ.

Future Blessing and Nature

One feature of these and other texts (e.g. [Amos 9:13–15](#)), is the vision of a renewed nature, echoing Eden itself in abundance and beauty. This was decidedly not merely a return to the land as it was, which would have been a tough assignment for the tiny post-exilic restoration community, fraught with many disappointments. As Israel’s eschatology sought to express its conception of God’s ultimate purposes, it turned to God’s original purpose, namely a good and perfect Earth available for human enjoyment and blessing.

New Creation

The climax of Old Testament eschatological vision regarding creation is found in [Isaiah 65–66](#). The words, ‘Behold, I am creating new heavens and a new Earth’ ([Isa. 65:17](#)), introduce a wonderful section that portrays God’s new world as a place that is joyful, life-fulfilling, with guaranteed work-satisfaction, and is environmentally safe! It is a vision that puts most New Age dreams in the shade. This, and related passages are the Old Testament foundation for the New Testament hope. This hope is far from rejecting or denying the Earth as such or envisaging us floating off to some place else. Rather, it looks forward to a new, redeemed creation, ([Rom. 8:18ff.](#)), in which righteousness will [p. 166](#) dwell after purging judgment ([2 Pet. 3:10–13](#)),²¹ because God will dwell there with the people ([Rev. 21:1–4](#)).

Eschatology and Ecology

Finally, as Francis Bridger points out, the eschatological orientation of all biblical ethics has the important consequence of protecting our ecological concern from becoming either purely anthropocentric or pantheistically Earth-centered.

The primary argument for ecological responsibility lies in the connection between old and new creation. We are called to be stewards of the Earth by virtue of our orientation to the Edenic command of the Creator and also because of our orientation to the future. In acting to preserve and enhance the created order, we are pointing to the coming rule of God in Christ.

Ecological ethics are not, therefore, anthropocentric: they testify to the vindicating acts of God in creation and redemption. Paradoxically, the fact that it is God who will bring about a new order of creation at the end, and that we are merely erecting signposts to that

²⁰ Still the best survey of this whole theme, with constant suggestive attention to its contemporary relevance, is Walter Brueggemann, *The Land* (Philadelphia: Fortress Press, 1977). Various aspects of the issue are explored in my *God’s People in God’s Land* (Grand Rapids, MI: Eerdmans, 1990).

²¹ At the end of [2 Pet. 3:10](#), I prefer the textual reading that the Earth ‘will be found’ to the emendation reflected in several English translations ‘will be burned up’. I also find Bauckham’s interpretation of this convincing, namely, that the Earth will be ‘found out’, i.e., exposed and laid bare (cf. NI-1 before God’s judgement so that the wicked and all their works will no longer be able to hide or find any protection. Richard J. Bauckham, *Jude, 2 Peter*, Word Biblical Commentary (Waco, Word, 1983, pp. 316–322). The purpose of the conflagration described in these verses is not the destruction of the cosmos per se, but rather its purging and new creation.

future, need not act as a disincentive. Rather, it frees us from the burden of ethical and technological autonomy and makes it clear that human claims to sovereignty are relative. The knowledge that it is God's world, that our efforts are not directed toward the construction of an ideal utopia, but that we are (under God), building bridgeheads of the kingdom, serves to humble us and to bring us to the place of ethical obedience.²²

We might finish, however, with a poem more in the genre of the prophets and psalmists.

The time of rest, the promised Sabbath comes! ...
Rivers of gladness water all the earth,
And clothe all climes with beauty. The reproach
Of barrenness is past. The fruitful field
Laughs with abundance; and the land, once lean [p. 167](#)
Or fertile only in its own disgrace,
Exults to see its thistly curse repeal'd.
The various seasons woven into one,
And that one season an eternal spring,
The garden fears no blight, and needs no fence,
For there is none to covet, all are full.
The lion, and the lizzard, and the bear
Graze with the fearless flocks ...
One song employs all nations, and all cry,
'Worthy the Lamb, for He was slain for us!'
The dwellers in the vales and on the rocks
Shout to each other, and the mountain tops
From distant mountains catch the flying joy,
Till, nation after nation taught the strain,
Earth rolls the rapturous Hosanna round.²³

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Let There Be Life: Theological foundations for the Care and Keeping of Creation

Praveen (Sunil) Kapur

²² Francis Bridger, 'Ecology and Eschatology: A Neglected Dimension', *Tyndale Bulletin* 41.2 (1990:290–301). This article was a response and addition to an earlier one by Donald A. Hay, 'Christians in the Global Greenhouse', 1–7-kli 41.1 (1990): 109–127.

²³ William Cowper, 'The Task', Book 6, lines 733, 763–744, 791–797.

Almost three millennia ago the prophet Isaiah said, 'the earth mourns and withers, the earth lies polluted under its inhabitants, for they have transgressed the law ... The earth is utterly broken, the earth is rent as under, the earth is violently shaken' ([Isaiah 24:4-5, 19](#)). In chapter twelve, Jeremiah also speaks of the withering and mourning land having become desolate because of the destructiveness and wickedness of humans.

The world at large has come to realize the danger that it faces from the gruesome monster that is eating it up at an escalating rate. The need to know about this danger is not purely for the head, but more so for the heart of humanity. For even having the knowledge, many continue to be carefree. 'Despoiling the earth is blasphemy, and not just an error of judgement, a mistake; it's sin against God as well as man'.¹ We ought to confess our unbelief and ungratefulness towards God, because we have not cared for the rest of creation as we are called to do. The consequences are clear: the death of nature means the death of humanity itself.

The world is forever falling into the temptation of trying to turn 'stones into bread'. The task of Christianity is not, however, to produce new social conditions. New conditions do not produce a new person; new persons produce new conditions. The foundation for our environmental concern must be Jesus Christ and him alone. It is upon this ground that we must build, and not on good works, or humanism, or science. For Jesus triumphed where the first man, Adam, failed. Adam had everything in his environment conducive to victory. Jesus had everything in the howling wilderness against him. Yet, after forty days without food he triumphed over Satan.

The church at present seems to be impotent before the ecological crisis, for we are mistakenly using the wisdom of the world. The weapons of our warfare ought to be spiritual rather than carnal. Using the world's weapons, the church does not stand a chance. But using God's weapons ([Eph. 6:14-17](#)), the world will become weak. These [p. 169](#) are not the days for the church to turn inward, curl up in a corner, and passively await the end. The world has yet to see what the Spirit can do.

In getting a right perspective, Christians should not be among the destroyers of nature; rather we should treat creation with overwhelming respect and reverence. Nature should not be regarded as nothing more than a warehouse supplying the raw material for the transformation of society and history. Our interest in ecology must not be related only to survival. Our faith must inherently and necessarily be open to nature, as it was created for God's pleasure, praise, and glory.

The simplest and the oldest way in which God is manifest is through and in the Earth itself. God still speaks to us through earth and sea, birds of the air, creatures upon the Earth, if we can but quiet ourselves to listen and ponder, carefully and prayerfully, to the created order. Nature does not open up to us if we always come to it with our knives. 'Man is the only being who can interpret creation. He is, so to speak, the language of nature. Nature speaks but silently. Man puts into words these silent utterances of nature'.² ([Ps. 19:13-14](#)).

But all this language can be misinterpreted. As a devout man of God, Sadhu Sunder Singh talked in his writings as if God were speaking to him saying, 'In the book of nature, of which I also am the author, I freely manifest myself, but for the reading of this book also spiritual insight is needed, that men may find Me; otherwise there is a danger lest instead

¹ John Stott, *Involvement: Being a Responsible Christian In a Non-Christian Society* (New Jersey: Fleming H. Revell Co., 1985), 160.

² Sadhu Sunder Singh, *Reality and Religion* (Madras: C.L.S., 1974), 22-23.

of finding Me they go astray'.³ 'The happiness we derive from creation has its limits. God alone can completely meet the needs of the human hearts and satisfy them in perfection.'⁴ It is then folly to worship living things, like trees ([Rom. 1:21-25](#), [Jer 2:20](#)).

'To read other books you master painfully the language in which these books are written, but this is not so with the Book of Nature. It is written in a language which is simple and intelligible to all. Live with Christ and the Book of Nature will be clear to you.'⁵

The Christian mystic seeks to find God meditating on the great wonders of God's creation, knowing that there must be a Creator, and that creation and Creator are not one and the same. God works in creation in a hidden way—even more wonderfully within a converted soul. The Good News is all about the abundant life. Where then does this abundant life begin? Is it not here on Earth? Can we really [p. 170](#) experience this abundant life without nature, given our destructive attitude toward it?

Although the word 'nature'—as we use it—appears nowhere in the Bible, to those who are open and receptive scripture is full of references to it. Revelation comes from seeing how life works. To those who have eyes to see, the Bible says, 'The heaven declare the glory of God, the skies proclaim the work of his hands' ([Psa 19:1](#)). The things made by God reveal God's nature and God's power: 'Since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities—God's eternal power and divine nature—have been clearly seen, being understood from what has been made, so that men are without excuse' ([Rom 1; 19-20](#)).

All nature glorifies God, except for two of God's creations: the fallen angels who have no chance of redemption, and human beings who yet have a way to come back to God through Jesus Christ. One can learn from nature that has not sinned against its Creator and glorifies God in its beauty and honor! 'On all the works He has inscribed his glory,' says Calvin.

Nature glorifies God because of its immense variety. The numberless species visible and invisible in the world are a reflection of the infinite being of God, revealing God's numberless attributes. 'The death of these creatures, great and small will leave a void in God's creation and in the imagination of men for generations to come'.⁶

Without nature as interpreter of God's Word, it is difficult to understand God's mind. In [Job 12:7-9](#), the animals are said to instruct us, as elsewhere they are said to minister to Jesus in the wilderness. Is there any reason not to take care of our interpreters, instructors, and ministers?

The whole of creation joins in the praise of God—the sun, moon, sea, land, fire, snow, human beings, and all creatures. Creation is our praise partner. All created things were given to humans to glorify God, and not to abuse, exploit, or destroy.

God is not left without witnesses. The beauty of nature testifies to God's glory. Our consciences attest to the living God, just as nature affirms the presence of God. 'The heavens proclaim his righteousness, [p. 171](#) and all the people see his glory' ([Psa 96:6](#)). How clearly David often expressed the Lord of Glory in nature in the Psalms ([Psa 29:39](#)).

While both nature and our inner selves witness to God the Creator, we cannot remain silent while there is a destruction of the living witness of God in nature. With the death of

³ Sadhu Sundar Singh, *At the Master's Feet* (Madras: C.L.S., 1983), 11.

⁴ Sundar, *Reality*, 1.

⁵ B. H. Streeter and A. J. Appasawmy, *The Sadhu* (London: Macmillan, 1921), 193.

⁶ Francis A. Schaeffer, *Pollution and Death of Man* (Wheaton: Tyndale House Pub, 1970), 21.

nature, our fellow silent witness to the existence of God will disappear. Why do we not seem to care sufficiently to stop this annihilation of nature?

Do we prefer to reduce the Gospel to cold calculation, or to a series of prescriptions, or of laws and theories? Or can we tell a poetic story through nature that is close to the heart of humanity, that relates the Lord of Creation to human beings, that brings a fuller relationship and meaning rather than any analytical description would have done? It is much easier to create interpersonal bonds. Yet, not being able to relate to nature, we know even less the art of relating and communicating to the 'crown of creation', human beings. As we tend to move away from nature, we become more and more impersonal and less and less communicative. The further away we have gone from the Garden of Eden, the harder it has become for us to relate to God, other humans, and nature. We can go back into the Garden only by repenting and accepting the death and resurrection of Jesus Christ, so as to be able to walk with God again 'in the cool of the day' ([Gen 3:8](#)).

Much biblical wisdom comes from examples of nature manifesting order in human life. This kind of wisdom steers us rather than taking on the task of mastering our lives. It is rooted in experience and is practical, particular, and open. It observes orderliness, but does not seek to impose order. We must train ourselves to listen to be able to see the order in nature established by God.

One of the wisest men ever to live was Solomon. The fourth chapter of First Kings describes Solomon's wisdom. It is not Solomon's ability to render justice—not even his ability to rule effectively—that is highlighted in the summary of his wisdom. Rather, it is his encyclopedic knowledge of the environment. This is all the more striking when one contrasts the book of Proverbs. There the focus is on human life and experience.

Creation brings about relationship; God's plan for this world is relationship. In looking at the biblical view of the connection between humanity and nature, we notice that humanity and land animals were created on the same day ([Gen. 1](#)), out of the same dust or ground ([Gen. 2:7–19](#)), both having God's breath (Spirit) breathed into them ([Gen. 2:7](#), [Ps. 104:29–30](#), [Job 34:14–15](#)). Both have rationality and feeling ([Gen. 3:1–5](#), [Num. 22:28–30](#), [Job 39:16–18](#)); both have an awareness of God, though with animals it might bear different [p. 172](#) responsibilities and is less clouded with sin. In the end, both share the fate of death. In fact [Ecclesiastes 3:19](#) claims that 'man has no advantage over the animal.'

Human distinctiveness is by no means easy to define. It is clear that the world was not created only for human benefit ([Job 39](#), [Psalms 49](#)). The kindness to animals required in [Deuteronomy 25:4](#) and [Proverbs 12:10](#) has no ethical base if animals exist only for human use.

Satan's purpose in all environmental problems is to destroy as many people as possible. Satan has always been a destroyer and a murderer. Millions are dying, faster than we can reach them with the message of the merciful Lord Jesus. A total disregard for the ecological balance hinders their chance to experience salvation and grace here on Earth. Still, the need to save the environment for God's glory is urgent. In our burden for those who do not know God, our involvement is not merely in saving forests; it is a commitment for the survival of humankind. Life in all forms is precious. Let us nourish it, and not be disillusioned by Satan into aiding his evil strategy. The Bible tells that the wrath of God will come upon the destroyers of the Earth and they will be destroyed ([Rev 11:18b](#)). Let there be life!

God's purpose in creation is love. God's very being is love. It is experienced in the inner relations of the Trinity and expresses itself in the bliss of love by bringing into existence the entire universe. But sin has distorted creation.

The fall disturbed humanity's harmonious relationship with nature. Now it appears as hostile, introducing elements of struggle and violence in our relationship with nature ([Gen](#)

[3:15](#), [17-19](#); [9:2](#)). Because we misuse nature, nature suffers and groans with pain, awaiting our full redemption as its own liberation from the burden of our sin. The Earth and its creatures come to stand in an ambiguous relationship to humanity, being sustained by God, independent of human effort, but nonetheless suffering as a result of human disobedience to the Creator.

Of all the creatures on Earth, man is the most destructive and the root of the ecological crisis is human economic greed. In [Numbers 35:33](#), God clearly gives a command to us: 'do not pollute the land where you are', yet today this is exactly what we do. Sin—our rebellious nature and rejection of God—has been the cause of the curse upon our land. In some ways, humanity has become an enemy of creation ([Gen 9:2](#)). Before sin entered, people lived in harmony with nature; today fear and terror supplant the previous harmony between persons and animals. If we continue to defile our land with sin, the land itself will vomit us out ([Lev 18:25-30](#)). On the other hand, [p. 173](#) blessings flow if we are faithful towards God. Morality, response to God, and the fertility of the Earth are all interrelated. If we obey God, the fruitfulness of the Earth will be a natural consequence. When we refrain from sinning against God, God blesses the land.

Our work is to preserve the blessing by being holy. The Bible tells us that 'the land must not be sold permanently, because the land is mine and you are but aliens and my tenants' ([Lev 25:23](#)). If we do not obey God, as Master and King, God has every right to throw us out of the land ([Deuteronomy 11:13-17](#)), just as Adam and Eve were thrown out.

God never misses the fall of a sparrow. The fact that God has not destroyed us for what we have done to creation should be assurance of God's love and highlights the need for us to respond willingly to it. In the judgment upon humanity, a reversal in the creation order is said to take place. The first to go will be humans, then animals, then the birds of the air and, finally, the fish of the sea. In the end, redemption for persons and a right relationship with nature comes only through God's son, which, in turn, ought to stop further misuse of knowledge and destruction of life. As Richard Bauckham says, 'salvation is simply the completion of creation'.⁷

The biblical record includes the hope that the present Earth and heaven will pass away, and the Lord will create new ones. This will be a better creation, populated with redeemed people. God is planning an immeasurably better thing than we can imagine. To those who love and obey God, God will say, 'well done, good and faithful servant! You have been faithful in a few things. I will put you in charge of many things. Come and share your master's happiness!' ([Matthew 25:14-30](#)). We must turn to God the Creator for a right relationship with nature, including other creatures: 'A righteous man cares for the needs of God's animals' ([Proverbs 12:10](#)).

This Earth may be destroyed, but woe to us if we become the agents of destruction. Knowing that each one of us is ultimately going to die does not mean that we should not be taken care of, or that we should not care for ourselves. Even should the Earth one day come to an end, does nature also not have the right to be cared for and to live? Let there be life!

'The earth is the Lord's, and all it contains, the world and those who dwell in it', says the psalmist ([Psa. 24:1](#)). 'Worthy art Thou, our Lord and our God, to receive glory and honor and power; for Thou didst [p. 174](#) create all things, and because of Thee will they exist, and were they created' ([Rev. 4:11](#)). All things were created for God's glory, says [Isaiah 43:7](#). 'The Lord has made every thing for its own purpose', says [Proverbs 16:4](#). In

⁷ Richard Bauckham, 'First Steps to a Theology of Nature', *The Evangelical Quarterly* 58 (July 1986) 67.

contemplating nature, we see the meaning of coordination in this world and its manifold spaces. Everything is well arranged ecologically and has a purpose.

[Psalm 104](#) provides commentary on the accounts of creation by portraying the importance of rocks and trees, birds and animals, for their own sake. Creation does not exist merely for the sake of human beings. Everything has a meaning, bringing glory to the Creator. There are animals, rocks, mountains, and stars that live without reference to humanity. There is life, because the life-giver has imbued everything with life. Without God, nothing can exist. God continues to create and sustain everything that exists for God, by God, and human beings are only the vice-regents. Creation has its own independent value. For this reason, 'dominion' must never be confused with exploitation.

Jesus frequently referred to the natural world and environment, and there is much we can learn from his ministry. He made much use of the environment conveying the Gospel of the kingdom of God, and even nature obeyed him. Not only did Jesus identify himself as a shepherd who laid down his life for his sheep, but Christ is also identified as the Lamb, one of the most gentle, the most harmless of all animals, who will wipe away every tear from our eyes.

The promise of God never again to destroy the life that God has created 'as long as the earth remains', means that the creation receives from the Creator the promise of preservation. This is a promise of providential care. 'Everything that exists in heaven or earth shall find its perfection and fulfillment in Christ' ([Eph. 1:10](#) Phillips).

The death of creation is not normal, but do not weep. The Lamb has conquered. All of creation awaits transformation through the life of Christ. The church that is now Christ's body on Earth is the sign of that transformation already taking root in this world. In this upside-down world, the ethics of Jesus can turn things rightside-up, or at least, save them from further destruction. To this end, we must develop a specifically biblical environmental ethic.

Some might ask, should we just preach the Gospel and not care, practically, for nature? Is it wrong to stress matters of conservation or environment? For nominal Christians, the weakness lies in the fact that having known the Creator, they have not loved the creation. Yet, God's handmade things are loved and preferred even more when one has an intimate relationship with the One who came and suffered here on Earth. God's covenant is with all creation as illustrated at the time of [p. 175](#) Noah. In [Genesis 9:8-17](#) we read that God says, 'I now establish my covenant with you and with your descendants after you and with every living creature that was with you.' Further, in verse [13](#), God promises, 'I have set my rainbow in the clouds and it will be the sign of the covenant between me and the earth.' It is absolutely false for a Christian to have a platonic view of nature. What God has made must not be despised by human beings.

Today's Christians have to seek for new ideas, ask new kinds of questions, and look at the unchanging Gospel in terms of their own culture. They must unfold new dimensions in relation to global ethical problems. In fact, for the Christian, the beauty of God is better understood in the light of many diverse cultures. Out of this might come a new spirituality that would illuminate the spiritual dimension of the world order. This could lead to the development of a planetary awareness, and work towards the redistribution of the Earth's wealth. This spirituality will see redemption not as the lifting of humanity out of nature, but as redeeming nature with and through human beings.

The work of the church is now to 'wake up! Strengthen what remains and is about to die' ([Rev. 3:2](#)). As other religions and national organizations maintain a concern for nature, how much more ought we to be concerned who are the sons and daughters of its Creator and who know that we will be accountable for dealing with God's creation.

The Old Testament prophets have shown that the Lord would reign through the anointed one as the Prince of Peace ([Isa. 9:6–7](#)). The zeal of the Lord will bring peace, not only to humanity, but to nature as well. ‘The wolf shall dwell with the lamb and the leopard shall lie down with the kid and the calf and the lion, the yearling together, and a little child shall lead them ... for the earth shall be full of the knowledge of God as the waters cover the sea’ ([Isa 11:6, 10](#)). So the prophet’s vision here is the harmony between humanity and the rest of creation, not of enmity, or of creation forced cruelly into providing a human task. The relationship will be restored. This vision does not speak of creation being destroyed. All are good; the cobra, the viper or the lion will not be able to harm each other. All these things will be united to the one who was to be a substitution for the curse of God to human beings, and the Earth as well, Jesus Christ of Nazareth who redeems the world.

Now therefore the church is called to participate actively with God, through Jesus Christ, in a great cosmic mission for a New Creation. From this time forth, Christians must read their Bibles for a fresh insight into the message of God’s love for the entire cosmos in the light of our contemporary predicament.

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Gaia Spirituality: A Christian Critique

Loren Wilkinson

We are witnessing the emergence of a new metaphor for the Earth and our relationship to it: the planet as a self-organizing, self-regulating, and (to some degree) self-conscious entity. Many refer to that entity as sacred and call it by the name of ‘Gaia’, ancient Greek goddess of the Earth.

The idea of Gaia, the sacred Earth, was particularly evident at the Earth Summit in Rio. Increasingly, ‘Gaia’ thinking provides a framework for political discussion because it seems to provide a biological rationale for ‘thinking globally’. It grounds much religious discussion because the idea seems to fit with both Eastern monism (the idea that all is one), and with various kinds of New and Old world paganism.

Scientific, religious, and feminist dimensions of Gaia thought will be considered here, along with suggestions as to how Christians might respond to this complex and important idea.

THE SCIENCE OF ‘GAIA’

The Gaia hypothesis is a serious scientific theory suggested in the mid 1970s in several papers by James Lovelock and Lynn Margulis, and set forth in 1979 by Lovelock in his book *Gaia: A New Look at Life*. A mark of the seriousness with which the theory has been taken is that the American Geophysical Union—an international association of geologists and geochemists—devoted its entire 1988 biannual conference to discussion of the idea.

At that meeting, the idea received both vigorous criticism and support, and continues as a fertile hypothesis linking the concerns of those who study the Earth with the concerns of those who study its life.

In Lovelock's words, the Gaia hypothesis states that 'the biosphere is a self-regulating entity with the capacity to keep our planet healthy by controlling the chemical and physical environment'.¹ Lynn Margulis, the 'mother' of the theory, summed it up with admirable precision for that 1988 conference. In her words: [p. 177](#)

The Gaia Hypothesis states that the earth's surface conditions are regulated by the activities of life. Specifically, the earth's atmosphere is maintained far from chemical equilibrium with respect to its composition of reactive gasses, oxidation-reduction state, alkalinity-acidity, albedo, and temperature. This environmental maintenance is effected by the growth and metabolic activities of the sum of the organisms, i.e., the biota. The hypothesis implies that were life to be eliminated, the surface conditions on earth would revert to those interpolated for a planet between Mars and Venus. Although the detailed mechanisms of earth surface control are poorly understood, they must involve interactions between approximately thirty million species of organisms.²

James Lovelock was working for NASA in the early 1960s when he stumbled on the foundation of the Gaia idea. He was involved in designing the experiments that would test the Martian soil and atmosphere for signs of life. His conclusion—before the Viking spacecraft ever set out—was that even an earthbound analysis of the Martian atmosphere precludes the likelihood of life there. For it (like the atmosphere of Venus), is in a state of chemical equilibrium. All of the possible chemical reactions have already taken place. In particular, there is little free oxygen; it already exists in stable combination with other elements—particularly carbon. Hence the very high (ninety-five percent) CO₂ content. On the other hand, observes Lovelock:

The earth, our living earth, is quite anomalous; its atmosphere has the reducing gases and oxidizing gases all coexisting—and this is a most unstable situation. It is almost as if we were breathing the sort of air which is the premixed gas that goes into a furnace or into an internal combustion engine. Ours is a really strange planet.³

His conclusion: the gases of the Earth's atmosphere are 'premixed'—by living things themselves—in order to sustain life.

Apart from pointing out the Earth's weird atmospheric chemistry, Lovelock makes his point in many ways. The most significant of these is evidence that, though the sun's radiation output has increased by some thirty percent over the time of life on the planet, the Earth's surface temperature has remained roughly the same over that same [p. 178](#) period. Manipulated by living things, the unstable chemistry of the Earth's atmosphere has provided a stable environment. Thus the planet seems to function as a single living entity, to which Lovelock (at the suggestion of his neighbour, novelist William Golding), gave the name 'Gaia'.

¹ James Lovelock, *Gaia: A New Look at Life on Earth* (Oxford: Oxford University Press, 1979), xii.

² Lynn Margulis and Gregory Hinkle, 'Biota and Gaia', *Abstracts of Chapman Conference on GAIA Hypothesis* (March, 1988) cited in Lawrence E. Joseph, *Gaia: The Growth of an Idea* (New York: St. Martin's Press, 1990), 86.

³ James Lovelock, 'Gaia: A Model for Planetary and Cellular Dynamics', in *Gaia: A Way of Knowing: Political Implications of the New Biology*, ed. William Irwin Thompson (Great Barrington, Massachusetts: Lindisfarne Press, 1987), 89. Cited in Joseph, 27.

Lovelock's analysis of planetary atmospheres provides the most dramatic evidence for the theory of planetary self-regulation, but the work of microbiologist Lynn Margulis has furnished a clearer indication of the process. Margulis was an early champion of the idea (now largely accepted), that the components of the cell were once independently existing bacteria that are cooperating for survival. This principal of symbiosis on the microbial level is evident not only in the cell. Margulis' conclusions are based largely on extensive research into the functioning of symbiotic bacterial systems—such as the mats of different kinds of algae that form on saline lakes and work together to create a livable environment for each of them. The result has been the discovery of a principle of cooperation for the benefit of the whole that Margulis and Lovelock have extended to the whole planet.

The science of the Gaia hypothesis thus comes from the very large and the very small: at the large end, the atmosphere of the whole planet is constituted in a way which strongly indicates that its mixture of gasses is being maintained 'artificially' by living things themselves. And at the small end, we find in every living cell evidence of mutually beneficial cooperation for the control of the environment. At the planetary end we see a planet that is regulated; at the cellular end, we see mechanisms of symbiosis which show how such environment-preserving regulation can take place.

A variety of consequences and controversies have resulted from the scientific Gaia theory. Among them are the following:

1. Certainly one of the largest consequences of the idea is a growing public awareness of the chemistry of the atmosphere and how it is maintained. Thus the idea of the tropical rainforest as 'the lungs of the planet'; an awareness of 'the Greenhouse effect,' and a concern for the effect of CFC gasses on the ozone layer are all direct or indirect consequences of the Lovelock/Margulis hypothesis of a dynamic interrelationship between life and the planet where it finds itself. There are few examples in recent history of a scientific idea invading popular culture with such pervasive force.
2. A controversial aspect of the Gaia hypothesis is ironic: it is the idea that Gaia can take care of herself. As Lewis Thomas (who was an early—and continuing—supporter of the hypothesis) puts it: [p. 179](#)

... it is illusion to think there is anything fragile about the life of the earth; surely this is the toughest membrane imaginable in the universe, opaque to probability, impermeable to death. We are the delicate part, transient and vulnerable as cilia.⁴

Such a conviction of life's toughness is not entirely welcome to everyone in the environmental movement, some of whom have spoken as though current environmental crises threaten the very existence of life on the planet. Central to the scientific Gaia idea, however, is evidence that it thrives on crisis, which speeds up the evolutionary process of adaptation. Both Lovelock and Margulis are regularly accused of being too sanguine about the ability of the Earth to absorb any and all environmental deprivation.

3. Another of the controversies accompanying the Gaia theory is endemic in the words used to discuss it. Its defenders find it easy to slip into language that seems to attribute purpose or intention to the planet-sized entity 'Gaia': 'Gaia adjusts ... adapts ... compensates ...' etc. It's quite possible to avoid such implication of

⁴ Lewis Thomas, *The Lives of a Cell: Notes of a Biology Watcher* (New York: The Viking Press, 1974), 3.

intention (we regularly use such words about organisms and ecosystems). But the Gaia hypothesis brings to the surface a teleological oddness central to evolutionary theory. How can the random, purposeless processes that are said to underlie the process of evolution achieve such exquisitely purposeful results? This argument has been going on for a long time; the Gaia hypothesis simply brings it to a focus. Careful proponents of the hypothesis avoid language of purpose and intent. But it is very difficult, even for them. In the preface to the second (1987) edition of the book, Lovelock says, 'Occasionally it has been difficult, without excessive circumlocution, to avoid talking of Gaia as if she were known to be sentient. This is meant no more seriously than is the appellation "she" when given to a ship by those who sail in her'.⁵

But for the less careful culture at large, the idea of the sentience of Gaia has proven to be irresistible. Hence the massive religious dimension of the Gaia concept.

4. The scientific Gaia hypothesis has been overwhelmed by the sheer p. 180 poetic and religious power of the idea. Anticipating such overtones, Lovelock was at first reluctant to give the name of the goddess 'Gaia' to the planetary organism he was describing. Margulis has been more outspoken: 'The religious overtones of Gaia make me sick' she said in 1986. But despite these misgivings by the 'parents' of the hypothesis, an extraordinarily potent idea has been unleashed. As anthropologist Mary Catherine Bateson puts it, 'Gaia is the supersystem.... It is intellectually irresistible'.

So while scientists continue to debate the details of the scientific Gaia hypothesis, 'Gaia' has irrevocably become a part of the religious longings and language of our culture. This can be laid at the door of the second major reason for the spread of the Gaia idea: the desperate spiritual climate of our time.

THE RELIGION OF GAIA

The Global Forum in Rio was opened by a ceremony marking the arrival of a replica Viking ship, carrying messages from the world's children. The ship was named 'Gaia'. And in her remarks at that opening ceremony Hanne Strong, wife of the conference organizer Maurice, suggested that the day of the ship's arrival, Tuesday, be changed to 'Gaia-day,' substituting 'Gaia' goddess of the Earth, for Tiw, Norse god of war. Both Strong's suggestion and the name of the ship suggest the growing force of the name and image of Gaia. And pictures of Gaia from space have become in the last couple of decades, something like a religious icon.

As a unifying religious symbol, Gaia fills voids left by the very nature of modern life. One such void comes from our lack of a feeling of community: our excessive individualism. And another is our growing secularity: our determination to live as if there were no God, and hence no purpose to life other than what we give it.

The result has been the large-scale reaction sometimes called 'post-modernism'. In response to individualism, we have looked for connections, relationships, communities. And in the response to secularization—the elimination of the sacred—many have made a determined effort in the last couple of decades to recover a spiritual dimension.

A Gaia spirituality seems to meet both needs. For the toxic effects of individualism, it provides a feeling of participation with all living things. For the consequences of

⁵ Lovelock, *Gaia*, xii.

secularization, it provides the conviction that p. 181 the whole constituted by those things is sacred, divine. (Some add the idea that we humans are the consciousness of the Earth itself the place where the Gaian divinity becomes self-reflective.)

A good outline of the content of the new Gaia religion is contained in the one-page declaration issued by 'The Sacred Earth Conference' to UNCED participants. Many religious leaders met on the Sunday before the Earth Summit officially opened and issued a declaration that includes the following statements:

... The ecological crisis is a symptom of the spiritual crisis of the human being, resulting from ignorance.

... We must therefore transform our attitudes and values, and adopt a renewed respect for the superior law of Divine Nature.

... Individuals and governments need to evolve 'Earth Ethics' with a deeply spiritual orientation or the earth will cleanse itself of all destructive force.

... We believe that the universe is sacred because all is one.

The idea that *all* is one expresses a key premise of some sort of Gaiareligion. The notion seems to be supported by ecology in general, the study of connections between living things and their environment. John Muir at the turn of the century observed, 'when you try to pick out anything by itself you find it hitched to everything else on the planet'. The scientific Gaia hypothesis gives substance to that statement. It seems to justify what Aldous Huxley called 'the perennial philosophy': monism, the notion that all is one, and that separateness is only illusion.

Accompanying these post-modern pressures towards feelings of connectedness and the sacred is a pragmatic push, evident in the curious declaration that individuals and governments need to 'evolve "earth ethics".' There is a growing realization that we need an ethical base for action—and an acknowledgement that ethics may require religion. Thus as Maurice Strong (the secretary general, guiding genius and chief visionary behind UNCED conference), observed at the beginning of the Rio conference, 'any workable decisions made at UNCED will have to have deep moral, spiritual and ethical roots if they are to be successfully implemented'.

A religion based on Gaia, Earth-goddess, seems to provide such roots. But it is a religion that grows from the leaves down, and not from the roots upward. Pragmatically speaking, it is an ethic searching for a religion. Thus it bears a curious resemblance to the institution of emperor-worship in the late-Roman empire, which was adopted because something, anything, was needed to preserve the empire. In a similar way, various Gaia-nurturing religions are being proposed p. 182 today, not because they are true, but because they might help to preserve the Earth.

THE FEMINISM OF GAIA

'Ecofeminism' as a term was first used in 1974 by French writer Francois d'Eaubonne. Though the term and the movement it describes is modern, some would argue that the attitude it describes is as ancient as humanity: an attitude of care and nurturance that the environmental threats of our time have helped to reawaken. An important anthology of ecofeminist writing, *Reweaving the World*, is dedicated to Rachel Carson, whose *Silent Spring* is widely acknowledged as one of the first works to alert the general public to ecological problems. Many see Carson as a prototypical ecofeminist, and the dedication reflects some of the ecofeminist movement's main themes:

Men of science have believed for hundreds of years that naming preceded owning, that owning preceded using, and that using naturally preceded using up ... Rachel Carson thought that loving the world was what science had to be about.⁶

‘It is not coincidental’, say the editors of *Reweaving the World*, ‘that a woman was the first to respond both emotionally and scientifically to the wanton human domination of the natural world’.

One of the most striking things about the Global Forum in Rio was the presence and voice of women. (This is still in marked contrast to UNCED itself, where debate and decisions were still made mainly by dark-suited men.) But at the non-governmental Forum, women clearly had a leading role. The importance of women in the environment/development discussion is indicated by the fact that clearly the best-organized, best-attended, and most lively of the thirty-five tents of the Forum was the one called simply, and significantly, *Planeta Femea*, ‘Feminine Planet’. The sign behind the stage announced this as ‘World Women’s Congress for a Healthy Planet’. Though *Planeta Femea* did not make abundant use of the word *Gaia*, its central symbol—an abstract painting of a woman nursing a child, in which woman and child together depicted the round Earth—certainly evoked the nurturing planet-goddess idea.

Here then are some of the principles of ecofeminism pertinent to understanding *Gaia* spirituality. We may or may not agree with them, p. 183 but they have become axiomatic to many women and men, and hence a powerful support to *Gaia* spirituality.

1. *Women are uniquely responsible for nurturing life.* Perhaps the most basic and least controversial aspect of ecofeminism is a recognition that women are, both by tradition and biology, more involved in care-taking and nurturance. Women first carry children in their own bodies, then nourish them with their own milk. Many have noted the parallel between a woman’s carrying and nursing a baby and *Gaia*’s supporting of its millions of interlinked species. This affirmation of a basis for nurturance in the very nature of a woman’s physiology transforms an earlier feminist principle—a rejection of the Freudian notion that biology is destiny. In ecofeminism that limitation becomes something positive: an acceptance of the fact that a woman’s more immediate involvement in the cycles of fertility, birth, and nurturance give both a greater understanding of those cycles in nature, and a greater responsibility to embody such care in human institutions and practices. Indeed ‘nature’ is related to the word for ‘natality’ and ‘nativity’—giving birth.
2. *Patriarchal attitudes and institutions produce environmental degradation.* Along with this ecofeminist recovery of the importance of maternal care-taking has come the hypothesis that male-domination (patriarchy) has been the main cause of environmental degradation. But prior to that patriarchy (so the theory goes), there flourished a primal, non-patriarchal culture that worshipped ‘the goddess’, nature. Riane Esler describes such a culture in an article titled, significantly, ‘The *Gaia* Tradition and the Partnership Future’.

... this reverence for the life-giving and life-sustaining powers of the Earth was rooted in a social structure where women and ‘feminine’ values such as caring, compassion, and non-violence were not subordinate to men and the so-called masculine values of conquest and domination. Rather the life-giving powers incarnated in women’s bodies were given the highest social value.

⁶ Diamond and Orenstein, *Reweaving the World*, iii.

The ecological crisis, according to this argument, is the inevitable result of the violent replacement of societies dominated by female values with war-like 'dominator' societies, characterized by male values. The most destructive of these cultures, so the argument goes, have been those rooted in Judaism and Christianity, that worship a transcendent and detached male God.

3. *For its own health and that of the earth, humanity needs to recover Goddess worship.* The rejection of patriarchal religion is accompanied p. 184 by a call to worship the goddess of nature, the Earth, one of whose names is Gaia. Rene Eisler declares this need for goddess worship in a kind of manifesto:

Let us reaffirm our ancient covenant, our sacred bond with our Mother, the goddess of nature and spirituality. Let us renounce the worship of angry gods wielding thunderbolts or swords.⁷

More important even than this assertion of Gaia's peacefulness is the notion of Gaia's proximity. The male God—specifically the Christian God—is seen as distant, aloof, detached, transcendent. Indeed, Susan Griffin calls the idea of the divine as immanent

a concept foreign to those raised in Judeo-Christianity.... The view that we've grown up with is that the divine and matter are separate and that matter is really dangerous ... Women, being closer to the earth, listened to serpents, made people eat apples, and made them commit other sins.⁸

Thus the new feminine spirituality affirms not a transcendent God, but an immanent goddess—a goddess who *is* the Earth. As Charlene Spretnak puts it:

... We would not have been interested in 'Yahweh with a skirt', a distant, detached, domineering godhead who happened to be female. What was cosmologically wholesome and healing was the discovery of the Divine as immanent in and around us.⁹

Indeed, the appeal of the immanent Gaia-goddess is that we are a part of her. Says Starhawk, a self-proclaimed white witch and chief liturgist of ecofeminism:

The Goddess has infinite aspects and thousands of names—She is the reality behind many metaphors. She *is* reality, the manifest deity, omnipresent in all of life, in each of us. The Goddess is not separate from the world—she is the world, and all things in it: moon, sun, earth, star, stone, seed, flowing river, wind, wave, leaf and branch, bud and blossom, fang and claw, woman and man.¹⁰

More to the point: 'The symbolism of the Goddess is not a parallel p. 185 structure to the symbolism of God the Father. The Goddess does not rule the world; she *is* the world'.

Gaia-worship thus is harmonious not only with nature magic, but also with Hinduism in its various old and new manifestations: *Atman* is *Brahman*. All is one and all is divine; separateness is illusion; go deeply into yourself and you will discover your divinity.

⁷ Eisler, in *Reweaving*, 34.

⁸ Susan Griffin, 'Curves Along the Road' in *Reweaving the World: The Emergence of Ecofeminism*, 87.

⁹ Charlene Spretnak, 'Ecofeminism: Our Roots and Flowering', in Irene Diamond and Gloria Orenstein, ed. *Reweaving the World: The Emergence of Ecofeminism* (San Francisco: Sierra Club Books, 1990), 5.

¹⁰ Starhawk, *The Spiral Dance*, in Mary Olsen Kelly, ed., *The Fireside Treasury of Light* (New York: Simon and Schuster, 1990), 329.

SOME CHRISTIAN RESPONSES

Christians have tended to regard this complex Gaia-movement either as a train to get aboard (shedding extra theological baggage as needed), or as a satanic force to be resisted at all costs. Both attitudes were evident at the recent United Nations conference. Typical of the first response were the Christians who sang 'Were you there when they crucified the Earth?' outside the UNCED gates—but made no mention of Christ, since the usual Christian claim to salvation only through Christ would be divisive. The inclusive spirit is caught well by Matthew Fox, whose 'cosmic Christ'—he says unabashedly—is the Earth itself, 'the principle which connects'. The first section of *The Coming of the Cosmic Christ*, could be labeled in his words 'The Crucifixion of Mother Earth (which is also the crucifixion of Jesus Christ)'.

There is a strong pressure on many Christians to let the inclusiveness of the Gaia hypothesis compromise their belief in the uniqueness and particularity of the Incarnation. As Matthew Fox puts it:

There is only one great underground river, though there are numerous wells into it—Buddhist wells and Taoist wells, Native American Wells and Christian wells, Islamic wells and Judaic wells.¹¹

One ostensibly Christian response to Gaia spirituality is to regard the Earth as the universal Christ. One group has published a series of 'new icons' that portray Christ in various guises—as an Apache warrior, for example, or as an East Indian woman. In one of these a female Christ points at the 'Venus of Willendorf'—now widely thought to be an early sculptural depiction of the Earth Goddess—and says 'I am She—Know me better'. Such developments suggest that one seemingly Christian response to Gaia spirituality is to regard the Earth as the universal Christ, the main source of salvation and enlightenment, of which the historical Jesus is simply one manifestation.¹² p. 186

Not surprisingly, many Christians reject not only this response, but also *any* attempt to revalue the long-devalued Earth, as a kind of pantheism—an invitation to witchcraft. What is a more orthodox Christian response to the Gaia movement? Much wisdom has been spoken on the subject in the last few years. First of all, Christians should welcome the more thoughtful and comprehensive science that recognizes (with Lovelock) an evidence of fittedness for life that far transcends accepted notions of planetary formation in the anomalous chemistry of the Earth's atmosphere. And we can only welcome also Margulis' understanding that cooperation—symbiosis—plays a much more central role in creation than does competition. The resulting picture of a harmonious creation is much more in keeping with the goodness pronounced in [Genesis 1](#), and with the intimate particularity of the Creator's care described in (for example) [Psalm 104](#).

But Christians must continue to challenge the inconsistent and one-dimensional analysis which describes the mechanisms of biological change as though they were only random processes. Such an analysis makes the fatal error, common to reductionistic science, of conveniently bracketing out the person making the analysis. Yet it is only that human person, in his or her faith, commitment and passion, who makes the explanation possible. The problem is not the evidence of gradual change and interconnection; the problem is rather a kind of analysis which robs the concept of 'evidence' of any force.

¹¹ Matthew Fox, *The Coming of the Cosmic Christ* (Harper and Row, 1988), 230.

¹² This assumption was reflected in the name of another of the well-attended tents at the global forum—'Terra Christa'. It was filled with a variety of techniques for achieving enlightenment, wholeness, and oneness with the Earth: and it was clearly the Earth, Gaia, who was the 'Christa', the annointed one.

When we acknowledge the centrality of the personal consciousness, commitment, and responsibility in which all science is rooted, we have no choice but to challenge the impersonal, reductionism in which scientific discussion of the Gaia hypothesis is usually carried on.¹³ We must challenge as well attempts by contemporary ideologues to turn evidence of Gaian interconnections into some other sort of monism, whether political, feminist, or Hindu/Spiritual.

For central to the Gaia hypothesis—indeed, to any kind of science—is an inescapable duality that belies all declarations that ‘all is one’. That duality is basic to consciousness, and all attempts to reject as patriarchal aberrations the feeling of separateness basic to consciousness must necessarily fail. For if one were to make a successful argument that humans were simply a part of the random cosmic process, one would have to include that argument itself as equally random, and hence not binding.

There *is* a fundamental duality, and it is between the universe and its [p. 187](#) Creator. True, the more we learn about the Earth the more we learn about its interconnections as well as its connections (and our own) to the rest of the cosmos. We are made of the ashes of stars, we share DNA with all living things, we breathe the exhalations of plants. Thus we need to hear the ‘new story’ of the cosmos that cosmologists and biologists are telling us.

But they are *telling* it to us. Central to that story is language, which implies personhood, and communication by word between selves. And the only thing which makes sense of that ‘new story’ is the old story we are reminded of in John’s Gospel: ‘In the beginning was the Word ... Through him all things were made ... without him nothing was made ... The Word became flesh, and made his dwelling among US’.

Creation and the Creator are the crucial elements excluded from the Gaia hypothesis. An understanding of the Creator in a fully Trinitarian sense—the Creator Spirit described in [Psalm 104](#); the Biblical ‘cosmic Christ’ described in the New Testament—enables us to understand the science of Gaia. It enables us to make sense out of those indications of purpose and intention that defenders of the hypothesis go to such great lengths to avoid.

The *religion* of Gaia is largely an attempt to provide a basis for an ethic of care, stewardship, and responsible use. Yet such an ethic is impossible if we are only and merely one more part of the process. The attempts to root an environmental ethic in a religion that obliterates distinctions, and identifies human beings as simply part of an evolving cosmic process, are doomed to failure. This failure is indicated in occasional ‘deep ecology’ criticisms of the concept of ‘stewardship’. It is arrogant to speak of human stewardship, it is argued, for one part of a web or process cannot be steward of the other part. Yet, neither whales, rain forests, nor ozone layers hold conferences about the fate of the whole process. It is only human beings who do so. Ultimately, an ethic implies a Creator—a Creator to whom, in all our organic rootedness, we are nevertheless given the privilege of responsibility, and hence the inescapable possibility of stewardship.

In fairness, the arrogance of science and technology can be said to be rooted in a concern for power rather than in love and nurturance. It is not so clear, however, that such arrogant misuse of power is exclusively patriarchal or male. It seems to be a human characteristic, rooted in sin, a concept absent from Gaian discussion. The ‘Sacred Earth Declaration’, for instance, says simply that we are *ignorant*.

Biblical revelation does not describe a God who is distant, detached, and domineering. The intimacy of the Creator to Creation is [p. 188](#) evident throughout Scripture: ‘He makes springs pour water into the ravines ... He makes grass for the cattle ... When you send your Spirit they [all creatures] are created, and you renew the face of the earth’. ([Psalm 104](#)).

¹³ In this defense of the personal in science I am in a great deal of debt to Michael Polanyi’s *Personal Knowledge*.

One even finds a distinctly feminine image of God in [Acts 17](#) (in which Paul quotes with approval a stoic poet): ‘In him we live and move and have our being’.

Indeed, the greatness of the Creator, God’s power and might, are seen in God’s closeness to creation, not distance. The nineteenth-century Jesuit poet Gerard Manley Hopkins makes this point in a striking way:

God is so deeply present to everything ... that it would be impossible for him but for his infinity not to be identified with them, or, from the other side, impossible but for his infinity so to be present to them ... a being so intimately present as God is to other things would be identified with them were it not for God’s infinity or were it not for God’s infinity he could not be so intimately present to things.¹⁴

Such an immanence and intimacy is at the farthest remove from pantheism. Yet in the Creator’s immense closeness we find great comfort—not that we are God, or part of God; but that God is wholly *other* than us, and is yet (in Augustine’s words), nearer to us than we are to ourselves.

Why does the Bible so overwhelmingly use masculine imagery to describe that relationship, if a womb-like intimacy describes God’s relationship to Creation? One tentative answer is that the masculine imagery of the Bible is used precisely to keep us from making the easy and obvious mistake of thinking that our relationship to God is the same as our relationship to the Earth. The Canadian novelist Rudy Weibe observes:

... when man speaks of ‘God as Mother’ her acts usually become so closely identified with nature—the physical world everywhere—that he forgets the imageness and begins to think the words as physical actuality. For a person to say: ‘All is brought forth from the womb of God’ is so close to what actually happens every minute in animal nature that he starts acting out copulation and birthing and begins to think he’s God while he’s doing it ...¹⁵

The closeness of God the Creator is most evident to us in Jesus, who, [p. 189](#) being the divine Word in whom all things hold together, the transcendent Lord of the universe, nevertheless ‘... made himself nothing, taking the very nature of a servant’. We need to recapture this biblical understanding of God as Creator and Redeemer. It is an ancient one in the church. Irenaeus, in the first century, declared:

For the Creator of the world is truly the Word of God: and this is our Lord, who in the last times was made man, existing in this world, and who, in an invisible manner contains all things created, and is inherent in the entire creation, since the Word of God governs and arranges all things; and therefore He came to His own in a visible manner, and was made flesh, and hung upon the tree, that He might sum up all things in Himself.¹⁶

In such a theological framework we can perhaps recognize Gaia for what it is—an indication of the intimate care of our Creator and Redeemer. And rooted in such a soil we can begin to speak of care of the Earth as an inseparable part of righteousness. For an earthkeeping ethic cannot simply be invented, then propped up by pragmatically useful religions like much of the emerging ‘Gaian Spirituality’. It must rather be one of the fruits of a life rooted (like that of the righteous person described in [Psalm 1](#)) in the life-giving

¹⁴ Gerard Manley Hopkins, *The Sermons and Devotional Writings of Gerard Manley Hopkins*, ed. Christopher Devlin, S.J. (London: Oxford University Press, 1959), 128.

¹⁵ Rudy Weibe, *My Lovely Enemy* (Toronto: McClelland and Stewart, 1983), 140–141.

¹⁶ Irenaeus, in *Against Heresies: Early Christian Fathers*, ed. and trans., Edward Rocie Hardy (Philadelphia: Westminster Press, 1955), vol. 1, 385.

streams of the law of the Lord, the law that we encounter in Jesus, the word made flesh, in whom 'all things' (including Gaia, the Earth) hold together.

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Modern Alienation and Trinitarian Creation

Thomas Finger

ALIENATION

Few words sum up so many dimensions of modern experience as does 'alienation'. Alienation means more than conflict or discord in general. Alienation points to the profound, tragic sense that elements which should be interacting harmoniously, should be joyfully sustaining and enriching each other, have become deeply estranged and hostile. Contemporary alienation exists on at least three levels.

On a psychological level, many individuals feel alienated from their true selves: from experiencing, expressing or understanding their real feelings and desires, from the person they truly are or should be. On a social level, alienation exists all over the globe among races, social and economic classes, and even between the sexes. On the third, ecological level, modern society is increasingly alienating itself from the rest of nature.

These three levels are clearly interrelated. For instance, isolation from one's feelings and from others is intensified when people are uprooted from natural surroundings. Such surroundings are often destroyed in the interest of the wealthy, and at the expense of the poor, increasing the socio-economic alienation between them.

The focus here will be chiefly on psychological and ecological alienation, first exploring how these widely acknowledged problems are discussed in the public realm. Then, the kind of responses most often put forward in main-line Protestantism and Catholicism will be reviewed. We shall see that these often intersect with a burgeoning interest in 'Spirituality'. Finally, in dialogue with public and main-line Christian responses, a proposal for a more biblical perspective will be made.¹ [p. 191](#)

Psychological Alienation

¹ My initial approach might be called a 'public theology', for it deals with issues raised in the public realm and seeks to articulate a Christian response. It is not 'public theology' in the sense of David Tracy, who insists that 'the Christian faith is at heart none other than the most adequate articulation of the basic faith of secularity itself' *Blessed Rage for Order* (New York: Seabury, 1979), 79. My approach is closer to Robert Thiemann's *Constructing a Public Theology* (Louisville: Westminster/Knox, 1991), 19–25. He argues that Christians make the most valuable contributions to public discussion by responding from their own particular standpoint, thereby introducing new perspectives and possibilities into the debate. However, insofar as I consider what the proper Christian perspective should be, I leave the public sphere somewhat to adopt a confessional standpoint.

For most of this century western civilization has been what Philip Rieff calls the therapeutic society.² Psychologists long ago replaced clergy as chief interpreters of the inner life. Most current psychological approaches to alienation fall into two main groups.

One is the psychoanalytic approach, stemming from Sigmund Freud. For Freud, the self, or human person, does not really exist at birth. All that exists are diverse and clashing physiological instincts which Freud called collectively the *id*. Each instinct aims simply at its own immediate satisfaction, operating on the *pleasure principle*. But to attain real satisfaction, gratification of some impulses must be delayed, and that of others attained through complex behavior. A self thus begins to form in early infancy when the *ego*, which operates by the *reality principle*, begins to arise—though Freud never really explained how this was possible—from the *id*'s blind energy.

Hardly has it begun forging some order among the chaotic instincts, however, before the fledgling ego is pressured from another direction. Traditional social restraints, collectively called the *superego*, block many avenues of instinctual gratification. The nascent ego, then, must constantly struggle to find some balance among conflicting instinctual impulses on one side and conflicting social demands on the other.

Our main point is that the self, for psychoanalysis, is something constructed in such a process. Self-identity must be forged, then continually reforged, amid conflicting forces that never can be perfectly balanced. Sometimes the superego will prevail, enforcing some degree of instinctual repression. At other times the instincts will break through, arousing a sense of guilt and inadequacy. The self will always be struggling against: (and thus somewhat alienated from), both its own physical drives and its social context. In this three-sided conflict, even a very healthy self will attain no more than repeated, temporary states of imperfect balance.

This Freudian portrait well depicts the widespread modern experience in which psychological alienation seems inevitable. Yet psychoanalysis is pessimistic enough—and, as a treatment, lengthy and expensive enough—that therapeutic practice, along with self-help literature and seminars, is increasingly dominated by a second approach.

Organismic psychology (whose proponents include Abraham Maslow, Carl Rogers and C. G. Jung), insists that humans have only one [p. 192](#) basic impulse: the drive towards *self-actualization*. The various physiological instincts are not separate, competing urges, but simply aspects of this overall master tendency. The self, then, is really a unified potentiality which exists from life's beginning.

But if we are really unified selves, why do we experience conflicting urges and demands so often? Basically, organismic theory replies, because society teaches us to repress many desires that are natural, and to act in other ways that are not. So we stifle inclinations that belong to our true self-actualization and attempt to follow behaviors that oppose it. This confusion can only be overcome, in Carl Roger's phrase, by 'listening to our organism,' by getting in touch with our real feelings, and allowing them to guide our actions. Then we will 'become our organism.' False restraints and values will disappear, and our authentic urges will merge into one self-actualizing flow.³

In sum, for psychoanalysis personal conflicts are three-sided: the ego struggles against instincts on one side, social norms on the other. But for organismic psychology, the conflict is more two-sided: the self and instincts are essentially harmonious, but society seeks to repress and divide them. Organismic psychologists are generally confident that if individuals are emancipated from false restrictions, their organisms will teach them

² *The Triumph of the Therapeutic* (New York: Harper, 1966).

³ *On Becoming a Person* (Boston: Houghton Mifflin, 1961), 103, 111, 118, 189.

how to behave socially.⁴ They often imply that if everyone followed their organisms, all needs and desires would balance each other in a social harmony like that which apparently reigns in the rest of nature.⁵ Then there would be no real alienation at all.

In many of its expressions, the organismic orientation acquires religious overtones. C. G. Jung called the primordial energy, or *archetype*, which guides self-actualization, the *self*. Jung's self is a wisdom and a striving deeper than the conscious ego—it seeks, in fact, to integrate the conscious with the unconscious, and all other aspects of the personality with each other. The self is that region most in touch with what people call God: Jung's varied language sometimes almost equates it with God.⁶ More recently, *transcendental psychologies* much inspired by Jung identify various levels of the self, the deepest p. 193 being the unbounded, non-objectifiable consciousness familiar in Eastern thought. At this level of awareness, spatial, temporal and personal differences are ultimately unreal.⁷

To recapitulate, for psychoanalysis, conflict among instincts, selves and social norms is inevitable. Selves must be forged and reforged as tenuous balances among these forces. For organicism, selves are unified strivings whose components will balance harmoniously if not distorted by social pressures. The greater one's awareness of one's actualization process, the less significant—perhaps even the less real—will instinctual and social conflicts become.

Ecological Alienation

In public discussion of ecological alienation, similar clashes between two paradigms of evolutionary history are often at the core. The first, which has affinities to Freud's approach, is the traditional Darwinian perspective. The second, more recent paradigm is organismic. We will call it the 'Gaian' perspective.

For Freud, blind strivings among clashing instincts in each individual comprised the ultimate sources of human behavior. Though Freud's ego injected some order into these strivings, he claimed that it too was merely the product of interactions among material forces. For Charles Darwin, clashes among the instinctual strivings of many organisms eventually produced the complexity of life-forms existing today. Like Freud, Darwin regarded states of relative harmony among them as unstable, temporary balances among competing forces. More emphatically than Freud, he insisted that complexity and order emerged by chance alone, not from any overarching purposeful agency. For Darwin, the individual creature's environment (comprised of its geophysical components and all other organisms) was basically hostile, something to compete against if one was to survive. Since the number of organisms exceeded what environmental resources could support, only the 'fittest'—which often meant the strongest—would succeed.

As the science of ecology has developed, it has become increasingly evident that any organism's survival depends on complex interrelations with its habitat. Survival involves cooperation as well as competition. This emphasis has captured much public attention through the Gaia hypothesis: the theory that the entire Earth, or at least its *biota* (its living organisms) comprise a single interrelated, self-regulating organismic p. 194 system. Gaia's

⁴ They will not act selfishly, for socialization is one of their organic needs. *Ibid.*, 194, 353.

⁵ *Ibid.*, 177–181, 194, 348–349.

⁶ In more popular psychology, the *Inner Child* often sounds much like this self. See John Bradshaw, *Homecoming* (New York: Bantam, 1990), 38. The *Inner Child* merges into the unobjectifiable Transcendental Self in Charles Whitfield, *Healing the Child Within* (Deerfield Beach, Fl.: Health Communications, 1987), 137.

⁷ See Michael Washburn, *The Ego and the Dynamic Ground* (Albany: State University of New York, 1988).

macro-dimensions have been sketched by the atmospheric chemist, James Lovelock.⁸ The Earth's atmosphere, Lovelock argues, has for several billion years maintained a temperature and a mixture of gases suitable for life, yet one exceedingly unlikely to arise from physio-chemical interactions alone. This balance could have persisted only if some biological processes (such as exhalation) had regularly replaced chemicals that were being depleted and removed others (say, by decomposition and burial).⁹ Gaia's micro-dimensions have been delineated by the microbiologist Lynn Margulis. She argues that evolutionary life has been built up through mergers, or *endosymbioses*, among bacterial parasites and hosts. Living in dependence on each other, they eventually shed redundant or inefficient functions to become single microorganisms. All living beings are composed of combinations and recombinations of these minute entities.¹⁰

The Gaia hypothesis has attracted enough attention among scientists that large-scale interactions among biological and geo-chemical systems are now being explored. But very few scientists have embraced its strong form: that the Earth itself (or its biota) is a single, self-regulating system. This hypothesis is probably too sweeping to ever be decisively confirmed or refuted. Scientifically, its main function will be to stimulate investigation.¹¹

Yet this has hardly deterred numerous environmental enthusiasts from speaking familiarly of 'Gaia', meaning something like the name's original referent, the Earth goddess. Effective environmental action, as many have stressed, requires a change in consciousness. For most modern humans, alienated from the rest of nature, complicated scientific conjectures will not accomplish this. Deep-down, most need to feel that things are one, some archetypal symbol to help them sense the interconnections enmeshed in every breath we take, every morsel we consume. So Gaia is frequently invoked in environmental publications and rallies. Among New Agers and some radical feminists, Gaia is worshipped.¹² Here in the 'public' discussion of ecology, as in psychology, the organismic perspective often slides into religion. For the sense that oneself, or nature, is (at some depth [p. 195](#) beneath conscious penetration), a harmonious unity, is really a religious intuition.

The theoretical emphasis of the organismic ecological paradigm is 'interrelatedness'. Its practical imperative is 'cooperation'. This means, at a minimum, that we ought to live harmoniously with other species if we want to preserve ourselves. (Only this kind of appeal in fact, is likely to gain broad public support.) But most environmentalists emphasize preserving and enhancing all sentient species—and some include non-living things—for their own sake. They advocate going to great lengths to save the most threatened.

While the organismic paradigm sharply critiques Darwinism, it still affirms many features of the latter. It acknowledges that at least five major extinctions, annihilating seventy to ninety percent of the extant species—along with numerous smaller extinctions—have occurred. Lynn Margulis affirms that over 99.9% of species that ever existed are now extinct. All proponents admit that even when nature preserves species, it

⁸ See Loren Wilkinson's helpful essay on the Gaia hypothesis in this volume including his description of the work of Lovelock and Lynn Margulis.

⁹ *Gaia: a New Look at Life on Earth* (Oxford: Oxford University Press, 1979).

¹⁰ Lynn Margulis and Dorion Sagan, *Microcosmos* (New York: Simon and Schuster 1986), esp. 69–98.

¹¹ See Lawrence E. Joseph, *Gaia: The Growth of an Idea* (New York: St. Martin's Press, 1990), pp. 74–94.

¹² *Ibid.*, 52–73, 200–247.

seems terribly callous about the fate of individuals. One might ask to what extent a full-blown ethic of cooperation and preservation really flow from this organismic theory.

ECOLOGY AND SPIRITUALITY

In public discussion of alienation, two contrasting approaches are heard: the Darwinian-Freudian, whose roots are Newtonian, and the organismic. How have Christians entered the conversation? Seldom by adapting elements from the first approach. Indeed, Darwin and Freud have long been regarded as anti-religious. Christian response to date has very largely followed the organismic line.

There are, of course, different Christian approaches. Some incorporate biblical themes, in varying degrees. In published literature, however, one fairly consistent, readily identifiable perspective appears most often. It owes much to Teilhard de Chardin and/or Process thought. Representative proponents include Thomas Berry, Sean McDonagh, Matthew Fox, John Cobb, Charles Birch, Jay McDaniel and Sally McFague.

Their key theme is interconnectedness. 'The universe is a seamless web of existence in which all things are enfolded into the constitutions of all other things'.¹³ This web stretches back 20 billion years. Today's p. 196 humans are constituted by exchanges of atoms and molecules with contemporary creatures—exchanges continuously interlinked with all that ever occurred, back to the first sub-atomic particles. This history is treated as a revelation. Catholic exponents frequently regard it as superior to Scripture. (Process theologians often add that the love revealed in Jesus underlies the process.)¹⁴ While all acknowledge that evolutionary history involves much violence, they affirm that its overall trend has been towards greater differentiation, subjectivity and communion.¹⁵ These, they then conclude, are the values which should guide us today, leading us to promote a diversity among species and peoples that they claim will lead to richer harmony among them.

Given the interconnections among all beings, proponents of this perspective call the view that humans are superior to others *anthropocentrism*. However, they also claim that subjectivity, or consciousness, has attained a unique breakthrough with our species. Through us, the twenty-billion year process is first becoming aware of—and is called to take responsibility for—its own direction. Humans have an awesome capacity for enhancing or damaging our planet.¹⁶

To overcome the alienation among species, what psychological or spiritual perspective is required? The interconnectedness of all things must be deeply *felt*. One

¹³ Jay McDaniel, *Earth, Sky, Gods and Mortals* (Mystic, CT: Twenty-Third Publications, 1990), 103. See also McDaniel's *Of God and Pelicans: a Theology of Reverence for Life* [Louisville: Westminster/Knox, 1989].

¹⁴ McDaniel, *Earth, Sky, Gods and Mortals*, 42–44, 54.

¹⁵ See Thomas Berry's 'Twelve principles for understanding the universe and the role of the human in the universe process'. The first is: 'The universe, the solar system, and the planet earth in themselves and in their evolutionary emergence constitute for the human community the primary revelation of that ultimate mystery whence all things emerge'. The fourth principle is: 'The three basic laws of the universe at all levels of reality are differentiation, subjectivity, and communion. These laws identify the reality, the values, and the directions in which the universe is proceeding'. Anne Lonergan and Caroline Richards, ed., *Thomas Berry and the New Cosmology* (Mystic, CT: Twenty-Third, 1987), 107. See also Berry's *The Dream of the Earth* (San Francisco: Sierra Club, 1988), esp. 123–137 and Sean McDonagh, *To Care for the Earth* (London: Geoffrey Chapman, 1986), 77–128. Matthew Fox supports Berry's claim that 'Nature itself is "the primary Scripture" ...' *Original Blessing* (Santa Fe: Bear & Co., 1983), 38.

¹⁶ E.g., Matthew Fox, *Original Blessing* (Santa Fe: Bear & Co., 1983), 101.

should enjoy and be profoundly moved by the beauty, diversity, and rhythms of nature. These can be felt by people in tune with their bodies and emotions—with those dimensions most similar to natural creatures. Ecological spirituality must emerge from, and enhance, a wholeness of self.

Matthew Fox calls ecological and social alienations *dualisms*. Dualisms arise because we are out of touch with ourselves. Because we are uncomfortable with certain desires and fears, and especially p. 197 with our bodies, we project such feelings onto other human groups and natural creatures. We then regard them as sharply distinct from, and opposed to, our own groups and ourselves.¹⁷ According to Fox, dualism is overcome by the attitude of compassion, which is rooted in awareness of interconnectedness. Compassion is based on the insight ‘that the other is *not* other; and that I am *not*. In other words, in loving others I am loving myself and indeed involved in my own best and biggest and fullest self-interest’.¹⁸

When humans *feel* this interdependence with other groups and species, Fox supposes, they will cease exploiting nature. When people stop fearing and rejecting those who are different, Earth’s resources will be distributed more equitably. Ethnic and class hatreds will cease. War will give way to peace. Even religions will discover that they are interconnected; they will not only learn from, but also be transformed by, each other.¹⁹

This organismic spirituality emphasizes the great diversities among peoples and species; it acknowledges that many conflicts presently rage among them. But since it assumes that greater differentiation inherently leads to richer communion—for evolution, it claims reveals this trend²⁰—its proponents seem to expect that once the right psycho-spiritual attitude is attained, destructive conflicts can rather quickly be overcome. The key lies in opening oneself to the diversity of one’s experience. Matthew Fox, echoing Carl Rogers, calls this ‘a psychology of trust and expansion’: trusting the basic goodness of all one’s organic experiences, from which increased appreciation and compassion for all others will flow. Christianity’s emphasis on sin, Fox complains, teaches us to distrust our organisms.²¹

Since this perspective evaluates pluralism positively, it tends to assume that tragic conflicts arise only when diversities among instincts or creatures are rigidly segregated or suppressed. Conflict emerges when intellectual theories, revealed religions and powerful socio-economic p. 198 interests impose artificial limits and categories upon nature’s rich spontaneity. Since all things are interconnected, God must be too. The concept of a God whose essence is distinct from that of the universe is often regarded as the chief dualism, in which all others are rooted. In such a monarchical model, Sally McFague complains, ‘God is worldless and the world is Godless: the world is empty of God’s presence. Whatever one does for the world is not finally important in this model,

¹⁷ *Ibid.*, 49; cf. McDaniel, 26–29.

¹⁸ *A Spirituality Named Compassion* (San Francisco: Harper, 1990), 33.

¹⁹ See especially Fox’s discussion of ‘deep ecumenism’ in *The Coming of the Cosmic Christ* (San Francisco: Harper, 1988), 228–244; cf. McDonagh, 143–153 and McDaniel, *Earth, Sky, Gods and Mortals*, 135–162.

²⁰ The ‘law of diversity’ according to Thomas Berry is: ‘The greater the differentiation, the greater the perfection of the whole since perfection is in the interacting diversity; the extent of the diversity is the measure of perfection’. This is why many religions are needed for adequate expression of religious truth (Loneragan and Richards, 31).

²¹ *Original Blessing*, 81–87.

for its ruler does not inhabit it as his primary residence, and his subjects are advised not to become too enamored of it either'.²²

The antidote for this 'monarchical' perspective is a *panentheistic* one. This is not *pantheism*, where God is literally equated with reality as a whole. In *panentheism*, God's being is, indeed, intrinsically intertwined with the universe; yet God also transcends the world, somewhat as humans transcend their bodies. Ecological panentheists often recommend that we envision the world as God's body, though God is also like its mind, or perhaps its beating heart.²³ Only through models like this, they they claim, can we sense how deeply God nurtures, is affected by, and is involved in all creatures. And we will stop harming and start enhancing them when we believe that, by so doing, we stop harming and start enhancing God.

THE NEWTONIAN WORLD-VIEW

Before leaving the public discussion, we can deepen our understanding by outlining the world-view in which, many claim, modern alienation is rooted. This paradigm, often called 'Newtonian', originated with Isaac Newton's physics. Newton held that all physical objects are composed of tiny, indivisible particles. Each one is distinct and separate from every other. These particles attract or repel each other according to mathematical laws. Such laws, however, are not forces independent of or superior to the particles (though their names, like 'law of gravitation', seem to suggest this). They are simply descriptions of relationships among particles.

Due to its success in explaining physical reality, the Newtonian paradigm was extended to society. Here individuals took the place of particles. No individual, so conceived, had any intrinsic relationship p. 199 with any other. Each acted solely from self-interest. Yet when everyone did so, the endeavors of one would balance those of others in such a way that the best result would be attained for all. This paradigm formed the basis for democratic political theory (where conflicting opinions would balance each other in compromises, which would become laws);²⁴ and for capitalistic economic theory (where competition among employers and workers, buyers and sellers, would lead to the most satisfactory wages and prices for all).²⁵ The processes by which this balance would arise were often called laws; the whole process, it was sometimes said, was guided by an 'invisible hand'. Yet neither these laws, nor any political or economic institutions that individuals would form had any independent, superior reality. The ultimate realities were individuals. Corporate structures would be formed and dissolved in accord with their desires. Social laws merely described how this occurred.

Freud's and Darwin's theories were modeled on this paradigm. The separate instinctual drives, each aiming solely at its own gratification (or, more minutely, the individual neurons through which they passed), formed the basic, independent units of

²² 'Imaging A Theology of Nature: the World as God's Body' in Charles Birch, William Eakin and Jay McDaniel, eds., *Liberating Life* (Maryknoll, N.Y.: Orbis, 1990), 209–210.

²³ McFague, 211–219; see her fuller discussion in *Models of God* (Philadelphia: Fortress, 1987); cf. McDaniels, *Earth, Sky, Gods and Mortals*, 102–106; Fox, *Original Blessing*, 88–92.

²⁴ The classic statement is John Locke's *Second Treatise of Government* ed. & intro. Thomas P. Peardon (New York: Liberal Arts Press, 1952). (originally published in 1690).

²⁵ The classic statement is Adam Smith's *The Wealth of the Nations* (originally published in 1776).

Freud's system.²⁶ Darwin's individual organisms, each competing against the others for scarce resources, paralleled the capitalist economic struggles of his day. For both Freud and Darwin, some degree of balanced order emerged, unintentionally, from the clashes among these individual strivings. Yet these theories showed more clearly than classic democratic and capitalistic models that such strivings produce great oppression, suffering, and alienation too.

The Newtonian paradigm has guided western society for three centuries. Many critics argue that when it sanctioned the unrestricted pursuit of self-interest it simply legitimated the exploitation of the weak by the strong. It allowed employers to victimize workers and western colonialism to subjugate other peoples. Nature, which it conceived as composed of passive material particles, could be treated any way humans wished. For when individuals regard themselves as unrelated to others and are encouraged to act however they desire, the results are not mutually advantageous arrangements, but wars of all against all. And even the victors, estranged from their competitors, their victims, and nature itself, suffer from alienation. Consequently, these critics insist, a more organismic paradigm, in which all things are intrinsically interrelated, must replace the Newtonian.

The Newtonian paradigm also conceived of God (although Isaac Newton himself did not), as remote and aloof from the universe. God, too, was an independent individual, intrinsically unrelated to everything else. Some critics argue that the deepest roots of competitive western individualism lie in this conception of the God-world relationship. Alienation, accordingly, can be overcome only when God and the universe become intertwined.

QUESTIONING PARADIGMS

It is understandable why Christians usually favor organismic over Darwinian and Freudian models. If God be Creator, God surely has formed both human individuals and the cosmos with some overarching goal in view. The components of each must certainly possess tendencies towards harmonious interaction. The final word cannot be blind, merciless, instinctual conflict from which direction and harmony emerge by chance.

Psychological Questions

In the psychological realm, Christians can affirm that humans have something like an intrinsic 'self'—a reality most directly indicated when Scripture speaks of the depths and intimacy of 'the heart'. And when the Bible talks of following a call, or of growing up into Christ's image, something like a self-actualization tendency is attributed to humans ([Eph. 4:14-16](#); [Phil. 2:12-13](#), [3:12-14](#), etc.).²⁷ In ways like these, organismic psychology and the Scriptures may converge.

But does the Bible support organismic psychology's claim that one's basic biological instincts merge harmoniously into this self-actualizing drive, so that no significant divisions need exist within the self? Are all important internal conflicts reactions to social

²⁶ This was especially clear in Freud's 'Project for a Scientific Psychology' of 1895. For a discussion, see Raymond Fancher, *Psychoanalytic Psychology* (New York: W. W. Norton, 1973), 63-97.

²⁷ See Thomas Finger, *Christian Theology: an Eschatological Approach*, vol. 2 (Scottsdale, Pa.: 1989), 122-128. God's call through Christ comes from beyond finite persons. But since it comes into conflict with other directions people may be following, theology can infer that selves are structured so as to move towards some goal or other.

restraints, so that individuals, apart from false prohibitions and expectations, would attain wholeness spontaneously? p. 201

Is it not more likely, as Reinhold Niebuhr suggested, that most human instincts are distinct from each other and from our deeper selves? For when an organic instinct arises, we can often choose whether or how to respond to it, at least to some extent. Some range of responses is possible precisely because humans are more flexible and adaptable than other creatures. But this means that potential for conflict also exists among our instincts and among possible directions for self-actualization.²⁸

Whereas organismic psychology usually stresses the opposition between individuals and social structures, Scripture sees them more integrally connected (which is, properly speaking, a more 'organismic' perspective). Biblical terms such as 'body' and 'flesh,' in fact, often indicate that selves exist only in intimate connections with human and nonhuman others.²⁹ And since individuals can act and develop in many different ways, the need for flexibility and adaptability—and the potential for conflict—exists among individuals and groups too. Disagreement, compromise, willingness to limit one's freedoms for the sake of others—these and the laws and customs which make corporate life possible are restrictive, but not necessarily repressive. They are integral to self-actualization because self-actualization is not possible apart from group actualization.³⁰

This discussion has been restricted to humans as created; it speaks of struggle, disagreement and self-limitation, not yet of war, oppression, and exploitation. I am assuming that the former triad can exist without expanding into the latter; and that life marked by the former, where discovering ourselves and loving others often takes thought and effort, may be exactly what God designed us for as *finite* creatures—not for some romanticist paradise where needs are met and conflicts resolved automatically.

But even if this brief sketch seem somewhat speculative, Scripture surely indicates that in our present, sin-pervaded world, conflicts among different bodily drives and personal life-directions, and among individuals and social groups, are omnipresent. One's inner voices, no matter how carefully heeded, cannot always provide clear, consistent p. 202 direction. For even in the Christian, they are caught up in the titanic struggle between Spirit and flesh, life and death, righteousness and unrighteousness ([Romans 5–8](#)).

Self-actualization, then, cannot simply flow from listening to and becoming one's organism. For our inner urgings suggest different possible directions, and outer circumstances necessitate adjustments and compromises. People need guidance from outside as well. We need guidelines and norms. We require ethical teaching, concretely exemplified in communal life. Individuals must develop capacities for self-correction, self-restriction, and when sin is involved, for repentance and confession. But if these teachings and capacities cannot all arise from within, whence shall they come?

Ecological Questions

²⁸ Reinhold Niebuhr, *The Nature and Destiny of Man*, vol. 1 (New York: Scribner's, 1941), 27–43; see Don Browning's discussion in *Religious Thought and the Modern Psychologies* (Philadelphia: Fortress, 1987), esp. 82–87.

²⁹ Finger, vol. 2, 116–121.

³⁰ Kurt Goldstein, often regarded as the founder of organismic psychology, stressed such things far more than Rogers, Maslow, and the recent 'Inner Child' movement. See his *Human Nature in the Light of Psychopathology* (New York: Schocken, 1940), 201–223.

All Christians can affirm that in a providentially ordered cosmos there truly is a balance and harmony as stressed by the Gaian paradigm. Yet we can still raise fruitful questions concerning the internal consistency of organismic ecological emphasis.

This emphasis, we noted, incorporates many Darwinian elements: repeated mass extinctions, eventual elimination of almost all species, nature's apparent indifference to individuals. Such a picture is modified by stressing that cooperation as well as competition aids survival, and that any species' well-being is intertwined with that of its habitat. But even if differentiation, subjectivity and communion have increased over many aeons through this 'kinder, gentler' process, does it teach compassion directly for each creature, especially those most threatened? If we seek to derive our ethics directly from the evolutionary process, might we not arrive at other conclusions—for instance, that while success is not usually attained when individuals or nations take on the world alone, it often is when the strong join to subdue the weak? Or perhaps that widespread elimination of the 'unfit' is still necessary for more differentiated creatures to evolve.

Yet Christians, most will agree, *do* affirm compassion and preservation of the weak. These values, however, do not seem to be unambiguously taught by the Gaian organism any more than are personal norms by the human organism. But if they are not, from whence shall they come?

A TRINITARIAN PERSPECTIVE

For the organismic perspective, balance and health arise spontaneously within the human and Gaian organisms. Alienation occurs only **P. 203** when these internal processes are disrupted. Yet if, on the contrary, these processes do not automatically produce harmony, but can be sources of alienation themselves, then balance and health must involve forces from outside the organism. If we ask what these might be, we reopen the question of God.

Panentheistic ecological approaches often sketch two, and only two, portraits of God. There is the impersonal, individualistic deity, aloof from worldly processes. Then there is the God whose being is intrinsically intertwined with the cosmos. The former obviously cannot enhance the interrelatedness and compassion essential for personal and ecological health. So if we wish to promote these, the argument concludes, we must choose the latter.

The former, however, is undoubtedly a pale caricature of the biblical God. And Christians have traditionally believed that this God is distinct from the cosmos—that God's being is not intrinsically intertwined with it. We must ask, then, whether there is a way of emphasizing this transcendence which supports not dualism and competition, but inter-connection and compassion.

In its doctrine of God, Christianity's distinctive emphasis has not been monotheism (which it shares with other religions), but Trinity: the claim that God, while indeed being one, is in some very real sense also three. Some have claimed that this teaching is not biblical, and/or is simply the product of outdated Greek metaphysics. Since either charge would disqualify the trinity as a contemporary evangelical understanding, let us briefly consider how it might be derived from Scripture.

Why did Christians ever develop such a strange, seemingly contradictory doctrine? Basically, because the agencies the first Christians came to know as Father, Son, and Spirit acted as only Israel's God could.³¹ Only God could save ([Isaiah 43:10–13](#), [45:21–23](#), cf. [Phil. 2:5–11](#)). Yet the Holy Spirit bestowed, and was, the saving life of God ([Rom. 8:10–11](#), [John 3:3–8](#), [1 Peter 3:18](#)). To partake of this life was to participate intimately in Christ

³¹ For this general approach, see Finger, vol. 2, 379–455.

([John 14:20–21](#), [Gal. 2:20](#), [Col. 3:1–4](#)), a Christ worshipped as only God could be ([1 Cor. 16:22](#), [Phil. 2:9–11](#), [Rev. 5:8–14](#)). These present experiences were rooted in the historical initiatives of these three intertwined agencies. The saving activity of Jesus was inseparable from the loving affirmation and guidance of the Father whose work he did, and the inner dynamism of the Spirit who energized it. At the cross, the Father delivered over his beloved Son, who offered himself up through the Spirit ([Rom. 8:31–32](#), [1 John 4:9–10](#), [Heb. 9:14](#)). Then the Father [p. 204](#) raised the Son through the Spirit's life-energy ([Rom. 1:1](#); [4, 8:11](#); [1 Tim. 3:16](#)). In short, all three agencies struggled together under the burden of sin and the assault of opposed powers, and overcame them together.

This entire process was God's coming into the midst of the people. This coming was unexpectedly concerned with the least in society: with beggars, the blind, the lame; and with the socially marginalized: the poor, gentiles, women. Since all these were invited into the kingdom on equal terms with others, their response would involve social realignment and economic redistribution.³² God's unexpected concern for society's downtrodden was paralleled by a similar attitude towards nature. Even though the grass that flourishes so briefly in the Palestinian heat is soon cut down, it is arrayed more beautifully than Solomon ([Matt. 6:28–30](#), cf. [26–27](#)). And God notices each of those creatures lowly enough to provide meat even for the poor: the sparrows ([Luke 12:6–7](#)). This incarnational movement, in other words, revealed that God is far more compassionately concerned about inconspicuous and suffering creatures, human and otherwise, than straightforward observation of society or nature would suggest.

This whole process was the coming of the God who was high and lofty, exalted far above creation. Its character and goal, however, hardly affirmed individualism and competition. This was a process, instead, of uniting, of drawing together. It was God's taking on our struggles and sorrows; assuming our creaturely condition in the most intimate way possible, in the Son, uniting with us inwardly through the Spirit. And from this same unifying movement people from all nations, races, and tongues are drawn together, and the groanings of alienated nature healed ([Rev. 5:9–10](#), [Rom. 8:18–25](#)).

Yet radical as this self-giving, self-emptying process is, this Trinitarian God remains distinctly *other*. God's intertwining with creatures thus evokes heightened wonder, for it proceeds not from natural necessity—not because we already are God's body—but from grace. Divine compassion streams forth not as love of one's own body, but as self-outpouring for those who are very different. And since this cruciform process reveals how strongly creatures resist God, the extent of our separation, and thus of the divine love necessary to overcome it, are further magnified. When God takes on and suffers under evil's consequences, the sharp distinction between God and evil is illuminated. [p. 205](#)

In a panentheistic perspective, however, where everything is part of God, evil must be too. The more directly that the evolutionary process, with its countless instances of suffering, is located within the divine being, the more direct does God's involvement in events like mass extinctions and the elimination of the weak become.³³ But how consistently can such a God be enlisted in the struggle against environmental despoliation and economic exploitation? Will not far more energy for confronting these evils be unleashed if one believes that divine reality is clearly opposed to them?

³² Finger, *Christian Theology: An Eschatological Approach*, vol. I (Scottsdale, PA: Herald, 1985), pp. 277–291.

³³ Process theologies seek to avoid this implication by denying God's omnipotence while affirming God's loving character. So conceived, God opposes evil, but cannot prevent much of it (see McDaniel, 45, 99). Such a love, however, seems to flow in part from God's natural limitations (because God's fate and being are interdependent with the world's), not from transcendent grace. Moreover, evil seems to be a permanent, perhaps even necessary, feature of the cosmos from this process perspective.

The divine *kenosis* accomplished in Jesus' coming casts further light on the whole creation. This coming was an outflow of the love between Son and Father, actualized and energized by the Spirit. One can conclude that creation originated out of the same loving relationships.³⁴ It began when the love and energy flowing among the Trinitarian persons overflowed, as it were, producing creatures whose variety and interrelations would mirror the multi-faceted splendor of their source.

And since God was everywhere, was all that there was, before creatures arose, creation itself can be called a *kenosis*, a self-limitation, God's making space within herself, if you will, for creatures to emerge.³⁵ As long as this space remains 'empty' enough for creatures to retain distinct identities, this image need not be panentheistic. I think it can help us conceive how the divine love is not really distant from our world, but still surrounds us; and how sin may not be running from God so much as pushing away the One who longs to draw near. Yet some divine energies still flow through this space, still intertwining its inhabitants, and longing to sweep each one up more fully into a flow where its distinctiveness, precisely through the increasing richness of its interrelations, will be enhanced. p. 206

TRINITARIAN SPIRITUALITY

What kind of spiritual sensitivity might flow from the Trinitarian paradigm? How might it speak to the roots of psychological and ecological alienation? It would encourage one to regard individuals as both distinct and inseparably related to others. Individuals are not, by themselves, the ultimate realities. But neither are webs of relations. All creation mirrors its Trinitarian source, whose persons are irreducibly distinct, yet inseparably interrelated.

This means that creation's ultimate goal is not unity—if that means a merging of things into sameness—but harmony, which is possible only between real differences. Consequently, boundaries, breaks, and gaps will always exist among created things. Each creature, in its uniqueness, will always carry about an empty space, as it were, which only God can fill, yet never so fully that the creature becomes God. Experience of God, too, will involve an element of negation. God will be 'possessed' only through unquenchable desire for that fullness too full and too Other to ever be possessed. The divine light will be entered through rays of divine darkness.

Such a spirituality will experience the alienations produced by sin as wrenchingly real. They will not be overcome through penetrating to some inner, undisturbed quiescence that renders them illusory. Neither will all conflicts among creatures merge into harmony if each one is simply released from false external constraints. Ultimately, conflicts *will* be overcome and harmony attained, but eschatologically, as something thirsted and striven for—and, yes, tasted even now—by being caught up in the earnestness of the Spirit. The cross will witness unmistakably to the ruptures in self and world. It will judge us and the cosmos in this way. Yet the cross will also offer the only authentic remedy for enduring the anguish of these breakings: that of being taken up by Jesus into his sufferings, of experiencing the communion with Father and Spirit that enabled him to bear our sufferings. Such a communion, now irreversibly imprinted by the cross and resurrection, offers a rich inner experience of God. Yet it neither dissolves us in the divine nor takes away all suffering. Instead, we share in Jesus' sufferings, and in this companionship, that

³⁴ Finger, vol. 2, 402–404, 427–430.

³⁵ This image is suggested by Juergen Moltmann, *God in Creation* (New York: Harper, 1985), 88.

which makes suffering truly terrible—the fear of futility, hopelessness, abandonment—is banished.

In a Trinitarian spirituality, inner experiences of God also surge back outward. Having comforted us, Christ's suffering love flows back through us to others who suffer, intensifying our outreach—and often, even our sufferings. For any time we truly open ourselves to the God [p. 207](#) who is a fellowship of interacting energies, we are swept into their yearning to draw all other creatures into their flow. The more we are united with, or conformed to, God in this way, the more often are we separated, individuated—thrust back amid the alienations of this world—yet only that God's uniting love may more deeply surge among them. Our energy arises not from a romanticism that supposes that all things already are one, despite widespread evidence of alienation, but from the hope that they someday will become one through the cruciform love which inserts itself into the deepest pain.

Because the Spirit anticipates—and to some degree already actualizes—this hope in the present, the beauty, diversity, and rhythms of nature can be richly enjoyed as signs, or foretastes of its coming. The intricate design of creatures already reflects that Word or Wisdom who is the Son. The life-energy that flows through them is already breathed by the Spirit. And the interconnectedness of the whole reflects the Trinitarian interactions.

Humans, then, can surely experience something of God in the self-actualization process. Increasing awareness of God will always be intertwined with increasing knowledge of oneself. Yet because one's fully actualized self will remain future, and because one can organize one's present drives and interests in different ways, the true self cannot simply be read off from one's organism. To discern appropriate patterns of self-actualization, we will need models and guidelines. These must be derived chiefly, as is the entire Trinitarian perspective, from Jesus' incarnational way.

In a Trinitarian spirituality, the interconnectedness among all creatures will be deeply felt. Its transcendent God remains distinct, yet hardly aloof. The Spirit breathes, surges and groans through all things. So intimately does she³⁶ intertwine herself with creatures, seldom calling attention to herself, that the Holy Spirit sometimes seems identical with their life, or with the human spirit. Yet her groaning, yearning, enflaming and rebuking call creatures beyond themselves towards the hope of the new creation. And the groanings of the creatures, whose anguish she assumes, reveal that the natural world still suffers, still awaits liberation. By itself, nature hardly reveals God's loving goal. The love that directs all things—though glimpsed at times [p. 208](#) in human and other natural processes—is clearly revealed only in the astonishing self-emptying of the cross. Only from this vantage-point can those compassionate attitudes, which form part of both 'public' and Christian discussion for environmental healing, be truly perceived and enkindled.

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³⁶ For the rationale involved in referring to the Holy Spirit as 'she', see Finger, vol. 2, 485–490.

Responding Biblically to Creation: A Creator-Centered Response to the Earth

Bruce J. Nicholls

The inhabited world and especially the technologically developed nations are facing the crisis of human survival. Despite modern medicine, disease is increasing and AIDS threatens to become a global scourge. Racism and 'casteism', tribalism and terrorism are destroying nations and increasing poverty. Although women are being given their rightful place in society, the oppression of women and child slavery are increasing, and marriage and family life are breaking down. Violence, rape, and death fill our daily newspapers. However, it is the destruction of the environment that is threatening the survival of the human race. We are heading for ecological death. Jurgen Moltmann declares, 'The Nuclear catastrophe is only a possible catastrophe, but the ecological death will occur because of the irreversibility of the development of humanity if we do not succeed to fundamentally alter this development'.¹ Two carefully researched but popular articles spell out the details of this encircling ecological death.² Both detail the facts and projections of the greenhouse effects of pollution, and deaths of life and nature from nuclear radiation, the dangers of over-population, the waste of irreplaceable resources and the wanton destruction of natural habitats. Raj Chengappa ends his cover story with a grim *Vision 2020* of constant power failures, suffocating air pollution in our cities, extreme temperatures, exorbitantly priced petrol, scarcity of vegetables, disappearing forests being replaced by vast, arid deserts and frequent massive earthquakes.³

Is there another side to this question? Must it happen? Is there any hope of survival for the human race—in personal terms, for our children and grandchildren? The hope of secular humanists who trust science and technology to bring in the new age of peace, justice, and material affluence is fast fading. Global Marxism—the utopia of millions who have sacrificed for and died for it—has proved a delusion. A widespread ideological vacuum now exists. It is a critical p. 210 moment in human history. People in every nation are searching for a coherent world view, a satisfying ethic and a meaningful lifestyle. I suggest as a broad generalization that three alternative paths are being offered for the survival of society and of the inhabited earth.

In recent years there has been a remarkable revival of fundamentalist religions. Each of the traditional religions is turning back to its roots, restating its fundamentals, seeking to develop lifestyles modeled on its founding years. They are identifying religious faith with nationalism and political power, much like the Vishwa Hindu Parishad movement of fundamentalist Hinduism. Fundamentalist Christianity has identified biblical faith with other-worldly spirituality and docetic Christology has made millenarianism a priority and has reduced mission to verbal evangelism. Where the church—fundamentalist, evangelical, or liberal—has failed to address the issues of our time and lost its Gospel

¹ Jurgen Moltmann, 'The Ecological Crisis: Peace with Nature', in an address given to ANZATA/ANZSTS conference 1987.

² 'Planet of the Year: What on Earth Are We Doing?' *Time* 133 (2 Jan. 1989), and 'The Wounded Earth', *India Today* (15 June 1992), 69–100.

³ Wounded Earth, 100.

message, people are leaving in great numbers in search of human identity and global survival.

Disillusioned by scientism and repelled by fundamentalism, people are consciously or unconsciously turning to the New age Movement. This is not a single ideology or religion, but a growing stream with many branches and tributaries. It is the coming together of the revival of pagan religions, the occult, eastern religious movements, especially those associated with the gurus of Hinduism, Zen Buddhism and Taoism, the fusion of quantum science and cosmic spirituality and monistic philosophies of the West. As many have surmised, this growing movement could be as significant for western society as the Enlightenment has been. Whereas the Enlightenment marked the dominance of rationalism and deism in science, religion and philosophy, so the New Age Movement marks a turning to what we may call 'cosmic consciousness' and to pantheism.⁴

The third option is biblical Christianity. This hope for humanity is grounded in an authoritative and relevant Bible as the Word of God, and in the unity and diversity of the triune God—sovereign Father, redeeming Son and life-giving Spirit. God is both Creator of the cosmos and Redeemer of all who in faith turn to Jesus Christ. Biblical Christianity, unlike deism or pantheism, holds together in harmony God who transcends and is separate from creation and God who is incarnate in creation in Jesus Christ and who gives it life. The Gospel is good news for those enslaved by sin and evil and for creation in need of 'liberation from bondage to decay' ([Rom. 8:21](#)). God's Christian p. 211 New Age will be consummated on the Day of Judgment when evil will be destroyed and God will create 'a new heaven and a new earth, the home of righteousness' ([II Peter 3:13](#)). The message to the world is that this transformation of the whole of nature began with the coming of the Kingdom in Jesus Christ, continues today through the New Community as God's vicegerent and will assuredly be fulfilled according to the purpose of the Divine Majesty. We now turn to a more detailed understanding of the Creator's response to creation.

GOD IS THE CREATOR OF ALL THINGS

The opening words of Genesis, 'In the beginning God created the heaven and the earth', are the foundation of all biblical theology. Paul interprets this fact in terms of the supremacy of Christ: 'for by him all things were created; things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things were created by him and for him. He is before all things, and in him all things 'hold together' (Coloss. [1:15-17](#)). The personal act of God is manifested in three centers of personal activity. This relatedness in the Triune God is the foundation of relatedness to the Creator of all living forms of creation. It is the basis of the unique relation of humankind—male and female—created in the image and likeness of the Creator. Exponents of the New Age Movement have reacted against the deistic tendency in orthodox Christianity that has over-emphasized God's transcendence at the cost of God's immanence, as when Christians deny that ecology is a concern of Christian theology and mission. We acknowledge that as evangelicals we have been guilty of this imbalance. Our Christology has erred on the side of docetism and in our evangelism we have been insensitive to humankind's relationship to nonhuman creation.

The doctrine of creation is the watershed between the Christian faith and eastern faiths, especially Hinduism, Buddhism, and Taoism, as well as the new Age Movement. In each case the doctrine of *creatio ex nihilo* is rejected in favor of monism in philosophy and

⁴ See Gavin McGrath, 'The Significance of the New Age Movement', *Churchman*, 1 (1991). Ernest Lucas, 'Science and Christian Belief', 4 (April 1992): 13-25.

pantheism in religion. God is the timeless cosmic energy symbolized in Nataraj, the dancing Shiva. Creation is maya or illusion, less than Ultimate Reality. The impersonal transcends the personal. The human soul flows from and returns to the sea of unconsciousness, the universal mind. In response, biblical thought emphasizes that the Creator rules in providence over all of creation. God sustains it in loving care and justice, but neither merges with it nor is dependent upon it for God's existence. The Psalms abound in God's joy in God's control of the [p. 212](#) cosmos: 'The heavens declare the glory of God; the skies proclaim the work of his hands' ([Ps. 19:1](#)). The whole of [Psalm 104](#) for example is a song of praise to the Lord who provides for creation: 'Even the lions roar for their prey and seek their food from God' (v. [21](#)). 'May the glory of the Lord endure forever; may the Lord rejoice in his works' (v. [31](#)). Praise the Lord.

Paul takes up the theme of providence in the context of the righteousness of God's wrath against those who suppress the truth by their wickedness: 'for since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made' ([Rom. 1:20](#)). Because of this general revelation of God's providence in nature, all of humanity is without excuse before God. Further, Paul uses this knowledge of God's providence in his evangelism with pagans, as his preaching at Lystra ([Acts 12:15–18](#)) and at Athens ([Acts 17:22–31](#)) so well illustrates. Ignorance and idolatry have their counterpart in our modern secular and materialistic society. God's providential care of creation is perhaps the bridge to communicate Christ as Savior and Lord over all of life. It may be the only way to communicate the good news to the seekers of the New Age of Aquarius. People are looking for an integrated world-view that makes sense of their experience and gives hope for the survival of the human race.

All too often we theologians and evangelists are answering questions people are no longer asking. To an increasing number of people Christianity is viewed as irrelevant. The New Age case for nature as a self-sustaining, living organism, in contrast to the perception of the Christian reduction of nature to an object, needs careful evaluation. The biblical concept of providence suggests that God does have a living relationship with all of creation, animate and inanimate. However, nature is a living organism only because all of nature is dependent upon God. To postulate the concept of nature as an independent or evolving organism is to open the door to idolatry. The roles of the Creator and creation are reversed. It is not surprising that the New Age, as does eastern religions, portrays nature as the goddess, Mother Earth, the creative life-force of all existence.

Wherever God and nature meet, there is mystery. Throughout the history of the church there have always been those who have lived on the frontier of this mystery, going beyond the limits of the senses, beyond verbal communication, to experience God's presence. But in doing so, those who have stayed within the bounds of biblical revelation have not lost their rationality nor the wonder of their personal relationship to God. For a few godly men and women it has [p. 213](#) been an enduring experience; but for most seekers after God it has been a more momentary experience.

Evangelicals are activists and generally know little of contemplative prayer, fasting, and meditation. Few are able to be still and silent before their Creator. In contrast, A. W. Tozer, a leader of the Christian and Missionary Affiance, is a good example of one who drew deeply from the wells of the teaching of St. John of the Cross and Julian of Norwich, as well as from William Law and John Wesley. Today some are finding inspiration in the writings of Thomas Merton. In part, the charismatic movement draws its inspiration from this tradition. Paul the apologist and active evangelist had a deep sense of the mystery of God. His prayer 'without ceasing' for the churches and his thirst to live for Christ ([Gal.](#)

[2:20](#)) point the way. But our supreme model is the Lord Jesus Christ whose high priestly prayer ([John 17](#)) is a window to seeing his oneness with the Father.

Christian mysticism or, more broadly, Christian spirituality is a priority for all of us living under the pressures of modernity. Matthew Fox, the North American Dominican priest and advocate of New Age thinking has popularized the concept of 'creation spirituality'.⁵ His understanding of spirituality differs radically from that of orthodox Christianity. He rejects the notion of a transcendent God who can be known rationally. His creation spirituality requires the absorption of the human psyche into the unconscious mind of Mother Earth. He rejects the God-centered theology of sin and redemption in the cross of orthodox spirituality and teaches a nature-centered spirituality, a form of panentheism bordering on pantheism. Fox draws his inspiration from the neoplatonism of the medieval mystics, especially Meister Eckhart, from the cosmic evolution towards unity of Teilhard de Chardin, the perennial philosophy of Aldous Huxley, the nature mysticism of the North American Indians and Celtic paganism. God is external to creation. For Fox, creation spirituality is the deification of mankind and nature as the basic ethic to motivate human response to the ecological crises of our time. As with all leaders of the New Age movements, Fox is unashamedly syncretistic and this has a strong appeal to both secular mankind and the devotees of eastern gurus of mysticism.⁶ p. 214

CREATION IS 'VERY GOOD'

Five times in the creation story of [Genesis 1](#) it is stated that 'God saw that it was good' (vv. [10](#), [12](#), [18](#), [21](#), [25](#)) and in summary, 'God saw all that he had made and it was very good' (v. [31](#)). Each time *kitob* is used in [Genesis 1](#) it refers to God's approval of a particular act of creation. This has usually been interpreted as meaning 'perfection' or complete harmony with the rest of creation. Some interpreters limit it to 'efficient' or sufficient to fulfill the purpose for which it has been created.

Creation as morally good is a concept that begins with the 'tree of the knowledge of good and evil' located in the center of the Garden. The belief that creation is good and not evil is fundamental to a Christian response to nature and in particular to our present ecological crises.

In Greek thinking, which shaped early gnosticism and later the Age of Enlightenment, the immaterial and uncreated soul is perfect and good, while the material body is finite and imperfect, a hindrance to the perfection of the soul or mind. In oriental thought the body is either *maya* (illusion) or evil and to be eliminated. The goal of salvation is *moksha*, the liberation of the soul from the body. Deliverance from *karma*, the wheel of conscious existence may require endless reincarnations of the soul. This is a distant and dismal hope to those oppressed and suffering in this life. By contrast, in Hebrew thought mankind is a psycho-somatic whole or in the words of Wheeler Robinson, an 'animated Body'. The body then has value because humanity—male and female—was created good. The Christian hope lies in the resurrection of the body and the transformation of the whole person, body-spirit, into the image of Christ. The fact that a growing minority are turning from the hope of resurrection to the vague expectation of reincarnation indicates the impact that eastern religions and New Age philosophy are now making on historic Christendom.

⁵ Mathew Fox's writings include: *Original Blessing: A Primer in Creation Spirituality* (Sante Fe: Bear & Co., 1983), *The Coming of the Cosmic Christ*, *The Healing of Mother Earth and the Birth of a Global Renaissance* (San Francisco: Harper & Row 1988).

⁶ For an incisive critique, see Margaret Brearley, 'Matthew Fox and the Cosmic Christ', *Anvil* 9 (1992): 39–54.

If future lives are multiple, then this life has limited value. Compassion for suffering dries up—life is cheap. In India I have seen people lying on the streets in the last stages of death. Nobody cares. In the next life their chances of health and prosperity may be better. It takes the compassion for the dying of a Mother Theresa to awaken people's consciences to the value of this life. The fatalism of *karma* is no answer to human suffering and death. Compassionate service and social justice begin with the biblical concept, 'God saw all that he had made and it was very good'.

The so-called Protestant work ethic begins with the understanding that creation is harmoniously integrated and morally good. The Lord p. 215 God put human beings in the Garden 'to work it and to take care of it' ([Genesis 2:15](#)). We are motivated to work hard as an act of worship to the glory of God. To farm a field well, create a beautiful garden, construct a good chicken coop, make an aesthetically pleasing child's toy, or cook a tasty meal brings immense satisfaction to the human creator as it did to the Creator-God to see that everything God has made was very good. All of creation has this value of satisfaction in the sight of the Creator and for the delegated and dependent human creator.

LIMITS TO THE IMAGE OF GOD

The biblical account of creation affirms that humankind is a part of creation but distinct from it. 'The Lord God formed man from the dust of the earth' ([Genesis 2:20](#)). On the sixth day of creation, God created both Adam and all the creatures that move along the ground ([Genesis 1:24f](#)). It is said that we are separated from chimpanzees by less than two percent of our DNA⁷ and that the difference in the reasoning capacity of an ape, a porpoise, and a man is one of degree, not kind. Human beings have the capacity to relate to the nonhuman creation in a remarkable way, whether we think of St. Francis of Assisi or an ordinary man and his dog.

At the same time, humankind is distinct from the rest of creation. God created human beings in God's own image, male and female. Despite the fact that the phrase, 'image of God' occurs only once in scripture ([Genesis 9:6](#)), apart from the classic statement of [Genesis 1:26-27](#), the concept of the image of God is the watershed in our understanding of the ecological issues of our time.

It is now generally agreed that this image is a relational image, a relationship between persons. It is a relationship between God who is three centers of personhood and human beings who are male and female. It is therefore a social or corporate relationship that goes beyond individualism and is symbolically expressed in the church as the Body of Christ. It excludes a relationship that ends in monism or pantheism. It is also a moral relationship reflecting the attributes of God—holiness and love—which are possible only in the social relationships of two or more persons. Because God's moral qualities are absolute and changeless, humankind's ethical relationship involves absolutes that transcend cultural differences. Biblical ethics are p. 216 centered not in the relative needs of humanity, but in the will of God. Humankind's response to nature is based not on nature's utilitarian value for human fulfillment, nor on the autonomous value of nature itself, but on the value in relationship between the Creator and the creature. This relationship is expressed in covenants that the Creator-God makes with creation. In the case of Noah, it was a cosmic covenant of blessing and future security that God made with him and his descendants and with every living creature on earth ([Genesis 9:11](#)). The sign of this blessing was drawn from nature itself—a rainbow—a sign of harmony and unity in diversity. The covenant

⁷ Cited in R. J. Berry, 'Christianity and the Environment: Escapist Mysticism or Responsible Stewardship', *Science and Christian Belief* 3 (April 1991): 10.

was based on Noah's response to God's ethical demands. It is a covenant with God who is both Creator and Redeemer. God's covenants with Abraham, Moses, and David likewise promise blessings of land, children, and material gain, as well as the spiritual blessings of being the people of God.

The relational basis of Christian ethics is amplified in Paul's understanding of conscience, universal to all humans, as the law of God written in their hearts, bearing witness to their response to the divine law ([Romans 2:12-15](#)).

The quality of our response to environmental issues will depend on the quality of the relationship of the image of God in humankind. The consequence of the Fall so graphically described in [Genesis 3](#) was that this image of God relationship was perverted and blurred. The conscience was seared and subject to human manipulation. Paul argues that when people suppress the truth and glorify themselves, their thinking becomes futile and their foolish hearts darken. They exchange the truth of God for a lie, create God in their own image or in that of the natural world, and become slaves of the idols they have created. They become sexually depraved. Death is the final judgment of God's wrath ([Romans 1:18-22](#)).

The story of idolatry from Baal to our present world is one of enslavement and death. This same tragic story is being enacted before our eyes, whether in the alternatives being offered by fundamentalist religions and ideologies or by the New Age Movement. Matthew Fox subsumes all religious symbols and values under Mother Earth. She is Jesus Christ crucified. She is the cosmic Christ. She is cosmic consciousness. She creates her own ethic. The sacredness of the *phallos* is restored as the god-image, the liberator of spirituality and the renewer of cultural and environmental values.⁸

The history of cultic sexuality from Baal to Artemis of the Ephesians, [p. 217](#) to tantric Hinduism and to Rajneesh all follows the same pattern, one that is summarized by Paul in [Romans 1:24-32](#). Thus, arguably, the biblical ethic is the only valid alternative to save the world from nuclear and ecological death, for the crisis is primarily an ethical one.

The limiting of the image of God to human being is a critical issue in this debate. Ronald J. Sider reports that the Justice, Peace, and Integrity of Creation consultation held in Seoul, Korea, in March 1990, failed to affirm humanity's special status as bearers of the divine image to whom alone the Creator assigned the task of caring for the rest of creation. By the deletion of the word 'alone' in the official document, humanity's moral responsibility for the care of creation is undermined.⁹ The New Age movement finds its ethic for the protection of the environment in the sacredness of all living beings. But if all life is sacred, then humankind has lost control of creation. The motive to destroy the useless cattle, harmful rodents, and dangerous reptiles is lost. In India the snake is worshipped as a manifestation of the spiritual power of the god Shiva. It is always distressing to see diseased and deformed animals being allowed to suffer simply because all life is sacred. The sight of neglected pavement dwellers suffering from malnutrition and disease lying in front of a Delhi bird hospital has often caused me to ponder the discrepancies in the value of life.

DOMINION OR DOMINATION OF NATURE

⁸ Brearley, 44f.

⁹ Ronald J. Sider, 'Reflections of Justice, Peace and Integrity of Creation', *Transformation*, (July-September 1990): 15.

Beginning with Lynn White's essay on 'the historical roots of our ecological crisis' (1967) which was followed by Ian McHarg's *Design with Nature* (1969), there has been widespread criticism of the [Genesis 1:26–28](#) story of God commissioning humanity to have dominion over creation and subdue it. McHarg described the story as 'one text of compounded horror which will guarantee that the relationship of man to nature can only be destruction'.¹⁰ It is interpreted as a declaration of war on nature.

To correct this misunderstanding, the text must be viewed in its context. The Hebrew term *radah* is a strong word for the dominion of a superior over an inferior person as in the rule of a king, while *kabas* ('subdue') is an equally strong word meaning 'to trample upon' (von [p. 218](#) Rad).¹¹ The text could be construed to mean domination, but the context suggests otherwise. Dominion over nature is directly related to being created in the image of God. It is therefore an essential part of what it means to be human. God delegates to humankind the responsibilities of God's providential care of nature. Thus to be truly human means to be accountable for the stewardship of creation. To fail to exercise this stewardship is to be subject to the severe judgment of God as is so clearly shown by Christ's parables on the stewardship of talents ([Luke 19:11–27](#)) and of the tenants ([Luke 20:9–19](#)).

In the Genesis account God makes humanity a vicegerent or steward accountable to God. Furthermore, stewardship always implies servanthood. In the light of Christ's self-understanding as the suffering servant of Isaiah and as the Good Shepherd who lays down his life for the sheep, it is clear that servanthood involves suffering and self-negation. This is the opposite of domination and oppression. The motive of the true steward is to seek the glory of the master—in this case the Creator of the universe.

The account of the Fall in Genesis suggests that when Adam and Eve rebelled against God they lost control of creation. The woman's suffering in child-bearing increased and she accepted her husband's domination ([Genesis 3:16](#)). Adam lost control over the tilling of the soil. Work became a burden. It appears that the harmony of the ecosystem was broken. Thorns and thistles outgrew their purpose and became a burden. Death lost its natural function. The members of the animal kingdom lost their fear of humans. Adam and Eve were turned out of the Garden never to return.

It is a psychological fact that the weak try to manipulate and dominate others. When men and women lost their true dominion as responsible stewards, men began to oppress women, violence—beginning with Cain—became a way of life, greed and autonomy became every person's dream, as exemplified in the story of Babel ([Genesis 11](#)). Shalom in society disintegrated. Today the seekers of the New Age are striving to recover harmony in the ecosystem, a goal that motivates the Green political parties of Europe. By attempting to make a paradigm shift in human consciousness, they hope to usher in a new earthly paradise.

However, until the reality of the Fall is acknowledged, the restructuring of society is doomed to failure. Because of the Fall the [p. 219](#) recovery of the original creation blessing is impossible. There is no saving knowledge of God through fallen creation. 'Creation spirituality' is a myth of the imagination of natural persons. There is hope neither for human survival nor of a cosmic shalom unless the Creator directly intervenes in human history. This we believe happened in the incarnation of Jesus Christ, the Lord from heaven who emptied himself of his divine glory and suffered death for all.

¹⁰ Cited in Berry, 4f.

¹¹ See Steve Bishop, 'Green Theology or Deep Ecology: New Age or New Creation', *Themelios* (1991): 8. William J. Dubrell, 'Creation, Covenant and Work', *Crux* 24 (September 1988): 17.

THE CREATOR-REDEEMER GOD WHO ACTS

The God of creation is also the God of redemption. The cross was in the plan of God from the creation of the world. God's children were chosen to be holy and blameless before the creation of the world. In love God predestined us. In the fulfillment of time God plans to bring all things together under Christ ([Ephesians 1:3–10](#)). Luther rightly emphasized that redemption is within the framework of creation. Our lack of concern about environmental issues suggests that we fail to acknowledge the interdependence of creation and redemption. All too often our concern is for the eternal life of the soul apart from the resurrection of the body and the re-creation of all of God's creation. A cosmic creation demands a cosmic redemption. As Paul emphasizes in [Romans 8](#), the whole creation groans for liberation. We (the first fruits of the Spirit) groan inwardly as we wait in eager expectation for our adoption as sons and daughters, the redemption of our bodies (vv. [19–27](#)). In the light of the finished work of the cross we eagerly look forward to the consummation of the kingdom when Christ returns to the Earth to judge and reign.

Jesus Christ is the Creator and Redeemer. By him all things were created and in him all things hold together ([Colossians 1:15, 17](#)). He is the one who reconciles all things in the cosmos and makes peace through his blood shed on the cross (v. [20](#)). Salvation was a once and for all act in the past, a present and progressive experience, and an eschatological promise of Christ's return to reign on the Earth. The hope of the resurrection is more than a return to pre-Fall harmony; it is a total transformation—a new person, a new society, and a new creation. The resurrection of Christ points to a continuity with creation and a newness that transcends creation. His resurrection is the way of our resurrection. Paul illustrates the continuity and newness of the resurrection by the seed which is planted, dies, and springs up to bring forth a harvest. The first Adam became a living being. Christ the last Adam is a life-giving Spirit. We who were born in the likeness of Adam [p. 220](#) are being transformed into the likeness of the man from heaven ([I Corinthians 15:35–49](#)).

The hope of resurrection is good news to those who are nature worshippers. It was good news to the pagan philosophers of Areopagus; it is to those who believe the body to be the prison house of the immortal soul. To those who have no hope beyond endless reincarnations, the biblical hope of being transformed into the image of the risen Christ in one lifetime can be the starting point of meaningful dialogue. The transformation of the whole of creation is grounded in God who creates and redeems. Reference has already been made to Paul's understanding of the liberation of groaning nature. John climaxes the apocalyptic vision in the last two chapters of the Book of Revelation with the proclamation, 'I am making everything new' ([21:5](#)). This includes the promise of a new heaven and a new Earth, the coming of the Holy City, the new Jerusalem in which all suffering and death are eliminated and the healing of the nations by the leaves of the tree of life located in the center of the city. The curse of the Fall is removed. The Lamb reigns. God is a sovereign in providence over and the redemption of creation. However great the fear of nuclear or ecological death may be, our trust is in God who reigns and who will not reject his covenant relationship with his people. From the refiner's fire ([II Peter 3:10](#)) will come forth a new and transformed earth.¹² Praise the Lord.

SOME FINAL REFLECTION OF RESPONDING TO THE EARTH

On keeping the Sabbath

¹² See on this text Wim Rietkerk, *The Future Great Planet Earth* (Landaar: Nivedit Good Books, 1989), 17f.

From a biblical perspective keeping the Sabbath is a key to the protection and care of the environment. God rested on the seventh day of creation as the climax and completion of God's work. God blessed it and made it holy ([Genesis 2:1-3](#)). The keeping of the Sabbath was given prominence in the Decalogue ([Exodus 20:8-10](#)). It was to be a day of worship and renewal through resting from all labor. The principle of the Sabbath was extended to the whole of creation. The Sabbath year was to be a Sabbath of rest for the land ([Lev. 25:2-5](#)). The jubilee year was to reinforce this principle by reminding Israel that the Earth is the Lord's. They are tenants and they 'must provide for the redemption of the land' ([Lev. 25:23F](#)). Failure to care for the land [p. 221](#) brought exile as God's judgment ([II Chr. 36:21](#)).¹³ In addition, tithes were to be a constant reminder of the people's stewardship of the land and all living beings. The partial failure of the recent Earth Summit at Rio de Janeiro is a further reminder that the ecological crisis is a moral one of the nations' unwillingness to restrain greed and selfishness and to share the Earth's resources for the good of humanity. The Sabbath is a regular reminder to stop and reflect and to regain our perspective on our stewardship. Christians must give leadership by keeping the Sabbath. This keeping of the Sabbath is a key to restoring and maintaining an eco-balance in nature and fulfilling the creation mandate of a sustainable earth.

On the Mission of the Church

People are giving more to Christian aid and development agencies in response to the escalating human crises around the world and less to the missionary agencies of the church. Many mission agencies—at least in the United Kingdom—are facing increasing deficits in the funding of their workers and projects. One of the reasons for this crisis is that people do not see the relationship of evangelism and church growth to human suffering caused by the breakdown of society through economic greed, violence, war, and the destruction of the environment. The enormity of the symptoms that God's mission in redemption cannot be separated from God's mission in creation. The church is God's unique agency for evangelism (as the Lausanne covenant affirmed), and for bringing in a just society and a sustainable Earth. Thus, it is imperative that churches and para-church development agencies work for greater integration and harmony in their programs. They must together articulate a biblical world view and lifestyle that puts evangelism in the context of the social and justice the issues of our time. The Gospel and Contemporary Culture movement in Britain spearheaded by Bishop Lesslie Newbigin is working towards this goal. At their recent consultation on 'The Gospel as Public Truth', Dr. George Carey, the Archbishop of Canterbury, stated, 'A Decade (of Evangelism) which ignores the issues which you are debating in this consultation is doomed to failure'.¹⁴ This is a salutary warning and a challenge. [p. 222](#)

On Wisdom

In the complexities of our modern world, wherein moral issues are sometimes more gray than black and white and wherein human justice and the sustainability of our earth seem to be getting more remote, we cry out for wisdom. As evangelical Christians we need to be still and meditate on the words of the Proverbs: 'The fear of the Lord is the beginning of knowledge' ([1:7](#)). On the gates of the old Cavendish Laboratory (Physics Department)

¹³ Steve Bishop, 9f, and Dubrell, 23f.

¹⁴ *The Church of England Newspaper*, 24 July 1992.

in Cambridge University is carved the text from [Psalm 111:2](#): 'Great are the works of the Lord, pondered over by all who delight in them'.¹⁵ My God grant all of us this wisdom.

Dr. Bruce Nicholls is the Editor of *The Evangelical Review of Theology*. p. 223

III

The Praxis of Sustainable Development

'Faith without works is dead' ([James 6:26](#)). It has been the burden of Christians in every generation to determine what their faith means for public life. The problems of 'practical theology', when applied to Christian environmental stewardship, lead to an environmental ethic.

What does Christian ethics have to say about how we must treat such resources as water and land? In this section, Neil W. Summerton develops a number of principles by which Christians and non-Christians might share in fostering 'sustainable' development. Fred Van Dyke analyzes the sorry state of land preservation by the United States Forest Service and recommends major alternatives in policy and in providing Christian education for land stewards. Taken together, these essays point the way for a Christian environmental ethic. p. 225

Principles for Environmental Policy

Neil W. Summerton¹

In the secular, pluralist Euro-Atlantic world it is comparatively rare for governments overtly to claim the sanction of a particular morality for their policies and actions, much less for their international agreements. Environmental policy stands out as an exception, however. Over the last twenty years, environmental action has come to be based on a bundle of normative principles summarized collectively as 'sustainable development'. For example, the United Kingdom government's new departure in environmental policy of July 1990 made its foundation and starting point 'the ethical imperative of stewardship which must underlie all environmental policies. Mankind has always been capable of great

¹⁵ Cited in Berry, 13f.

¹ While the writer is at present Head of the Water Directorate in the Department, the views expressed in this article are his own and are not to be taken as expressing the views of the UK Government or of the Department on the matters discussed. However, he is grateful to colleagues for comments on an early draft of the essay.

good and great evil. That is certainly true of our role as custodians of our planet... We have a moral duty to look after our planet and to hand it on in good order to future generations. That is what experts mean when they talk of “sustainable development”: not sacrificing tomorrow’s prospects for a largely illusory gain today’.² Non-governmental bodies go further: *A Strategy for Sustainable Living* published by the World Conservation Union, the United Nations Environment Programme, and the World Wide Fund for Nature sees a fundamental need for ‘a new ethic, the ethic of sustainable living’, the principles of which need to be translated into practice and to which ‘a widespread and deeply-held commitment’ needs to be secured.³

Evangelical Christians will recognize the latter as being the language of religious commitment, even of a call to mass evangelism. Thus, this essay will catalogue and analyze this bundle of principles and scrutinize them in ethical terms against the background of Christian revelation. [p. 226](#)

SUSTAINABLE DEVELOPMENT

Although the canon of ‘sustainable development’ has been coming into existence gradually over recent years, it is only comparatively recently that the term has come into common usage. Ideas of sustainable utilization of natural resources began to be discussed in the literature in the 1970s, in part in an effort to shift away from an unpalatable proposition of earlier environmental thinking that advocated severely limited economic growth or even no growth at all.⁴ The term ‘sustainable development’ was used and its principles elaborated in the *World Conservation Strategy* of 1980.⁵ British policy was claimed to be consistent with the concept in the government’s response of 1986.⁶ Such has been its persuasiveness that the concept was endorsed by the G7’s Toronto Summit in June 1988.⁷ It provides the title for the European Community’s Fifth Environmental Action Programme.⁸ And the term has been incorporated as a foundation principle in the new (Maastricht) Treaty on European Union which calls for promotion of ‘a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment’.⁹ At the recent Rio conference (and a host of preparatory meetings), a world council has elaborated the scriptures and a commentary at great length.

² *This Common Inheritance: Britain’s Environmental Strategy*, Cm 1200, London: HMSO, September 1990, p. 8.

³ *Caring for the Earth: A Strategy for Sustainable Living*, Summary, Gland, Switzerland, 21 October 1991, p. 3.

⁴ cf. Donella H. Meadow et al., *The Limits to Growth*, New York: Universe Books, 1972.

⁵ International Union for Conservation of Nature and Natural Resources, *World Conservation Strategy: Living Resource Conservation for Sustainable Development*. Gland, Switzerland: IUCN, UNEP and WWF, 1980.

⁶ *Conservation and Development: The British Approach* (The United Kingdom Government’s response to the World Conservation Strategy), Department of the Environment, May 1986.

⁷ So it was asserted in the UK Prime Minister’s foreword to *Our Common Future: A perspective by the United Kingdom on the Report of the World Commission on Environment and Development*, London: Department of the Environment, July 1988, p. 1.

⁸ *Towards Sustainability: A European Community Programme of Policy and Action in relation to the Environment and Sustainable Development*, approved by the Environment Council, March 1992.

⁹ Article 2.

As has been pointed out frequently, sustainable development is slippery to define, and even more difficult to render operational in the real world. Even within the Brundtland Report, which gave decisive international political impetus to the concept, there is at best a developing definition. At its first appearance, sustainable development is defined as ensuring that humanity ‘meets the needs of the present p. 227 without compromising the ability of future generations to meet their own needs’.¹⁰ Later however the concept of aspirations is introduced so that ‘Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future’.¹¹ It ‘requires meeting the basic needs of all [particularly of the poor—for food, clothing, shelter, and jobs] and extending to all the opportunity to satisfy their aspirations for a better life’.¹² Later still, ‘In essence, sustainable development is a process of change in which in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations’.¹³ ‘In its broadest sense, the strategy for sustainable development aims to promote harmony among human beings and between humanity and nature’.¹⁴

Here there is an evident—though perhaps excusable—looseness of exposition, and a tendency to subsume under the banner of sustainability a comprehensive list of worthy and sometimes conflicting goals for human society. For example, given that humans are at least in part material beings who inevitably consume physical resources, there is an inherent difficulty in meeting the *aspirations* of both the present and future. There is some considerable evidence that in a fallen society the human propensity to material consumption is virtually limitless. So the goal of meeting the aspirations of present and future generations seems doomed to difficulty if there are not to be unacceptable implications for the environment for one generation or the other, and possibly for both.

Our Common Future struggles to reconcile an inherent tension between the economic growth understandably desired by almost all peoples in the world, and the imperative of environmental conservation. Mostly, however, when the tension becomes intolerable, it leans towards development. It recognizes that ‘Economic growth and development obviously involve changes in the physical ecosystem. Every ecosystem everywhere cannot be preserved intact’.¹⁵ It assumes that non-renewable resources will continue to be depleted, but in a p. 228 manner that ‘should foreclose as few future options as possible’.¹⁶ While conservation of plant and animal species is a requirement of sustainable development, development will tend to simplify ecosystems and reduce biodiversity. In essence, the Brundtland Commission emerged as maximizers of economic growth within the constraint of *essential* conservation of the environment: ‘The Commission’s overall

¹⁰ World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), p. 8.

¹¹ *Ibid.*, 40.

¹² *Ibid.*, 44.

¹³ *Ibid.*, 46.

¹⁴ *Ibid.*, 65.

¹⁵ *Ibid.*, 45.

¹⁶ *Ibid.*, 46.

assessment is that the international economy must speed up world growth while respecting the environmental constraints'.¹⁷

There was perhaps much political realism in striking the balance in this way. For while environmental concerns are an increasingly significant factor in the more prosperous parts of the world, it can in fact be argued that economic growth continues to be the dominant political concern of the vast majority of people in both the developed and developing worlds.

In keeping with the emphasis on economic growth, it has been economists rather than philosophers and scientists who have sought to give greater precision to the definition of sustainable development. They have done so largely within the categories of liberal, utilitarian, welfare economics. A considerable amount of ink has already been split on alternative definitions within this mode of discourse, and on the technical problems of making practical use of those definitions for the purposes of policy-making.¹⁸ That effort has been aimed largely at finding an expression of the concept, and means of applying it that are valid and usable for the purpose of economic calculation. Those definitions center on the notion of passing on from generation to generation a stock of assets—natural and artifactual (or natural only)—which are at least as valuable as the stock inherited. This is, however, no more than a way of giving calculable expression to the principle that utility (well-being, welfare, or happiness), should not decline but if possible increase from one generation to another.

From an ethical or theological point of view, utilitarian definitions are—consistent with the principles of utilitarianism—inherently human-centered. They depend upon the value that human beings place upon material things and services, even though a by-product of p. 229 this valuing may be that natural resources, other species, and so on, may receive greater protection than they have enjoyed in the past. When we say that natural resources, creatures, and systems should be preserved, we mean that we consider that they ought to be because human beings want it that way or ought to want it that way. Humankind may now see the world as less its oyster than it did at some periods in recent history.¹⁹ And some within the environmental movement are eager to see the whole biosphere rather than humanity as the center of the drama of existence, and to stress the importance of preserving nature for its own sake rather than humanity's. But the fact remains that of all creatures, human beings remain unique in possessing the ability to manipulate the character of their environment and to impact upon it rationally. And it is their perceptions of the value of the different components of the environment that determine the shape of *their* utility function: this is what gives practical expression to the concept of sustainable development. Nature is to be preserved for its own sake because humans believe it should be so. With all due respect to Lynn White, Jr.,²⁰ humanity's

¹⁷ *Ibid.*, 89.

¹⁸ See, e.g., David Pearce, Anil Markandya, and Edward B Barbier, *Blueprint for a Green Economy*, London: Earthscan Publications, 1989; John Pezzey, *Economic Analysis of Sustainable Growth and Sustainable Development*, The World Bank Environment Department Working Paper No. 15, March 1989; and Department of the Environment, *Policy appraisal and the Environment: A guide for government departments*, London: HMSO, 1991.

¹⁹ See Keith Thomas, *Man and the Natural World: Changing Attitudes in England 1500–1800*, London: Allen Lane, 1983, for a highly illuminating account of changing perceptions of man's relationship to nature.

²⁰ White was among the first in the 1960s to argue that the environmental crisis was fueled at least in part by the Protestant interpretation of the book of Genesis's explanation of the human relation to creation. (Lynn White, 'The Historic Roots of Our Ecologic Crisis', *Science* 155 (1967)).

dominion of creation²¹ is, it seems, to be unimpaired, though perhaps exercised more responsibly.

This human-centeredness is certainly underwritten in the Stockholm Declaration of 1972, the World Charter for Nature of 1982, and the Rio Declaration of 1992. 'Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations'.²² The World Charter declares man to be a part of nature. Nevertheless it tends to draw throughout a distinction between humanity and nature, and to assume that nature ought to be respected because that will maximize utility for human beings. Moreover, it is implied that it is in humanity's long-term interest to preserve and p. 230 conserve nature.²³ Rio reaffirmed the Stockholm Declaration, and began unequivocally: 'Human beings are at the center of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature'.²⁴

Secondly, the values inherent in a utilitarian version of sustainable development are relative in two ways. First, few consider that every non-human item in the universe has absolute worth; some are regarded as more valuable than others. For example, higher mammals like whales have greater value than the individual plankton on which they feed. Secondly, values may change through time. In saying that there is greater environmental concern today than there used to be, we are saying human beings are now placing greater relative value on the preservation of species and ecosystems than they used to do, even to the point of foregoing or reducing some other sort of consumption. If perceptions of relative value change in future generations, our successors may find that our choices, even if made in the name of sustainable development, may have closed off options to them. Inter-generational utility through eons seems to assume a constant basis of values for assessing utility. If it does not, sustainable development cannot mean more than that we pass on a stock of assets and service possibilities worth no less than the value we have chosen to place upon what we inherited—which the following generation may regard as being less, or more, valuable than we thought. (In the first case, we shall have consumed more at the expense of future generations than we should have done, and in the second case we may have shortchanged ourselves in the belief that we had got the balance right.)

This illustrates the extent to which the concept of sustainable development is in fact drawing on absolute principles lying outside the framework of utilitarian economics. It assumes that any particular p. 231 generation of humanity ought to reduce consumption of material items and services to avoid the depletion of other components of the natural

²¹ [Genesis 1:27–30](#).

²² *Declaration of the United Nations Conference on the Human Environment*, 16 June 1972, article 1.

²³ E.g., 'Civilization is rooted in nature, which has shaped human culture and influenced all artistic and scientific achievement, and living in harmony with nature gives man the best opportunities for the development of his creativity, and for rest and recreation. ... man must acquire the knowledge to maintain and enhance his ability to use natural resources in a manner which ensure the preservation of the species and ecosystems for the benefit of present and future generations ... 'Ecosystems and organisms, as well as the land, marine and atmospheric resources that are utilized by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist ... 'In the planning and implementation of social and economic development activities, due account shall be taken of the fact that the conservation of nature is an integral part of those activities'. (*World Charter for Nature*, UN General Assembly Resolution 37/7, 9 November 1982.)

²⁴ *Rio Declaration on Environment and Development*, 13 June 1992, Principle 1.

world or reduction of their diversity, and to enable a potentially infinite number of future generations to enjoy at least as much utility as ourselves. It assumes that future generations will have more or less the same assessment of utility and its components as ourselves, notwithstanding changes in the circumstances in which they may find themselves. At a more mundane level it assumes that individuals and countries should not consume at the expense of worsening environmental conditions for other individuals or countries. In a word, all these assumptions are grounded on notions of equity or fairness.

This raises the question, why should these forms of equity be observed? The humanist may assert notions of the unity and solidarity of human beings both now and through time, and union with the rest of nature. The Christian will be inclined to answer that equity must be recognized because human beings, being made in the image of God, have responsibilities to the Creator for the preservation and improvement of the whole of creation. This includes the preservation of creation's diversity (as evidenced in the story of the Flood—[Genesis 6–8](#)). The future of creation is a matter for the Creator, while the human task is that of conservation and creative improvement ([Genesis 2:23](#)). Finally, love of the Creator (and Redeemer of Creation—see [Romans 8:22–25](#)) must entail respect and regard for God's handiwork. Equity remains a demand because love of neighbor as formulated by our Lord ([Luke 10:25–37](#)) must clearly entail as many future generations as there may be.

The utilitarian definition of sustainable development also admits of more than one structure of the global utility function and more than one level of utility per capita. It has been noted that people might give different weights to environmental goods as against the more familiar consumption goods, any of which set of weights might be consistent with constant overall utility. But this implies that some absolute notion of the worth of environmental goods is needed if the environment is to be protected. Also, the so-called carrying capacity of the Earth (by reference to a constant or increasing value of environmental capital) will depend variably on either or both of the desired level of consumption per capita of traditional material goods and the level of population. At the limit, this presents humanity with a choice: either population must be restricted to permit higher per capita consumption of material goods, or per capita consumption of those goods must be limited—that is, people must have a lower standard of living by the traditional measures. [p. 232](#)

This raises the vexing questions of population planning and population control that are touched on euphemistically and circumspectly in both the Stockholm and Rio Declarations.²⁵ That is understandable since it raises not only important issues of religious controversy but also of state interference in intimate areas of human life and of human rights, as the Stockholm Declaration acknowledges. It is noteworthy, however, that across the developed world there has been a widespread voluntary reduction in childbirth, motivated perhaps by a desire to increase per capita consumption—possibly to levels that are beyond current carrying capacity. In many other societies, the tendency is to maintain rates of childbirth (voluntarily or otherwise), with consequent lower consumption per capita—although often at or beyond the limit of carrying capacity.

Leaving aside ethical questions posed by particular means of population limitation, there is no straightforward theological position on this question. Within the utilitarian

²⁵ Stockholm declares that 'Demographic policies which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned should be applied in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment of the human environment [sic] and impede development'. (Principle 16.) Rio confines itself to a requirement on states 'to promote appropriate demographic policies'. (Principle 8.)

economic framework, it touches on a fundamental issue about the nature of utility itself. In essence, the argument of sustainable development is that a change in the structural definition of utility is needed: greater weight must be given to less tangible types of consumption as against material consumption—to aesthetic, intellectual, and even spiritual goods—and to the utility of future generations as against that experienced by the present generation.

The proponents of sustainable development are not, however, for the most part advocating a Manichean rejection of material consumption. Their concerns are with international and intergenerational distributional shifts. They are also concerned that material consumption ought not to be to the serious detriment of the sustainable existence of the rest of nature.

From a specifically Christian viewpoint, it may be noted that Christian revelation regards the material creation as ‘very good’ ([Genesis 1](#) *passim*). It says that man and woman were placed in the Garden—among other things—to enjoy it ([Genesis 2:15 & 16](#)). Within the original covenant, an important component of shalom was material blessing (see, e.g., [Leviticus 26](#) and [Deuteronomy 7 & 8, & 27–30](#)). That material blessing is seen as contingent on a non-material moral [p.233](#) and spiritual commitment, as a consequence of covenant holiness rather than an objective. And it would be nonsense to propose that the blessing of shalom is to be seen wholly or even mainly in material terms. The same kind of balance is struck in the New Covenant. Our Lord reminds us that ‘Man does not live by bread alone’—which is not to say, not ‘at all’ ([Luke 4:4](#)), and exhorts us not to lay up treasure on Earth ([Matthew 6:19–24](#)). There is an underlying ground swell against avaricious accumulation of material wealth (see, e.g., [1 Timothy 6:6–10 & 17–19](#)), and a constant exhortation to share material blessing generously with others (see, e.g., *Ibid.*, [Luke 16:19–31](#) and [18:18–30](#), and [Acts 2:44–46](#) and [4:32–36](#)). But the Father is depicted as providing abundantly in a material way for the smallest element of creation, animate or inanimate (see [Matthew 6:26–30](#) and [10:29–31](#)), and our Lord is far from expressing a killjoy disapproval of enjoyment including of material consumption (e.g., [Matthew 11:19](#) and [John 2:1–10](#) and [12:1–8](#)). What is rejected is enjoyment as an autonomous end in itself, even of its non-material elements like marriage, fun and bonhomie ([Luke 17:26–30](#)). This suggests that if the object of population limitation were simply increased per capita material consumption in itself, that would be morally questionable; but if the purpose were to enhance the enjoyment of future generations, or living space for the rest of creation, that might be acceptable.

Sub-principles

These observations about assumptions do not necessarily directly aid the practical task of applying the principle of sustainable development in a coherent way. The burgeoning literature on the technical problems of environmental economics—which itself poses some interesting ethical questions—is one aspect of that task. A second is the development of a series of normative sub-principles that can be viewed as a means of achieving the goal of sustainable development. These means themselves call for ethical scrutiny.

First, there is a batch of sub-principles designed to guide environmental policy in order to achieve sustainable development: the precautionary principle, the preventionary principle, and the principle that the polluter/user pays. Further, there are ways of conducting environmental business that are seen as facilitating the achievement of sustainable development: wide democratic participation, including the involvement of women, youth, and indigenous peoples; the free availability and exchange of information and scientific knowledge about environmental conditions; the integration of the

environmental [p. 234](#) dimension into policy-making on all subjects; international cooperation; and the avoidance of war because of its great environmental impact.

The second batch of sub-principles has to do with how environmental policy is formulated and put into practice. With the exception of the question of integrating environmental considerations into policy-making on all subjects, they are not special features of environmental policy, but more general matters which each raise ethical issues of their own. Within the limits of this essay, these will not be considered.

The first batch of sub-principles is very much a set. They are brought together, for example, in the Maastricht treaty of 1991 which among other things requires that European Community policy on the environment 'shall be based on the precautionary principle and the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay'.²⁶

The Precautionary Principle The precautionary principle and the preventionary principle are closely related but distinct, though they are often confused. Much of the literature about the precautionary principle is actually about the question of whether (or to what extent), the external environment should be used for the purposes of waste disposal and treatment.²⁷

The precautionary principle rightly understood is that society should not wait until environmental damage has occurred or the risk of damage is proven and measured before taking corrective action. As the Rio Declaration formulates it, 'Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation'.²⁸ This is in fact a comparatively mild expression of the principle that allows for the use of risk assessment to estimate both probability and the scale of the likely impact of human action, for judgment informed by current scientific knowledge (theory and results [p.235](#) to date), and for the possibility that nothing can be done about the particular risk because it is not practicable at reasonable cost. Others however would formulate the principle without regard to cost, the scale of the risk, or to scientific probability: theoretical possibility should trigger action with little or no regard to the relative significance of the potential event giving rise to the concern.

Here, there is at least a potential conflict between philosophical approaches. The underlying approach of the discipline of risk assessment is of a certain rationality characterized by an informed weighing of risk in terms of its probability and seriousness if the event were to arise, and in terms of the cost implications of corrective action. The procedure does not in itself produce decisions, but in a world of inevitably scarce resources, it implies that environmental action and expenditure ought to be ordered according to the relative significance of different risks, taking into account the feasibility of corrective action and costs.

This approach is sensible and realistic. But it is far from being value-free: the weighing of different risks will inevitably involve judgment as to the relative importance of different

²⁶ Treaty on European Union, Maastricht, 7 February 1992, Title XVI, Article 130r(2) (European Communities No. 3 (1992), Cm 1934, London: HMSO, p. 39).

²⁷ See for example the Ministerial declaration at the Bergen conference of 1990 to consider the Brundtland Report: 'In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent or attach the causes of environmental degradation. Where there are threats of severe or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation'.

²⁸ The Rio Declaration on Environment and Development, 13 June 1992, Principle 15.

objectives. Those who argue for a much more rigorous formulation and implementation of the precautionary principle are unwilling to leave the judgment to experts. They generally accord a more absolute protection to the environment as against other aspects of human welfare, and accord a more monotonic significance to different environmental risks, so it becomes as important to act against a low risk that is expensive to address as it is to act against a high risk that is cheap to attack.

However sensible the underlying philosophy of risk assessment may seem, the evidence of history is not on the side of the advocates of this rationality. Environmental and public health policy is inevitably conducted in the political arena and action is driven by the public perception of risk. Here, the key word is perception, mysteriously driven by mood, fashion, and the information process. In these perceptions, the assessment of risk may be far from that suggested by rigorous rationality. But in open societies, administrations understandably respond to public perceptions. The result is many resources may be devoted to dealing with comparatively insignificant environmental problems, while more serious matters are ignored, which are not for the present of public concern, or to which the public's attention may not have been drawn, are ignored.

Thus, the Christian will not look for salvation from a 'value-free' rationality. Nor will he or she have any great confidence in the ability of fallen human beings to make rational or moral choices. The issue for [p. 236](#) the Christian will be the priority to be given to the preservation of all species of creation in the light of revelation, even if sometimes these species are in competition with one another.

The Preventionary Principle The preventionary principle aims to address potential pollution at its source, and if that cannot be done, to provide treatment within the production process in order to eliminate discharge of any polluting substance to the natural environment. It implies a preference for the elimination of processes that might give rise to pollution rather than for treating noxious substances once they have been created in the process of production or consumption. Thus stated simply, it could be argued that the matter should turn on straightforward financial considerations—whether it is cheaper for proprietors and/or consumers to treat waste effectively (i.e. without unacceptable risks to the environment from the cleaning-up process and the resulting discharge) at the end of the pipe before discharge to water, air, or land, or whether production processes can be designed economically so that they do not give rise to noxious wastes. Frequently, the latter will be the case, though this is not axiomatic.

Embedded in the principle, however, is a deeper dilemma that is neatly posed by successive principles of the Stockholm Declaration, and by the effort to eliminate discharge of any polluting substance to the natural environment:

Principle 6

The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems ...

Principle 7

States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards for human health, to harm living substances and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

Here is a conflict between the so-called 'critical loads' and the 'no-harm' approaches. The former argues that it is perfectly legitimate to use the biosphere's capacity for neutralizing noxious material provided the load is within the biosphere's ability to absorb it without generating significant change or damage to neighboring ecosystems. An example [p. 237](#) is

the discharge of human or animal effluent to rivers or the sea, both of which have the capacity to process it if there is sufficient dilution and enough dissolved oxygen in the effluent and receiving waters. The no-harm approach argues that the natural world should not be used for the processing of pollution. The implication is either that pollutants should not be created in the first place or that they should be made harmless within the production system.²⁹

To some extent, the conflict is a matter of degree, since the critical loads approach requires a judgment as to when the load is excessive. So the distinction is inclined to become one of strictness of interpretation, especially as industrial production increasingly makes use of biological processes for pollution control, as sewage treatment works have long done. The underlying notion behind the no-harm approach seems to be that it is in principle wrong to use the living natural environment to neutralize noxious matter. A possible riposte is that the biosphere makes wide use of that very principle (the Christian would say, by the will of the Creator). It might be replied that human beings ought not to increase pollution loads above the natural level simply for the sake of enjoying greater utility themselves. However, this argument does not seem to accept the fact that it is in the nature of the material universe—including the laws of thermodynamics—that the production on which greater material utility rests cannot be secured without creating waste. A rigorous no-harm position would have sobering implications for human lifestyles and living standards.

The Polluter Pays This aspect of means of achieving sustainable development has seen the most extensive development of thought between 1972 and 1992. Reflecting the consensus of the times, the Stockholm Declaration of 1972 lays stress on the need for 'Rational planning ... [as] an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment'. Planning must be applied to human settlements and urbanization. 'Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with a view to enhancing environmental quality'.³⁰ It does not refer to the polluter pays principle, though there is a p. 238 reference to the need to develop international law on liability and compensation to deal with the effects of trans-frontier pollution.³¹ Nor does the 1982 World Charter refer to the possibility that the costs of pollution should be borne by the polluter. However, in contrast, it is de *rigueur* for today's environmental agreements to lay stress on the role to be played by economic instruments. Thus the Rio Declaration requires national authorities 'to endeavor to promote the internalization of environmental costs and the use of economic instruments, taking account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and with distorting international trade and investment'. States are also called to develop national, as well as international, law on liability and compensation for the victims of pollution and other environmental damage.³²

This shift represents partly a question of fashion, reflecting a waning confidence in governments and centralized planning, and a greater trust in individuals and markets. Partly, it is a question of efficiency and effectiveness in achieving environmental goals.

²⁹ In the UK, the Greenpeace organization has recently argued in precisely this way, even in respect of the discharge of treated sewage effluent to rivers (Greenpeace press release, 11 August 1992).

³⁰ *Declaration of the United Nations Conference on the Human Environment*, principles 14, 15 and 17.

³¹ *Principle 22*.

³² *Rio Declaration*, principles 16 and 13.

Regulation can be costly in administrative terms and in terms of imposing extra costs on producers (and therefore consumers) for comparatively small environmental gains. The hope in many countries is that people will respond more quickly and effectively to financial carrots than to regulatory sticks. The belief is that if producers are left to decide for themselves how they will respond to a common framework of financial stimuli, the costs of achieving any given amount of pollution abatement will be allocated more satisfactorily than could be achieved by a regulator.

There are some moral ambiguities here. There is obvious injustice in arrangements that enable people to externalize the costs of their pollution: they are able to obtain financial or other benefit while the resulting pollution reduces the utility of others, as may for example be evidenced in the effect on the value of their property. The polluter-pays principle aims to effect a fairer distribution of financial burdens. But there are other redistributive effects of the principle that need to be taken into account. First, it is often thought that the principle will inevitably transfer the costs of pollution to proprietors, e.g., shareholders, and that sometimes makes people feel good. Whether it does so will depend on the competitive position of the enterprise. Frequently, however, the burden will be shifted to the consumer of the products concerned. In principle, there need be nothing wrong with [p. 239](#) that since from one point of view the ultimate polluters are the consumers of the products that give rise to the pollution. But if so, the effect of the principle could be to maintain the wealth of the shareholders in polluting enterprises at the expense of a multitude of consumers, but to the benefit of those adjacent to the factory, who may be either rich or poor. A general increase in utility may be achieved at the expense of a reduction in utility for poorer people. Notwithstanding the concern for the poor that is often claimed for the concept of sustainable development, the redistributive effects of the polluter pays principle will not always be easy to unravel.

Given the sometimes surprising redistributive shifts entailed in the polluter-pays (or the consumer-pays) principle, it is not surprising that less developed countries are wary of it. To increase the burdens of producers of cash crops in poor countries in the interest of reducing environmental impact—for example, reduction in the diversity of species or in forest cover—may be to increase the competitive advantage of producers in richer countries. As the poorer nations constantly pointed out in the Rio process, it raises the question of the possible need for compensating redistributions of income and wealth between different parts of the world. In other words, the polluter pays principle raises issues of distributive justice, the ethics of which are strictly beyond the proper subject of this essay.

Conclusion

The principles underlying environmental policy may be one of those issues on which the policy prescriptions of non-Christians and Christians are similar. The Christian notions of accountability to a Creator for the use of creation, and of stewardship and trusteeship, may lead to a very similar ethic to one which is based on, say, the notion of trusteeship on behalf of nature as a whole and future generations both of human beings and other species. Indeed, it is arguable that the modern secular ethic draws heavily on a Christian heritage of thought. To some extent it is a question of language, and it is interesting that the British policy document of 1990 from a Conservative government, in choosing to use the word ‘stewardship’, places itself in that way within the Christian tradition.

Nevertheless, the modern environmental project, whatever its language, presents a specific wider challenge from the Christian viewpoint. Both *Our Common Future* and *Caring for the Earth*, for example, are committed to notions such as ‘global sustainability’, ‘the human future’, ‘sustainable human progress and human survival for [p. 240](#)

generations to come', 'harmony between human beings and between humanity and nature', 'survival', and 'security'. This language raises a profound theological issue. It is not that 'revealed religion' (to use Newman's phrase), rejects these goals for humanity and the rest of creation (see [Isaiah 65:17-25](#), [Romans 8:22-25](#) and [Revelation 21:1-4ff](#)), or that Christian and non-Christian do not struggle with the same human and other material in order to attain them. The great question is whether humanity can achieve the goals by autonomous human effort (as at Babel, [Genesis 11:1-9](#)) or in dependence upon God (as with Abraham, Moses, and others in the biblical record). To adopt those profound categories emphasized by Martin Luther, can the future be secured by building *securitas* by human effort, or can the work only be accomplished in *certitudo*? Some of the international texts of our time look suspiciously like the former.

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Ethics and Management on U.S. Public Lands: Connections, Conflicts, and Crises

Fred Van Dyke

On 24 September 1991, John Mumma, former forester of the U.S. Forest Service's Northern Region, testified before the Congressional Subcommittee on Civil Service in Washington, D.C. In the same subcommittee hearing, Lorraine Mintzmyer, former Director of the National Park Service's Rocky Mountain Region, also testified. Both stated that they were being forcibly reassigned because of political pressure coming from outside their agencies. Mumma claimed, in his case, that this pressure was exerted because he did not meet timber harvest quotas in his region. Mintzmyer stated that her reassignment was motivated as a result of her role in developing a scientifically based management document for the Greater Yellowstone Ecosystem, and then, when the document was rewritten under political pressure, for refusing to tell the public that the revision was scientifically based.¹ Mumma, who had been described by some environmental groups as a reformer, said that description was inaccurate. He told the subcommittee, 'All I tried to do was perform my job as a civil servant and to carry out the policies of the executive branch in accordance with federal law'.² But referring to laws like that of the National Environmental Policy Act (NEPA), the National Forest Management Act, and the Endangered Species Act, Mumma stated that he had failed to meet his quotas 'only because to do so would have required me to violate federal law'.³

¹ High Country News Staff, 'Two say politics rule their agencies'. *High Country News*, 7 October 1991.

² *Ibid.*

³ *Ibid.*

Mintzmyer's reassignment came in the wake of her work in preparing the Greater Yellowstone Vision Document which, she claimed, angered Republican appointees in the Department of Interior and the White House. When the vision document had been almost completely rewritten, and all of its major policy decisions revised—and even reversed—under political pressure, Mintzmyer resisted. 'Stating that the vision document as it presently stands', Mintzmyer told the subcommittee, 'is the result of efforts by the Park Service or the Forest [p. 242](#) Service, based on scientific considerations and the professional opinions of those agencies is, in my opinion, not accurate'.⁴

Supervisors, political appointees, and elected officials implicated in the Mumma-Mintzmyer testimony denied that political pressure played any role in their removals and reassignments. But such reassignments did occur, coincident with the production of documents and implementation of decisions that angered traditional western commodity interests. Circumstances make the testimony of Mumma and Mintzmyer extremely believable. And the testimonies given reflect different, but related, issues in environmental ethics. In the first case, Mumma describes a situation in which a management objective can be achieved only by breaking environmental law. Mintzmyer testifies that a federal agency, the National Park Service, is asked to misrepresent deliberately the source and nature of information contained in a critical management document, a document intended to form the basis of management practice in the nation's oldest and most popular National Park and in seven national forests surrounding it.

What is unusual in the case of Mintzmyer and Mumma is the high level of the people making such accusations. As a regional forester, Mumma reported directly to Forest Service Chief, Dale Robertson. As a regional director of the Park Service, Mintzmyer reported directly to National Park Service Director, James Ridenour. People this advanced (and entrenched), in agency bureaucracies are normally not notorious troublemakers. And they do not value their careers lightly. The fact that senior level executives were willing to resist agency directives to the degree that they did should concern us, and lead us to probe more deeply into how natural resources are actually being managed.

The cases of Mintzmyer and Mumma are unusual only because they occupy high level positions. But such cases are typical of many government employees who are routinely reassigned, transferred, or dismissed when personal determination to uphold environmental law is considered politically inappropriate. In his review of many such cases in the *Audubon* article, 'When A Whistle Blows in the Forest', Paul Schneider documents notable cases within the Forest Service in which individual careers were effectively terminated for activities such as protecting archaeological sites, finding endangered plants in proposed timber sales, or reducing timber harvests to benefit wildlife or watershed values. Even more disturbing than the individual incidents documented by Schneider are the perceptions of the Forest Service's priorities by its own employees. When asked to choose from [p. 243](#) among twenty attributes which they felt would be most rewarded by the Forest Service, agency personnel ranked loyalty to the Forest Service, meeting targets, and promoting a good image of the Forest Service as the three most rewarded worker attributes. The three attributes which were considered least rewarded were a sense of care for future generations, the preservation of healthy ecosystems, and a strong professional identity.⁵

A DEEPER CRISIS

⁴ *Ibid.*

⁵ Paul Schneider, 'When A Whistle Blows in the Forest'. *Audubon* 94 (January/ February 1992): 42-49.

Forest Service workers are not some sort of alien nation, but a subset of the American population at large. As such, they both represent that population's values and are influenced by them. As public values shift away from the traditional forest commodity interests of timber, minerals, and grazing, and toward non-commodity interests of wildlife, recreation, and aesthetics, tension grows between management directives that benefit commodities and environmental laws designed to protect long-term ecosystem health. That tension is becoming reflected increasingly in the growth of organizations within the Forest Service itself like Forest Service Employees for Environmental Ethics and Inner Voices, which advocates greater attention to long-term environmental stewardship.

There have been other recent examples of environmental lawbreaking in Forest Service management activities. In 1985 and 1990, timber was logged in two wilderness areas in Oregon despite a ban on such activities imposed by the Wilderness Act of 1964. In the management of wilderness itself, the House Committee on Appropriations was distressed to discover that only 63% of the Forest Service's appropriated budget for wilderness was actually spent on wilderness management between 1988 and 1990, and only a little over half of the funds provided for wilderness management in fiscal 1990 were actually used for wilderness.

The Forest Service generates much of its own revenue from timber sales, but the timber sales themselves are not always cost effective. Michael Lipske reported in 1990 that, according to Congressional estimates, the Forest Service lost as much as \$350 million dollars in its Tongas National Forest timber sales in Alaska.⁶ Resource economist p. 244 Randall O'Toole estimates that timber sales on the seven forests surrounding Yellowstone National Park lost about \$12.2 million in 1988.⁷ Yet, cost ineffective timber sales continue, notes O'Toole, because, "Timber sales, whether they make or lose money, produce many jobs—and therefore votes—in a state or congressional district."⁸ This situation is aggravated by the fact that forest managers may keep legally an unlimited share of gross timber receipts for forest management activities in the timber sale area, and are under no obligation to return an equal share to the U.S. Treasury. the source of funds for timber sale arrangement and preparation.⁹ This situation has resulted in such absurd activities as logging forests in critical grizzly bear habitat to raise funds to improve grizzly bear habitat, a situation which actually occurred in the Gallatin National Forest in Montana.¹⁰

Another major U.S. federal agency, the National Park Service, has come under increasing criticism for the long-term loss of mammal species in National Parks, less than one percent of a billion dollar budget spent on basic research studies, and the fact that the parks are not managed by scientific professionals, but by a core of nonprofessional policemen, the park rangers.¹¹

The Path to Reform

⁶ Michael Lipske, 'Who Runs America's Forests?' *National Wildlife* 28 (October/ November 1990): 24–34.

⁷ Randall O'Toole, 'Recreation Fees and the National Forests', in Robert B. Keiter and Mark S. Boyce, eds., *The Greater Yellowstone Ecosystem: Redefining America's Wilderness Heritage* (New Haven, CN: Yale University Press, 1991): 41–48.

⁸ *Ibid.*, 43.

⁹ *Ibid.*

¹⁰ Schneider.

¹¹ Alston Chase, *Playing God in Yellowstone* (San Diego, CA: Harcourt, Brace, Jovanovich, 1987).

In the wake of the scandal surrounding the Mumma-Mintzmyer hearings, journalist Ed Marston, editor of the western environmental paper, *High Country News*, wrote an editorial entitled, 'Will the Bush Administration Choose Reform?'¹² The last word of the title is the most portentous, because nothing short of reform is needed in American resource management agencies to make them effective in accomplishing their mission. As the true picture of how resources are actually being managed in this country becomes clearer, it is apparent that the word 'corruption' would be appropriate. As Marston puts it, 'The West's commodity producers—unwilling or unable to adapt to the p. 245 nation's new land ethic—appear determined to continue to conduct their economic activities outside the law. They have chosen outlaw status'.¹³ The effect of such behavior is to dissolve values into power. But to exercise power in contradiction to value is not morally legitimate power. It is coercion. In the absence of a normative public ethic, we have arrived at the situation in which politics, as Alisdair McIntyre put it, 'becomes civil war carried on by other means'.¹⁴

Theologians distinguish between two types of evil, personal and structural.¹⁵ The former is a familiar subject of many sermons, the problem of personal sin and moral choice. Evil at the personal level is remedied by personal behavior. It requires repentance, restitution, and subsequent consecration to God to turn from evil to good. As Paul told the church at Ephesus, 'Let him who steals steal no longer, but rather let him labor, performing with his own hands what is good, in order that he may have something to share with him who has need' (Eph. 4:28).

But evil, in a fallen world, can reach beyond personal levels. It can come to be incorporated, and even rewarded, in the operation of a system or organization. Evil at the structural level cannot be effectively thwarted by remedies at the personal level. It is the system itself which must be altered.

There are many who have proposed such alterations. Randall O'Toole, seeing the structural evils of the Forest Service as primarily economic, proposes an economic solution. Charge fees for recreational use of national forest lands, and then allow managers to keep the funds generated from such fees for use on their forests or districts.¹⁶ O'Toole's plan is laudable in many respects, but, standing alone, it is incomplete. His answer equates maximum revenue generation with moral excellence. And neither the Mumma nor the Mintzmyer cases were generated solely out of economic motives. Alston Chase, one of the most published critics of the National Park Service in general and of Yellowstone Park in particular, proposes sweeping changes in the National Park Service budget, its employee evaluation system, and an increasing role for external review.¹⁷ Like O'Toole's proposed reforms, Chase's proposals, if implemented, would probably have many p. 246 salutary effects. But they do not address the deeper questions of the moral legitimacy of many Park Service policies.

Not only the economic and management structure, but the entire legal structure of American property law must change if there is to be real reform in resource management.

¹² Ed. Marston, 'Will the Bush Administration Choose Reform?' *High Country News*, 7 October. 1991.

¹³ *Ibid.*

¹⁴ Alasdair Macintyre, *After Virtue* (South Bend, IN: University of Notre Dame Press, 1981): 236.

¹⁵ Steven V. Monsma, *Pursuing Justice in A Sinful World* (Grand Rapids, MI: Eerdmans, 1984).

¹⁶ O'Toole.

¹⁷ Chase.

Joseph Sax, Professor at the University of California Berkeley School of Law, states that ‘A fundamental purpose of the traditional system of property law has been to destroy the functioning of natural resource systems’.¹⁸ Sax is correct, for enclosure and exclusion, the foundation of private property laws, water rights laws, homesteading laws, swamp drainage laws, and multitudes of other laws are essential to private control of land productivity, but anathema to ecological health of natural systems and communities. Such traditional property law, upon which longstanding resource commodity interests on public lands are based, now runs into increasing conflict with more recent legislation aimed at protecting ecologic health in the public interest. As recent environmentally protective legislation like the Endangered Species Act and the National Environment Policy Act continues to erode the legal power of the grazing, mining, logging, and other commodity interests, these interests must resort to the use of direct political power, and must often use such power outside the law. But whenever any group uses political power without legal foundation, the result is not democracy but a dictatorship of politically powerful outlaws. The outcome of such conflict is corruption of the natural resource management system, the loss of public trust, and the illegal degradation of legally protected resources.

It is clear that reform is needed in both structures of management and structures of law. But, by themselves, the reforms generated in these areas alone would still be incomplete. A further and greater need is the development and provision of an environmental ethic by which both individuals and agencies are judged. And until that ethic is both well formulated and well articulated, neither personal nor structural evil in natural resource management can be attacked effectively.

The late Aldo Leopold foresaw the dangers of an inadequate basis for environmental ethics, and warned what would happen to those who tried to build a comprehensive program of conservation upon them. p. 247

No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions. The proof that conservation has not yet touched these foundations of conduct lies in the fact that philosophy and religion have not yet heard of it. In our attempt to make conservation easy we have made it trivial. When the logic of history hungers for bread and we hand out a stone, we are at pains to explain how much the stone resembles bread.¹⁹

I echoed these statements more specifically, if less poetically, in an article published in 1985. ‘The present environmental movement’, I wrote, ‘is moving toward a crisis of unresolvable value conflicts because of the inadequate foundation of secular environmental ethics’.²⁰ Events have since strengthened the veracity of these views. No public ethic in resource management can be established unless it is informed by biblical values.²¹

THE CHRISTIAN CHURCH AND PROPHETIC WITNESS

¹⁸ Joseph L. Sax, ‘Ecosystems and Property Rights in Greater Yellowstone: The Legal System in Transition’, in Robert B. Keiter and Mark S. Boyce, eds., *The Greater Yellowstone Ecosystem: Redefining America’s Wilderness Heritage* (New Haven, CN: Yale University Press, 1991): 77.

¹⁹ Aldo Leopold, *A Sand County Almanac* (New York: Sierra Club/Ballantine Books, 1966), 246.

²⁰ Fred G. Van Dyke, ‘Beyond Sand County: A Biblical Perspective on Environmental Ethics’. *Journal of the American Scientific Affiliation* 37 (1985): 40–48.

²¹ John R. Neuhaus, *The Naked Public Square* (Grand Rapids, MI: Eerdmans, 1984): 21.

Theologian Carl F. H. Henry has said, ‘it is only as each Christian generation permeates its environment with biblical moral sensitivities that unregenerate society is restrained from acting on its deep-seated prejudices and is encouraged to judge itself by Christian ideals—even where it is unwilling to embrace those ideals as an explicit intellectual commitment’.²² In the cases of Mumma and Mintzmyer, and in the cases of hundreds of other government employees at lower levels, we come to see all too clearly what those ‘deep-seated prejudices’ really are, and how they express themselves. They are the prejudices of self-interest. And they are comfortably at home even in our noblest national effort, the protection of the environment. The expression of such prejudices is simple and direct. If the law is contrary to your desires, break it. If the truth does not support your position, lie. And if anyone stands in your way, have them removed.

We are left at this point with a sobering realization. The most basic reform of all, and one which only the church can provide, is the provision of a meaningful environmental ethic by which both [p.248](#) individuals and agencies are judged, and which has the strength to bring personal evil to repentance and structural evil to reform. This reform must take place at three levels. Personally, it must produce a new kind of resource manager, a steward, who has self-consciously internalized and learned to practice a biblical ethic of resource management. Corporately, the church must make a priority of training such stewards in its colleges through graduate degree programs, and provide, in those colleges, supportive communities that give plausibility to the biblical ethics of stewardship. Socially, the stewards, once established professionally, must join with the church in public involvement and debate over resource management decisions to make biblical principles part of the public discussion of resource values, the basis on which management decisions are made, and the criteria by which right and wrong conduct in resource management is judged.

ELEMENTS OF A BIBLICAL ENVIRONMENTAL ETHIC

The first five words of scripture, ‘In the beginning God created ...’ plunge us into a stream of radical departure from the thinking of modern environmental ethics. A transcendent God, a God truly independent of and separate from what is created, calls a cosmos into being from nothing, neither detracting from nor adding to God’s self in that creation. And the order, complexity, and harmony that God designs into the world are reflections of God’s own nature, not self-sustaining attributes of the cosmos itself.

As God creates, God imparts value to God’s creatures. ‘God saw that it was good’. The divine pronouncement of value is made repeatedly of every particular creature, and independently of human utility, opinion, or even human existence. Human beings do not add to or detract from the value of creatures by their judgments about them, or their estimates of the utility of created things. They enter God’s creation as creatures themselves, with that value already established as part of creation’s order.

To value, God adds blessing. ‘Be fruitful and multiply, and fill the waters of the seas, and let birds multiply on the earth’ ([Gen. 1:22](#)).²³ So God would see the value of creation multiply, and God’s role expands from Creator to Sustainer. ‘They all wait for Thee’, said the psalmist, ‘to give them their food in due season’ ([Psalm 104:27](#)).

²² James R. Newby and Elizabeth S. Newby, *Between Peril and Promise* (Nashville, TN: Thomas Nelson, Inc., 1984): 84–85.

²³ All translations are from the *New American Standard Bible*.

Human beings, as creatures themselves, share this value and blessing with all other creatures that God has made. In these ways, we [p. 249](#) are like them. But human uniqueness is focused in a unique charge. 'Fill the earth and subdue it, and rule over the fish of the sea and the birds of the sky, and over every living thing that moves on the earth'. ([Gen. 1:28](#)).

Human uniqueness is further defined in receiving a unique relationship to God. 'Let us make man in our image', says God, 'after our likeness....' The image of God is not an image of physical appearance. It is rather an image of two dimensions: character and function.

The dimension of human nature and character as an aspect of being made in the image of God has historically received careful attention in the church. In human traits of intellect, creativity, love, loyalty, and moral discernment, we see qualities in people reflective of qualities ascribed to God in the Bible, though imperfectly expressed. A less attended, and less understood, dimension of our image in God is the dimension of function. It is this dimension that is especially critical to understanding our role in the care of God's creation and to building a genuinely biblical environmental ethic.

Ancient peoples worshipped multitudes of gods. They represented these gods by images. This was the common practice of every culture surrounding the ancient Israelites to whom God spoke the words of Genesis. Image worshippers of these ancient cultures did not generally believe that the image they worshipped was the god itself, but rather served as a representation of the god, and as a channel and focus through which the god could speak and act, revealing that god's power and attributes. But Jehovah is unique among all ancient gods in expressly forbidding the worship by images. 'You shall not make for yourselves an idol or any likeness of what is in heaven above or on the earth beneath, or in the water under the earth'.

Such a commandment is not merely the prohibition of the worship of false gods. It is also a prohibition of the worship of the true God by images. For no image of God can be found in all creation, save one. 'Let us make man in our image, after our likeness....' Understanding this, we can begin to see the sense of what follows. 'Let them (the image) rule over the fish of the sea, and over the birds of the sky, and over all the earth'. What else would, or could, the image of God do? In understanding this, we come to see that statements in Genesis are not expressions of primitive, unsophisticated Hebrew arrogance toward God's creation, but statements of deep understanding of the essential nature of being human.

The key to effective stewardship is to understand the rightful expression of this human nature to rule and subdue. We see, in Jesus [p. 250](#) Christ, God's expression of God's self in human form. And we see God express this self as a ruler. 'For a child will be born to us', wrote Isaiah, 'a Son will be given to us; and the government will rest on His shoulders; and His name will be called Wonderful Counselor, Mighty God, Prince of Peace. There will be no end to the increase of His government, or of peace, on the throne of David and over His kingdom' ([Is. 9:6-7](#)).

Jesus taught, by word and deed, that ruling was expressed by service. 'You know that the rulers of the Gentiles lord it over them', He told His disciples. '... It is not to be so among you, but whoever wishes to be great among you shall be your servant, and whoever wishes to be first among you shall be your slave ...' ([Matt. 20:25-27](#)). Jesus exemplified these words with a powerful object lesson on the eve of his own death by washing his disciples' feet. When he had finished, he said, 'Do you know what I have done to you? You call me teacher and Lord and you are right, for so I am. If I then, the Lord and Teacher, washed your feet, you ought also to wash one another's feet. For I gave you an example that you should do also as I did to you' ([John 13:12-15](#)).

Given Jesus' example and teaching, God's command to God's image to rule and subdue clearly cannot mean to exercise despotic authority over creation. Rather the conclusion (uncomfortable, unpopular, but inescapable), is that to rule creation means to serve the needs of other living creatures, even at the expense of our own.

After Adam and Eve are given the command to rule and subdue, they are given three tasks; cultivating, keeping, and naming. Cultivating implies change, growth, and development, but all of a constructive and beneficent nature. It means to assist something in achieving its highest inherent tendencies. Keeping means to preserve, protect, and maintain. And the fact that the words cultivate and keep are used in the same command to Adam with neither apology nor explanation from God can only mean that, to an unfallen man in an unfallen world, neither God nor Adam saw cultivating and keeping as conflicting activities. To subdue Eden apparently meant to retain the goodness and beauty that God gave it while at the same time actively managing (cultivating) it to enhance and manifest the qualities still latent within it.

Naming implies knowing, an act requiring an intimate and particular knowledge of what something is. It is difficult to name sparrows if you think they are only little brown birds. But to any professional ornithologist or serious bird watcher the differences between vesper, swamp, chipping, field, song, fox, and dozens of other sparrow species are readily apparent. So naming implies a knowledge of [p. 251](#) and—in Adam's case, a rightful exercise of—authority over God's creatures. Together, these acts represent what ruling and subduing mean. This is what stewardship means.

A right understanding of these things is critical both to developing an environmental ethic for ourselves and for expressing it to others. It is in this understanding that we begin to answer the call to accept our rightful place in creation, and to establish an ethic that can guide reform in the practice of resource management. The inconsistencies of secular systems of environmental ethics are that they demean human management of natural systems while at the same time demanding it. We are called, at one moment, to simply view ourselves as another planetary species, and, in the next, to make life-saving, world-changing decisions to preserve all the others. If the first premise is true, then the second is nothing but arrogant presumption.

Stewards can embrace an active role toward God's creation with both humility and enthusiasm. Humility is required because stewards recognize their own creatureliness, sinfulness, and limitations, and because they know their personal accountability to an almighty God. Nevertheless, they can act enthusiastically because the same God has given them a unique place and authority in the created order: to serve and, if necessary, to save his fellow creatures.

PERSONAL ETHICS: THE CAREERIST VERSUS THE STEWARD

Most people who enter the field of resource management undoubtedly choose their careers with high motives. They intend to protect the environment, maintain the health of ecosystems, save endangered species, and educate the public. Unfortunately, their instructors have taught them that following these ideals is not going to cost anybody anything, least of all their own advancement. They are the ones Leopold spoke of when he said, 'In our attempt to make conservation easy, we have made it trivial'.

Praise and advancement will be attractively offered, and often not unrelated to right actions. But, as years go by, and promotions and earnings accumulate, a strange and sinister thing begins to happen. The career itself, with its attendant praise and advancement, begins to become more important than the reasons for which the career was chosen. And then, almost unconsciously, persons begin to protect not the resource,

and not God's creation, but their careers. They become, in time, not stewards, but careerists. And the careerist can be persuaded, with the right combination of reason and reward, to p. 252 willingly rationalize, support, and, ultimately, initiate decisions which do God's creatures and God's creation much harm, but which do one's career great good. So evil achieves one of its greatest and most complete triumphs, the ability to get men and women who are not yet very bad people to do very bad things. And such evil, once entrenched, becomes a part of the very fabric of organizations, governments, and societies.

Against the careerist God presents to human beings the role of the steward whose tasks are to cultivate, keep, and name (know and understand) to the glory of God and the good of creation and creatures. God presents the steward as one made in God's own image, and who in that image has authority to rule and subdue. And then God defines, by word and example, authority and rulership as service to one's subjects, placing their needs ahead of one's own. The church must first make clear the contrast between the careerist and the steward, and say that the first path is wrong and the second is right. Only in this way are the 'deep-seated prejudices' of self-interest—present even in the noble effort of saving the environment—fully exposed, and restrained from controlling that effort and rendering it worthless.

Second, the church must teach, train, and produce stewards. It is not enough for the church merely to make judgments about who is and who is not a steward. It must fashion people of personal integrity who actually are and function as stewards. To do this, the church must recognize that, since it is preparing such people to combat corporate, structural evil, it must make the training of such people a corporate mission. Specifically, this requires the church to do two things. It must first state that the work of the steward for God's creation is a mission in God's service, and therefore receives, unhesitatingly, the joyful support and prayer of the church. Then it must commit its educational resources, namely its colleges, to train stewards capable of working professionally in resource management. At present, what Christian colleges are doing is giving degrees in biology to people who are both unequipped and unprepared to function as professional biologists, and then assuming that the state university will remedy this deficiency in graduate school. What Christian colleges must do instead is to strengthen undergraduate programs in biology and ecology and initiate graduate programs in resource management. The present practice of assuming that graduate training at the state university is adequate training for stewardship is false. To attempt to produce stewards under a system that dogmatically enforces a dualism between facts and values is to produce what C. S. Lewis rightly called 'men without p. 253 chests'.²⁴ That was his perceptive description of individuals in which there was no connection between intellectual fact (the head) and fleshly passion and self-interest (the belly). In such education, 'the world of facts', wrote Lewis, 'without one trace of value, and the world of feelings, without one trace of truth or falsehood, justice or injustice, confront one another, and no rapprochement is possible'.²⁵

This dualism of facts and values manifests itself in a very real way in the debate over appropriate uses of public lands. With no normative ethic to guide him, the resource manager must treat every value judgment simply as the assertion of a private interest. From this standpoint he then becomes not a steward applying moral excellence to the

²⁴ C. S. Lewis, *The Abolition of Man* (New York: Macmillan, 1947): 34.

²⁵ *Ibid.*, 30–31.

decisions and dilemmas of resource management, but merely a manipulator of public input appeasing various interest groups.²⁶

The church must recognize that in training stewards, its colleges are more than schools. They are communities. As such, they must provide the personal support and plausibility structure for an entirely new approach to resource management, an approach that will appear deviant and threatening to the resource management establishment, of which the state universities are a part. The plausibility of ideas depends on the social support they receive.²⁷ And, as sociologist Peter Berger rightly perceives, we obtain our notions of the world from others. These notions continue to be plausible to us to the extent that they continue to be affirmed by others with whom we relate. Without such communities it is ridiculous, indeed, it is hypocrisy, to tell the church to develop a Christian environmental policy when its colleges still cannot produce a single environmental policy maker.

We must consider secularism a false and inadequate education for stewards if we really believe that there is more to stewardship than careerism, and if we really believe that the present crisis in environmental ethics will not be solved by technical skill, but by the production of a new kind of person who manages resources in an entirely new way. And if we do not believe that, any further discussion of the church's role in environmental ethics is pointless. p. 254

THE CHURCH AND SOCIETY: POLITICAL INVOLVEMENT AND ENVIRONMENTAL ETHICS

Ron Sider was one of the first evangelical scholars in this half of the twentieth century to insist that the church must act corporately and politically if it is to attack structural evil.²⁸ To make the stewards it produces effective, the church must state publicly and corporately what a biblical ethic of environmental stewardship is, and then make such an ethic part of the public discussion of environmental values and decisions. This is an appropriate prophetic witness of the church, carrying both a proclamation of biblical truth and a judgment against evil. In the United States, national environmental laws such as the National Environmental Policy Act not merely encourage but demand federal agencies to solicit public comment and review. This comment and review must be thoughtful and intelligent to receive serious consideration, but it can address basic questions of value and ethics. For example, it is common for Native American tribal governments to make specific recommendations to agencies like the Forest Service during the NEPA process about specific land use plans and management actions. These recommendations are based on the tribe's religious beliefs. The Forest Service takes such comments seriously, and will modify both action and policy if the arguments are sufficiently persuasive. But I have yet to see a church or denomination corporately enter this public process to present valid biblical concepts that would have far-reaching effects on the management of natural resources in the United States.

The reason the church does not do this is because it believes the propaganda of its enemies, namely, that Christian faith may be personally enthralling but is socially irrelevant. If there is any hope for reform of natural resource management in the United States, the church must realize that this privatization of faith is an unacceptable,

²⁶ Neuhaus, 146.

²⁷ Peter Berger, *A Rumor of Angels* (Garden City, NY: Archer Books, 1970).

²⁸ Ronald J. Sider, *Rich Christians in An Age of Hunger* (New York: Paulist Press, 1977).

introspective pietism that must be abandoned. Faith is always deeply personal, but it is never merely personal. As John Richard Neuhaus states in *The Naked Public Square*, the American public square of discussion and debate on public policy cannot remain naked of Christian meaning and purpose indefinitely. If it is not clothed with meaning beyond mere social pragmatism, it will eventually cease to function altogether, or it will be clothed with spiritual, but non-Christian, p. 255 meaning from other sources.²⁹ And then, as Jesus said, the last condition will be worse than the first.

And the church's opportunity to influence public values in resource management will not last forever. As Alexander Pope expressed it, 'Vice is a monster of so frightful mien, as to be hated needs but to be seen; Yet seen too oft, familiar with her face, we first endure, then pity, then embrace'.

The risk in the present monstrous scandals of resource management in the United States is that they may become habitual. And if, as John Richard Neuhaus puts it, 'The monstrous becomes habitual ... we cannot afford but to be on friendly terms with our habits'.³⁰ Such practices, whether carried on privately as corruption or exposed publically as scandals, may become the norm in American resource management policy. And then there will be no hope.

In presenting biblical ideas to be part of the public discussion on resource management, the church also must present the standard for ethics in resource management (and in resource managers). Such presentation will immediately reveal the need for reform. And as such revelation unfolds, the church must state what the path to environmental reform is, in both agencies and individuals. It is impossible to do this by simply setting up a denominational task force, writing a position statement, and then going on to something else. To be an effective prophetic witness, the church must have a standing body of individuals actively involved with ongoing resource management decisions, persistently presenting biblical positions in every public forum and their relation to resource management actions. In this context, it is appropriate for Christians to act corporately across denominational lines by forming and joining environmental advocacy groups which are explicitly Christian. This is not to say that Christians should withdraw from environmental groups that are not exclusively Christian. But it must be recognized that non-Christian groups can never truly address issues at the deepest ethical levels, nor can they provide the basis for reform at such levels.

The strategies the church must follow, both to provide a biblical ethic to society and to guide reform in resource management, require a costly commitment. They require recognition of the care of creation as a priority. They require public participation with unsympathetic and, at times, hostile audiences. They require investment of time and money. But for all that, they are, in the words of George McDonald, something p. 256 that is not to be more, nor less, nor other, than done. There can be no lasting environmental ethic, and no meaningful reform, without them. Even the church's greatest critics recognize that reform is needed, and that environmental reform will not be achieved simply by more knowledge and better management technique. Historian Lynn White, Jr. wrote in 1967, 'More science and more technology are not going to get us out of the present ecologic crisis'.³¹ A generation later, science's most well-known spokesman, Carl

²⁹ Neuhaus.

³⁰ *Ibid.*, 151.

³¹ Lynn White, Jr., 'The Historical Roots of Our Ecologic Crisis'. *Science* 155 (1967): 1207.

Sagan, is found calling for an alliance between religion and science to save the planet.³² Such invitations do not fully comprehend that for which they are asking, but let us not for that reason hesitate to accept them. Time will not make the church's involvement more welcome. The present crisis makes it necessary. If there would be true 'environmental law', it cannot consist merely of rules supported by force. The authority of true environmental law must be moral, not merely coercive. It must persuade, not merely punish. And the ultimate authority on which it stands must reflect genuine righteousness, not merely brute strength. It is the church that must both guide the way to such reform and invest it with lasting content.

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IV

Case Studies in Christian Environmental Stewardship

Forgiven Christians can take an honest, even courageous look at what the church is doing and has done in the world, for good and ill. The following section provides some examples of both. Bishop Wayan Mastra explains in lyrical terms the harmony between humanity and nature in his native Bali, and the gentle forms of evangelism that take place in that setting. In contrast, Calvin Redekop and his colleague, Wilmar Stahl, document the unfortunate changes in the ecological practices of the native tribes of the Paraguayan Chaco resulting from their evangelization by the Mennonites. The irony here is that the Mennonites have traditionally been innovators and leaders in the conservation of the land. Finally, Chris Seaton closes the volume on a positive note. Considering the evangelization of youth in Great Britain, he describes the zeal with which they have embraced Christian environmental stewardship. The next generation of Christians may signal a new spirit of faithfulness to the Creator by their care for the creation. p. 259

Environment and the Christian Faith: A Holistic Approach from Bali

Wayan Mastra

³² Carl Sagan, 'Guest Comment: Preserving and Cherishing the Earth—An Appeal for Joint Commitment in Science and Religion'. *American Journal of Physics* 58 (1990): 615.

Bali, an island of 5,623 square kilometers in the east of Java is one of the 13,000 islands in the archipelago of Indonesia. It is very small compared to many other islands. But it is perhaps the most famous and unique of all, bearing epithets such as the 'last paradise' or 'morning of the world'.

The mountains that run across Bali from its western to its eastern tip divide Bali into two parts: South and North Bali. These mountains play a very important role in the life and belief of the Balinese. They are volcanic mountains with two active volcanoes remaining. The craters of the dead volcanoes have turned into lakes that serve Bali as water reservoirs. Bali has four natural lakes and one engineered lake in the mountains. The heavy forests on the slopes of the mountains bring a lot of rain, hold water, and distribute it during the dry season. In fact, rain falls most of the time in the mountains. Since Bali lies in the tropical zone, the weather remains relatively constant all year round. The sun rises at about six o'clock in the morning and sets at about six o'clock in the afternoon. During the day the wind blows from the sea to the mountains creating a refreshing wind. In the night the wind blows from the mountains to the sea bringing cool air. There is a steady rotation of air from the sea to the mountain and back. In the day time, the earth becomes hotter than the sea, so that the air on the island becomes very light and rises to a higher altitude. This causes an air vacuum on the island which is filled by the air from the sea. The sunshine on the sea causes the sea water to evaporate and blow with the wind to the island and to the mountains, bringing rain to their slopes. The rain is stored by the craters, becoming lakes, the natural reservoir of water for the island. The rain water from the mountains and lakes returns to the sea through rivers that flow northward and southward from the mountains. The rivers play a very important role in the life of Bali. As they flow to the ocean, they give life to the rice in the wet-rice field, to the other vegetation, to animals, and to people who live on the plains or in villages in the low lands. The rivers then continue their epic journey to the sea, taking with them all dirt and filth, as well as food for creatures that live in the ocean.

Moreover, because of their volcanic nature, the mountains are considered as the source of eternal fire. The mountains rise far above [p.260](#) the sea level, between 1000 and 3000 meters high. The weather in the mountains is very nice and refreshing, so they remain a source of fresh air. The mountains, especially Mount Agung—the tallest in Bali—has also played the role of bringing a new sign for the day for the Balinese. Every morning the beautiful dawn comes to the top of the mountain. It does not curse the darkness in the valley, but it gives a sign to the people in the plain that a new day is coming. It drives away the cold air of the night and the dangers of the dark. The sun or the light of the world is coming and inviting people to be ready for their daily life.

Water, fire and air are three elements essential for life. Inside the body of a person there are also these three essential elements. If one of these elements is missing from the human body, then the person will die. The source of these three elements is in the mountains. In this way people consider the mountains to be sacred. They direct their faces to the mountains and turn their back to the sea. At night, when they, sleep, people put their heads towards the mountains as the giver or the source of life.

On the whole one can say that nature or the environment are very kind and helpful to the people of Bali. The natural scenery is very beautiful. Every day nature smiles at the people. It gives the people enough water for their daily life and for their wet-rice fields, vegetation, and animals through natural springs, lakes, and rivers. The air is always fresh and cool, day and night. The sun shines daily. It is interrupted occasionally by rain, but people have no complaints. In fact people are very thankful, since rain is also needed by their fruit trees and other vegetation. Most people are farmers. Their daily life depends upon their wet-rice paddies and exotic tropical fruit trees as well as animals such as pigs,

chickens, and cows. They can plant rice at any time of the year, because the weather is almost the same year-round. Water flows nicely all year. The sun is also friendly all year.

Life is monotonous, but there is no cause for complaint. People feel that they owe their life to nature. They express their gratitude to nature and the environment through two large festivals of thanksgiving. The first happens after they harvest their wet-rice paddies. The second takes place after they harvest their exotic tropical fruits. During these festivals, women and girls dress themselves in their most beautiful dresses. They walk in procession with big offerings of rice-cake, fruits, meat and flowers that are arranged very beautifully on their heads. At the back, the men and the boys play exuberant gamelan music to accompany the women and the girls who walk in procession in front of them. They go to the temple in order to express their gratitude to the goddess of rice and the goddess of the exotic tropical fruits. p. 261

People teach their children to respect nature. In all villages there are special days every 210 days when people honor plants, animals and tools that are useful for their daily lives. On these days, people cannot cut trees or kill animals or use the tools in celebration of their birthdays. This is the way they express their gratitude to animals and plants and tools that have been very kind and helpful in their lives. People remind their children to respect plants, animals and tools because they owe their lives to them. They are told that when the children were still in their mother's womb, they got their food for their life from their mothers through their navel in their belly. That is why when they are out in the world, they must relate themselves to mother nature through the navel temples which are built in the middle of all villages in Bali.

In this way one can say that the people in Bali have very strong ties to nature and the environment, because they feel that they owe their lives to them. They must express their gratitude through their navel temples. Nature and the environment are very kind and helpful to them. They can be compared to their own mothers who love and care for them. They must live in harmony with nature. They must respect and feel grateful for their environment.

FAITH AND ENVIRONMENT

Balinese consider nature as being very powerful. It is beyond their control, and it is very important for their well being. They look at nature as power or spirit. They depend upon it. They respect nature and express their gratitude to it. The power or spirit of nature manifests itself to the people through fresh air, fresh water, and the fire of the sun. These three elements are essential for their lives and are the manifestation of natural force or power or spirit preserving the creatures in the universe. They look at the relation of the natural power, force, or spirit and the plants as husband and wife. It can be seen very clearly in the relation of water and rice. People consider that the spirit of water marries the spirit of rice. That produces rice for their daily life. Since the main staple of the people is rice, so the goddess of rice and the god of water are very important in their belief. People eat rice three times a day. When people have eaten all kind of food, but they have not eaten rice, then they consider themselves as being still hungry.

The belief in the spirit of nature or the soul of nature leads a person to believe that the person has also a spirit or soul. This is the belief that brings forth the ancestor worship. People believe that the soul or the spirit is eternal. That is why they also believe that the souls or spirits of p. 262 their ancestors are eternal. They believe in life after death, as in the rotations of the sun. There is sunrise and sunset, but it will be continued again the following day. That is why people also believe in reincarnation. Hence in Bali, people are still very strong in their belief in the spirit of their ancestors. People like to go to a medium

or clairvoyant who is capable of talking with the soul of the dead ancestors. People also practice trance dance, when they invite spirits to come and enter a person until the person can dance in trance.

When the Hindus came to Bali, apparently they did not change the belief of the people. They merely gave new names to the natural forces or spirit or soul of nature. So the Hindus who came to Bali gave the name Brahma to the spirit of fire, Vishnu to the spirit of water, and Civa to the spirit of air. These three main spirits of fire, water and fresh air, manifest themselves in the volcanoes, lakes, rivers, sea and the skies. People respect these spirits because they also need them in their lives. If one of the three spirits or elements is missing from their bodies, then the people will die. That is why in Bali, when people build their temple, they must build the temple in the site where the three spirits or elements of life can be seen very clearly. People must feel the presence of water, fresh air and the sun. People must have relation with the three elements of life, as the giver, maintainer, and sustainer of life. The present generation of Balinese Hindu priests and leaders have formed a doctrine of trinity out of these three main elements or spirits of life. When the spirit manifests itself as creator, it is called Brahma, as maintainer is called Vishnu, and as destroyer is called Civa. These three main elements or spirits of life are the manifestation of the one true God, i.e. the Sang Hyang Widhi Wasa.

In some other areas or countries, perhaps nature is not quite so kind and helpful to the people. So the people cannot live in friendly terms with nature. Where the climate is harsh—such as too cold, too dry or too hot—so that vegetation, animals, and people must work hard for their lives, then the people cannot appreciate nature. In fact, they will see nature as a constant enemy to be conquered. It creates a constant feeling of fear and danger for the people, so that they look at nature as hostile and destructive for them. People have to struggle against nature and they must try hard to conquer it. They have to develop protective techniques in order to use it to their service. They cannot live on friendly terms with nature, so they have to build shelters to protect themselves from nature.

People tend to cut their relation with nature. When they build places of worship, they also build them in such a way that they cannot have relation with the nature. They build a very thick wall; the windows are [p. 263](#) closed and given stained glass, so that people cannot see nature outside. Eventually, they also look at the world as bad—to be conquered and defeated. They also formulate a theology that looks at the world as being bad, and it must be avoided. They look at nature and the world as devils. In fact, they also look at human flesh as a source of evil, as something to be denied and avoided.

They will develop science and technology that brings in invention after invention, that give a feeling of security against nature. These inventions will also destroy nature and themselves. When they are coupled with greed, they want more and more security and pleasure for themselves, eventually leading them into suicide and the destruction of nature. The world becomes warmer; the ozone is being destroyed. Life will become harder and harder.

ENVIRONMENT AND CHRISTIAN FAITH

The world religions can be divided into two categories that are related to their origin. Judaism, Christianity, and Islam were born in the desert areas of the Middle East. In the desert areas the weather is very harsh. There is not enough water. People struggle to find and possess an 'oasis'. The people who can get and possess an 'oasis' or a well or spring of water can survive. And the people who do not have an oasis or well will die. That is why the people are intolerant toward other people. They bring that feeling of intolerance into

the teaching of their faith. That is why the adherents of Judaism, Christianity, and Islam are known as being intolerant toward other religions. They have experienced many religious wars and conflicts.

Hinduism, Buddhism and Jainism were born in tropical areas of India along the Shindu, Gangga, and Brahmaputra rivers, where water was never a problem. That is why the adherents of these three religions are considered as being tolerant in their relation with other religions. So environment plays an important role in shaping the character of the people, and is brought into the teaching of their religion. One can look at Christianity and Islam in Indonesia. The spirit of ecumenism among churches in Indonesia was much stronger than that in Europe and America. In fact the spirit of intolerance toward other faiths or religions was imported to Indonesia by missionaries who came from Europe or America. The same thing happened with Islam.

In Indonesia, Moslems, Christians, Hindus, Buddhists, and adherents of primitive religions can live in harmony and solidarity with each other. Perhaps this is because of the contribution of the environment of Indonesia and of Bali in particular. Some time ago, the adherents of all p. 264 religious groups in Bali formed an organization called Badan Musyawarah Antar Agama (Agency for Consensus between Religious Groups). Many problems between religious groups are solved; deep feelings of friendship are developed between leaders of the religious groups because they meet regularly. This is the contribution of nature and the government.

The government recognized the religious diversity to be found among the Indonesian people, as well as in traditional customs, languages, ethnic groups, and wealth. If one put the map of Indonesia on the map of Europe, it would cover the whole of Europe from Spain to the Ural Mountains and from Norway to Italy. In trying to unite so many differences into one nation, the government does not impose one language that is spoken by the majority of the Indonesian people, but the Malay language remains the national language because Indonesians are of Malaysian stock.

The government formulated a philosophical basis for the constitution that is called 'Pancasila', meaning five principles. They are: (1) Belief in one God, (2) Humanity, (3) Nationalism, (4) Democracy, and (5) Social Justice. The government traces the first principle back to the ancient belief of the Indonesians in the existence of one supreme being or one God, at the time before they knew Hinduism, Buddhism, Islam, or Christianity. None of their four recognized religions mentioned above is native to Indonesia. All of them are imported religions from the Middle East or India. All religions have a universal nature. Islam has 'dakwah', Hinduism and Buddhism have 'upanisadha', and Christianity has 'mission'. These concepts express their efforts to spread their religions into all parts of the world. That is why all the great religions of the world have come to Indonesia and have been embraced by the Indonesians. Thus, the government does not impose any of the major religions as a state religion. In doing this, the government tries to accommodate all people who believe in God, whether God goes by the name of Allah, Yahweh, God, or Ida Sang Hyang Widhi Wasa. The government encourages all people to observe and practice religion in a civilized way, that is, in a spirit of mutual respect for one another.

Most people are contented with Pancasila, because they are convinced that it is in conformity with the codes of political and social ethics that their society must embrace. Pancasila also teaches them the way to live in a plural society. They avoid the western way of democracy that the majority rules. Instead, they impose the indigenous democratic way of thinking that stresses agreement or consensus. They agree to disagree, avoiding the majority and minority approach. p. 265 Pancasila has also curbed the spirit of religious radicalism and extremism, so that religious radicalism has never gained popular support.

And religious extremists can be controlled and can be easily localized. In that way, Indonesia is able to avoid the kind of religious conflict found in Ireland, Lebanon and Yugoslavia.

Pancasila does not eliminate missionary activity. Every religious group is allowed to propagate its teachings, but not in a derogatory manner. Each one must try to avoid insulting the other religious group. This is the background of Christian faith in Bali. All religions of the world can be found in Bali, and all their adherents can live in mutual respect.

A HOLISTIC APPROACH TO ENVIRONMENT

People have always asked themselves: 'What is life?' 'Where does life come from?' 'What is the purpose of life?' People try to fulfill their lives. They try to discover more meaning than to eat and to multiply. Balinese divide people's characters into five groups. First, there are people who are like ants. Ants work hard only to eat. No matter how much food they have in their hole, they will continue to work hard to find and collect food. There are people who, like ants, work hard to collect food and wealth. Secondly, there are people who are like crickets. They are people who want to enjoy life. They try to get food to fill their stomachs, and as soon as they fill the stomach, they will sing to enjoy life. They do not think of tomorrow. That is the way of people who want to be easy-going and to enjoy life. Thirdly, there are people who are like snakes. They are the lazy and cruel people. When the snakes get food to fill their stomachs, they will go to sleep. The snakes will sleep as long as their stomachs are full. As soon as they are hungry, they will go out again. They are very cruel and have no compassion for their victims. Fourthly, there are people who are like monkeys. Monkeys will work hard to find food to fill their stomachs. When they have eaten, they do not know how to sit still. They will jump from one branch to another until they are hungry again. They look serious but do not know how to sit still to meditate and to contemplate. That is why they achieve nothing in their lives. Lastly, there are people who are like caterpillars. These caterpillars will work hard to get food to fill their stomachs. But as soon as they get food, they will sit still to meditate or to contemplate. They change themselves into cocoons and eventually into butterflies. People who know how to meditate and to contemplate will concentrate their minds like the sunlight that is concentrated into one focus. People who know how to meditate or to **P. 266** contemplate will be able to make great achievements in their lives. That is why concentration of mind is needed. All great achievements in life are the result of concentration.

As Christians, we need concentration of mind. We need to focus our mind on our relation to nature and its Creator. We try to contemplate life so that we can contribute in a way that will be useful to God the Creator, Maintainer and Sustainer of the universe. James, in his letter asks the meaning of life: 'What is your life? For you are a mist that appears for a little time and then vanishes' ([James 4:14a](#)). It is true that life is very short and quickly disappears. The psalmist likens life to grass. It flourishes like a flower of the field. When the wind passes over it, then life will be gone. But the love of God is forever for the people who fear God. And God will give righteousness to the children's children of those who keep God's covenant as well as to observe God's commandment ([Psalm 103:15-18](#)). The psalmist acknowledges that life is very short, but it will have a meaning when it is related to God's love.

Moreover life must be viewed as a grace of God. People can live only when they have the breath of life that is given by God ([Gen. 2:7](#)). So life is a grace of God the Creator, Maintainer and Sustainer of life. God gives people a time to live, so that they can take part in God's creation in a way that preserves and takes care of the Earth. In this way, they

preserve the goodness of the world as it is intended by God in creation. God enjoys creation and gives people dominion over it to maintain and to preserve it ([Gen. 1:27-31](#)). God gives the breath of life to the plants, animals and people. The breath of life is the thing that unites the plants, the animals, and the people. God gives plants everything that they need in their own place. They have a purpose to give food to the animals and people that God has created.

God gives breath of life and words for communication to the animals, so that the animal can survive. The animals need words for communication so that they can ask or inform their fellow animals where they can find food for their survival. God does not provide food in their place of birth. That is why they need words for communication. Animals must also spread the plants in this world.

God gives people the breath of life, words for communication, and mind or sense of understanding. People are given perception or sense of understanding so that they know what is right and what is wrong in the sight of God. It is intended so that people know how to participate in God's creation by maintaining and preserving the order of creation. That is why people are given dominion over nature.

All these gifts of God have the same purpose and destiny: to [p. 267](#) preserve the order of creation as it is intended by God. Plants, animals, and people must fulfill each other, so that they fulfill their task in this order of creation. People are invited to direct and use their life to God, the giver of life. They must kneel and confess to God that God is the Creator, Preserver, and Sustainer of this universe ([Rom. 14:11-12](#)).

People in Bali have a tradition and belief that they should direct their life to the giver of life. Balinese look at the universe as being microcosm and macrocosm. The body of a person is a microcosm and the universe is a macrocosm. When people are still in the womb of their mother, then they get their food for life from their mother which is given through their navels. When the baby is born and joins the people in the world, then it has to have a relation with mother nature who gives food to it through the navel temple that is built in the center of every village in Bali. People must also direct and put their head in the direction of the life giver. Perhaps this can be compared to Paul's writing: 'Finally, brethren, whatever is true, whatever is honorable, whatever is fruitful, whatever is pure, whatever is lovely, whatever is gracious, if there is any excellence, if there is anything worthy of praise, think about these things' ([Phil. 4:8](#)). To think about good things, to think about God means to direct the mind to the good things and to God the giver of life. This experience can be compared to Abraham's experience when he was in Shechem. He felt that God was present to him, and he built an altar in that place as a symbol of his relation to God ([Gen. 12:7](#)). This is also the experience of Jacob in Bethel. There he built an altar as a symbol of thanksgiving to God who led and preserved him during his journey ([Gen. 28:18-21](#)).

The relation to God as Creator, Preserver and Sustainer of life must be maintained through obeying God's laws and commandments ([Psalm 1:1-6](#)). In Jesus Christ people are called to preserve the integrity of creation as it is intended. In Jesus Christ there is Good News for the whole creation ([Mark 16:15](#)). In Jesus Christ there is Good News for plants, animals, and people, because all of them are loved by God. God wants all of them to be very good. God wants all of them to love the precious gift of life, and to use that gift for the glory of God's name. God wants all creatures to live in peace and harmony with each other, as it was in the creation story.

The Bali church also wants to participate in God's creation. When the church builds a building, it looks like a garden. In Balinese culture, a garden is more than a place of beauty: it is a sacred retreat where serenity reigns, pleasing the senses and elevating the mind. It is like a miniature Garden of Eden where one can feel close to the Creator. Our church

encourages members to love nature. They try to build a garden [p. 268](#) in their compounds and villages. A garden like the garden of Eden or Gethsemane is a right place for communion with God. By directing the mind into a beautiful garden, people will be reminded of the purpose of God's creation.

God wants to make this world a beautiful place to stay, and for us to participate in preserving the integrity of creation. Perhaps it will be easier to do so, if they want to hear Christ's calling: 'If any man would come after me, let him deny himself and take up his cross and follow me' ([Matt. 16:24](#)). It means that everyone who answers Christ's call must be ready to deny the desires of the flesh. People in Bali compare the body of a person with a chariot that is pulled by five strong horses. So the driver must control the five horses. One can control the desire of the five senses, when one lets Christ be the driver of his life, so that one can be motivated by love ([Ephes. 3:17](#)). God is love, Christ is love, and the fruit of the Spirit is love ([1 John 4:8](#), [John 10](#), [Gal. 5:22](#)). When love has become the motivation of our life, then we can have compassion for the creatures and the environment around us. It is only love and compassion that can teach us to love and to honor life. Life is very precious, and it can be found in all creatures in the environment. Life is the one thing that creatures possess in common. Life is a gift of God; it unites all creatures, so that they can live to love one another, in harmony and solidarity. It is only in this way that one can maintain and preserve the environment: following the order of creation as it is intended by God, the Creator, Preserver, and Sustainer of this universe.

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The Impact on the Environment of the Evangelization of the Native Tribes in the Paraguayan Chaco

Calvin Redekop and Wilmar Stahl¹

TRADITIONAL NOTIONS AND PRACTICES OF THE CHACO NATIVES

The Paraguayan portion of the Chaco Boreal is situated East of the Paraguay River and north of the Rio Pilcomayo—250,000 square kilometers of scrub forests intermingled with grass plains. In precontact days, a dozen different Indian tribes had adapted their cultural systems to this particular environment, with a rather diversified foraging economy. Organized in hunting bands numbering thirty to fifty individuals, they covered areas of approximately 100,000 hectares each, gathering a variety of some fifty different

¹ The senior author, Calvin Redekop, is a native of the United States while the junior author, Wilmar Stahl, was born in Paraguay and has lived there ever since.

roots, grasses, stems or fruits or plants, wild honeys, insects, fish, and a wide spectrum of animals from turtles to peccaries.²

Because mobility was important, personal property was kept to a minimum. Socially, egalitarian conditions predominated, with roles of stronger leadership limited to defense, economic initiatives, and management of the supernatural. Cultural mechanisms to keep the demographic balance included infanticide—letting an average of two children per nuclear family live—and group fission and migration by which one group established residence in a new area where food was more plentiful, even if only temporarily.

The Chaco forager/hunter knew himself to be a part of his surrounding habitat, needing to learn to live with plants and animals on the basis of an egalitarian relationship, much the same as he had to p. 270 relate to the other members of the extended kinship group. It was taboo to try to manipulate nature; it was unthinkable to hope to dominate climatic adversities. The annual seasonal cycle served as model for an optimal relationship to the environment: one needed to know it, to adjust to it, and to take advantage when the opportunity presented itself.³

For the Chaco natives, living objects have a core of spirituality, much like what Westerners would call ‘personality’. The Ayoreo, for instance, divide plants, animals, and humans into ‘kinship groups’ that descend from the same prototype of life (janibajay). The relationship to their ‘kin object’ therefore is much the same as to human relatives. The common denominator for the Chaco hunters is that knowledge about the ‘personality’ of natural objects allows a permanent exploitative relationship to them.

The diversified environment meant more than variation in diet: it meant a regulatory adjustment mechanism in a harsh climate. Diversification of the natural habitat thus was an important risk reduction factor, an insurance plan against unpredictable adversities, but also the preservation of relations between the people themselves.

The pragmatic implications of the sharing practice are obvious. One hunter might record a lucky strike today, but come home empty the next three times. Furthermore, when luck strikes on a broader scale, or when nature provides plenty of fruits without major effort, long neglected aspects of social life can be taken care of such as feasts, alliances, marriages, barter, and visiting.

An environment that was erratically plentiful and scarce—be it for reasons of depletion, drought, or other natural events—would at first challenge the foragers to diversify, but eventually would force them to move on. The comparative advantage of a move was thereby measured on the basis of a scarcity/abundance balance; emotional ties to a region were thus practically non-existent.⁴ p. 271

² For more details, see Wilmar Stahl, *Escenario Indigena Chaqueño* (Filadelfia, Chaco: Asociacion de Servicios de Cooperacion Indigena, 1982). The 11 native tribes referred to here belong to three language families, i.e. Maskoy (Lengua, Toba, Sanapaná, Angaité, Guana); Mataco (Nivacle, Maca, Choroti, Manjuy), and Samuko (Ayoreo, Chamacoco).

³ For an extensive bibliography on the geography, history and population of the Chaco, see Walter Regehr, *Die lebensraumliche Situation der Indianer im paraguayischen Chaco* (Basel:Geographisch-Ethnologischen Gesellschaft Basel, 1979). For the bibliography regarding Mennonite-Indigenous relations, see Calvin Redekop, *Strangers Become Neighbors: Mennonite and Indigenous Relations in the Paraguayan Chaco* (Scottsdale, Pa.: Herald Press, 1980). For the most extensive and intensive bibliography on the indigenous peoples, see Wilmar Stahl, *Escenario Indigena Chaqueño*, op. cit.

⁴ This is not to say that the natives did not have an emotional relationship to nature, rather that no special area had unusual significance. This suggests a ‘communal’ relationship to nature not comprehensible in a Western culture that sacralizes the idea of private property. The most extensive account of the native adaptation and relationship to the environment is found in Regehr, op. cit.

This explains the high mobility of the tribes, but it also implies adaptation to new environments, for in the Chaco, a move of 200 kilometers can mean a significant change in environmental resources requiring new knowledge. This highlights another important aspect of Chaco native culture: readiness to explore new environments, and cultural skills to adapt to new situations according to traditional patterns.

TRADITIONAL ENVIRONMENTAL NOTIONS AND PRACTICES OF THE MENNONITE MISSIONIZING CULTURE

The Anabaptist, Mennonite movement was originally a protest against prevailing institutions regarding religious and social practices, and was almost immediately suppressed by political and religious powers. Their persecution and decimation is a matter of record, in time, however, Mennonites began to be tolerated because of their economic contributions in hostile lands. As the rejected Anabaptists managed to gain a toehold on the lands of the secular owners, as well as the church, they proceeded to make the estates and lands profitable and fruitful.

It did not take long for European lords and princes to discover in these Anabaptists a useful source of financial advantage. A foremost Mennonite historian states that the 'Mennonites received toleration and special privileges from the landowners and the rulers because of their economic contribution. The special privilege grants issued by the Polish kings are noteworthy [in this regard]'.⁵

Recent research has explicated the nature of the means of escaping persecution by the Anabaptists, through environmental stewardship, broadly defined as caring for the Earth's natural resources including soils, minerals, energy, water, atmosphere, plants, and animals. In France, by 1533, Anabaptists were granted protection to settle on lands of nobles, princes and church officials as they developed livestock farming and innovative agricultural practices on marginal soils.⁶

These innovations included: combining crop and livestock farming, careful clearing, contouring, and draining of the land, the use of p. 272 mineral fertilizer (such as gypsum), introducing livestock manure as fertilizer, rotation of crops (consequently eliminating fallow land), developing new nitrogen fixing legumes, and feeding cattle rather than ranging them on open pastures.

Mennonite refugees in south Germany and the Palatinate closely paralleled the practices of the French, but because of different conditions, they originated the development of techniques for the utilization of liquid manure and new strains of potatoes and beets. Model farmers such as David Moellinger, Johannes Dettweiler, Valentin Dahlem, and David Kaegy became famous throughout German-speaking lands.⁷

The Mennonites in Friesland began to discover a new way to toleration: by draining the low-lying swamps and reclaiming thousands of acres of land from the sea, creating a low-land rural culture that survives to this day. As the Mennonite refugees fled to West Prussia for toleration as well as economic opportunity, the Mennonites succeeded in

⁵ Mennonite Encyclopedia, s.v. 'farm and settlement'.

⁶ For an excellent treatment of the Mennonite innovations in France, see Jean Seguy, *Les Assemblies Anabaptists-Mennonites de France* (Paris: Mouton, 1977); for a similar analysis of the Anabaptists in South Germany, see Ernst Correll *Das schweizerische Täufernennonitentum* (Tuebingen: Mohr, 1925). Both books provide extensive bibliography on research on the topic.

⁷ See Correll, *op cit.* See also *Mennonite Encyclopedia*, s.v. 'farming'.

draining the flooded areas by creating an elaborate system of draining canals and dikes, with windmills for pumping water back into the North Sea.⁸

Because of these achievements, Mennonites were invited by Czarina Katherina in the 1780s to settle in the Ukraine of Russia, an invitation that included the promise of full religious freedom and toleration, and military exemption (something that was still not fully granted in Prussia). Though the environment was drastically different (treeless steppes), the same innovative techniques and dedication to intelligent work resulted in the development of a vast arid plain that included fruit orchards, the development of silk worm farming, forest shelter belts, new strains of livestock, new strains of wheat (especially “Turkey Red”), flour milling, and machinery manufacturing.⁹

The Mennonite settlements in North and South America reflected the innovations listed above. The amazing success of the Mennonites in establishing thriving agricultural communities in Canada, the United p. 273 States, Mexico, South America, and, above all, in the hostile Chaco, quickly won the respect of the denizens in all these lands.¹⁰

SOCIAL AND CULTURAL CHANGES AND CONSEQUENCES AND THE ENVIRONMENT

Receiving toleration for the reclamation and development of the land had great consequences for the Mennonite tradition:

1. The attitude toward the land became deeply endowed with symbolic and emotional meanings, a means to achieve toleration and acceptance. It consequently also became an end because innovation had been so functional. Thus, environmental preservation and improvement became deeply ingrained in the Mennonite psyche.¹¹
2. A ‘way of life’ emerged, including settlement in close-knit communities, geographically contiguous farming families and villages. The social and economic elements consisting of family, community, and congregational life, became intertwined. Separated communities emerged, with membership in one demanding membership in the other; there was minimum interaction with the surrounding society.
3. Especially significant was the population increase of the Mennonite community. Historically, Mennonites—especially the Old Order and the Hutterite groups—have had some of the highest reproductive rates on record. The demands for more

⁸ For a bibliography and comprehensive description of the Mennonites in Prussia, see Horst Penner, *Die ost- und westpreussischen Mennoniten* (Weierhof: Mennonitischer Gesichtsverein, 1978), 103.

⁹ For the most extensive analysis of the social and economic life of Mennonites in Russia, see David G. Rempel, ‘The Mennonite Colonies in New Russia: A Study of Settlement and Economic Development from 1789 to 1914’, Ph.D diss., Stanford University, 1933

¹⁰ For representative bibliography and treatment of Mennonite social and economic activities in North and South America see: J. Howard Kauffman and Leland Harder, *Anabaptists Four Centuries Later* (Scottsdale: Herald Press, 1975); J. Winfield Fretz, *Pilgrims in Paraguay* (Scottsdale: Herald Press, 1952); Fretz, *The Waterloo Mennonites* (Waterloo: Wilfrid Laurier University Press, 1989); Calvin Redekop, *The Old Colony Mennonites*, (Baltimore: Johns Hopkins University Press, 1969); Redekop, *Strangers Become Neighbors, op. cit.*; Redekop, *Mennonite Society* (Baltimore: Johns Hopkins University Press, 1989); articles in *Mennonite Encyclopedia*, s.v. ‘farming’, ‘business’, and ‘economics’.

¹¹ The analysis of the Anabaptist/Mennonite relationship to creation has not advanced very far. See Calvin Redekop, ‘Toward a Mennonite Theology and Ethic of Creation’, *Mennonite Quarterly Review*, 60:387–403.

land created competition for land and tension with their neighbors, whether in Russia, Canada, Mexico, or Paraguay, for example, and resulted in p. 274 the vast series of migrations and settlements into relatively unsettled lands in many parts of the globe.¹²

4. This land pressure also increased the more intensive utilization of lands. This included manufacturing related to agriculture, developing new technologies to enhance productivity etc., in a sense continuing the process of innovation during the persecution phase. But recent innovations and more intensive farming practices were also increased because of the prevailing 'modern' value of upgrading the standard of living, even though the Mennonite heritage traditionally emphasized non-conformity and simplicity of life.
5. Members of the communities entered non-agriculturally related professions and moved to urban areas, forsaking the rural, agrarian way of life. In this mode, the Mennonite impact on the environment approximates that of urban industrial America, and includes high goods and energy consumption with their attendant waste and pollution.

The environmental impact of the Mennonite agrarian life that relied on animal and human power and low technology was until recent times relatively benign. It is generally accepted that wherever Mennonites migrated to areas that were less technologically developed, the indigenous societies were eager to learn from them, and to adopt their practices.¹³

Generally this has meant upgrading farming practices and techniques including livestock and crop improvements and technological advances to the Mennonite level: for example tree planting for silkworm raising in Russia, apple growing in Mexico, introducing soybeans in Brazil, water saving through building of lagoons in Paraguay, improved soil practices including fertilization in Pennsylvania.

THE ENVIRONMENTAL IMPLICATIONS OF EVANGELIZATION OF THE INDIGENOUS PEOPLES IN THE CHACO

Until the beginning of this century, the cultural life of the Paraguayan Chaco natives was relatively static and unimportant. The Chaco was p. 275 significant mainly as a strategic area in the ongoing conflict with Bolivia. Under the religious jurisdiction of the Roman Catholic 'Vicariato del Pilcomayo', scattered mission efforts, including experimental settlement of indigenous groups, had been conducted through the years. The Anglican church also initiated a mission effort in the Chaco in 1877. 'This mission, instituted by William Grubb, developed an impressive economic, cultural and religious community, but the mission did not create any [lasting consequences]'.¹⁴

When the Mennonites arrived, the native population consisted of isolated bands migrating in traditional patterns to exploit the sparse and varied nuts, fruits, and animals that had been their diet for centuries. A few clans did have herds of goats and sheep and

¹² For an analysis of the extremely high Hutterite population growth rate, see Joseph Eaton and Albert J. Mayer, *Man's Capacity to Reproduce* (Glencoe: Free Press, 1954); for the Old Colony Mennonites, see Calvin Redekop, *The Old Colony Mennonites op. cit.*, for the Amish see John A. Hostetler, *Amish Society* (Baltimore: Johns Hopkins University Press, 1980).

¹³ See Correll; Penner; Redekop, 1980; Seguy; *op. cit.*

¹⁴ See Redekop, 1980, *op. cit.*, p. 82.

planted some vegetables such as mandioca. The population was at an absolute maximum, having become stabilized, due partly to the practice of infanticide and the ravages of disease. It was continually augmented, however, by migrations from the south as resources allowed.¹⁵

A significant change for the bio-diversity of the Chaco area was the commercialization of hunting for exotic animal skins, feathers, and the like. For example, the Anglican Mission early began supplying guns and traps to increase the income of the hungry natives. As prices for these articles increased, the Indians intensified their hunting and trapping, going further into the hinterland to catch their animals.

Throughout their history, the Mennonites generally did not target the indigenous populations for mission work, so their cultural practices with environmental implications were only slowly and voluntarily changed. But when they came to the Chaco, they almost immediately decided that the indigenous peoples should become evangelized. 'When I first set foot at Puerto Cased I saw my first Indian—I said to myself, "We Mennonites are going to face a grave responsibility [and] an opportunity to preach to these wild people"'.¹⁶ Within six years of the time of the Fernheim settlement (1930), a mission program was initiated.

In spite of severe hardship, the Mennonites initiated the evangelization to the Christian faith: helping the indigenous people to learn to read and write by establishing schools in the villages, assisting the p. 276 formation of congregations, helping them to manage their own religious and social organization, and initiating improved health standards and services.

But very soon it became clear that economic self-reliance was imperative, establishing individual family farmsteads that would allow for an alternative to the semi-nomadic life that was rapidly proving incapable of sustaining the population. Further, the natives assumed that the 'Mennonite Gospel' would also automatically bring them the comfortable life.¹⁷

Slowly, the awesome and foreboding awareness emerged that along with evangelization, the indigenous tribes would have to be helped to change their entire socio-economic-cultural system in order to become self-sufficient—a realization that all mission efforts have come to in almost all situations and times.¹⁸ An expanding settlement program emerged that has cost millions of dollars and many 'person-years' of humanitarian service to the Mennonites, both in Paraguay and abroad.

This 'new' evangelization included the procurement of land upon which to settle the Indians, the creation of procedures for settling equitably the various tribal and family groups, creating educational institutions, encouraging family organization and child rearing practices, and inaugurating health practices and hospitals. This implied the almost instantaneous introduction of a new culture—a technological civilization. It meant the

¹⁵ See Regehr, *op. cit.*, p. 49–60, p. 179–80; Wilmar Stahl, 'Mission und Indianersiedlung', *50 Jahre Kolonie Fernheim* (Jubilaumskomitee: Fernheim, 1980). Information on how disease affected the population before Mennonites arrived is very sparse, but Regehr maintains that death through disease increased after the white population entered the Chaco, pp. 209ff.

¹⁶ Redekop, 1980, p. 102; see also Stahl, 1980, p. 135ff.

¹⁷ Calvin Redekop, 'Religion and Society: A State within a Church' *Mennonite Quarterly Review*, 1973, 47:339–357; see also Regehr, and Stahl, 1980).

¹⁸ Regehr, p. 284.

exchanging of a nomadic-communal culture that had obtained for centuries for a new way of living.¹⁹

Further, a vast set of new technical practices to transform the natives into agriculturists was required. This included land clearing, fencing in of crop lands, and the social regulations regarding land ownership and care; finding new sources for, and conserving, water; learning how to adapt to climate and weather conditions in crop growing and animal care; learning how to plant and nurture new crops such as cotton, maize, peanuts, and beans; developing and expanding traditional livestock herds to include cattle for meat and milk, and horses for power use; becoming adapted to modern machinery and technology p. 277 including pesticides and herbicides; educating and incorporating the Indian family farming units into the money and market economy.²⁰

This change to a new form of subsistence appropriate for the Chaco necessitated a total reorientation of the Indian culture. With the advanced methods that the Mennonites introduced, the Indians cleared areas of land that had been natural virgin territory. The development of more 'scientific' farming applications involved mechanical energy use, the introduction of herbicides, pesticides, and fertilizers.

The obvious environmental impacts involved the destruction of the natural and primitive bush or campo environments in which exotic flora and fauna had existed for centuries. It meant the destruction of the wild life, from jaguars to exotic flamingos and endless varieties of parrots. It meant pollution caused by the burning of wood, methane from increased animal production, through chemical use, and so on. The impact of all these forces can only be estimated.²¹

But what has accelerated the changes and hence the impact on the environment more than any single other factor was population explosion through the eradication of infanticide and improved health care. With the Mennonite missionary teachings on the sins of infanticide, the indigenous groups terminated the practice and consequently dramatically increased their family size and reproductive rates. Along with this, the Mennonites initiated a health program that served to eradicate tuberculosis—a major killer—and other infectious diseases.²²

These two factors in combination have exploded the population. Table 1 provides a rough estimate of population growth.

According to Stahl, the birth rate is about 4% per year and with a mortality rate of 1.4%, an annual growth rate of 2.6% per year results. Stahl predicts the population will reach 21,000 by 1999. Even though large blocks of land have been provided, by now 110,000 hectares in p. 278

Table 1 Population Growth in Central Chaco²³

¹⁹ This is the term Regehr uses in his description, see p. 206ff.

²⁰ This program necessitated the formation of a number of organizations that included an association of the Mennonite colonies in the Chaco to support the actions, an inter-Mennonite missionary agency, and a settlement agency that was responsible for all but the religious actions.

²¹ The flora and fauna of the Chaco have been copiously described by Stahl, 1980, but an accounting of its decimation is not yet available, nor is any accounting of the environmental changes wrought by the Mennonite presence in the Chaco.

²² For example, both authors were present in the Chaco in the summer of 1972 when over 30 children died during a sudden outbreak of measles in the Indian settlements.

²³ Sources: Redekop, 1980; Wilmar Stahl, *En Busca de una Subsistencia Agraria*, op. cit.

<i>Year</i>	<i>Estimated Population</i>	<i>% Increase²⁴</i>
1951	3,500	
1959	5,000	50%
1966	7,070	40%
1975	9,609	37%
1983	13,000	35%
1991	15,000	15%

twelve agricultural colonies, there is continuing need for more land and more resources for the growing population.

This increased population is placing ever greater demands on the environment with more intense hunting of the little available wild life for food, more bush and forest clearing, more intensive planting of available land and grazing of pastures. Further, working for the Mennonites has continued to provide the indigenous people with more money to buy guns, which allowed them to hunt even more intensively for the depleted wildlife.

The colonies in Menno, Fernheim, and Neuland in their original settlements occupied over 150,000 hectares of land. Today, the amount of land controlled by the Mennonites has increased dramatically to over a million hectares. Since then more than 300,000 hectares have been cleared and seeded to imported bufflo grass. This has also impinged on the natural habitat of the local bands. The Mennonite population has obviously accelerated the utilization of the natural resources and the pollution of the atmosphere and the soils.²⁵

It is difficult to encapsulate the vast number of obvious as well as more subtle environmental impacts that have resulted from the factors discussed above. The following tentative list illustrates the problem:

1. Animal species originally plentiful now approaching extinction include the Ostrich, Jaguar, Puma, Armadillo, Tapir, Ocelot, Wild Pig, and many bird species. [p. 279](#)
2. Plant species, while still diverse, are also being depleted especially through the clearing of bush for farming.
3. Depletion and pollution of the atmosphere and land are obviously affected by the clearing of the forests. The wind and rain patterns and temperature will also be affected in ways that are not yet clear, not to mention the pollution caused by the massive fires needed to clear the cut trees. The increased use of high energy

The percentages are very disparate because the time spans are not uniform.

²⁵ For the most extensive analysis of the Mennonite integration with the Indigenous, see Wilmar Stahl, 'Integration der Mennoniten in Paraguay', in *50 Jahre Koloni Fernhiem* (Filadelfia:Kolonie Fernheim, 1980).

machinery and electricity will further increase the demands for energy fuels and accelerate the cutting of timber for the generation of electricity, as well as increase the air and ground pollution.

Had the Mennonites ignored the indigenous peoples as subjects of evangelization, the adoption of the 'technical culture' would probably have been postponed, and with it, the rapid population growth and the environmental demands.

On the other hand however, the adoption of 'technical civilization' was really only a question of time, for as Ellul has indicated, there is a certain imperative about technology: 'We are conditioned by something new: technological civilization'.²⁶ Even if the Mennonite evangelization of the Indians had not happened, we could still say with some assurance that the 'technical civilization' would have ultimately imposed itself on the natives, though much more slowly.

The Mennonite evangelization of the natives has had great impact on the environment of the Chaco. The most significant element of this disturbance has undoubtedly been caused by the sudden increase of the indigenous populations in the Chaco through the termination of infanticide and improved health care; the environmental pressure has been exacerbated by the invasion of the territory by the Mennonites themselves and the consequent impacts on the environment of their activities.

CONCLUSIONS REGARDING 'EVANGELIZATION AND THE ENVIRONMENT'

The concept 'environment' had some common meanings for both the Indigenous and the Mennonite groups. It meant a harsh and niggardly landscape from which to wrest a livelihood. It meant further massive amounts of hard work to get nature to yield its fruits and rewards. It meant a landscape that was often unpredictable, undependable, and alien. And finally, it meant an environment that was P. 280 'home', and that possessed a definite reality, a unique character, and a history all its own.

Naturalists and conservationists look for evidence to support the ideology that aborigines persist in an optimal harmonic adjustment to their environment, but pre-modern natives are capable of destroying the natural environment. This can be documented easily in the Chaco. A fruit tree that is cut so the fruit can be harvested, a beehive that is destroyed in the process of being exploited, or an entire flock of ostriches that is encircled with fire and eaten at a tribal feast are all environmental practices by indigenous peoples observed by Mennonite missionaries. These challenge us to look for a 'non-romantic' explanation of the human-environment equilibrium observed in native societies.

Still, the Mennonite evangelists in the Chaco also did not have any clear positive teaching regarding the preservation of the physical environment in their scheme of history. Indeed, one central emphasis that emerges in the Mennonite experience in the Chaco is that the physical world presented great hardships that had to be transcended. Recent fiction concerning the Chaco and the annual ceremonies commemorating settlement always express the theme of victory over great odds, of hardship and sorrow, but not with concern about how they have altered the environment.²⁷

²⁶ Jacques Ellul, *The Technological-Society* (New York: Random House 1964), xxix.

²⁷ See for example, Peter Klassen, *Kaputi Mennonita* (Filadelfia: Privately published, 1975); Martin W. Friesen, *Neue Heimat in der Chaco Wildniss* (Steinbach, Manitoba: D.W. Friesen and Sons, 1987).

Some generalizations are possible. The native technology commanded a low energy supply, and technological adaptations and development were not a priority to the aborigines. The hunter's paradigm of adaptation was flexible enough however to adjust with minor selective cultural changes. Thus the conquest of the environment came slowly via increased knowledge about the intrinsic and extrinsic spiritual qualities of organic life on Earth.

Mennonites and the indigenous peoples are becoming aware of environmental limits and fragility, and are beginning to address the issues. The land and the wealth it contains—earlier thought to be limitless—is now seen to be finite. Thus the Mennonite colony administrations have begun to introduce regulations such as preserving 'windbreaker strips' of trees in the clearing of forests in order to slow down the unrelenting winds and to forestall undesirable climatic and weather implications.

The indigenous, who are aspiring to the 'better life' that the [p. 281](#) Mennonites are enjoying, are slow in seeing the implications of the environmental changes that their transformation is introducing. It is hard for them to understand why the environment should be a concern when they are living better now than when they depended upon the unpredictable environment in its untended, harsh, and wild state. Further, it is very difficult for them to understand that they are actually affecting changes in the environment. As far as they can see, burning the campo grasses each fall has not killed the grass growth in the following spring. This observation reflects the classic sociological or ecological postulate that the activities in the one realm can affect the environmental, social, and even philosophical aspects of culture, even though these influences may not be understood by the people themselves.

Ironically, it is becoming clear to Mennonites and to the more insightful Indians that helping to 'develop' the native population may not be an unmitigated blessing. Not only does development cause cultural dislocations, but it also creates the increasing need to control the environment in order to eke out an existence. Harnessing the potential of nature for human well-being was not understood as being diametrically opposed to the concept of cooperating with nature and the idea of partnership with the bio-diverse world. However, in isolated cases, Mennonites and Indians are beginning to suggest that there was a greater harmony between humanity and nature before the Mennonite evangelism began.

Mennonites learned by experience that evangelization is not possible without taking cognizance of, and responsibility for, the material well-being of the target peoples. All the missionary organizations in the Chaco have discovered that converting a person to Christ meant converting the family and the clan, and beyond that, taking care of the new converts, since 'saving the souls' did not solve all the problems of material existence. For when the population was suddenly expanding because the natives had accepted the teaching that it was wrong to kill extra children, evangelizing the individual meant taking care also of the burgeoning family and the entire clan and all the economic and social problems involved.

Evangelization of the Chaco denizens is teaching the Mennonites as well as the other missionary groups (and will hopefully teach the natives sooner or later), that the creation was created by God in such a way that every part is integrally related to every other part—thus supporting the first law of ecology—'everything affects everything else'. Evangelization can no longer be seen as a 'spiritual' effort, unrelated to other aspects of creation. This truth will demand that [p. 282](#) Mennonites and the Indigenous recognize the interrelatedness of evangelization and material life, that the bringers of the 'good news' and the recipients are partners in affecting a larger project that involves the environment (creation).

CONCLUSIONS

Wendell Berry has said that ‘the first principle of the kingdom of God is that it includes everything in it, the fall of every sparrow is a significant event’.²⁸ The awareness of the interrelatedness of everything through the Creator God was present in the Judaic tradition, but so was the ‘desacralization’ of nature through domination over it.²⁹ The Platonic separation of the spirit from the material with the transcendence of the spirit, further proved devastating for the creation. The traditional mission to the ‘pagan’ societies followed in this frame of thought—it was assumed that the spirit of humankind could be addressed and changed quite apart from its physical and material aspects, and that the human sector was somehow separate from (and dominant over), nature.

But the basic unity of the spiritual and the material is recently being rediscovered with the help of the ecological movement.³⁰ Thus, the ecological movement has contributed to what is becoming a slogan of late in Christian circles: ‘The kingdom of God is a vision of things as they ought to be in the entire cosmos, human and nonhuman; it is an order in which all things are in right relationship’.³¹

According to J. J. Kritzinger, Christian theology has no alternative but to rethink its traditions, to undergo a paradigm change. He approvingly quotes Ghilleen Prance, who writes: ‘We should not be going into the interior of the Amazonia unless we have a welldeveloped theology of stewardship that equals that of those to whom we take the gospel’.³² The Commission for World Mission and Evangelism stated that the problem of missions and environment must p. 283 be solved in a fundamental way by recognizing that ‘The reasons for this abuse [of nature] are rooted in a turning away from the living God, the free reign of human greed, the misuse of power, the presence of fear and ignorance, and deception that hides the truth of creation’s suffering’.³³

How would the environment in the Chaco be different if indigenous peoples had been evangelized according to the vision of a ‘Kingdom of God’ in which all things have their right relationships? The answer would have an ecological dimension—respecting the material facets of creation as part of God’s work, along with the human. But this is a deeply ironic answer, for it forces us to conclude that it is impossible to start all over because it is too late.

All the institutions of western civilization are so saturated with environmental abuses that the Gospel would have to be freed from these contaminations to evangelize the ‘pagans’ in a way to allow for a harmony between the material and spirit world. Is this possible? Probably not. As the Apostle Paul reminds us, recognizing the cultural setting of the Gospel, ‘We have this treasure in earthen vessels’ ([2 Cor. 4:7](#)). Therein lies the ultimate ecological dilemma—there is no way for the Christian message to be incarnated or understood disembodied from specific cultures, and almost all cultures have lost their

²⁸ Quoted in Calvin Dewitt, ed., *The Environment and the Christian* (Grand Rapids, Mich. Baker Book House, 1991), 110.

²⁹ See Loren Wilkenson, ed., *Earthkeeping: Christian Stewardship of Natural Resources* (Grand Rapids, MI: Eerdmans 1980), 203ff.

³⁰ J. J. Kritzinger, ‘Mission, Development and Ecology’ *Missionalia*, 19:1, p. 11–13.

³¹ Gordon Zerbe, ‘The Kingdom of God and Stewardship of Creation: in DeWitt, *op. cit.*, 90.

³² Kritzinger, *op. cit.*, p. 15. Indeed, Christian missionaries should by definition have a view of creation more in line with God’s plan than any non-Christian tradition to which they go with the Gospel.

³³ *Ibid.*, 16.

ecological world view. So, maybe one cannot start over after all? Perhaps not. But the Christian faith tells us that 'with God all things are possible'. The Christian faith confronts us with the reality of the Kingdom of God as a central orientation, where God's rule is to be obeyed.

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Environment and Youth

Chris Seaton¹

Many young Christian adults in Britain today find themselves in an invidious situation. Their culture seeks serious answers to questions like, 'How should we understand the environmental crisis and what can we do about it?' The world view of their peers is dominated by the subtle (but apparently green) philosophies of the New Age movement like relativism, reincarnation, and pantheism. Yet their churches provide them with few answers and warn them away from the Green Movement, fearing that it is completely contaminated by New Age ideas. Little wonder, then, that the church in the United Kingdom is losing thousands more teenagers each year than it is attracting.

In the midst of this dark picture there are some bright lights. One such light is Revelation Church in West Sussex. It was formed in 1983 from a youth group of eighteen teenagers and now has over 500 regular attenders in six congregations. The average age is currently twenty-nine years.

The Bible provides many instances of young people whom God has anointed to offer leadership and example to the church, Joseph, Samuel, Mary, Timothy, and Ruth being but a few. Indeed, to Timothy, Paul wrote, 'Don't let anyone look down on you because you are young, but set an example for the believers' ([1 Tim. 4:12](#)). Such an example has been set by the Revelation Church and many other local churches and groups associated with the 'Whose Earth?' project in 1992.

Revelation Church did not become actively involved in environmental action until one of its leaders, Chris Seaton, was asked to write a book for young people on the subject early in 1991.² Soon after this, the church became involved in a Spring Harvest initiative in association with TEAR Fund called 'Whose Earth?'. This project was established to educate young people about the biblical teaching on the creation and provide practical ways in which they could respond to the Bible in their lifestyles and in community action.

¹ Taken from a paper prepared by Chris Seaton and Lowell Sheppard.

² *Whose Earth?* (Crossway Books, 1992). While the book is neither intended nor endorsed as the official book of the 'Whose Earth?' project, it carries much of its theology, heart and ethos.

The first within Revelation Church to get involved was a youth group based in the Chichester congregation called 'Nutty 2000'. Nutty is composed of twenty to thirty new Christians, many converted from [p. 285](#) drug- and alcohol-abusing backgrounds, all aged between fourteen and twenty-one. The story began in May 1992, when Nutty's leader, Greg Valerio, invited Chris Seaton to speak to the group on the subject of a Christian response to the environment. On this occasion, both the biblical basis of the issue and the 'Whose Earth?' project were presented to the group.

In response, four particular projects emerged that revolve around the 'Whose Earth?' theme, two relating to Nutty and two of wider impact. The first idea was taken from the 'Whose Earth?' resource pack and involved a can collection scheme. Nutty collected 2000 aluminium cans from around the streets and public places of Chichester and sold them to a recycler. In addition to collection on the streets, local public houses were approached to save all the cans usually thrown away, with a promise of weekly collection by members of Nutty. The proceeds gained from the recycling project were passed on to environmental projects in the Third World via TEAR Fund.

Secondly, in August 1992, Nutty organized a sponsored clean-up of the local River Lavant. This dried stream was the subject of a dispute between the local Council and the water authority that resulted in no one removing litter from its river-bed. Funds were raised according to the number of sacks of debris filled, and a press release was sent to the local media. Members of Nutty brought unbelieving friends along to help with this task.

Thirdly, Revelation Church was determined not to allow the initiative of 'Whose Earth?' to be a flash in the pan and for the environmental emphasis to lose momentum after September 1992. As part of a wider social initiative known as Christian Citizenship, Chris Seaton chaired a 'Green Task Group' that prepared teaching materials and taught them in all six congregations in October and November 1992. This group has also prepared a Green Audit for church members and the church office (no building is owned) and is helping to organise a major evangelistic 'Creation Celebration' to be held in Chichester in summer 1993. This is seen as the third specific response to 'Whose Earth?'.

Finally, Greg Valerio—who works with Revelation Church and is funded by TEAR Fund as a development educator along the South Coast, has approached a school in Bognor Regis about using the 'Whose Earth?' resource pack as part of the PSE/RE syllabus. The response from the head of RE, whose world view is decidedly New Age, has been surprisingly favourable!

'Whose Earth?' held a major event in Hyde Park, London on 5th September 1992. Three thousand young people—including Nutty [p. 286](#) 2000 from Chichester—came along to hear about one another's activities, to debate the issues, and to worship the God of creation. Backed up by the credibility of effective action, the culturally relevant question, 'Whose Earth is it anyway?' was answered unequivocally, 'the Earth is the Lord's!' ([Psalm 24:1](#)).

Mr. Christopher M. Seaton, trained in the legal profession, now works in England doing leadership training for three church plants, is part of the Executive committee of *Whose Earth?*, and has written a book by the same title for young people.

