together with all creatures

CARING FOR GOD'S LIVING EARTH

A Report of the
Commission on Theology
and Church Relations
The Lutheran Church—Missouri Synod

April 2010

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This document was prepared by the Commission on Theology and Church Relations (CTCR) of The Lutheran Church—Missouri Synod in response to a request "to develop a biblical and confessional report on responsible Christian stewardship of the environment" (2007 Res. 3-06). At its April 2010 meeting the CTCR adopted this document (CPH item 09-2622) and also an abbreviated version of this material (CPH item 09-2621; see the Appendix).

Abbreviations:

AE	*Luther's Works.* American ed. 55 vols. St. Louis: Concordia and Philadelphia: Fortress, 1955-1986.
LCMS	The Lutheran Church—Missouri Synod
RSV	Revised Standard Version of the Bible, copyrighted © 1952, 1971.

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Caring for God's Living Earth

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Together with All Creatures: Caring for God's Living Earth (A Synopsis)

Introduction

- The environmental issues of our day raise a basic theological question, namely, "How do we see ourselves in relation to the earth and all its creatures?"
- God has called us to care for His earth as creatures among fellow creatures in anticipation of its renewal in Christ and completion by the Holy Spirit.

We best care for God's earth when we embrace our creatureliness.

- God created us to live as creatures who share a common creatureliness with all our fellow creatures of the earth.
- God created us as creatures who bear a dignity and responsibility that is unique among all other creatures of the earth.
- God created us as creatures who seek the well-being of our fellow creatures by caring for the earth upon which their well-being depends.

We best care for God's earth when we delight in our creaturely connections.

- We delight in the earth as the home from which and for which God made us and long for the restoration of its health.
- We delight in the kinship that we share with our fellow creatures and long for the restoration of the habitats in which they flourish.
- We delight in the place and purpose that God has given every creature and long for the restoration of shalom and harmony in the new creation.

We best care for God's earth when we tend it with creaturely humility.

- We look after the earth and its creatures by living within the boundaries of our creaturely communities.
- We look after the earth and its creatures by nurturing their well-being in a way that attends to their particular needs.
- We look after the earth and its creatures by allowing each creature to praise God according to the purpose for which God created it.

Conclusion

We live as Christians who embrace our calling as human creatures to care for the earth in the certain hope that the new creation in Christ will be completed by the Holy Spirit.

Introduction

The environmental movement burst into the mainstream of American consciousness in 1963 with the publication of Rachel Carson's book, *Silent Spring*. For nearly a century prior to her book various preservationists and conservationists had raised concerns about a range of environmental issues. These concerned voices included John Muir, James Audubon, Theodore Roosevelt, and Aldo Leopold. But none of their voices captured the attention of mainstream America the way Carson's book did with regard to the dangers posed by DDT as it made its way through the food chain. Ignited by her book and given further impetus by the Apollo space program, which gave us our first look at our planet from outside the earth, the environmental movement grew rapidly throughout the 1960s.

The growing influence of the environmental movement produced a flurry of landmark environmental laws during a five-year period from 1969 to 1974. In 1969, Congress passed the National Environmental Policy Act and created the Environmental Protection Agency. A year later Congress passed the Clean Air Act as the country observed its first Earth Day. It followed this up by passing the Clean Water Act along with legislation protecting coastal areas. In 1973, Congress passed the Endangered Species Act, one of most sweeping environmental bills in our nation's history. That was followed a year later by the Safe Drinking Water Act. "Never before or since, had a nation so quickly and fundamentally rewritten its laws to give the natural world a measure of protection."[1]

American Christians and the Environment

Christianity often did not fare well in the eyes of many environmentalists. In 1967, Lynn White published in *Science* magazine an enormously influential article entitled, "The Historical Roots of Our Ecological Crisis." A medievalist at UCLA, he blamed Christianity and its appropriation of Genesis 1:28 for giving rise to an industrial society with its concomitant destruction of the environment.[2] Lynn White was hardly alone in his criticism of Christianity. Harsher indictments came from other quarters. Wallace Stegner, an historian of the American West, wrote, "Our sanction to be a weed species living at the expense of every other species and of Earth itself can be found in the injunction God gave to newly created Adam and Eve in Genesis 1:28."[3] Along the same lines, Max Nicholson, one of the founders of the World Wildlife Fund, claimed that Christianity gave man license "to conduct himself as the earth's worst pest."[4] Ian McHarg, a landscape designer, argued that Genesis 1:28 gave rise to a "bulldozer mentality."[5] Environmental historian Daniel Worster argued that "of all the major religions of the world, [Christianity] has been the most insistently anti-material."[6] Bill McKibben, a Christian, conceded that many saw Christianity as basically promoting an anti-environmentalist attitude toward nature.[7]

In light of these criticisms and the tepid response of Christians to environmental concerns, many within the environmental movement turned away from what they perceived to be an excessively human-centered (anthropocentric) Christianity that maintained that everything on earth exists only for human purposes. In its place, they sought out a religion or spirituality that encouraged more reverence for nature. Many turned to Zen Buddhism or sought out the insights of Native American religions in which the earth and its creatures were seen as brothers and sisters. Others sought a more secular basis for affirming the value of nature, one grounded in a Darwinian ethic.

Theologians responded in a variety of ways.[8] Some revised basic Christian teachings in order to make them compatible with evolutionary thought and promote more reverence for the earth. Others looked upon the burgeoning environmental movement with a great deal of suspicion. In the early 1970s Richard John Neuhaus wrote that many who were considered "reds" in the 1960s became the "greens" in the 1970s.[9] A few conservative voices like John Klotz and Frances Schaeffer argued that a biblically based environmental ethic called upon Christians to care for the beauty and well-being of earth.[10] But the formation of more radical groups (e.g., Greenpeace, Earth First!, PETA), which appeared to value the nonhuman world more highly than the human world, often made it easy for conservative Christians to keep their distance from the environmental movement.

In the decades that followed the publication of *Silent Spring*, environmental issues became increasingly identified with the Democratic Party and liberal churches.[11] Today the issue of global warming has become largely identified with former vice-president Al Gore, who took up the cause after hearing NASA's climatologist Jim Hansen speak before a senate panel on the subject. That is not to say that conservative Christians had nothing positive to say about environmental stewardship. In the 1980s and 1990s, a growing number of conservative theologians began writing on the issue of environmental stewardship. In the last decade, an increasing number of conservative Christian organizations and churches have produced statements on a variety of environmental issues.[12]

In recent years, some environmental ethicists have reassessed Christianity's attitude toward nature. Several have even suggested that Christianity offers the best hope for providing the values needed for an environmental ethic in the twenty-first century. Max Oelschlager, an environmental philosopher, states that the Christian idea of "care of creation" is a powerful concept that could do much to reshape the way in which people think about their relationship to nature.[13] J. Baird Callicott, an environmental ethicist, notes that the Judeo-Christian environmental ethic is "elegant and powerful" and "exquisitely matches the ethical requirements of conservation biology."[14] It acknowledges that God intended His creation to be replete and teeming with creatures. It confers objective, intrinsic value on nature "in

the clearest and most unambiguous of ways—by divine decree."[15] Edward Wilson, the Harvard socio-biologist, reached out to conservative Christians in his book *The Creation*[16] with the hope of working together for the preservation of the earth's biodiversity.

The Lutheran Church—Missouri Synod

Like other conservative Christian traditions, The Lutheran Church—Missouri Synod was slow to respond with significant statements on environmental issues. That is not to suggest that the Synod said nothing. It did adopt several resolutions over the years on various topics:

> In 1969, the Synod affirmed that "The stewardship of all natural and human resources in the world has been given into human hands by our heavenly Father" and resolved to continue the development of educational resources to equip its members to meet their environmental stewardship responsibilities (Res. 10-08 "To Continue Development of Natural and Human Resources").
>
> In 1977, the Synod urged its members to conserve energy resources and "to show special concern for increased energy costs to the disadvantaged" (Res 8-06 "To Encourage Conservation of Energy"). In 1986 the Synod encouraged the stewardship of soil and water (Res 7-18 "To Practice Stewardship of Soil and Water").
>
> In 1992, the Synod (Res 7-09A "To Encourage Environmental Stewardship") voiced concerns for the conservation and right use of natural resources locally and nationally as part of our stewardship of creation. The Stewardship Ministry division of the LCMS (2000) has prepared a booklet called "Stewardship of Creation" as part of its Congregational Stewardship Workbook.[17]

The 1986 synodical explanation to Luther's *Small Catechism* provided a brief but strong statement. "It is our duty to . . . be good stewards of [God's] creation."[18] It adds: "We are good stewards when we avoid polluting air, land, and water; carefully dispose of waste; use rather than waste natural resources; conserve rather than waste energy; recycle or reuse materials whenever possible; and value and take care of all God's creation."[19]

Then in 2007, the Synod requested that the CTCR prepare a more thorough study regarding responsible stewardship (2007 Res. 3-06 "To Assign CTCR to Address Environmental Issues").

> WHEREAS, Ecological and environmental issues affect all citizens of the global community, including Christians; and

> WHEREAS, Holy Scripture and the Lutheran Confessions speak to responsible Christian stewardship of the earth; and
>
> WHEREAS, There is a lack of resources in the LCMS addressing environmental issues in a scriptural and confessional way; and
>
> WHEREAS, There is a need for study, for service, for responsible citizenship, and for concerted action on environmental issues based on an examination of biblical and confessional resources; therefore be it
>
> *Resolved*, That the Commission on Theology and Church Relations be assigned to develop a biblical and confessional report on responsible Christian stewardship of the environment for use by Synod entities including our schools and churches as they develop resources for the church at large.

The assignment is comprehensive in scope. It notes that this topic affects everyone on earth and laments that few resources exist for addressing our care of the earth in light of the Scriptures and confessions. The resolution calls for a study of responsible stewardship so that Christians might join others in "concerted action on environmental issues."

Lutherans have not written extensively on this topic. In part this may be because Lutheranism was forged in the fires of a struggle revolving around the question of how we receive the benefits of Christ.[20] But one of the unintended consequences of the Reformation's focus on the question of our salvation is that many Lutherans have become primarily—if not exclusively—Second and Third Article (of the Apostles' Creed) Christians. That is to say, they have focused to such a degree on salvation that nothing else matters. "I'm saved and am going to heaven, so why worry about this present world?"

Lutheran thought has not traditionally couched the Gospel in the language of creation and its renewal the way the theologian Irenaeus did in the second century. For him creation was more than a prolog to the story of redemption. Creation shaped the entire story of the Gospel. God created a physical world through which he interacted with His people. By means of a physical body he restored the human race. By means of creaturely elements we now receive the benefits of Christ in anticipation of creation's renewal. Finally, God renews creation when He raises us from the dead and brings about the new heaven and earth.[21]

The topic of creation forms the warp and weft of our entire life. It links us with God, with each other, and with the earth. We might say that God does not deal with us apart from the earth and we do not deal with God apart from the earth. We cannot love one another apart from our care and use of creation. We are not who we are as human creatures apart from our

connection to the earth. This raises issues about our values and the way in which we live. It also touches on other human endeavors such as economics and science. In other words, creation provides Christians with an organic and holistic grasp of their life both as God's creatures and as God's children.

Today, environmental issues rank near the top of social concerns among young people in their teens and twenties. They see how human beings have achieved a mastery over the natural world that may leave it depleted and diminished for generations to come. They also want see the Christian life more holistically. They want to know how the Christian faith shapes Christian attitudes and activities within the world. Christians can bring considerable resources to bear upon such questions. In particular, they can provide a comprehensive and organic approach to life that is grounded in the story of creation and its renewal.

The Central Question

One cannot overstate the revolution in the popular perception of the world that took place over the past fifty years as a result of the space program. It fundamentally altered our perception of our place within the universe and has given us a better understanding of our planet.

Prior to the Apollo program, we had never seen our planet from the outside. Apollo 8 changed all that with the photo "Earthrise" in 1968. People saw the earth hanging in the blackness of space. It looked small and fragile. Six years later, Apollo 17 gave us our first picture of the entire sphere of the earth. When Voyager 1 flew by Saturn and turned its camera back toward earth, it took a photograph that has come to be known as the "pale blue dot." The earth took up less than one pixel on the photograph. The Hubble Telescope further expanded our sense of "aloneness" within the universe. It seemed that we and the planet on which we live were, as astronomer and author Carl Sagan commented, little more than "motes of dust" within the vastness of space. All of this impressed upon people that the earth is all we have. We had better take care of it.

Second, as a result of the satellites that monitor, photograph, and map the earth, the space program has provided us with better knowledge of our planet. Many of the satellite images are familiar to us from the local evening news. These satellites can now track the global impact that humans exert as a result their activity. We were aware of pollution on a local level, but now satellites can track clouds of pollution produced in China as they move across the Pacific Ocean and onto the western coast of the United States. Satellites can also track from year to year the production of chlorophyll, mapping the growth of vegetation on the earth as well as tracking the desertification of land on earth.[22]

In brief, the space program has given us a picture of ourselves and our planet that raises questions about the impact of human life and technology

on the entire planet. While space technology has given us a better understanding of our planet, it cannot solve our environmental problems. Many environmentalists argue that the solution lies not with technology itself, but with the use of technology.

David Suzuki, a Canadian scientist and philosopher, contends that we too often seek technological solutions to the ecological crisis when we really need a "whole new way of looking at our world and ourselves."[23] Edward Wilson too has argued that in order to address our environmental questions we need a "deep ecological ethic." In other words, the *sine qua non* of such an ethic is some "plausible theory of intrinsic value or inherent worth for non-human natural entities and for nature as a whole—value or worth that they own in and of themselves as opposed to the value or worth that we human valuers ascribe to them."[24]

The question of one's values or one's view of the world is ultimately a religious issue. Carl Sagan, hardly a proponent of Christianity, made this very point. In the early 1990s, he argued that the ecological crisis is ultimately a spiritual issue. In "Preserving and Cherishing the Earth—An Appeal for Joint Commitment in Science and Religion," he wrote, "We understand that what is regarded as sacred is more likely to be treated with care and respect. Our planetary home should be so regarded. Efforts to safeguard and cherish the environment need to be infused with a vision of the sacred."[25]

The central question facing us with regard to the environment has to do with how we picture the world and our place within it.[26] Did God create us to be set apart *from* creation or did God create us to be a part *of* creation? Did God create the earth to be the good home in which we live or the prison from which to seek escape? Does the non-human world have only a utilitarian value, that is, does it exist solely to serve humans? Or does the non-human creaturely world have a value in and of itself that we must respect and for which we must care? Answers to these questions will determine how we live within creation and how we deal with it in our everyday lives. The question of despoiling of the earth has been brought to our attention by ecologists, naturalists, and environmentalists.[27] Christian theology can provide valuable insights as we ponder these issues.

PART I:
Where Do We Fit within Creation?

Chapter 1: Are We Separated from Nature or Connected to Nature?

How do we see ourselves and the planet on which we live? Did God create us to be set apart *from* creation or to be a part *of* creation? For the past two millennia much of Western culture tended to describe the relationship of human beings to the planet in terms of a human-nature dichotomy. The emphasis has been placed on the distinction (the centrality and superiority of humans to nature), if not separation (we do not really belong here), of humans from nature. More recently, attempts have been made to overcome the human-nature dualism and instead find a more holistic way of conceiving of our relationship to the non-human creation.

The two approaches give rise to different conservation ethics. An emphasis on the dichotomy of humans and nature often gives rise to the position that nature only exists to serve human needs. Those needs center on acquiring goods (food, fuel, medicine), services (clean water, fresh air, pollination, recycling plant nutrients, regulating the temperature of the earth), information (genetic coding and engineering), and psycho-spiritual concerns (aesthetic beauty, awe).[28] Critics counter that it is terribly egocentric to think that millions of species on earth exist to serve the economic interests of one species. A holistic and organic approach in which human beings are part *of* nature tends to emphasize an intrinsic value to nature[29] and gives rise to an ethic that emphasizes the need to protect the environment for its own sake apart from any economic value that it may have for humans.

Humankind Set Apart *from* Nature

". . . nature only exists to serve human needs"—p. 10

One could argue that dualistic answers to the question about our relation to the earth and its creatures have predominated within the Western tradition. To be sure, the dichotomy between humans and nature has been portrayed with a variety of nuances. In general, we might describe three models that describe the dichotomy of humans and nature: humans *above* nature, humans *over* nature, and humans *against* nature.

Humankind *above* nature

Over the last two millennia, Christians have often viewed their relationship to nature as one in which humans exist *above* nature. Some of this was due to their reading of the Scriptures within a Hellenistic culture and the need to articulate the faith within a Hellenistic context. Richard Bauckham, a professor of New Testament studies at the University of St. Andrews, suggests that Christians found assistance for their reading of

Genesis from Philo of Alexandria who had already sought to interpret Judaism within Hellenistic terms.[30] Thus a number of ideas that arose within the subsequent Christian tradition—and became identified as Christian—about the relationship of human creatures to creation can trace their roots to Greek philosophy rather than biblical theology.

The Greek influence upon the Christian tradition can be summarized within two broad themes. First, the Platonic metaphysical dualism of spirit and matter insisted that the spiritual world was real whereas the material world was a shadow of the spiritual. For many this seemed to correspond well with the apostle Paul's distinction between the spirit and the flesh. Second, Middle Platonism's hierarchy of being encouraged Christian writers like Origen to think of reality in terms of a great chain of being. At the top was God who was perfect Spirit. Below Him were the angels as spiritual creatures. Below these stood human beings as spiritual creatures in physical bodies.[31] At the bottom of the universe lived the animals which did not possess a soul but had a physical body. Humans occupied a unique position as they stood on the boundary between the world of the spirit and the world of physical matter. On the one hand, they were created in the image of God (a soul endowed with reason and freedom of the will) so that they "might excel all the creatures of the earth, air, and sea which were not so gifted."[32] On the other hand, they were connected to the physical world in that they shared with other creatures a physical body and bodily passions. The soul was not the entire man, but it was his better part as it connected him with God and the spiritual realm.[33]

Hellenism thus provided Christians with a hierarchical view of the world that was divided between those creatures that were rational and those creatures that were irrational. Within the physical creation, only humans were seen as rational creatures. Since they had been made in the image of God, they participated in the rationality of God. Humans had free will and moral responsibility as well as understanding, reason, and immortality.[34] In this world humans and animals were far more different than they were alike.

Within this hierarchy, Stoic thought argued that God created the world solely for the welfare of human beings.[35] "All creatures exist for the sake of their usefulness to humanity."[36] Thus in Cicero's *Concerning the Nature of the Gods,* the spokesman for Stoicism, Balbus, defends the position against the Epicureans that the world was made for man. "The produce of the earth was designed for those only who make use of it; and though some beasts may rob us of a small part, it does not follow that the earth produces it also for them . . . Beasts are so far from being partakers of this design, that we see that even they themselves were made for man . . . Why need I mention oxen? We perceive that . . . their necks were naturally made for the yoke and their strong broad shoulders to draw the plough."[37] The Stoics carried this to an extreme by suggesting that fleas were useful for preventing oversleeping

and mice for preventing carelessness in leaving cheese about.[38] This conviction that the world was ours to use gave rise to Greco-Roman enthusiasm for humanity's ingenuity and ability to make something ordered and useful out of wild nature, "by landscaping, farming, taming animals, mining, and the technological arts."[39]

Christians from Origen down to Bishop Berkely in the eighteenth century came to see dominion as the "right use of all creatures for human ends."[40] Some, like Thomas Aquinas, argued that Christians had no obligation to love nonhuman creatures in the way they are obliged to love God and their fellow human creatures. After all, nonhuman creatures were created only for our use. In the seventeenth century, René Descartes reduced animals to the level of mere machines. In the end, this meant that there was no need for any kind of respect or compassion for nonhuman creatures. Australian environmental philosopher John Passmore argued that while Christianity did not argue for transformation of nature by science, it did cultivate the attitude that nature "exists primarily as a resource rather than as something to be contemplated with enjoyment" and thus our "relationships with it are not governed by moral principles."[41]

Even though some of the ways Christians thought about the relationship of humans to nature was shaped by Hellenistic thought, Christian values and ideals placed certain limits upon the extent of human dominion. Christian thinkers stressed the use of creation for human ends, but did not urge people (lacking the ability) to reshape creation. For a good part of the Christian tradition, its Greek inheritance was tempered by the belief that since God designed everything for us, humans ought not change it (expressed in sayings like, "If God wanted us to fly He'd have given us wings"). In fact, it would be presumptuous to think that we could improve on God's handiwork. Twelfth-century theologian Hugh of St. Victor argued that humans cannot replicate the work of God or the work of nature. God's work creates out of nothing. Nature works by bringing hidden potentialities into actuality. Humans work by putting together things disjoined or disjoining things that had been put together.[42] At most, humans can imitate nature. In other words, the tradition did not encourage humans to transform nature and focused instead on the need to change human nature.[43] Dominion was generally understood in rather static terms and a rather restrained use of the environment. A fifteenth-century treatise, *Dives and Pauper*, allows the use of animals for food and clothing but warns against "unnecessary harm or cruelty" as a "serious abuse of God's creatures."[44] Ultimately, Christians affirmed that nature exists for God and reflects God. Christian thinkers recognized that all angels, humans, and nonhumans were creatures of God and that they all, in some sense, worship God.

How did this view of humans *above* nature play itself out within the Christian story? In Eden, humans were created in the image of God to commune with God and have dominion over creation. The Fall ruined all of this

and human beings were expelled from Eden. But with the redemption of Christ, Christians can return to Eden—not here on earth but in heaven. The goal of human beings, who (unlike the animals) possess a rational soul, is to leave behind the physical creation and return to union with God or to join the angels in the beatific vision of God. To be sure, Christian thinkers praise the fruitfulness of creation and its goodness,[45] but they tend to subordinate these themes to a view of life that extols the spiritual and immaterial aspects of creation over the physical aspects of creation. Christians came to think of themselves as pilgrims or travelers who were passing through this world on their way to heaven. It was not an easy journey. While they tried to set their eyes on God and find their way to heaven, their bodies and desires too often attached them to this world. The challenge for Christians was to pass through this world without settling down and becoming too comfortable in it. The goal was to make use of the things of this world without enjoying them and thereby becoming attached to them.

Humankind *over* Nature

Another trajectory from Christianity's inheritance of Greek thought suggested that since creation is made for our use, we are free to modify or transform it as we wish. This trajectory found expression among the Italian Renaissance humanists of the fifteenth century who in turn set the stage for the revolution that would take place in the seventeenth century with regard to the way in which we saw our relationship to nature. The Renaissance humanists built upon the inherited theological tradition but transformed it so as to create the "ethos within which the modern project of aggressive domination of nature has taken place."[46] They focused their attention on "the theme of the supreme dignity of humanity" which they read in the light of Genesis 1:26. According to the Italian humanist Francesco Petrarch, creation was made for humanity, "dedicated to nothing but your uses, and created solely for the service of man."[47]

The Italian Renaissance stressed humanity's vertical relationship with nature to the virtual exclusion of the horizontal relationship with nature.[48] Renaissance thinkers argued that as humans were made in the likeness of God they engaged in godlike creativity. Humans are given the task of reshaping creation and fashioning something of a new creation out of the raw materials of the first. Humanist Giannozzo Manetti said that the world was "gratefully received by man and rendered much more beautiful, much more ornate and far more refined."[49] Now human "dominion over the world has become a limitless aspiration." Richard Bauckham goes so far as to argue that the "attitudes that have led to the contemporary ecological crisis can be traced back to this source, but no further."[50]

The Italian Renaissance vision of human mastery over the world seemed to become a real possibility in the seventeenth century with the rise of the scientific and technological revolution that ushered in the modern

world. Francis Bacon (1561–1626), Lord Chancellor of England, argued that the emerging new technologies enabled people to gain control over nature and bring it under human control. He noted, "Man by the fall fell at the same time from his state of innocency and from his dominion over creation. Both of these losses can in this life be in some part repaired; the former by religion and faith, the latter by arts and sciences."[51] Humans could now recover the dignity, honor, and authority over nature that they had prior to the Fall and enlarge "the bounds of the human empire."[52] In some ways, human dominion could now become domination. As Bacon put it, "I am come in very truth leading you to Nature with all her children to bind her to your service and make her your slave."[53]

In order for humans to extend their dominion by means of science and technology, they needed to know how nature works. Bacon set the tone for the modern scientist by promoting an active scientific engagement with the world rather than a quiet contemplative reverence before nature. Bacon encouraged the scientific mastery of nature's laws as a means of subjecting nature. "This is Bacon's famous doctrine that 'knowledge is power.'"[54] Bauckham suggests that nature's laws provided a practical limit to human dominion and even fostered a kind of humility. The believing scientist respects the way that God made nature, studies how God made it, and thus acquires dominion over it as God intended. As Bacon put it, "nature cannot be conquered except by obeying her."[55] But the shift is significant. Where the Middle Ages sought to imitate nature, Bacon seeks to conquer nature.

Bacon's vision was inspired by the high ideals of improving the human estate. His humanitarian program of scientific knowledge and technological innovation aimed to serve human needs and relieve human ills.[56] Bauckham suggests that here, "appearing probably for the first time, is the modern vision of the scientific and technological enterprise as dedicated to the good of humanity by acquiring power over nature and using it to liberate humanity from all the ills of the human condition."[57] This became the motivation that inspired the scientific and technological innovations down through the twentieth century.

Bacon's ethical goal of improving the human lot placed some constraints on the scope of human dominion. There were no limits imposed upon dominion by the intrinsic value of nature itself or by the intrinsic value of other creatures. In other words, nature held no value other than a utilitarian one that served human needs.[58] Previous ideas that creation existed to praise God or to reflect the glory and wisdom of God were pushed into the background. Bacon assumed that nature exists for human benefit alone. Creation has value only in that one can use it rightly or wrongly. It is imperative for human beings to make use of and perhaps even to exploit nature for the benefit of all human beings.

René Descartes built on Bacon's thought and proposed that we think of nature as a machine (like a clock) and human beings as engineers. Plants

and animals were little more than conglomerations of atoms and particles devoid of any kind of internal purpose.[59] Each species, like the planets, performed some function in the grand machine of the universe. It has been suggested that by viewing the world as a machine humans could distance themselves from it emotionally. Such a view had some horrifying practical consequences. Descartes believed that animals did not experience pain and thus conducted experiments on them without the use of anesthetic. Human beings themselves came to be seen as machines. Just as one cog of a machine might be replaced by a cog from some other machine, so one limb or organ of a human being might be replaced by a limb or organ from another creature. Such a view paved the way for the study of genetic engineering.[60]

Positively, the rise of the scientific and technological revolution gave people unprecedented control over nature and the ability to improve human health and the standard of living as never before. Negatively, it led to a materialistic, atomistic, and reductionistic view of the world. Nature came to be seen primarily as a stockpile of raw materials waiting for humans to use for their benefit. Adam Smith, an eighteenth-century advocate of a free-market economy, provided an economic theory within this materialistic framework that essentially commodified nature. In other words, nature's value lay primarily in the economic value that it held for human beings. The stuff of nature had value only in terms of the price for which one could sell it. It wasn't long before the effects on the environment were felt.

Just as Christian thinking moderated and provided limits on the trajectories of Stoic thought through the early and Medieval period, Christian values would propose limits to the aggressively anthropocentric vision of Bacon with regard to nature. In response to the wasteful land and forestry practices in seventeenth-century England, thinkers like Sir Matthew Hale (1609–1676) developed the idea of Christian stewardship as a beneficent dominion of nature. Bauckham notes that this idea of stewardship is somewhat new within the history of Christian thought. It carried two emphases.

First, humans stood accountable to God. Creation did not exist solely for human benefit.[61] The world was also created for God's glory. Man was appointed to manage the earth on God's behalf.[62] Hale said that God made man his "viceroy" "in this inferior world; his steward, villicus [farm-manager], bailiff or farmer of the goodly farm of the lower world."[63] This idea of stewardship introduced the notion of justice. "As stewards responsible to the divine King, humanity has legal obligations to administer the earth justly and without cruelty.[64] Hale, for example, thought it unjustified to chase and kill animals for mere sport. Animals have a right to life that humans must protect. Even in the seventeenth century, a few people wondered about the right of humans to kill animals for food. The idea of stewardship recognized some value in the nonhuman creation apart from human utility even as it recognized a unique power over creation.[65] Still, for Hale, humans stood as masters over the world and their responsibilities lay

with conservation, not with contemplation or the preservation of the world in its original condition.[66]

Second, Hale shared with the Baconians an enthusiasm for technology's ability to extend human control over the earth. But instead of seeing the use of technology as purely for human benefit, Hale also stressed that humans had a responsibility to take care of nature for nature's own good. Like Bacon, Hale regarded "human supremacy over nature as an unqualified value" and took it "for granted that human control improves nature." With others of his day, he assumed that nature left to itself would become chaotic and wild. "Fiercer animals would render the gentler and more useful animals extinct, the earth would be submerged in marsh and overgrown with trees and weeds."[67] According to Hale, the reason man was invested "with power, authority, right, dominion, trust, and care" was "to correct and abridge the excesses of the fiercer animals, to give protection and defense to the mansuete [tame] and useful, to preserve the species of divers vegetables [growing things], to improve them and others, to correct the redundance of unprofitable vegetables, to preserve the face of the earth in beauty, usefulness and fruitfulness."[68] Nature needed superior creatures like humans to keep its wilder aspects at bay and to allow its gentler aspects to flourish. There is little sense that nature might be better off without human interference or that human involvement might actually be destructive to nature. Later thinkers would take it as a mandate to improve nature and actualize its potentiality.[69] We might perfect nature even as grace perfects us.

Hale's stewardship model found expression in America in the early twentieth century. By the end of the nineteenth century, the frontier had all but disappeared. As the saying goes, "You don't know what you have until you've lost it." Buffalo were nearly exterminated. Their numbers had been reduced to fewer than 800 by the 1890s. The last carrier pigeon died in 1913 in the Cincinnati zoo. With the Theodore Roosevelt administration, strong efforts were placed on the need for conservation and his administrator of the forestry service, Gifford Pinchot, became the most influential proponent of a "conservation of resources ethic" rather than the "preservation of wilderness ethic" (wilderness is best off when left alone). In the early twenty-first century this idea of stewardship aimed at "long-term planning, the maximization of energy production, sustained yield, ecosystem control, and application of science to policy formation. It would ultimately issue in modern cost-benefit analysis, the concept of sustainable development, and environmental-impact assessment."[70]

Humankind *against* Nature

Another strand of thought that separates humans from nature pits them *against* nature. It has deep roots in the western world, where people saw wilderness as the opposite of paradise. For most of human history people had to struggle against nature in order to survive. When people dreamed

of the ideal environment, either in the distant past or in the distant future, it did not look like the American wilderness. The nature people longed for was a cultivated nature, a nature that was beneficial and useful to humans. In other words, the ideal was the pastoral, rural, or cultivated landscape.

Roderick Nash points out that the first-century B. C. Roman poet Titus Lucretius Carus regarded it as a "defect" that so much of the earth "is greedily possessed by mountains and the forests of wild beasts."[71] As Nash notes, the "inability to control or use wilderness" often shaped these negative attitudes toward wilderness. Similarly, in the early Middle Ages, folk legends in central and northern Europe spoke of supernatural beings and monsters that lived within the forests. The Scandinavians believed that when Lucifer and his followers were expelled from heaven, some landed in the forests and became wood-sprites or trolls. Russian, Czech, and Slovak stories told of creatures in forests that possessed the face of a woman, the body of a sow, and the legs of a horse.[72] In Germany, many maintained that a wild huntsman with a pack of baying hounds roamed the forest killing everything that they encountered. Stories of werewolves and ogres abounded. The eighth-century epic *Beowulf* tells the story of two "gigantic, blood-drinking fiends" who battled the tribes that Beowulf led. In the epic, the uninhabited regions are portrayed as "dank, cold, and gloomy."[73]

Much of the Christian tradition reinforced these widely held negative views of the wilderness. Genesis opens with a description of a lush arboreal garden. When Adam and Eve sinned, God expelled them into a wilderness abounding in thistles and thorns. Wilderness conjured thoughts of hardships. Throughout much of the Scriptures, wilderness is identified with the desolate desert and barren wasteland (Joel 2:3; Is 51:3). At the same time, the very hardships of the wilderness made it a place for testing and purification. Israel spent forty years in the wilderness as sanctuary from Egypt and a testing ground where they drew close to God, were purged, and made ready for the promised land. Jesus went out into the wilderness to do battle with the devil (Mt 4:1). Upon His return He embarked on His public ministry (Mk 1:14). Following the age of the New Testament, early Christians sought the wilderness for spiritual catharsis and religious purity. Desert fathers like St. Anthony in the third century retired to the desert between the Nile and the Red Sea. Most did not speak of the beauty of the wilderness. Basil the Great in the fourth century is an exception. From his monastery south of the Black Sea, he reported, "I am living . . . in the wilderness wherein the Lord dwelt." He described the forested mountains with recognition of their beauty.[74]

Negative views of the wilderness were brought to North America most prominently by the Puritans. The discovery of the New World initially triggered dreams of an Eden recovered. Publicists and promotional pamphlets portrayed it as a land filled with fabulous riches. The Puritans saw New England as a hoped for promised land and a refuge from the worldly corruption of England. Fearful at the successes of the counter-Reformation and

the English civil war, they sought sanctuary in New England. But anticipations of a second Eden or a promised land were shattered upon landing. Instead of a garden, they found wilderness. Forests stretched further than people imagined. "For Europeans wild country was a single peak or heath, an island of uninhabited land surrounded by settlement. They at least knew its character and extent."[75] But in America, the wilderness seemed boundless. The Puritans came to see the wilderness of seventeenth-century New England through the lens of biblical descriptions of wilderness.[76] Upon stepping off the Mayflower they found not paradise but a "desolate wilderness." With those words, William Bradford "started a tradition of repugnance" toward the wilderness. Cotton Mather spoke of the "sorrows of a wilderness" and longed for the heavenly paradise.[77] Frontiersmen dealt with a wilderness that was uncontrolled and filled with "savage men, wild beasts, and still stranger creatures of the imagination."[78] Safety, food, and water depended on overcoming the wilderness.

In addition to the physical challenges, the Puritans also saw the wilderness and forests of New England as the antithesis of civilization. Adjectives like howling, dismal, and terrible described the wilderness, swamps, and thickets. These were the places where Satan and those in his power dwelled. Puritans identified the savage state of the wilderness with spiritual darkness and the realm of the Antichrist. Its inhabitants (Indians) were trapped in the bondage of Satan.[79] The Puritans interpreted the wilderness in two ways. First, the wilderness was seen as a place of testing, purification, and strengthening.[80] Seeing themselves as seventeenth-century Israelites, they regarded the wilderness as part of God's plan to purge them before they took possession of the promised land. Only by "defeating the forces of evil concealed in the wilderness could the settlers of New England hope for salvation among the elect."[81] Second, the Puritans saw it as their spiritual duty to take possession of the land by removing the forest and transforming the wilderness into a garden. In other words, the Puritans would transform the wilderness into a garden and expand the boundaries of civilization with the spread of the Gospel.[82] For the Puritans, the goal was to "carve a garden from the wilds; to make an island of spiritual light in the surrounding darkness."[83]

The wilderness views of the seventeenth-century Puritans carried over into the eighteenth century and found expression in the heroicization of frontiersmen. These were the men of high ethical ideals who went into the wilderness and battled its dangers. "This taming of the wilderness gave meaning and purpose to the frontiersman's life."[84] Perhaps the best known frontiersman of the eighteenth century was Daniel Boone (1734–1820). In his early adult years, he spent months, if not years, on hunting and trapping expeditions in the wilderness west of the Appalachians. In 1775, he "blazed a trail" known as the Wilderness Road through the Cumberland Gap and led settlers safely through it. By the end of the eighteenth century, more than 200,000 settlers had used that trail.

The nineteenth century witnessed the wilderness in full retreat. In his 1830 inaugural speech, Andrew Jackson asked, "what good man would prefer a country covered with forests and ranged by a few thousand savages to our extensive Republic, studded with cities, towns, and prosperous farms, embellished with all the improvements which art can devise or industry execute."[85] When Alexis de Tocqueville came to America in 1831 he wanted to see wilderness, because for Europeans wild lands were something of a novelty. But he saw Americans focused on the "march across these wilds draining swamps, turning the course of rivers, peopling solitude and subduing nature."[86] Nash points out that Tocqueville was generally correct when he noted that "living in the wilds" produced a bias against them."[87]

For many, morality and social order ended at the boundaries of the wilderness. Wilderness remained an obstacle to be overcome. "In an age that idealized 'progress,' the pioneer considered himself its spearhead."[88] Pioneer diaries speak of wilderness that has been "reclaimed" or "transformed into fruitful farms."[89] Roderick Nash contends that the growing trend of defining America's mission in secular rather than sacred terms did not change the antipathy toward wilderness.[90] The movement westward was motivated by the doctrine of manifest destiny. Both the native Americans and the wildlife had to be removed from the land so that new immigrants could take possession of and settle the land. "In the morality play of westward expansion, wilderness was the villain, and the pioneer, as hero, relished its destruction. The transformation of a wilderness into civilization was the reward for his sacrifices."[91]

The ninteenth century saw the rise of the industrial revolution that gave humans new powers to alter the environment. The rise of Chicago on Lake Michigan altered the ecology of the entire midwest.[92] By the end of the nineteenth century, the frontier had all but disappeared. Increasingly, men like John Muir insisted that one needs to think more in terms of preservation than conservation. We needed to preserve the pristine wilderness areas regardless of any economic value that it may hold.

Humankind as *Part of* Nature

". . . protect the environment for its own sake apart from any economic value that it may have for humans."—p. 10

Although dualistic views have more often than not described how we in the West fit within the wider creation, they have not been the only possibilities. Within the Christian tradition, a small but often overlooked option can be found among the desert fathers and Celtic monks in the sixth and seventh centuries. Nineteenth-century opinions included those of David Thoreau and John Muir, and in the twentieth century, Aldo Leopold, Arne Naess, and Rosemary Radford Ruether. In their own way these thinkers paved the way

for the modern environmental movement and an ecological way of thinking. In *Nature's Economy,* Daniel Worster contends that we now live in "The Age of Ecology." It is a time when ecology as a "discipline has achieved a position of influence only slightly behind physics and economics."[93] All of these thinkers provide an alternative to the mechanistic and atomistic way of thinking by setting forth more holistic and organic ways of seeing the world: *With* Nature, *Into* Nature, *Within* Nature.

Humankind *with* Nature

Alongside the dominant Christian tradition, which tended to stress a qualified anthropocentric approach to dominion, there existed another strand of thought. It is found in the stories of the Egyptian desert fathers of the fourth century, the Celtic saints in the sixth and seventh centuries, and the Franciscan saints of the thirteenth and fourteenth centuries.[94] As Bauckham notes, this tradition not only spans a thousand years, but also spans a wide geographical range from Egypt to Belgium, from Georgia to Ireland.[95] The stories of these saints say a great deal about their attitudes toward the natural world. Bauckham notes that part of the aescetic tradition was known for a dualistic, anti-material view of the world that denigrated the physical and thus fostered a negative view of the natural world. There was, however, another side to the tradition that was relatively unaffected by Platonic dualism, a view of a different kind of dualism between good and evil. The saints went out into the wilderness to battle evil and the demonic. "But more prominent is their positive appreciation for their natural surroundings."[96] When most experienced nature only as a somewhat cultivated and ordered world, the hermits went out into the wild to seek after God and holiness by living in harmony with the natural world. The stories do not sugarcoat the violence of the animals or hide the fact that they devour one another.[97] But they tell tales of companionship and friendship with wild animals. Several themes emerge in connection with that companionship with other creatures.

First, the saints cared for the animals by looking out for them and feeding them. The desert fathers fed lions, wolves, antelope, wild asses, and gazelles. Among the Europeans, birds were the most common creatures to be fed. The gentleness of the saints was often reciprocated by the tameness of the animals. When a saint shared his food he recognized a common creaturely dependence upon the Creator's provision for humans and birds alike.[98] The Georgian saint David of Garesja said, "He whom I believe in and worship looks after and feeds all His creatures, to whom He has given birth. But for Him are brought up all men and all animals and all plants, the birds of the sky and the fishes of the sea."[99]

Second, the saints cared for the bodies and health of other creatures. Exiled from Ireland, the sixth-century saint Columba founded a monastery on the island of Iona in western Scotland and from there worked to evangelize pagan Scotland and northern England. Columba saw in a dream that

a crane from his beloved Ireland had been thrown off course, buffeted and tossed by the wind and the storm. He dispatches a fellow monk to travel three days westward and wait for the crane, her strength gone, to collapse on the beach. Columba tells the brother to care for her three days so that as she regains her strength she can fly "towards that old sweet land of Ireland" where "thou and I were reared, she too was nested." Upon recovery from her ordeal, the crane then flew straight above "the quiet sea, and so to Ireland through tranquil weather."[100]

Third, the monks provided shelter or shared their own homes with other creatures. The Irish saint Kevin (Coemgen, d. 618) is remembered most for his love of animals. When an angel tells him that he must move his monastery to a valley (Glendalough) and that God will supply for the future glories of the monastery, he replies, "I have no wish that the creatures of God should be moved because of me. My God can help that place in some other fashion. And moreover, all the wild creatures on these mountains are my house mates, gentle and familiar with me, and what you have said would make them sad."[101] Other saints often sheltered animals such as wild boars, bears, partridges, stags, rabbits, and foxes from hunters. The hermitage and its environment is a sanctuary or paradise in which all are safe and violence may not intrude. It is a place of peaceful harmony. In a sense, such stories give voice to a view of human dominion as God originally intended. They "recover human dominion over the rest of creation in its ideal form."[102]

Fourth, hierarchy or dominion was not rejected. The saints exercised authority over the animals. St. Columba gently commanded a bear to leave. St. Werburga of Chester chastized wild geese for eating food that did not belong to them.[103] Yet when one of them was wrongly slaughtered and eaten, she performed a miracle and brought it back to life. In some stories, the animals acknowledged the saints' dominion and obeyed them. In many instances, the obedience of the animals to the saints provided models for the way people should act toward God.[104] After St. Cuthbert scolded the ravens, they returned with their wings dragging in a gesture of penitence. In some instances dangerous animals became tame, to the point that wolves came and protected the saints. Creatures served and obeyed the saints in a variety of ways. Colman's three friends, "the cock, the mouse, and the fly—each assisted his devotions. The cock crowed in the middle of the night to wake him for prayer, the mouse woke him in the morning by nibbling his eyes, and the fly would keep his place on the page of the Scripture as he meditated on them." The saints still thought in terms of human mastery, but a more reserved form of it, a "contemplative" or "cooperative mastery."[105] The animals were friends and companions, not slaves, and the saints delighted in their company. The hierarchical order is portrayed as a state of harmony that benefits all of God's creatures.[106]

The one saint who stands out more than any other for his love of nature and God's creatures is Francis of Assisi. "No other figure in Christian history

so clearly, vividly, and attractively embodies a sense of the world, including humanity, as a community of God's creatures, mutually interdependent, existing for their praise of their Creator."[107] In this regard, Francis "is the climax of a tradition reaching back to the desert fathers. He transcends it only through deep dependence upon it."[108] Francis acts with authority to command animals yet his hierarchy is moderated by mutuality. The obedience that animals owe him is reciprocated by the obedience that he owed them. "What Francis envisages, in the end, is a kind of mutual and humble deference in the common service of the creatures to the Creator." The duty of all creatures to praise their Creator becomes another strong theme in Francis. This was not unique to him (e.g., the Psalms and the *Benedicite*). Francis' originality shows itself when he preaches to the creatures themselves. He exhorts birds, animals, and reptiles to praise and love their creator. Every creature has its own God-given worth that should return to God in praise and thanks.

Francis' famous "Canticle of Brother Sun," or "Canticle of the Creatures," written near the end of his life, brings this out. "Praised be you, my Lord, through all your creatures." It expresses the idea that humans should praise God for their fellow creatures in three ways: first, for their practical usefulness in making life possible for humans; second for their beauty; and third, for the way their distinctive qualities reflect the divine being.[109] The Canticle teaches people to think of other creatures with gratitude, appreciation, and respect.[110] Creatures elicit an intensity of delight in Francis by the way in which they rejoice in their Creator. "He used to extol the artistry of [the bees'] work and their remarkable ingenuity, giving glory to the Lord. With such an outpouring, he often used up an entire day or more in praise of them and other creatures."[111]

Although this understanding of a cooperative and contemplative dominion existed within the Christian tradition, it did not exercise the same influence as the dualistic and dominion strands. The idea of cooperative dominion lay somewhat dormant for hundreds of years before being rediscovered in the twentieth century by Christians who looked for resources from within their tradition to rethink their place within creation. In the meantime, other movements provided the impetus for articulating a kinship view of our relationship with other creatures.

Humankind *into* Nature (Wilderness Ethic)

In the mid-nineteenth century, several influences converged to create a distinctively American view of nature, especially wild nature. Romanticism saw wilderness less as a fallen realm in which mountains were considered "pimples, blisters, and other ugly deformities on the earths' surface," and more as God's original and as yet untouched work. The Romantic category of sublimity helped people see wild and chaotic nature as beautiful.[112] In the process, Romanticism idealized primitive existence for developing moral

character and acquiring happiness (Robinson Crusoe, Daniel Boone). As American writers and artists travelled to Europe and saw first hand its long history of civilization and culture, they began to ask what America had to offer in comparison. America had pristine, wild wilderness![113] This insight, which found expression in artists like Thomas Cole and writers like Washington Irving, provided Americans with a new sense of national identity. Finally, Transcendentalism argued that by reflecting on the wildness of nature one intuitively experienced the divine. Ralph Waldo Emerson's essay *Nature* provided a transition from European idealism to a distinctive form of American nature writing such as that of Henry David Thoreau and John Muir.

Henry David Thoreau's popularity today far exceeds that which he enjoyed in his own lifetime. Often called the "philosopher of the wilderness," his book *Walden* has become the founding charter of the environmental movement.[114] It recounts his attempt to live simply and in harmony with nature during his two-year stay at a cabin in Walden (1845–1847). His time at Walden served as a catalyst for further wanderings and a continued nature study over the course of the next decade. During this time, Thoreau studied forest succession as oaks gave way to white pines. He classified plants according to the environmental conditions (soil and climate) in which he found them.

Several thoughts pressed upon Thoreau. First, he became increasingly disturbed by the way in which European immigrants had altered the land on a large scale through deforestation for the sake of farmland.[115] This in turn led to the disappearance of large native predators. Second, Thoreau came to see nature less as a flawless Newtonian machine and more as "a maimed and imperfect nature." He was disturbed by the seeming waste in nature (the mildewing of the white oak's acorns before they could be eaten by jays or squirrels).[116] He moved away from a static and balanced view of nature to the more wild and unruly view of nature suggested by Darwinian evolution. In 1851, Thoreau gave a speech in Concord during which he uttered a line that might well be regarded as the essence of his wilderness philosophy: "In wildness is the preservation of the world." This applied both to the well-being of the individual as well as society. He was concerned that people would become increasingly isolated from the natural world as they moved from the land into the factories. Thoreau argued that we need a day-to-day intimacy and contact with nature. He longed "for a visceral sense of belonging to the earth and its circle of organisms."[117]

To restore man to nature, Thoreau drew on both Romantic and Transcendental ideas as a framework for defining nature and our place within it but transposed them into an American wilderness context. From Romanticism he relied on two ideas. First, was the intuition that nature was "alive and pulsing with energy or spirit" and thus has a claim on our affections. Second, all of nature was organically connected. "The individual organisms

in nature are not like gears and bolts that can be removed and still maintain their identity, nor can the whole be reconstructed like a clock."[118] One cannot disturb these relationships without disrupting the whole. At the same time, Thoreau found that not all of his needs were answered by the material world. From Transcendentalism he learned that one had to look "through and beyond" the material in order to experience the sublime and divine.[119] People are like trees in the Concord woods. They must be "rooted firmly in the earth" before they "can rise to the heavens." In some ways, he went beyond Emerson, who saw nature as a better teacher of the divine than a self-contained experience of God.[120]

Thoreau's notion that "in wildness is the preservation of the world" did not imply that we need to reject civilization. In the end, he realized that we need both. Recent interpreters have argued that following his Maine adventures to Mount Katadim Thoreau sought a mediating path between civilization and wilderness.[121] "More recent interpretations suggest that Thoreau argued for a more peaceful coexistence between nature and culture. For Thoreau, wilderness is the source of a town's life that it dare not neglect. Town life "would stagnate if it were not for the unexplored forests and meadows which surround it . . . . We need the tonic of wilderness . . . . We can never have enough of nature. We must be refreshed by the sight of inexhaustible vigor, vast and titanic features."[122] A "man must learn to accommodate himself to the natural order rather than seek to overwhelm and transform it."[123]

In the last decades of the nineteenth century, naturalist John Muir (1838–1914) built upon Thoreau's thought and developed an "authentic wilderness theology."[124] He articulated a holistic vision of our place within nature that in some ways anticipated the insights of ecology in the twentieth century. In the process, Muir developed a distinctively American understanding of wilderness that has produced an enduring fascination and love of wilderness among Americans down to the present day.[125]

Muir grew up as the son of a strict Campbellite Presbyterian minister.[126] When Muir was eleven, his father moved the family from Scotland to Wisconsin. Later, John attended the University of Wisconsin where he came into contact with Transcendentalism. After recovering from an injury that nearly cost him his sight, Muir embarked on a walk from Indianapolis to the Gulf of Mexico and from there traveled to California and Yosemite. His journals reveal his developing wilderness theology/philosophy.[127] Although Muir would reject the Christianity of his youth, a significant strand of his anti-anthropocentric thought found expression paradoxically through his use of Scripture.[128] Muir brought to his work of wilderness preservation a moral activism, ascetic discipline, egalitarian individualism, and an aesthetic spirituality that had been instilled in him by his earlier Christian training.[129] Muir's wilderness theology entailed several elements.

First, Muir rejected a purely utilitarian use of nature. He heaped scorn

on the "Lord man" for whom "whales are store houses of oil for us."[130] Turning the tables, he sarcastically asked, "How about those man-eating animals—lions, tigers, alligators—which smack their lips over raw man? . . . Doubtless man was intended for food and drink for all these."[131] In place of a human-centered view of the wilderness, Muir argued, "And what creature of all that the Lord has taken the pains to make is not essential to the completeness of that unit—the cosmos?" The universe, he argued, would be incomplete without any one of them. Not only do they belong in nature but they are also God's children, "for He hears their cries, cares for them tenderly, and provides their daily bread. How narrow we selfish, conceited creatures are in our sympathies!" He noted that creatures which appear noxious and insignificant to us are nevertheless our "earth-born companions and our fellow mortals."[132]

Second, Muir's mature thought, in which he sought direct and intuitive contact with nature, convinced him that everything in nature was alive. He rejected a mechanistic view of nature in which plants, rocks, and animals were little more than "matter-in-motion." The aliveness of nature called for an empathetic approach to nature rather than an objective scientific observation apart from nature.[133] Not only did Muir consider nature alive and filled with spirit, Muir also came to the conviction that all of nature was suffused with the divine. "Nature became his temple."[134] In doing so, he went beyond Transcendentalism. Where Emerson sought to use nature to discover God, Muir directly encountered God in nature.[135] In any event, Muir believed that we should think of the human being less as an economic creature (*homo oeconomicus*) and more as a religious creature (*homo religiosus*). As such, Muir argued that we need to be conscious of the sacredness of nature.

Muir was a popularizer and evangelist for the value of the wilderness. Roderick Nash refers to him as the "publicizer of the wilderness."[136] Donald Worster calls him a "Frontier Evangelist" with the Sierras as his Cane Ridge revival camp.[137] He also entered politics as a lobbyist and played a role in the establishment of six national parks, parks that reflected Romanticism's penchant for rugged and dramatic landscapes. In 1892, he and a group of college professors founded the Sierra Club. Being more a preservationist than a conservationist, Muir found himself at odds with conservationists like Roosevelt and Gifford Pinchot. Pinchot sought to conserve nature for utilitarian purposes so it would be available as a resource for future generations. Muir butted heads with those who wanted to use the land for livestock grazing and complained, "Any fool can destroy trees, they can't run away."[138]

The "wilderness" idea as developed by Thoreau and Muir shaped American identity in the nineteenth century and led to the establishment of our great national park system. Thoreau and Muir became the spiritual mentors for many in the modern environmental movement. Negatively, the wilderness ethic has continued to foster and even exacerbate the man-nature dualism. This appears to be the case in the Wilderness Preservation

Act (1964), which spoke of the "wilderness" as areas "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain."[139] The wilderness is sacred ground. At most, we are observers and perhaps worshipers of nature rather than active participants in nature.

Humans *within* Nature (Ecological Ethic)

Charles Darwin focused on the connection of all living things by attempting to trace them to a common origin. He did not, however, "push on to explore the ways in which living things were presently interrelated."[140] By the early twentieth century, the new field of ecology studied those interrelationships and provided two insights with far-reaching ramifications.[141] First, it highlighted the interconnection and interdependence of all things by means of energy circuits rather than divine forces. In this system, higher life forms depend upon lower life forms. Second, the idea of a "niche" showed that every living thing had a place and purpose within the system regardless of its value to humans. "Ecology took still more conceit out of humanity."[142] These thoughts were to have a profound impact on Aldo Leopold who "is rightly regarded as the most important source of modern biocentric or holistic ethics."[143] For Leopold, the field of ecology carried with it an ethical paradigm.

Leopold (1887–1948) graduated from the School of Forestry in 1909 where he learned the conservationist principles of Theodore Roosevelt's chief forester, Gifford Pinchot. Leopold went to work for the National Forest Service in Arizona and New Mexico where he saw how erosion and the extermination of predators like wolves and mountain lions altered the stability of entire ecosystems. In Leopold's first paper in 1923 on human-nature ethics, [144] he broke with Pinchot's utilitarian conservation ethic. In its place, Leopold "wondered if there was not a 'closer and deeper' relation to nature based on the idea that the earth was alive," a relationship which called for the extension of ethics to the wider biotic community.[145] The "indivisibility of the earth—its soil, mountains, rivers, forests, climate, plants, and animals" was sufficient reason for respecting the earth "not only as a useful servant but as a living being."[146] In 1924, he went to work as a field researcher for the Forest Products Laboratory in Madison, Wisconsin, and later went on to teach at the University of Wisconsin. In his most influential work, *The Sand County Almanac,* Leopold brings together ecology, aesthetics, and ethics.

Leopold's land aesthetic seeks to overcome the idea that humans stand as external observers of nature as pictured by Baconian-Cartesian science. "By promoting perception of the beauty of things, Leopold opened up perceiving subjects to an awareness of their relatedness to the land."[147] His view highlighted a unity between the individual who perceives and the object perceived. Leopold goes on to note that perception depends not only on the quality of what we see but the quality of the mental eye by which

we see it.[148] For him, ecology had brought about "a change in the mental eye."[149] The wilderness aesthetic involves the "perception of the natural processes by which the land and the living things upon it have achieved their characteristic forms (evolution) and by which they maintain their existence (ecology). Instead of looking at things in isolation, it looks at relationships between things. For Leopold, a "wilderness aesthetic opens the possibility of recognition that we as sentient subjects are bound with all of creation."[150]

A land aesthetic gives rise to an ecological consciousness. It allows us to see the land as a community of life that includes the soils, waters, plants, and animals. Leopold's unique contribution lies in the recognition "that humankind was related to nature not externally but internally."[151] He argued that human beings need to see themselves less as "conquerors of the land community" and more as "plain members and citizens" of it.[152] Citizenship entails obligations over and above self-interest.[153] We must thus extend our social instincts and sympathies to other members of the community as well.[154] Where others preceded him in terms of extending ethical considerations to nonhuman organisms, Leopold's most radical ideas and greatest significance lie in "the concern for the intrinsic rights of nonhuman life-forms and of life communities or ecosystems."[155] But the extension of such concerns to the land requires an "internal change in our intellectual emphasis, loyalties, affections, and convictions," something he believed philosophy and theology had not yet taken up.[156]

Leopold's land ethic builds on his ecological insights. "The Land Ethic," he explains, is a set of "self-imposed limitations on freedom of action that derive from the recognition that "the individual is a member of a community of interdependent parts."[157] Ethics first arose to deal with relationships between individuals. They then expanded to address the relationship between individuals and society. Now they must expand to include the relationships between people and the land. What would such an ethic look like? Leopold proposed, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."[158] Two caveats are in order. First, Leopold's ethic functioned at the species level. He focused on the "biotic community." He did not argue for an ethic that gives individual animals equal rights. Second, Leopold allowed for the "primacy of moral consideration for fellow human beings."[159] He called more for a change in lifestyle than for the sacrifice of human life.[160] Thus with regard to saving whales, consumers of whale meat are asked to change their lifestyle, not to lay down their lives. Leopold argues for humans to attend to a "wise and moderate use of resources."[161]

In his day, Leopold saw ecology as divided between "the resource (imperial) ecologist, who is armed with environmental impact statements, cost-benefit analyses, differential equations, and energy transfer models, champions the values of utility and efficiency and the normative (foundational) ecologist who value wild nature's beauty, stability, and integrity in

addition to the economic."[162] In his own field of forestry, he complains that one group is "quite content to grow trees like cabbages."[163] The other group worries about loss of species of trees and habitats. As Leopold put it in his *Sand County Almanac*, "There are some who can live without wild things, and some who cannot. These essays are the delights and dilemmas of one who cannot." He admits that wild things like winds and sunsets were taken for granted until progress began to do away with them. "Now we face the questions whether a still higher 'standard of living' is worth the cost in things natural, wild, and free."[164]

Leopold's *Sand County* "Land Ethic" is one of the central, if not the central, document of the modern conservation movement."[165] Leopold's holistic view of ecologists pushed many of them to consider the philosophical and religious implications of ecology for environmental ethics. Leopold believed that while scientists often lose sight of the big picture by focusing on details, ecologists "were the scientists most likely to meet holistic-thinking theologians and philosophers half-way."[166]

Leopold's ideas have been picked up and taken even further in the late twentieth and early twenty-first centuries by proponents of Deep Ecology and Ecofeminism. In the 1960s and 1970s, Norwegian philosopher Arnae Naess founded the Deep Ecology movement, which is strongly biocentric and egalitarian. It rejected a "shallow ecology" that takes for granted beliefs in technological optimism, economic growth, scientific management, and the continuation of existing industrial societies.[167] By contrast, deep ecology develops the idea of the "self," which is an awareness that everything around us is a part of us. The "self" identifies with the life forms of one's environment and recognizes "that these creatures and features are part of oneself" and "that one is part of a whole life, a local living system."[168] Australian environmentalist John Seed has expressed it well: "As the implications of evolution and ecology are internalized . . . there is an identification with all life . . . . Alienation subsides . . . . 'I am protecting the rainforest' develops to 'I am a part of the rainforest protecting myself.'"[169]

Together with George Sessions, Naess set forth an eight-point platform: (1) The value of nonhuman life forms is independent of the usefulness these may have for narrow human purposes. (2) Richness and diversity of life forms are values in themselves. (3) Humans have no right to reduce this richness and diversity except to satisfy vital needs. (4) Present human interference with the nonhuman world is excessive and the situation is rapidly worsening. (5) The flourishing of human life and cultures is compatible with a substantial decrease in the human population (ideally to 100 million people). (6) Significant change of life conditions for the better requires change in economic and technological policies. (7) Life quality should be given more primacy than a high standard of living. (8) Those who subscribe to these points have an obligation to implement the necessary changes.

The ecofeminist movement arose in part out of the belief that a form of patriarchal hierarchical thinking lay at the root of both the oppression of women in society and the destruction of the earth. Historian Carolyn Merchant argues in *The Death of Nature* that male-centered themes in the philosophy of science had displaced older, more holistic, organic, and feminine conceptions of the universe. She identifies this view not only with various ancient religions and philosophies, but with elements in the theology of Thomas Aquinas and scholasticism. The Baconian scientific revolution replaced "the image of an organic cosmos with a living female earth at its center" with "a mechanistic world view in which nature was reconstructed as dead and passive, to be dominated and controlled by humans."[170] Two of the most influential thinkers in the movement include Sallie McFague and Rosemary Radford Reuther.

Two things distinguish ecofeminist thinkers from deep ecologists. First, they insist that a woman's perspective provides insights that even deep ecologists (most of whom are male writers) ignore. They argue that the problem we face is not only a "human-centered" (anthropocentric) view of the world, but a "masculine-centered" (androcentric) view. A woman's perspective will bring to the table themes of relationships, organic interconnectedness, and egalitarianism. Second, ecofeminists believe that we need to reclaim a sense of the earth as sacred. This, they argue, will encourage people to treat it with a sense of reverence rather than dominance. To that end, a number of thinkers have come to speak of the earth as the body of God.[171] For ecofeminist theologian Sallie McFague, this implies that all the elements of creation share in divinity in as much as they come from the world and "thus have their own unique worth."[172] Ecofeminists argue that this is not a pantheistic (God is nature) but a panentheistic (God is in nature) approach that emphasizes both the transcendence and immanence of God.

Chapter 2: Creatures Called to Care for Our Fellow Creatures

So how do we answer the question about our relationship to the earth and all its creatures? As we have seen thus far, the answers to that question fall into two broad categories. Those answers tend to see us as either fundamentally separate from and transcendent over creation or as fundamentally a part of and perhaps even subordinate to creation. Each answer emphasizes certain truths regarding our place within creation, often to the exclusion of other aspects. Here we need to turn to the biblical treatment of creation. We too often limit our thinking about creation to the question of origins. But the biblical view of creation is important not only for what it says about where everything came from, but for what it says about life on earth today.[173] We need to consider it in terms of its character.[174]

Consider Martin Luther's confession of God's work of creation in the *Small Catechism*.[175] He has a trenchant clause in his explanation of the First Article of the Apostles' Creed that provides helpful guidance for developing an "ecological identity."[176] God has "made me together with all creatures." We can draw out two important insights from Luther's words. First, creation answers the question of who and what we are. It teaches that "we should know and learn where we come from, what we are, and to whom we belong."[177] By confessing God as the creator, we confess that we are creatures. "I am God's creature . . . I do not have life of myself, not even a hair."[178] Note how Luther rejoices, "I am a creature!"[179] Second, with a few words Luther's confession has the wonderful ability to draw attention both to our common creatureliness *with* other creatures as well as our distinctive creatureliness *apart* from other creatures. Both must be held together and considered in the light of each other. We need to consider our creatureliness within the *full* Christian story of creation. God not only created the universe, He became a creature in order to reclaim, restore, and renew His creation. We bring together the confession of our common creatureliness and distinctive creatureliness in the thesis: *God has called us to serve His creation as creatures among fellow creatures in anticipation of creation's renewal. This renewal has begun in Christ, is continued by the work of the Spirit in the church, and will be completed upon Christ's return.*

Creatures among Fellow Creatures

"As creatures we share lives that are interrelated with all other creatures." — Norman Wirzba[180]

Several decades before the rise of the modern environmental movement, the Lutheran pastor Dietrich Bonhoeffer referred to the animals that God brought to Adam for naming as *"brothers and sisters"* [italics

added]. He explains, "[F]or that is what they are, the animals who have the same origin as humankind does." He continues, "As far as I know, nowhere else in the history of religions have animals been spoken of in terms of such a significant relation."[181] Generally, we are not accustomed to speaking of other nonhuman creatures as our brothers and sisters. They are our fellow creatures, and in a sense our neighbors, because like us they have been created by God and formed from the soil of the earth.

Our care of the earth begins by embracing our creaturely bond with the earth and its creatures. The earth suffers when we seek to be more than creatures, when we seek to be gods or to rise above our physical nature. God did not create us as disembodied spiritual beings who can live apart from a physical environment. Instead, he created us for this particular earth. Nor did God create us to live in isolation from other creatures. Claus Westerman has pointed out that the very first page of the Bible opens by speaking of the earth, trees, fish, birds, and animals.[182] It paints a picture of human creatures living within the midst of an incredible array of other creatures.

A Shared Creatureliness

Consider how we might organize the following list into two categories: soul, birds, frogs, God, body, trees, snails, angels, and tigers. Many might organize them into categories of spiritual and material things. Thus one list would include God, soul, and angels. The other category would include birds, frogs, body, trees, snails, and tigers. Unfortunately, that may correspond to a worldview shaped more by Plato than by the Bible. In that case, our list would not only organize the world into spiritual and material categories but would support a world view that regards the material things as inferior to the spiritual entities. A biblical worldview compels us to organize the list differently. The first category would include God. The second category would include soul, birds, frogs, body, trees, snails, angels, and tigers. This suggests that we share more in common with frogs and snails than we share in common with the Creator. God created us to live as creatures who share a common creatureliness with all our fellow creatures of the earth. Together we are all creatures!

We share a common creatureliness with everything in creation by virtue of the truth that we are all created. The Scriptures bring this out in a variety of ways. Genesis states that "God created the heavens and the earth" (Gen 1:1). The Psalms speak of God creating light and darkness. This use of polar opposites is called a merismus and conveys the meaning of totality (see Is 45:7; Is 45:18; Is 44:6). It's like saying that God created everything from A to Z. God is not part of creation. Why? Because He made it! We are part of creation. Why? Because He made us! Everything that Scripture says about humans is discussed within the boundaries of our creatureliness. In fact, Scripture consistently shows less concern about distinguishing us from other creatures than it does about our creaturely relation to God.[183] For

example, the repeated references to the First Commandment rests upon a Creator-creature distinction, that is, "do not confuse the creature with the Creator."

As creatures, we also share with all other creatures a continuing dependence upon God's ongoing creative work, by which He provides for our lives. As creatures we are not autonomous, independent, and self-sufficient beings. After all, what do we have that we have not received? We are dependent upon the Creator and His creation. When we confess in the creed that God is the all-ruling one (*pantokrator*), we affirm that the entire world rests in His hands. He continues to actively support and sustain the world. Together with all creatures we depend upon God's provision of the earth's bountifulness (Mt 6:26, 28).[184] In fact, much of what follows Genesis 1:1 makes this very point. God "makes room" for His creatures and provides them with food. God looks out for the well-being of all of His creatures (Ps 104:27–30; Psalm 65). "The creation in which we find ourselves is not like being part of a machine. It is instead like being part of a continuing process in which God Himself is still involved, constantly maintaining, empowering, renewing."[185] According to Oswald Bayer, this daily work of God in creation should also strengthen our belief in the resurrection of the dead.[186]

While we share a common creatureliness with all things "visible and invisible" (the latter including angels) we share a particularly close bond with our fellow earth formed creatures. God formed us together with them from the soil. Genesis 2:7 makes a special point of emphasizing this feature of our creatureliness: The "Lord God formed the man of dust from the ground." Note how the narrative highlights our connection to the ground with the very name given to the first human creature. God calls him *Adam* because he is created from the *adamah*. Genesis 5 makes the same point: "Male and female he created them, and he blessed them and named them man [*adam*] when they were created" (Gen 5:2). *Adam* here is used as a generic name for humans rather than the personal name of a single person. Genesis provides a deliberate play on words. Adam is made from the *adamah*. Humans are made from the humus. Earthlings are made from the earth. We are earth creatures.

God's human creatures are not the only creatures formed from the ground. God also caused all the plants and other animals to come from the ground. In Genesis 2, God caused the plants to spring from the soil. "And *out of the ground* [italics added] the Lord God made to spring up every tree that is pleasant to the sight and good for food" (Gen 2:9). A few verses later, God formed the animals and birds from the ground as well. "Now out of the ground the Lord God had formed every beast of the field and every bird of the heavens" (Gen 2:19). This has some interesting implications for us today. At the very least, it should really come as no surprise when scientists tell us that we share so much genetic material with other creatures. After all, in a sense, we are all made from the same stuff. We are connected to each other and to all of our fellow creatures by means of the soil.

Not only did God form us from the ground but He made us "*nephesh*." *Nephesh* has often been translated in the past as "soul," but it is often more accurate to render it as "living creature." Again, we start with Genesis 2:7, "Then the Lord God formed the man of dust from the ground and breathed into his nostrils the breath of life, and the man became a living creature [*nephesh*]." This is an important text for it describes our nature as human beings. Wendell Berry rightly observes that this text does not support a dichotomous view of the human creature that consists of two discreet parts glued together. He notes that the formula is not: body + soul = human creature. Instead, the formula is body + breath =soul/living creature. "He [God] formed man of dust; then, by breathing His breath into it, He made the dust come alive . . . . Humanity is thus presented to us, in Adam, not as a creature of two discrete parts temporarily glued together but as a single mystery."[187] The theme continues. "When his breath departs, he returns to the earth" (Ps 146:4; Ps 104:29).

Being a living creature (*nephesh*) binds us more closely with certain other creatures formed from the earth. Scripture calls many of them "living creatures" (*nephesh*) as well. As Genesis 2 unfolds, God brings the animals and birds to Adam to see what he would name them. "And whatever the man called every *living creature* [*nephesh* (italics added)], that was its name." Other scriptural texts also emphasize that we share *nephesh* with nonhuman creatures. For example, after the Flood, Genesis 9 repeatedly speaks of God's covenant with humans and all "living creatures" (Gen 9:10, 12, 15–16). Later, when discussing what Israel may eat or not eat, Leviticus draws a distinction between clean and unclean living creatures (Lev 11:9–10, 46–47). It appears that when the Old Testament speaks of living creatures, it does not have in view only those creatures that breathe air. Genesis 1 also describes water creatures as *nephesh* (Gen 1:20). It might be more accurate to say that *nephesh* describes animate creatures, that is, creatures that move through space. *Nephesh* is not used with reference to plants, which might explain why plants are given as food to humans and animals alike.

We, along with other creatures, have been made by God to live within a particular environment. In other words, God outfitted us for life on this particular planet. God did not design us to live in the vacuum of space, or to live (apart from artificial help) in the clouds of methane gas that envelop Venus. He formed us as creatures from the earth for life on the earth. Our bodies link us to the earth. "We can't survive apart from it."[188] Together with other living creatures we have lungs to breathe the air of the earth. We have stomachs to drink the water and eat the food of the earth. We have muscles to move across the earth.

In addition, we share a common pattern of life with many other living creatures. God has given each of His creatures a purpose or calling on earth. In ecological terms, each creature fills a particular niche within the whole ecosystem. On the fifth day, when God created His "living creatures" of the

sea and the air, He blessed them and said, "Be fruitful and multiply and fill the waters in the seas, and let birds multiply on the earth" (Gen 1:22). On the sixth day, after God created His land creatures, He again said, "Let the earth bring forth living creatures according to their kinds—livestock and creeping things and beasts of the earth according to their kinds" (Gen 1:24). God gave them the blessing of procreation and commissioned them to spread out and fill the waters, the skies, and the land. By itself this indicates that God did not create a static, fully developed world in which no changes occurred. As His creatures spread out across the earth they would adjust to the new climates and places in which they settled.

We, along with other creatures, share the need for a home or habitat, whether it be a cave, nest, tree cavity, or underground burrow. In Genesis 1, God carves out spaces for His various creatures. God gave water as the home for various kinds of marine creatures. He filled the air with all kinds of birds. He filled the land with animals and humans. Psalm 104 beautifully brings out the way in which God provides for all of His creatures, human and nonhuman alike. The birds sing among the branches and storks build their nests in the fir trees. The wild goats find their home in the high mountains, the badgers make their home in the rocks, and the lions in dens (vv. 12, 17, 18, 22). We share a common home in which all creatures are given their own rooms.

Together with all creatures we also share a common menu or table (Gen 1:29–30).[189] Being made from the earth to live in it, we depend upon it for our continued life. Genesis 1 indicates that God gave humans "every plant yielding seed" and "every tree with seed in its fruit" for food. Likewise, He gave every green plant to animals and birds for food. In other words, God created both humans and animals as vegetarians, a situation that will prevail once again in the renewed creation (Is 11:6–11). Our current situation of eating meat appears to be a concession made by God after the flood. Even then, the Scriptures consistently describe God as providing food for all of his creatures, human and nonhuman alike, whether it be plants or meat. Along with other creatures we go out and gather our food (Ps 104:21–24).

The pictures painted by Genesis 1 and 2 portray a creation with innumerable creatures all living in peace with each other. Even after the fall of Adam and Eve into sin, a certain degree of harmony and order persists. Thus Psalm 104 describes a fallen world, but it remains an ordered world. Each creature has a distinct dinner time and sleep schedule. The animals go out by night to hunt their food, and the humans go in to sleep. By day the animals go back to their dens to sleep and the humans go out to work the ground. In this way, together with all creatures we give praise to God (Psalms 19 and 148).

Together We Suffered

Life in the chapters following Genesis 3 is clearly something other than God intended, but the extent to which we remain inextricably linked to the nonhuman creation remains evident. Human and nonhuman creatures alike experience the undoing of creation. After Adam and Eve broke the harmony that existed between them and God, between each other, and between them and nonhuman creatures, God declared, "Cursed is the ground because of you; *in pain* you shall eat of it all the days of your life; thorns and thistles it shall bring forth for you; and you shall *eat the plants of the field*. By the sweat of your face you shall eat bread, till you return to the ground" (Gen 3:17–19). The harmony between Adam and the *adamah* is broken. Both suffer. They will now struggle against each other. Adam will have to wrest his sustenance from the ground as the thistles and thorns resist his efforts to do so. Note that both human creatures and nonhuman creatures experience the judgment of God and now suffer the curse.

Human disobedience in the Fall would not be the only time that we and other creatures suffer together. The account of the flood brings this out in a startling way. Genesis 6:7 states, "So the Lord said, 'I will blot out man whom I have created from the face of the land, man and animals and creeping things and birds of the heavens, for I am sorry that I have made them.'" What is surprising is that human evil provoked God to judgment, yet God not only expresses regret that He made the humans, but that He had also made the animals, birds, and creeping things! It is startling because they had not "sinned." By speaking in this way, the text highlights the interconnection of all God's creatures. We are all in this together. God does not deal with humans in isolation from His nonhuman creatures. He considers all of His creatures to be part of a single creation. God's human creatures and nonhuman creatures now share a common fate, namely, the undoing of creation.

Not only do we and other creatures alike encounter the judgment of God, but we find ourselves in a relationship of competition and animosity with other creatures. The harmony between humans and the nonhuman living world is broken. In the aftermath of the flood, we discover that God's human creatures now live in a "new" relationship characterized by animosity and fear rather than harmony and peace. In Genesis 9, God now gives His human creatures permission to eat other living creatures. "Every moving thing that lives shall be food for you. And as I gave you the green plants, I give you everything." And then as an acknowledgement that all life belongs to Him, God says, "But you shall not eat flesh with its life, that is, its blood" (Gen 9:3–4). Out of compassion for them He also places the fear of humankind into the nonhuman creatures that they might flee God's human creatures and thus ensure their own survival. "The fear of you and the dread of you shall be upon every beast of the earth and upon every bird of the heavens, upon everything that creeps on the ground and all the fish of the sea" (Gen 9:2).

In the end, we along with other creatures now share the common fate of death and a return to the soil from which we came. In Genesis 3, God tells the man that he will work the ground "till you return to the ground, for out of it you were taken; for you are dust, and to dust you shall return" (Gen 3:19, cf. Eccles 3:18–20; Ps 103:14). We share this return to the soil with other creatures, a point that the Old Testament frequently highlights. "Man in his pomp will not remain; he is like the beasts that perish" (Ps 49:12, 20). The author of Ecclesiastes reiterates that point. "For what happens to the children of man and what happens to the beasts is the same; as one dies, so dies the other. They all have the same breath, and man has no advantage over the beasts, for all is vanity. All go to one place. All are from the dust, and to dust all return" (Eccles 3:18–20, cf. Is 40:6–8).

God Restores His Entire Creation

The Scriptures not only indicate that we share a common fate with nonhuman creatures due to the judgment of God, but we also share a common hope and future. He "will not let this creation come to nothing. Life, not death and destruction, is his ultimate goal."[190] And so God sets out to rescue not only His human creatures, but His entire creation. Our fellow creatures are included in God's promise for the renewal of creation.

When God decided to save Noah and his family from the Flood, He also chose to save His nonhuman creatures as well. They will constitute a new beginning. It is not entirely surprising that the beloved image of the ark has become a popular ecological image. By means of the ark, God saved a remnant of His human and nonhuman creatures in order to replenish the earth. But He did not stop there. We also need to note that God makes a remarkable covenant not only with His human creatures, but with all of His nonhuman creatures as well. "Behold, I establish my covenant with you and your offspring after you, and with every living creature that is with you, the birds, the livestock, and every beast of the earth with you, as many as came out of the ark; it is for every beast of the earth" (Gen 9:9–10). God then set the rainbow in the sky as a sign "of the covenant that I make between me and you and every living creature that is with you, for all future generations" (Gen 9:12, 17).

The covenant that God made with all living creatures following the flood was not an isolated event. As the later prophets Isaiah and Hosea looked to the future they saw that God would include the nonhuman creation within it. The entire creation itself becomes the object of salvation history. The prophets describe the new things that God will do in terms of creation. In other words, "creation language describes the eschaton" (Is 65:17; Is 55:12–13).[191] Bernard Anderson writes, "creation and redemption belong together, as the obverse and reverse of the same theological coin."[192] The Old Testament consistently looks to the renewal of heaven and earth on a cosmic scale. "For behold, I create new heavens and a new earth" (Is 65:17). It is a time when the curse of Genesis 3 has been removed. "Instead

of the thorn shall come up the cypress; instead of the brier shall come up the myrtle; and it shall make a name for the Lord, an everlasting sign that shall not be cut off" (Is 55:12–13).

The prophets paint a picture that looks like Eden restored. Isaiah describes a remarkable scene of shalom in which all creatures live in harmony and none threatens another. "The wolf shall dwell with the lamb, and the leopard shall lie down with the young goat, and the calf and the lion and the fattened calf together; and a little child shall lead them. The cow and the bear shall graze; their young shall lie down together; and the lion shall eat straw like the ox. The nursing child shall play over the hole of the cobra, and the weaned child shall put his hand on the adder's den. They shall not hurt or destroy in all my holy mountain; for the earth shall be full of the knowledge of the Lord as the waters cover the sea" (Is 11:6–9). In Hosea God makes a covenant in which the nonhuman creation will live at peace with humans. "And I will make for them a covenant on that day with the beasts of the field, the birds of the heavens, and the creeping things of the ground." (Hosea 2:18).

The promises of the prophets find their fulfillment in Christ. In the incarnation of Jesus Christ, the Creator came to reclaim and restore His entire creation. According to St. Gregory the Theologian, the nativity of Christ "is not a festival of creation but a festival of recreation."[193] Esther de Waal concurs, commenting that "through the incarnation the whole of creation acquires a new meaning."[194]

To renew His creation, the Creator becomes a part of the very creation that He had made. The Son of God became a human creature. By becoming a human creature, He shared in the creatureliness of the entire creation. To put it in contemporary terms, He shared the DNA of His mother, a DNA that traces itself all the way back to Adam and Eve, back to the soil itself. As a creature, He depended upon creation for life. He ate the food of the earth, drank the wine of the earth, breathed the air of the earth, and walked the roads of the earth.To be sure, Christ's work of redemption centered on His human creatures in order to undo the curse and to restore them to the Father's favor. But in doing so, His work of redemption embraced the wider creation itself.

Unlike the infancy narratives of Matthew and Luke, the Gospel of Mark opens with Jesus going out into the wilderness in order to be with the wild beasts, which did Him no harm, weak as He was from fasting for forty days (Mk 1:13).[195] This recalls the imagery of Isaiah's prophecy in Isaiah 11. Jesus lived in peace with the beasts in the wilderness. Elsewhere, Jesus calmed the violent storm on the waters. One can see in this miracle an echo of Genesis in which the chaotic waters covered the earth. By means of His creaturely body, a body inextricably linked to the wider creation, Jesus accomplished the restoration of creation. In His creaturely body He absorbed the judgment of God and the undoing of creation. By means of His resurrected body He

brings about our transformation along with that of all creation (Romans 8).

We need to remember that the resurrected body of Christ was not a new body that had been fashioned out of nothing. It was the same body that He had from His mother's womb, but it was now transformed and glorified (1 Corinthians 15). What God has done in Jesus Christ and in His resurrection, "is what he intends to do for the whole world—meaning, by world, the entire cosmos with all its history."[196] His resurrected body provides the paradigm for our bodies as well—and by extension the wider creation. Similarly, we will be raised with our bodies, but our bodies will be transformed and glorified. The current physical creation longs for liberation from corruption that it might come forth transformed in the wake of our resurrection. In this connection, we might also say that the first creation even participates in the renewal of creation. God now uses creaturely means not for judgment, but to bring about creation's renewal. He uses water, bread, and wine to make us new creatures and to transform our bodies in anticipation of the renewed creation.

We should not assume that God will simply annihilate this present physical creation, remove our "souls" from of our bodies, and then start all over from scratch.[197] Such a view implies nearly a total discontinuity with the original creation. This is not to deny that there will be significant differences between the creation we see today and the creation that we will see when Christ returns. The New Testament states that heaven and earth will pass away (Mt 5:18; Mt 24:35; Mk13:31; Lk 21:33; Gal 1:4; 1 Pet 4:7; 1 Jn 2:17; Rev 20:11; Rev 21:1). It also says that the current creation will undergo fire (2 Pet 3:7, 10–13), and be removed (Is 34:4; Rev 6:14; Zeph 1:18). But a reading that interprets these in terms of the "extinction of the creation itself in its materiality and physicality"[198] provides a very different story that could imply escape from creation.[199] Instead, God will bring forth the renewed not out of nothing (*ex nihilo*) but from the old creation (*ex vetere*), or as theologian N. T. Wright has put it, the new creation is "born from the womb of the old."[200]

It is perhaps better to say that the present *form* of the world is passing away. The renewed creation will shed the old creation like shedding a tattered, moldy, old garment (Heb 1:10–12; Ps 102:26–28). To borrow from the world of nature, we might say that the renewed creation emerges like a butterfly from a chrysalis. It is the same creature, a caterpillar, but it has now become a butterfly. So it is not creation itself, but the present "form" of this creation that passes away (1 Cor 7:31).[201] God will set creation free from its bondage to decay (Rom 8:21) that came with the curse. God will purify creation from corruption. "But the same continuity that makes the body of the future one with our present body connects the new unsullied world of God with the world we know, the world whose frustrated beauty makes us marvel still, whose futile workings still can testify to Him who once said, 'very good' and will again say 'very good!' to all His hands have made."[202]

Creatures Who Bear a Special Dignity

"We are called accordingly, not to bear the image of God—which we cannot avoid—but, rather to bear it faithfully, to mirror God in creation." — Richard Fern[203]

God created us to live in the midst of other creatures here on earth. We share many characteristics with other creatures as part of our common creatureliness and as part of our common connection to the earth. We share a common origin. We share a common dependence upon God and we share a common future. Yet at the same time that we share this common creatureliness, we are creatures who have also been "set apart" from the rest of creation. Luther speaks of us as God's best creatures. That is to say, of all God's creatures, His human creatures were the most marvelously and wondrously made. The psalmist put it well, "Yet thou hast made him little less than God, and dost crown him with glory and honor." (Ps 8:5, RSV).[204]

God formed His human creatures to live in a special relationship with Him and with the earth. These special relationships distinguish "us" from "all other creatures." God has given His human creatures both special privileges and special responsibilities for His creation. God formed His human creatures to take care of His earth. He did not give this responsibility to other creatures—not even to the angels. Herein lies our distinctive calling as humans. While we share much in common with other creatures, we do not share with them a common responsibility for taking care of—or for ruining—the garden home that God created for all of His creatures. That responsibility is ours alone as *human* creatures.

Creatures with a Special Place in Creation

The two narratives in Genesis 1 and 2 bring out the distinctive character of God's human creatures, along with the purpose for which God gave them their unique standing among all His creatures. St. Basil in his *Hexaemeron* described our unique position within creation by saying that God created us vertically with our feet on the ground and our head looking up toward God.[205] We live in two relationships, a vertical one with God and a horizontal one within the world. God forms His human creatures to take care of the earth, and by taking care of the earth, they glorify Him. We bring honor to God as we live out our lives the way God has intended us to do.

Genesis 1 provides a wide-angle picture of God's creation. God creates and organizes His creation for five days. During that time, He carves out spaces and fills them with a variety of creatures. On the sixth day, He creates land animals. Finally, God creates His human creatures. Two distinguishing features stand out about the creation of humans. God creates them in His image and then gives them dominion over the works of His hands (Gen 1:26–28; Ps 8:6–8; Ps 115:16).

Whatever else the image of God (Gen 1:28) might mean (and there has been a great deal of debate about this very issue), it at the very least distinguishes God's human creatures from His nonhuman creatures. Unlike all other creatures, including the angels, God made His human earth creatures in His own image and likeness. Man and woman together are made in the image and likeness of God. The image of God does not make Adam and Eve divine. Nor does it make them some kind of immaterial and spiritual beings. Instead, the image of God marks these particular creatures as *human* creatures. The image of God establishes a special relationship between them and God. Human beings converse with God and He with them. The image of God places them in a relationship of responsibility and accountability to God. It also gives them a special character and standing within creation. As image bearers, they reflect something of God to the wider creation. "Our rule is not an invitation to autonomous mastery, since being in the *imago Dei* precludes thinking of ourselves as autonomous as well."[206]

The image of God appears closely tied to the commission to exercise dominion. The narrative of Genesis 1 moves in this direction. First, God gives them the same command as He does to other creatures, namely, to "Be fruitful and multiply and fill the earth." He then gives them the additional commission to "subdue it [*kabash*] and have dominion [*radah*] over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth" (v. 28). The first word, *kabash*, carries with it an element of forcefulness when used elsewhere in the Old Testament. Before the Fall, human beings reflect and pattern themselves after God's own relationship to the world. In that regard, *kabash* may refer to the setting of boundaries even as God did so during the first three days. Dominion, *radah*, means among other things, the gracious rule of a shepherd king.[207] Humans are given the responsibility of protecting and guiding creation in order to maintain shalom. Psalm 72 describes the rule of a righteous king under whose rule everything flourishes, from the human realm to the nonhuman creaturely realm.

The account of Genesis 2 zooms in and provides a close-up view of creation that clarifies the nature of our relationship to the earth (Gen 1:29). This chapter brings out more clearly than Genesis 1:29 the insight that human beings are created for the purpose of being "gardeners" and "caretakers." The chapter opens with the earth appearing to be fairly barren. No "bush of the field was yet in the land and no small plant of the field had yet sprung up." Why were there no plants in the field? The narrative continues with a remarkable answer. God had not yet caused it to rain "and there was no man to work the ground" (Gen 2:5). So God formed Adam from the dust of the ground and breathed into him the breath of life. This personal manner of creating Adam made him a unique creature among all the creatures. While other creatures are described as *nephesh*, as living creatures, only the human creature is described in terms of God Himself breathing into him the breath of life.

God then planted a lush garden in Eden and placed Adam there to tend it. Genesis 2:15 states, "The Lord God took the man and put him in the garden of Eden" to serve it [*abad*] and preserve it [*shamar*]. *Abad* is a common verb that simply means "to serve." When used with reference to the ground or the vineyard, it means to "cultivate" or "till" for one's own sustenance. (Gen 3:23; Gen 4:2; Gen 4:12; Deut 28:39; Prov 12:11; Prov 28:19; Ezek 36:34). To "serve" the ground recognizes our dependence upon the ground. *Shamar*, another common verb, means "to care" or "to keep." It often is used with reference to watching or guarding something such as sheep, an entrance, or a captive (1 Sam 17:20; 1 Kings 14:27; 1 Kings 20:39). It can also refer to protecting from danger (Ps 121:7; Prov 6:24) or safekeeping (Gen 41:35). Both words presuppose that it is God, not humans, who bring forth the fruit of the earth. Thus, we might conclude that God's commission to Adam is something of an ecological mandate in that humans are to keep the garden in equilibrium and harmony. In other words, God wants them to preserve "the productivity of the garden and see that all animals and people receive a fair share of fruits, nuts, grains, and vegetables."[208]

In order to exercise dominion in His behalf (as His representatives), God created His human creatures not only as physical creatures, but He endowed them with the capacities to carry out their care of the earth. In the *Small Catechism* we confess that "God has given me my soul . . . reason and all my senses." Luther, like those before him, described the soul in terms of the immaterial aspects of human creaturely existence. Reason should not be seen here only in terms of logic (left-brain activities). Instead, it embraces the full panoply of human abilities including imagination, emotion, creativity, and intuition (right-brain activities). But these activities are stimulated by the senses that perceive God's creation. God created us as full-sensoried creatures in order that we might interact with every aspect of His handiwork. We are full-sensoried people so that we might embrace and grasp the breadth and depth of creation, from its order and harmony to its beauty and grandeur. One of the implications of this is the recognition that when we destroy or diminish creation, we also diminish ourselves. We lose our capacity for wonder by taking away or reducing that which we were designed to appreciate and for which we are to give thanks.

St. Augustine and others explored the ramifications of our distinctive creatureliness. God created humans with the capacity for beauty, goodness, and truth. He created them with a sense of the aesthetic. God created us to apprehend the beauty of creation—the trees in Eden were "pleasant to the sight" (Gen 2:9)—and by extension God's own beauty. In addition, humans could produce works of beauty as reflections of God's own work. Goodness refers to the moral character of humans. They are capable of making moral judgments. God held them accountable for obeying His word regarding the tree of the knowledge of good and evil (Gen 2:16–17). Finally, God formed His human creatures with the capacity for apprehending truth. They can

acquire knowledge of how the world works and wisdom for making judgments about how best to tend the earth as God's representatives. He created us with the capacity to perceive its purpose that we might work with Him.

When God gave His human creatures the commission to exercise dominion over the earth, He did not relinquish His own involvement. Instead, God enlisted them as His co-workers. They became His partners in the cultivation of the earth. They would work the ground and tend the trees. One might presume that they would also build civilizations as the numbers of humans increased and that they would develop culture, including music and the other arts. This is what plays out in Genesis 4 where we read about the building of cities (Gen 4:17), the use of musical instruments like the lyre and pipe (Gen 4:21), and the forging of tools from bronze and iron (Gen 4:22). Prior to the Fall, we might presume that there would have been no conflict between nature and culture. The two would have grown together in mutually beneficial ways, coexisting in peace.

Diminished Dominion and Estrangement from Creation

It wasn't long before God's human creatures disappointed Him and failed to live up to the purposes for which He had created them. In fact, it was all the more tragic for this very reason![209] They grew discontented with their human creatureliness even though they were uniquely made in God's image. In their desire to transcend their own creatureliness and to become more than human—indeed to be like God—they destroyed their relationship with Him and hindered their ability to represent Him in creation as God had wanted (Genesis 9 indicates that they still retained the image of God in some sense). In the process, they lost a significant measure of their dominion. The Fall not only altered the divine-human relationship and human-human relationships; it also altered the human relationship with the non-human creation. All suffered.

Human beings now find themselves exercising a much-diminished and distorted dominion. One could say they lost a harmonious working relationship with the earth. God uses the earth, from which He made His human creatures and over which He gave them dominion, to punish them and grind them into the dust. Instead of willingly yielding its fruits, the earth now resists human efforts. God made it difficult for humans to receive nourishment from the earth. In the wake of creation and the Fall, the earth now manifests both God's blessing and curse. On the one hand, the earth continues to yield its bounty. God continues to provide for His human creatures. On the other hand, the earth resists the efforts of human creatures to exercise dominion and eventually wears them down until they return to the soil. This is one of the major themes of Ecclesiastes. The earth now carries out an "alien" function with regard to the human race.

God also used the earth to exercise specific judgments against His people that involved the undoing of creation. Genesis 6 notes that evil was

great on the face of the earth. This included the evil of His human creatures. "The Lord saw that the wickedness of man was great in the earth, and that every intention of the thoughts of his heart was only evil continually" (Gen 6:5). God expresses regret that He had ever made human creatures and determines, "I will blot out man whom I have created from the face of the land, man and animals and creeping things and birds of the heavens, for I am sorry that I have made them" (Gen 6: 5–7). Similar judgments continue throughout the Old Testament. This becomes evident in the subsequent Bible stories when God sends droughts, floods, and locusts. Perhaps the most obvious example is found in the series of plagues that God inflicted upon Egypt (Ex 10; Ps 105:26–36). It is a pattern repeated throughout the Old Testament (2 Chron 7:13, Ps 78:46; Joel 1:4). Isaiah 24:6–7, for example, describes a devastating picture of God's judgment on the earth so that the entire land mourns and languishes as it is made desolate and barren (see also Is 33:9; Jer 12:4, 11; Jer 23:10; Hosea 4:3; Joel 1:10, 18; Amos 4:7–10). The judgment of God leads to Good Friday. It fulfilled Zephaniah's prophesy, "A day of wrath is that day, a day of distress and anguish, a day of ruin and devastation, a day of darkness and gloom, a day of clouds and thick darkness" (Zeph 1:15).

Humans must now wrest their sustenance from the earth. In a sense, they have to take it by force. They can no longer carry out their calling in complete harmony with God's design. They no longer know how best to carry out their dominion. Furthermore, because of their addiction to sin, human creatures can seek only their own good. To this end they instrumentalize the creation and each other, that is to say, they use them only for their own good and not for the good of the other. God's earth and its creatures suffer from the much diminished and now distorted dominion that humans continue to exercise. This myopic vision often has unintended consequences that ironically, run counter to their own well-being. Like natural law, which is still written on the heart, but which has been dimmed and denied, so also is our knowledge of God's creation.

Rescue and Renewal

God had given Adam and Eve an incredible garden for their home. When He exiled them from the garden, they became homeless. But nearly as soon as Adam and Eve fell into sin, God promised to restore them. From the beginning God gave a specific promise to His human creatures to make a new people and give them an inheritance of a land reminiscent of Eden.

The story of Abraham opens with the promise of a new land (Gen 12:1ff). God reiterates this promise on a number of occasions to Abraham (Gen 13:14–16; Gen 17:8), most famously in Genesis 15:18–21, "On that day the Lord made a covenant with Abram, saying, "To your offspring I give this land, from the river of Egypt to the great river, the river Euphrates, the land of the Kenites, the Kenizzites, the Kadmonites, the Hittites, the Per-

izzites, the Rephaim, the Amorites, the Canaanites, the Girgashites and the Jebusites." The boundaries of this land are described in various ways.[210] In addition, God makes a promise reminiscent of Genesis 1 to give Abraham innumerable descendants. God will also keep His covenant with those descendants so that they will possess the land forever (Gen 17:6–8). God repeats that promise time and again to the sons of Abraham, Isaac (Gen 26:3–4, 24), and Jacob (Gen 28:3–4, 13–15; Gen 35:9–12).

The Old Testament consistently speaks of the land as a gift to Israel (Deut 5:31; Deut 9:6; Deut 11:17; Deut 12:1; Deut 15:4, 7; Deut 26:9). The gift is initiated by God and is bestowed freely on His people. The land is also described as an inheritance, not in the sense that Israel is entitled to it, but as a promise that God makes to future generations.[211] The promises given to Abraham came to fulfillment when God delivered His people from Egypt, led them through the wilderness, and gave them the conquest of Canaan. God promises that the land He will give the Israelites will far surpass the richness of Egypt. In fact, descriptions of it echo the descriptions of Eden as a land of luscious abundance. Often the Old Testament describes the land as overflowing in milk and honey (Num 13:27; Deut 6:3; Deut 11:9). What might such a phrase mean? At the very least, it speaks to the fecundity of the land. It is a "good" land. A land flowing in milk and honey also suggests that it is a land of rest and peacefulness. It implies an absence of wandering (Deut 26:1–9), something that Israel had experienced for forty years.[212] They would be free from threats and the harassment of enemies. The land would thus provide a better quality of life.[213] In this land God's people would enjoy "life," which means "more than remaining alive . . . it is existence with gusto and enjoyment" (Jer 2:7).[214]

As in Eden, this land implied a certain kind of living on the part of the Israelites. Whether or not the people would long enjoy the land depended upon how they carried out their responsibilities to God for the land. God again teaches them how they should live on it and take care of it.[215] Disobedience to God and mistreatment of the land defiles the land (Lev 19:29; Num 35:29–34; Deut 21:23). Why? In part this happens because, as in Eden, YHWH Himself dwells in the land. As a result, failure to live as God's people could, and did, result in deportation and exile. Wrong behavior disrupted the ecological balance of the land so that the land mourns and everything within it languishes (Hosea 4:3).

In the "prophetic literature and in the Psalms, the promise is widened through the covenant promises to David beyond the specific land promises by God to the people of Israel to embrace the entire earth."[216] We can see the expansion of that promise in Psalm 2:7–8, "I will tell of the decree: The Lord said to me, 'You are my Son; today I have begotten you. Ask of me, and I will make the nations your heritage, and the ends of the earth your possession.'" Later the psalmist states, "May he have dominion from sea to sea, and from the River to the ends of the earth!" (Ps 72:8). That promise

continues throughout the prophets. For example, Micah looks ahead to the Messiah's reign and writes, "And he shall stand and shepherd his flock in the strength of the Lord, in the majesty of the name of the Lord his God. And they shall dwell secure, for now he shall be great to the ends of the earth" (5:4).[217] The Abrahamic promise ultimately becomes universalized in Christ and the renewed creation.

The uniqueness of God's human creatures becomes most evident with the incarnation of His Son, Jesus Christ. In the birth of Christ we celebrate the entry of the Son of God into the creation that He himself had created. The Son of God became a *human* creature and not some other kind of creature. As one particular human creature brought about the ruin of creation, so now one particular human creature brings about the restoration and renewal of creation. God began His rescue of creation at the point where its ruin had taken place, with His human creatures. He begins to put all things right again with the second Adam, a task that culminates in His death and resurrection.

On Good Friday, God poured out His anger against those who ruined the harmony of His creation. The Son of God who had become a human creature embodied the entire human race and died on our behalf. The rest of creation felt that anger. In the presence of God's judgment, the created order comes unraveled. The sky darkened and the earth shuddered (Mt 27:45–54). With His death, Jesus paid for our sin and removed the curse.

In the resurrection of Christ, the renewed creation burst forth from the grave. Hermann Sasse once said that the message of Easter is not, "He lives!" but "He is risen!" Jesus Christ did not abandon His body in the grave. The resurrection of Jesus' body makes creation whole again, beginning with the renewal of His human creatures. Jesus is the first man of the new creation! In the first creation, we move from the creation of the earth on the first day to the creation of humankind on the sixth day. Human sin then unravelled the creation of the previous days. In the renewal of creation, we move from the resurrection of Jesus on the eighth day (or the new first day) to the restoration of God's entire creation.

With Christ's ascension, the entire cosmos became subjected to Jesus as a man (Psalm 110; Phil 3:20–21). The apostle Peter puts it this way, "[T]hat times of refreshing may come from the presence of the Lord, and that he may send the Christ appointed for you, Jesus, whom heaven must receive until the time for restoring all the things about which God spoke by the mouth of his holy prophets long ago" (Acts 3:20–21). The letter to the Hebrews opens on the same note, "[I]n these last days he has spoken to us by his Son, whom he appointed the heir of all things, through whom also he created the world" (Heb 1:2). The next chapter reiterates the point, "Now it was not to angels that God subjected the world to come, of which we are speaking" (Heb 2:5).

One might go even further and say that Jesus is the first man of the new human race, the new human community. The distinctiveness of human

creatures emerges in a new way in the renewal of creation. Through Jesus Christ, His human creatures are now not only made in the image of God, but they are called the children of God. By means of the Spirit we approach the Creator as our Father. As adopted children of God we are now heirs of eternal life, that is, heirs of the renewed creation. We await the new world, the renewal of the entire creation which is the inheritance of believers. "Paul describes the inheritance of believers as the entire creation, in its physicality and materiality, liberated from decay and death, renewed and transformed by the creator God, who indeed created it for this very purpose (Rom 8:18–21; Mt 5:5; Mt 19:28–29; Acts 3:20–21; Rom 4:13; Heb 2:5; 2 Pet 3:13; Rev 5:10; Rev 21–22)."[218]

The inheritance of God's children involves more than a return to creation or a restoration of Eden. Irenaeus suggests that while God created a perfect world, it was incomplete.[219] That is to say, God created the world as a dynamic place. He created Adam and Eve to be His co-workers who, in their exercise of dominion, would work with God in order to shape creation and cultivate creation so as to bring it to the culmination or consummation that God originally envisioned for it. These two views, of course, have implications for how one thinks about redemption. In the former (restorationist view), the purpose of Christ's coming was to undo the damage of sin and death, thereby restoring the human race and the world to its original perfection as found in Eden. In the latter (consummationist view), Christ came not only to undo the damage of sin by means of His suffering and death on the cross, but to move creation forward and bring it to its fulfillment or consummation by means of His resurrection.

Creatures Called to Care for the Earth

"The care of the earth is our most ancient and most worthy and, after all, our most pleasing responsibility." — Wendell Berry[220]

How should we carry out our calling from God as human creatures in light of our common yet distinctive creatureliness? When as Christians we reflect on our place within the world, we often begin by speaking of our distinctive relationship to God as defined by the image of God. Unfortunately, we often stop our reflection at that point as well. At times this has led to an exclusive focus on our privileged standing within creation. When that happens, creation and other creatures serve as little more than a stage or background scenery for the drama of the divine-human story. What would it look like if we changed our thinking? Perhaps we might first see ourselves as creatures who belong to the community of all creatures on earth. In light of this we can speak of the nature of the dominion with which God entrusted us.

Here we might draw upon the idea of a brother-king (Deut 17:14–20) as a model for our dominion. When God allowed Israel to have a king, He insisted that the king rule as one who rules "over the others in the family."[221] Richard Bauckham points out that in this way God subverted ordinary and secular notions of kingship. Israel's king must never forget that he is a brother so as not to become a tyrant.[222] A king's rule equals service (1 Kings 12:7). This model of kingship finds its perfect expression in Jesus. The Creator became a creature and came not to be served but to serve (Mk 10:45). He exhorted His followers to the same manner of life (Mt 5:5). Our rule as image bearers should reflect God's own compassionate care for all creatures (Ps 145:9; Ps 36:6). As our Lord is at the same time our brother, so we have dominion as creatures among fellow creatures. God gives us authority to rule over creation from within creation.[223]

Caring for God's Living Earth

Alone among all of our fellow creatures, God made us in His image and gave us the ability to recognize and receive all of creation as a gift. Norman Wirzba contends that to see creation as a gift is a vision unique to human beings as creatures made in the image of God. This gratitude extends beyond our individual lives to include our interdependence with all of creation. After all, our lives are gifts given in and through creation. We receive life from God in and through our fellow creatures, and therefore we receive the entire earth and its creatures with "thanks and praise." This grateful reception of God's gifts provides the basis for their responsible care. "Out of the disposition of gratitude the possibility for an authentic orientation toward God and the creation becomes possible."[224]

As those who have the ability to recognize His gifts and receive them with thanks, God has called us *to care for His earth*. God created man and woman and gave them the earth (Ps 115:16; Psalm 8). Having made them from the earth God gave them a commission that was unique among all creatures of the earth. He gave them the task of looking after all of His creatures! Genesis 1 described it in terms of subduing the earth and exercising dominion over it. Genesis 2 described it in terms of serving or cultivating the earth and protecting or preserving the earth. We might summarize these four different but related tasks by saying that God gave man and woman the commission to care for His earth. The task of caring for the earth calls us to live from the earth and its gifts in ways that limit the damage we inflict because such damage hinders the bountifulness of the earth upon which our fellow creatures depend for their lives. This requires several things from us.

First, God called us to care for *His* earth. Although God entrusted us with the earth and placed it into our hands, this does not mean that God gave it to us in such a way that He absented Himself from His creation or relinquished His ownership of it. The earth still belongs to Him. It remains His earth (Deut 10:14; Ps 24:1; Ps 95:4–5, 7). All the creatures of the earth

remain His as well. Thus, the psalmist exclaims that even the beasts of the forest are His (Ps 50:9–12)! "We must not use the world as though we created it ourselves."[225] We do not have the right to do with it as we like or to lay claim to it. Instead, we are responsible to God for the way in which we use the earth and deal with His creatures. Not only does the earth belong to God, but God voices His approval for what He has made. He declares the earth to be "good" or "very good" on at least six occasions in Genesis 1. God regards the earth as precious. We are called to deal with the earth and its creatures as God's treasures rather than as things that have little value apart from our use. Finally, the Scriptures repeatedly declare that the earth is filled with the glory of God (Psalm 19; Psalm 72) and that creation declares His glory and beauty (Psalm 19; Romans 1). This suggests that we deal with the earth in such a way that we do not muffle the voice of creation as it makes its Creator known or diminish the glory of God by diminishing His handiwork.

Second, to care for God's earth is to enter into *His own work* of caring for and preserving the earth. God cares for the earth and He has committed Himself to it. At the same time,, God has enlisted us as His co-workers, as the gloves on His hands, in the work of creation. Our activity should reflect God's own compassionate care for all creatures (Ps 145:9; Ps 36:6). Caring requires sustained commitment. Nurturing takes time. To restore impoverished farmland back to health or bring a species like whooping cranes back from the brink of extinction may take decades. To care for the earth requires time, energy, and resources. We may at times have to act in a way that sacrifices personal desires in order to further the well-being of others. Parents often sacrifice personal pleasures such as eating out, going on vacations, and purchasing new cars in order to put their children through college. Caring for creation might mean that we do not satisfy our every desire at the expense of God's earth or our fellow nonhuman creatures. This is not to suggest that we place the needs or lives of our nonhuman fellow creatures ahead of the needs of people for food, medicine, or shelter. But it might mean that, at times, we place the needs of our nonhuman fellow creatures ahead of our wants and desires. We might make certain lifestyle choices that promote the health of the earth's ecosystems or at the very least minimize the damage inflicted upon them.

God has not only called us to care for His earth, but He has called us to care for it as *creatures among fellow creatures*. We care for the earth not as "outsiders" but as "insiders." God did not give this task of dominion to angels who are not made from the earth. He gave it to us who were made from the earth for life on the earth. He gave it to creatures who themselves are members of the entire community of life that comprises creation. When we forget this, our dominion becomes domination. Thus, God gives us responsibility for the well-being of creation from within creation.[226] Approaching our care of the earth and its inhabitants by respecting them as "fellow creatures" can alter the way in which we regard and feel connected to them.[227] To care for

something implies attentiveness and commitment to the object of our care. Francis Schaeffer, a philosopher and apologist for the Christian faith, argues that we need to relate to other creatures both intellectually and psychologically. Intellectually "I can say, 'Yes, the tree is a creature like myself.'" But psychologically "I ought to feel a relationship to the tree as my fellow creature."[228] The Christian "has an emotional reaction toward it, because the tree has a real value in itself being a creature made by God. I have this in common with the tree: we were made by God and not just cast up by chance."[229] Again, we can develop two themes.

First, God has given us the task of caring for creation as people who are ourselves connected to everything that comes under our care. We care for creation because we have a special connection to it even as does God. God has a connection to the earth for He made it. He has invested Himself in it and so He cares for it. We have a connection to the earth for God made us from it. We are related to everything else on the earth by means of the soil, so "relatedness and interdependence are not extrinsic to our being, but are its very goal."[230] This feature of human existence fits well with the central insight of ecology—that everything in creation is inextricably joined together. Everything is interconnected and interdependent. Our goal in caring for creation is to foster and preserve those relationships of interdependence and mutual beneficence. Another way of saying this is that we need each other. Human creatures cannot flourish apart from the nonhuman creation upon which we depend. The nonhuman creation cannot flourish apart from our choices which allow it to be what God intended (after all, few if any parts of the earth remain untouched by human presence). Through the earth God provides us with "shoes and clothing, food and drink, house and farm."[231] Through creation He provides us with inspiration for our art, literature, and music. Through the earth He provides us with pleasure and delight. Conversely, as "the *adam* is a product of the *adamah*, the fertility of the *adamah* is a product of the *adam's* work."[232] Nonhuman creatures cannot flourish today apart from deliberate active human involvement or non-involvement. Our care needs to nurture the relationships and connections that support the lives of our fellow creatures.

Second, as creatures among fellow creatures, we care for the earth by bringing our ideas and activities into line with God's design for His creation. We take care of the earth and our fellow creatures by working in tune with the way God arranged and designed everything. In other words, we cannot disregard the integrity of creation and the way in which it all hangs together in a web of interconnectedness. We need to make nature a measure and standard of our activity.[233] We do not "manage" the earth as much as we work with the earth and cooperate with God's processes. Thus to care for the earth as creatures among fellow creatures means that we pay attention to the way God has arranged and ordered everything. All of this means that we need to "humble ourselves before nature's processes" and become students of the

earth in which we live.[234] We must pay attention to the neighborhoods and particular places where we live alongside our fellow earth-born creatures. We must attend to the needs of each so that all may flourish. Of course, in a fallen world this requires us to wrestle with the complex connections that exist between God's human and nonhuman creatures, between culture and nature, forest and orchard, prairie and field, between troublesome creatures and pleasant ones. "*All* neighbors are included."[235]

So how do we see ourselves and where do we fit within creation? We are neither separated from creation nor indistinguishable from creation. We share a bond with God by virtue of being made in His image. We share a bond with all the creatures of the earth by virtue of being formed from the earth. These two features of our existence are brought to fulfillment in the new creation ushered in by Christ's resurrection. As the Body of Christ, as His Church, we carry out God's commission to proclaim the Gospel (Mt 28:19–20) as we also carry out His commission to care for creation (Gen 1:28), all the while longing for the renewal of creation at Christ's return. We are called to care for our fellow creatures in order to honor the handiwork of God, as we testify to His work and lead all creation in His praise.

Dominion becomes Domination

Of course, sin distorts our calling to take care of the earth and its creatures. The human rebellion against God was at root a desire to be more than creaturely, a desire to rise above and overcome our creatureliness. When things are wrong between God and His human creatures, it will manifest itself in distorted relationships among human beings and between human beings and creation. The dominion that God gave His human creatures is often abused, carried out to the detriment of creation.

First, the fall into sin resulted in a rejection of God's gifts of creation. Rather than seeing creation as a gift received, human beings came to see it as something that belonged to them as a right. Greed and pride replaced gratitude and humility. With the rejection of creation as a gift, humans rejected their own creatureliness as a gift as well, wanting only to secure themselves, now and forever. With the rejection of the gifted character of creation and their own creatureliness, human beings rejected the call to be servants of creation. Who wants to be a servant that seeks the well-being of others when one can become a conqueror and master that seeks the well-being of self?

Second, when we no longer see other animals and birds as fellow creatures, tyranny follows. A view of life in which "it's all about me" will displace a view of servanthood that focuses on the well-being of the other. Voluntarily-chosen limits on our freedom and desires out of respect for the "other" are removed in order to pursue our own goals at the expense of other creatures (both human and nonhuman). Even when we seek the preservation of nature and the creatures who live within it, more often than not

it will be only for our pleasure and purposes (e.g., that we might have nice scenery). Yet, ironically, in the very pursuit of seeking to enhance ourselves, we in the end actually diminish ourselves as human creatures. As we deface and lose creation, we lose our awe and wonder for it. We lose our capacity for delighting in it and finding joy within it. We then lose our capacity for thanks and praise to the Creator who made it all. We find ourselves less human. Third, as a result of sin, we see and treat other creatures less as "fellow creatures" and more as objects and commodities. In the pursuit of our own needs and desires, it has become easier to objectify other creatures by seeing them as little more than raw resources that serve our thirst for the acquisition of possessions. We may also come to see them primarily as competitors, in which case they are treated as nuisances, pests, varmints, and predators. In urban and suburban environments, these creatures become inconveniences as they mess up our nice yards by eating plants or burrowing under lawns. Because many of them threaten our lives as carriers of diseases (rats and the plague, mosquitoes and malaria, etc.), we can see them only as enemies that need to be vanquished. In some cases, humans themselves may also be at fault for spreading disease and its carriers.

Finally, tyranny eventually results in the undoing of creation either at our hands or God's hands. Sin and the curse in the Old Testament resulted in the reversal of creation. As God gathered people, He will scatter them; as He made earth productive, He will make it barren. The result is chaos and barrenness. As God has filled the earth, He will empty the earth. "I will utterly sweep away everything from the face of the earth," declares the Lord. "I will sweep away man and beast; I will sweep away the birds of the heavens and the fish of the sea, and the rubble with the wicked. I will cut off mankind from the face of the earth," declares the Lord (Zeph 1:2–3; see also Jer 4:23–26).[236] We might say that as a result of sin God turned against us, we turned against each other, and finally the earth turned against us. Even today, the loss of faith in God will lead to famine, the destruction of habitats, and bringing many creatures to the brink of extinction. Sin will ultimately show itself in "ecological misfortunes."[237]

Recovery of Dominion as Caring for Creation

Into this chaotic world, the Creator Himself, the Son of God, became a creature. As a human creature, Jesus our Lord is also our brother. In Him we now see what it means to reflect the image of God and to exercise dominion or lordship within creation. His incarnation and subsequent ministry express in a particular point of time what God originally intended us to be. He became a human creature in order to reestablish our relationships with God, with each other, and with the earth. He came to reestablish God's dominion over creation and our dominion within creation. Christ became a human creature that we might recover our human creatureliness and might become ever more human in the way we live.

Jesus establishes His dominion with a ministry that is characterized by service. He came not to be served but to serve (Mk 10:45). He exercised dominion as a shepherd-king by serving. He sought the well-being of others. He recognized their intrinsic value. He welcomed them as human beings valuable to the Father regardless of their social standing or intellectual abilities. He did not use them for His purposes. In these ways, Jesus subverted secular understandings of lordship. The ultimate demonstration of Christ's servant-lordship can be found in His death for us upon the cross. Jesus' resurrection is "the ultimate affirmation of creation and its goodness."[238] It made clear that "God will not let his creation come to nothing. Life, not death and destruction, is his goal."[239] In this way, Jesus reconciled all creation to Himself (Col 1:20).

Jesus' sending of the Spirit plays a central role in the renewal of all creation.[240] As the Spirit once hovered over the waters of the first creation, so the Spirit now plays an integral role as the Lord and Giver of life in the renewal of creation. The renewal of creation begins with the renewal of the human race. This is where the problem began. This is where the solution begins. We care for our fellow creatures as fellow creatures ourselves—not only because we share creatureliness, but because we share in the new creation as well. In the redemption of Christ and the consummation of creation by the Spirit, our responsibility for creation is not abrogated, but confirmed and renewed.

The Spirit begins the renewal of creation by gathering the Church. The Church comprises this new humanity. The Spirit gathers it by means of elements taken from His first creation, namely, the waters of Baptism. Through the Word that brought into existence the first creation, He now creates new creatures of faith. Through the elements of bread and wine, He sustains this new community on earth.[241] As the Lutheran pastor Joel Kurz observes, "Bread joins this world to the next; Christ blesses and gives it for our temporal and eternal good. Beyond this life and the pale of death there is resurrection and eternal feasting, and 'holy bread' provides the bridge into that life that is yet to come."[242] As the new humanity, the Church should in many ways be at the center of this holistic work of renovation and restoration. After all, the Spirit did not create this community in order to pull its members out of the world. He created it instead to be the vanguard of the renewed creation within the midst of the old.

The Gospel frees us from our need for control. It frees us to be exocentric rather than egocentric. This applies first to our fellow human creatures, but it also extends beyond them to embrace the wider creation and all of its creatures for their own sake. John Wesley expressed it well, "I believe in my heart that faith in Jesus Christ can and will lead us beyond an exclusive concern for the well-being of other human beings to the broader concern for the well-being of the birds in our backyards, the fish in our rivers, and every living creature on the face of the earth."[243] More recently, Lutheran theologian Oswald Bayer has made a similar point in light of the freedom of

justification. "Not only our relationship to God and ourselves is made new through justification by faith but at the same time our relationship with 'all creatures' is renewed."[244]

The primary difference between the way Christians and non-Christians might deal with creation is not to be found in the strategies and policies that they advocate for taking care of creation. Instead, the difference lies in the way we view our human neighbors and our fellow nonhuman neighbors. We see our fellow human creatures as people for whom Christ died. We see the wider creation as that which God has created and which God will free from the bondage to corruption to which it is now subjected. Creation awaits the resurrection of our bodies because our resurrection brings about creation's own "resurrection" (Rom 8:19–21). As N. T. Wright puts it, "when humans are put right, creation will be put right."[245]

We might consider the example of Noah as an expression of care for creation. He is repeatedly described as one who walks with God and does all that God commanded him. Theologian Walter Brueggemann described him as the "new being," "the fully responsive man who accepts creatureliness and lets God be God."[246] God uses him to "restore proper relations between the elements of creation and their creator.[247]" In Genesis 5:29, he is named as the one who will "bring us relief from our work and from the painful toil of our hands" brought about by the curse in Genesis 3. This also looks ahead to Genesis 8:20–21 when God declared, "I will never again curse the ground." God follows this up in Genesis 9 by making a covenant with the earth and all living things on the earth. In between these two events Noah is enlisted to build an ark and prepare it for habitation. We might surmise that Noah needed to learn and understand the dietary needs of all the various animals and make provisions for them. In doing so, "Noah mirrored the divine work of preparing for the needs of creation."[248] Noah needed "to take all the animals into the ark with him, not simply those he thought were of use or benefit to him, because the sphere of mutual involvement, as confirmed by contemporary ecological science, encompasses the whole creation."[249] Wirzba suggests that we might best understand Noah's care in terms of the biblical concept of hospitality. This involves "making room" for another, as when a traveler or stranger comes and needs food and lodging and even protection. So, in building the ark, Noah "extended the sharing of table and shelter to the whole creation" in an act of hospitality.[250]

God has enlisted His Church, as the new humanity, to participate in His work of preserving and renewing creation. And so we take up two commissions or callings as found in Genesis 1 and 2 and Matthew 28. These two commissions are closely connected, a fact that has not always been apparent. Both deal with creation. The first mandate focuses on our work with God for the well-being of creation. The second mandate focuses on our work with God to bring about the renewal of creation. As God first summoned us to participate in His ongoing work in the present creation, He

now also summons us to participate in the work of preaching the Gospel that renews His creation. We seek to carry out both callings. In light of the first great commission, we care for our fellow creatures for the sake of the present creation. According to the second great commission, we seek nothing other than restoration of the first.[251]

We carry out these commissions while hearing the "groaning" of creation all around us, both in our own bodies and in the wider creation. Both suffer the corruption and decay to which they were subjected by human sin. There is a connection between the way in which we deal with our failing bodies and our planet. When we are sick or injured, we care for our bodies in order to restore them to health and to preserve them. We do the same with the rest of the physical creation. But here we might ask, "Why?" If we are saved and will be created anew, why worry about our bodies or our planet? We take care of our bodies and our fellow creatures for two reasons. First, God created them and declared them good. He created them for life. Second, God will renew and transform our bodies and the creation to which they are inextricably linked. The present creation will participate with us in the renewal of creation.

In between Christ's resurrection and His return, we cannot exercise dominion in such a way as to bring about the complete healing and restoration of creation. The dominion that we exercise in creation remains different from that which Adam and Eve enjoyed. Unlike the dominion of Adam and Eve before the fall, ours is exercised in a fallen world by fallen people. We care for a world that continues to suffer under the impact of human sinfulness. We care as human beings who carry the sinful corruption wrought by Adam and Eve. Our bodies continue to be wracked by the impact of sin even as the wider creation also suffers under the impact of sin. We cannot heal or save the earth by ourselves. Christ has already accomplished that and will bring it to fulfillment when He returns in glory.

In the meantime, we care for creation in anticipation of Christ's return. In some ways we might consider our task analogous to the work of emergency medical technicians. When they arrive on the scene of an accident, their goal is to stop the bleeding of the victim and stabilize the patient's vital signs until they can get him or her to the hospital. Once in the operating room, the surgeons can address the patient's wounds. In a similar way, our service to creation consists in stabilizing creation and maintaining its life support systems. In other words, we cannot remove the curse of creation, but we can help creation bear the curse just as God has given us technology and medicine to help us bear the curse. As Christians, we know that our labor is not in vain (1 Cor 15:58). We carry out our care of creation in anticipation of the final and complete renewal of creation when Christ returns.

PART II:
How Do We Live within Creation?

Chapter 3: Delighting in Our Fellow Creatures of the Earth

Who can forget the awe-inspiring images of oceans, grasslands, and animals in the *Planet Earth* series produced by the BBC or the deep seas filled with strange creatures as portrayed in *The Blue Planet*? We live on a stunningly beautiful planet and are members of a magnificent community of creatures. No wonder God expressed His delight by declaring it good. As co-workers with God, we share His delight in creation. His is the delight of creating it. Ours is the delight of discovering it. As we explore the world, we discover that God has already been there and done something both good and beautiful that draws and bonds us to creation. This discovery brings delight, for everything discovered is a gift from God. This delight becomes the basis for serving creation rightly.[252]

In order to discover the wondrous beauty of creation and our connection to it, we need to explore God's creation. Essayist and author Jonathan Rosen points out that in some ways this exploration requires double vision.[253] On the one hand, we need to go out into the creation in order to experience first hand with all of our senses what God has made. On the other hand, we need guides. We need science, field guides, binoculars, and other tools to increase our ability to see and observe all that God has made. We need nature writing and photography to alert us to the subtle beauty of creation. We need literature, poetry, and history to see the complex interaction of culture and creation. As we bring all these to bear, our wonder at the mystery of creation will know few bounds.[254]

As we explore and discover creation, we must remember that the earth we explore is not the same as it was before the Fall. Today we explore a post-fall creation. It is a world in which it is difficult to separate the creation from the corruption to which it was subjected. In addition, we explore it as fallible creatures. Our discoveries and conclusions about the world will be real but always provisional. Yet in spite of these limitations, faith enables us to perceive the beauty and goodness of God's handiwork. Faith enables us to grasp God's ongoing creative work in creation. Most importantly, faith enables us to perceive the groaning of creation as well as the promise of its renewal. Through faith we can see hints of what creation once looked like and we can imagine what the renewal of creation will be like. Thus faith sees that the creation is "our Bible in the fullest sense, this our house, home, field, garden and all things, where God does not only preach by using his wonderful works, but also taps our eyes, stirs up our senses, and enlightens our heart at the same time."[255] We will explore our connection to (1) the earth as our home, (2) the household of fellow creatures, and (3) the ecology of our shared home.

Delighting in the Earth as Our Creaturely Home

"And the Lord God planted a garden in Eden, in the east, and there he put the man whom he had formed." — Genesis 2:8

As Americans, we are a rootless nation. We are always on the move. We fly over the land in airplanes or rush by in automobiles, taking little notice of the contours of the land, its creatures, or its various cultures. Most of modern life is designed to help us escape creation. It is not a case of moving and then settling down. People have always done that. It is more a matter of moving and moving and never settling down. We purchase a home for three years and then move. If we become too attached, it makes the next move more difficult. With such rootlessness comes lack of commitment to place and the loss of long-term relationships.

When God placed Adam and Eve into the garden it was, so to speak, "a perfect fit." We might even say that they and the garden were "made for each other." God fitted us for life in this garden home. God created our bodies from the earth for life on the earth. We must therefore guard against the perennial danger of pulling them apart and seeing the world as something alien to our very nature as human creatures. Eighteen hundred years ago, Irenaeus argued against the gnostics that our bodies are not simply containers. The earth is not a dungeon "in the darkest part of the universe" within which a divine spark like a lost traveler is imprisoned.[256] Instead, God created us to be at home in our bodies and at home in the world.[257] More recently, agrarian essayist and poet Wendell Berry even pointed out that to speak of the "environment" can be a bit problematic. He notes that the word "environment" has the sense of "surroundings." It suggests that we are "in" it but we not "of" it, while Scripture stresses that we "are of it and because of that we are in it."[258]

We begin by discovering and delighting in our own nature as creatures, and with that our connection to creation. Wendell Berry observed that there is a connection between the way in which we see ourselves and the way in which we see the world and our place within it. "Our place within the world depends in and on our view of our biological existence, the life of the body in this world."[259] This determines in large part whether or not we see ourselves as belonging in this world. Our own health and well-being cannot be defined in isolation from the world in which we live. Berry suggests further that there exists a profound resemblance between our treatment of our bodies and our treatment of other bodies, humans, plants, animals, and even the earth itself.[260] If we disdain our bodies we will disparage the physical world in which we live, for God fashioned us from that world. Berry argues that for Christians, nothing is more absurd than to despise the body while yearning for the resurrection of the body.[261]

Our Bodily Connection to the Earth

"Our land passes in and out of our bodies just as our bodies pass in and out of our land." — Wendell Berry[262]

How many of us have extended direct contact with the natural world anymore? When it is time to go to work, we hop in our car that sits in our attached two- or three-car garage. We open the door and head off to work, zooming over the terrain, hardly aware of the rise and fall of the land. We then park inside a parking garage, walk into the building, and work there all day, only to repeat the trip back home in the evening. We might have a four-season attachment for our homes that lets us look outside, but we keep the year-around temperature in it between 68 and 72 degrees. Out of security concerns we light up our streets and can no longer see the stars at night (perhaps with the exception of the constellation Orion). We have insulated and isolated ourselves from the world that surrounds and supports us.

This is a shame. In the words of Luther's *Small Catechism* we confess, "God has given me my body and soul." He did not make us as bodiless, immaterial, and purely spiritual creatures like the angels. It is unfortunate that Christians tend to reduce their identity to the soul and exalt it over the body as the "real" self. Each of us is a total package: body and soul. An exclamation point was put on the goodness of our physical bodies when the Creator became a full-bodied human creature. When Luther says body and soul, the body includes eyes, ears, and all my members. The soul includes reason and all my senses. God made us this way so that we might interact fully with His creation.

Not only did God make us full-bodied people in order to live within His creation, He made these bodies from the very soil of the earth. Just as a most intimate bond exists between our body and soul, a most-intimate bond exists between humans and the earth. "While we live our bodies are moving particles of the earth, joined inextricably both to the soil and to the bodies of other living creatures.[263] Human health and wholeness is thus found within the bond that we have to the earth. So what does it mean to be made of the earth? In light of the scientific knowledge of his day, Luther described the earth in his *Large Catechism* as comprised of four basic elements: earth, air, fire, and water.[264] This may be an oversimplified way of looking at the earth, yet in a recent book, *The Sacred Balance,* Canadian scientist and philosopher David Suzuki eloquently explains how each of these four elements is in fact a part of us and moves through us.

First, he points out that "soil is the creation of place." In other words, "[E]verything grows from the ground up." The ground is a mixture of everything—animal, vegetable, and mineral. It is a partnership of organic and inorganic. Rock is where soil begins. Weathering breaks the rock down. Bacteria dissolve it into soil. The elements that make up the soil become the

elements that constitute our bodies.[265] The soils of our place determine the seeds selected for growing the food we eat. The "seasons of the soil govern the life of the people who work it." Thus soil as the "creation of place" gives rise to various cultures along with the festivals developed around the foods they have grown.

Second, we are made of water. When we are born, we are approximately 75% water, and as adults, about 50% water. Life does not exist apart from water. We drink water, which is vital for the functioning of organs, to replenish our bodies. Even as water moderates the temperature of our planet, the water in our cells helps our bodies to adapt to temperature change.[266] We respirate and transpire water. The water that we use connects us to everything on earth. Moisture evaporates from warming oceans. The wind carries it across mountains. It condenses and falls as rain to the earth. It seeps down into the aquifers. It becomes the water we drink. "The movement of water keeps the earth fit for life."[267]

Third, Suzuki points out that we are also "creatures of the air."[268] From the moment a baby takes its first gulp of air it will inhale-exhale 13–80 times per minute. Over a seventy-year lifetime, a person may take 350 million breaths. In breathing we capture air, carry it in our blood to our muscles and organs, and combust it in our cells. There oxygen acts as a metabolic agent for breaking down various carbohydrates and fats within our body, thus releasing energy.[269] Air also connects and binds us to the wider world. It is air created by green plants. The carbon dioxide we exhale is in turn absorbed by those same plants. The air we breathe wraps around the earth. The air molecules that pass through us are the same molecules that pass through other birds, animals, and people. Pollen, particles, and seeds are all blown by the air. And yet for all that, the atmosphere through which we move is only about 30 kilometers thick.

Finally, there is the fire that we can call energy. Here Suzuki suggests that we think of it in terms of the energy that we receive from the sun. The sun not only drives the weather patterns on earth, but is integral to the life of every living creature. The energy from the sun is consumed by plants through the miracle of photosynthesis. The plants convert the sun's energy into food that we and other creatures can eat. When we eat the food provided by plants (and by the animals that depend upon plants) we consume the energy of the sun within our bodies. The energy that we receive gives us the ability to live our lives on this earth.

It is not only our bodies that connect us with the world but also our "souls," that is, "reason and all my senses." In other words, God has given us reason, intelligence, thought, imagination, emotions, and the sense of beauty. As full-bodied persons, we perceive the world through our senses. By means of our bodily senses (sight, hearing, touching, tasting, smelling) we apprehend the world and interact with it. We are given a "mental eye" for comprehending the beauty of God's creation. Our skin allows us to feel

the warm sun, the chill of the wind, the texture of the grass beneath our feet, and the cool breeze. William Wadsworth describes it well, "Oh there is blessing in this gentle breeze, A visitant that while it fans my cheek; Doth seem half-conscious of the joy it brings; From the green fields, and from yon azure sky."[270] With our ears we can hear the song of a wolf howling that may send chills down our spine, the primal "kuk kuk kuk" of a pileated woodpecker, or the sound of leaves rustling in the wind. With our tongues we can taste and enjoy the sweet tartness of blueberries in June or a finely aged wine "to gladden the heart of man" (Ps 104:15). With our sense of smell we can take in the sweet fragrance of lilacs in spring or the odor of decaying leaves in the fall. With our eyes we can stand in awe before the jagged vistas of the Canadian Rockies or marvel in the delicate petals of a rose.

In other words, God has equipped us for discovering His earthly garden in all of its beauty and complexity. He has equipped us for sharing His own delight in it and its beauty in a way that binds us to it. In fact, we need such interaction. God has made us capable of taking in the breadth, height, and depth of a magnificent creation. When we fail to do so or diminish creation, we diminish ourselves.

Drawn to the Earth as to Home

In a *Journal of Epidemiology and Community Health* study of 345,000 people in Holland, the researchers discovered that people living near a green space had lower rates of 15 out of 24 diseases, including asthma, diabetes, intestinal complaints, and back and neck problems. Links were strongest for lower rates of depression and anxiety.[271] Other studies have similarly shown a strong need for green spaces and the out-of-doors. Patients in hospitals do better with windows in their rooms or pictures of landscape and scenery hanging on the walls. The lack of such contact affects us negatively. During the winter, people who do not receive enough sunshine suffer what some call the winter blues, a condition scientists refer to as Seasonal Affective Disorder. As physical creatures, we need direct, full physical and sensory contact with each other and our planet for our well-being. In other words, we need the joyful awareness that "we are part of Creation, one with all we live from and all that in turn lives from us."[272]

God created humankind from this earth and for this earth. It is not surprising therefore—in spite of our increasing insulation from the natural world—that we still find ourselves drawn to the world outdoors, to both "tame" nature and "wild" nature. It is not without reason that after a long winter living indoors people eagerly throw open the windows of their homes in order to let spring air in or that they rush to get out and enjoy the out-of-doors. They head for the parks, beaches, and gardens. Nor is it by accident that we seek to make the indoors of our homes look like gardens by bringing trees, plants, and flowers inside to decorate our homes. Where plants cannot survive, we seek to create an artificial garden by means of plastic plants and flowers.

Discovery of our place on the earth begins with exploring "the little patch of earth"[273] on which we live. God placed Adam and Eve in a specific place. God planted a garden in Eden. He then gave it to them as a home. They belonged there. They were a part of it as it was a part of them. They needed it and it needed them. Once exiled, the descendants of Adam and Eve longed for a new place of their own. The theme of land and place becomes one of the central themes of the Old Testament.[274] The place we live is both habitat and home. As habitat, it is the physical source of our life and health. It is the place that provides food, water, clothing, shelter, rest, and refreshment. As habitat, the earth's geography, climate, and soil shape who we are and who we become. It shapes both natural history and human culture. As home, our little patch of earth is the place where we gather as families and communities that extend across time and space. It provides rootedness and connectedness for human life.

Our little patch of earth is part of a larger piece of the earth. We need that too for the sake of our spirit. For Robert Frost "the natural world is a kind of home to which, however estranged, we go in times of trouble."[275] How often do we go for a quiet walk in a park or in the woods and the weight of our troubles and worries seem to disappear or at least drift away into insignificance? "Our very contact with nature has a deep restorative power; contemplation of its magnificence imparts peace and serenity."[276] Working in the garden or relaxing in a park enables us to find a few peaceful moments in an otherwise busy day. In other words, when we go out into nature, we recover some perspective on who we are. Wendell Berry has observed that until recently, "men seeking enlightenment would go out into the wilderness to be saved from both pride and despair. Seeing himself as a tiny member of the world he cannot possibly think of himself as a god. And by the same token, since he shares in, depends upon, and is graced by all of which he is a part, neither can he become a fiend; he cannot descend into the final despair of destructiveness."[277] Humans discover both humility in the work of God's hands and hope in the blessing of God's creation.

Often one hears that people experience a sense of the divine when they are out in nature. Many in the environmental movement have moved in the direction of pantheism.[278] Movies from *Star Wars* to *Avatar* develop pantheistic themes. It is one thing to say that we are identified with creation. It is quite another thing to say that God is identified with creation. That confuses the Creator with His creation. When one sees the good of creation and what we receive from it, it is not hard to confuse the giver with the gift. In order to reverence nature people deify it. Unfortunately, when they do so, they do not then deal with the earth on it own terms and appreciate it for what it is, namely, creation!

Too often today we find either wonder in creation without the Creator (both pantheists and secularists) or we cling to the Creator apart from His creation (often Christians). We need to hold these together. Christians need

to be cautious about excluding God's presence from creation out of fear of pantheism. Too often we try to cling to God apart from His creation. But one need not be pantheistic to affirm that God dwells within His creation. Luther certainly affirmed it: "But if He is to create and preserve it, He must be there and must make and preserve His creature in all its innermost parts as well as in all its outermost parts, on all sides, through and through, above and below, in front and behind. So that nothing can be present in all creatures and inside them to a greater extent than God Himself with His power."[279] As Joseph Sittler once said, "God created it; it's not a part of him. God created it; it's not separate from him."[280] It is appropriate to say that God dwells within creation. Indeed, to borrow a Lutheran phrase, God is "in, with, and under" His creation. He made it and here He encounters us, both in terms of His special revelation and His general revelation.

Throughout the Old Testament, God consistently encountered His people in nature. The garden in Eden became the specific place where Adam and Eve met with God. It is there that they could demonstrate their trust in and love for God by observing His command. Even after the expulsion of Adam and Eve from the garden, God continued to reveal Himself to His people at significant moments—and it was almost always in nature. God met Abraham by the oaks at Mamre (Gen 18:1). He spoke to Moses from within a burning bush (Ex 3:2) and later on Mount Sinai (Exodus 19). God speaks to Job from within the middle of a whirlwind (Job 38–41). These are places within the created world where we say theophanies take place. That is, they are places where God manifested Himself in a specific and special ways. These places came to be considered sacred by the Israelites. The same feature of God's activity is found in the New Testament. Most of Jesus' dealings with people took place out-of-doors, by the sea, on the hillsides, and alongside water wells.

Today we may not encounter those special revelations of God in nature as described in the Scriptures. Nevertheless, when we go out into nature, we still encounter God's creative word. For Luther, God has His own grammar. His words do what He says. Indeed, by His Word God calls into existence the things that do not exist (Rom 4:17). When He said, "Let there be," He brought all things into existence (Gen 1: 3, 6, 9, 11, 14, 20, 24, 26). When God says, "'Sun, shine,' the sun is there at once and shines."[281] Accordingly, God "does not speak grammatical words; He speaks true and existent realities."[282] God's Word embraced not only the initial moment of creation in Genesis 1:1, it also embraces the entire subsequent creation. "For when God once said (Gen 1:28): 'Be fruitful,' that Word is effective to this day and preserves nature in a miraculous way."[283] For this reason, Luther can say God's Word "still continues in force"[284] and remains effective "until now."[285] Life as such is a life that continually depends on God and His Word. We might say that creatures are the nouns and verbs of God. When we encounter His creation we encounter His words.[286]

As words of God, creatures show us something about God. These are not salvific theophanies, but they do say something about God's person, presence, and work in the wider world as found in writings like Proverbs, Ecclesiastes, and the Psalms. These writers draw conclusions about God by surveying and studying the wondrous works of God. The biblical writers speak especially of God as a Creator and a Provider. They describe God's majesty, His mystery, His beauty, His wisdom, His strength (Psalm 65), His abundant provision (Ps 65:11–12), and His goodness. The psalmist describes his spiritual restoration by God with the imagery of calm waters (Psalm 23). Jesus constantly uses nature (lilies, sparrows, ravens) to highlight God's own provision for us. The apostle Paul speaks in much the same way (Rom 1:19–20). In other words, God approaches us through His creation and creatures to provide for both our physical and bodily needs and also our psychological and spiritual needs. Through His creatures He feeds us, clothes us, and shelters us. Through them He also humbles us and terrifies us, uplifts us and restores us.

Exiled from the Garden

At the same time that we find ourselves drawn to creation as to our garden home, we find ourselves repelled by it, fleeing for safety from the wider creation. Thistles and weeds resist our efforts to raise food. Weather wears down our houses. The forces of creation can kill us. Earthquakes and tsunamis, tornadoes and hurricanes, floods and drought, cold and heat, all make the earth a dangerous place to live. Insects and rodents carry diseases. Unseen bacteria and viruses attack our bodies. We now find God's garden of creation filled with pollution and diseases to which we are susceptible. People have spoken of "sick homes," homes that are infested with mold, radon gas, or other contaminants that make the people who live in them sick. We can say the same thing about the wider creation. The health of God's earth affects our health as well. The more water is contaminated (increasingly with pharmaceuticals) the more dangerous it is for us. Air pollution (smoking, carbon dioxide, and pollutants from chemical plants) causes all kinds of dangers for the human beings who breathe that air.

We not only find ourselves alienated from our garden home but we often exacerbate that alienation with our solutions. In seeking shelter from creation we construct for ourselves artificial environments and thus create more problems. But we don't want to be entirely cut off from nature. We construct synthetic gardens in attempts to recreate Eden according to our imagination. Notice how often indoor malls are constructed to resemble parks with trees and waterfalls. As we live within the structures of our making, it is easier to become inflated with a sense of our own importance and power. We build entire cities that place us and our desires at their center with the result that we feel like gods. More than any other people in history we have been able to isolate and insulate ourselves from the created order. Fewer and fewer people can see the stars at night. Fewer and fewer people

know the sources of their food. As a result, the isolation of our body from creation "sets it in direct conflict with everything else in creation."[287]

When we cut ourselves off from creation we may well find ourselves cut off from the Creator as well. When we see only the works of our own hands, we increasingly perceive fewer and fewer of the characteristics of God that are manifested in His handiwork. It is interesting that humans do not generally look at skyscrapers, a bulldozer, or a semi-truck and exclaim, "How marvelous is God's wisdom, power, and beauty!" Instead, we are struck by the ingenuity and power of human beings. It could well be that as we distance ourselves from the biophysical creation and isolate ourselves from it that we lose something of the psalmists' wonder at the greatness, goodness, and beauty of God. In other words, many of God's characteristics and work are accessible most directly through the biophysical world itself. God made us as full-bodied and full-sensoried people to perceive not only creation but His work and His characteristics through it.

So even here we need two perceptions of the world. We need to be out in the world to hear the groaning of creation beneath the weight of the corruption it bears. This includes the corruption to which it was originally subjected with the curse, but it also includes the corruption caused by our actions as well. At the same time, we see in creation's longing for its renewal hints of that very renewal. N. T. Wright compares the present creation to a beautifully crafted violin. We can admire the workmanship, the wood, the grain, and the touch, yet it also holds the promise of producing beautiful music.[288] The present creation is like that violin. It hints at the beauty of the renewed creation to come.

Thoughts to Ponder and Things to Do

- Plant a garden. Few things will give you more pleasure and more of a direct, intimate encounter with nature. You will acquire a better understanding of soils, climates, plants, insects, and animals.
- As a congregation plant a garden, then celebrate the harvest by preparing a meal/festival at the end of the season. In the Bible, festivals and communities were built around the raising, preparation, and eating of foods.
- Visit a farmers' market and learn about the foods, fruits, and vegetables native to your area. You will learn which foods ripen in which seasons along with the festivals connected to these foods.
- Go for walks or hikes in your neighborhood and community without earphones and music. Listen to birds singing, feel the sun and wind on your face, smell the scents of the air, feel the rise and fall of the ground.
- Listen to the "groaning" of creation as you pass by crumbling industrial areas, salvage yards, and mountains of human trash.
- Identify and learn the names of the trees, plants, birds, and other

animals that live in your area. Seek out your city parks, state parks, and wildlife conservation areas to learn about the flora and fauna your of area.

- Contact a local nursery or botanical garden. Volunteer your services to learn about the plants native to your area along with how to grow them.
- Read books or visit museums in order to learn about the local natural and cultural history of your community and state. How has nature shaped the way people live here? How have people shaped its history? One can expand this to include your region and country, but start where you are.

Delighting in Our Fellow Creatures of the Earth

In April, 2005, a reported discovery generated great excitement in the world of bird watchers. The headline ran, "Ivory-billed Woodpecker Persists in Continental North America."[289] An ivory-billed woodpecker had been discovered and recorded on audio. David Luneau had purportedly captured it on a brief video in the Big Woods region of eastern Arkansas. The story was picked up by numerous media outlets, including *60 Minutes*. A bird thought to be extinct for nearly 60 years had been rediscovered. Disappointment followed as further attempts to verify its existence foundered.

The ivory-billed woodpecker is iconic. As a symbol of wildness, it lived in a narrow niche feeding on beetle larvae in old growth trees 300 to 500 years old. Its loss, like the loss of other species, seemed to leave our world less than it was. Once we discover our bond with creation, we soon learn that we are not alone. God created us within a larger community of creatures with whom we share one basic fact: we are fellow creatures! In the fourth century, Basil the Great spoke of an ontological homogeneity in creation.[290] There is no great chain of being in the sense that one creature is more real or more divine than another creature. "We are not, in that substance, fundamentally different from other life. We are not made of some special, ethereal matter that is different from that of a moose or a frog or an insect. The same potassium, nitrogen, carbon, oxygen, hydrogen and other elements found in other living things, and in nonliving matter, are found in us. Our very genetic identity, our DNA contains the same elements as that of every other living creature. The substance of the earth itself is basic to our makeup."[291] These thoughts echo those of John Muir. "From the dust of the earth, from the common elementary fund, the Creator has made Homo sapiens. From the same material he has made every other creature, however noxious and insignificant to us. They are earth-born companions and our fellow mortals!"[292]

The Diversity of Creatures

"O Lord, how manifold are your works! In wisdom have you made them all; the earth is full of your creatures. Here is the sea, great and wide, which teems with creatures innumerable, living things both small and great." — Psalm 104:24–25

Squaw Creek Wildlife Refuge in Northwestern Missouri lies only a few miles off of I-29 as one drives from Omaha to Kansas City. In February it becomes an important stop over for migrating waterfowl heading to their northern breeding grounds on the Arctic tundra. In fact, on many an evening the skies become filled with the honking of hundreds of thousands of snow geese. At times the counts have gone as high as 500,000. A similar scene can be seen a few hours to the northwest on the Platte River in Nebraska. Only this time, the marshes that line the shallow river resound with the trumpeting of tens of thousands of sandhill cranes as they return for the night after feeding in the cornfields of neighboring farms. There, dressed in gray, they dance and leap. Scenes like this remind one of the descriptions by Lewis and Clark when massive herds of buffalo crossed the Missouri River or when passenger pigeons darkened the skies for hours at a time.

As we explore and discover the creation of which we are a part we delight in the abundance and diversity of creation. God's extravagance is evident in every part of the earth. He has filled virtually every inch of His garden planet with life. Genesis 1 tells it well. He *filled* the air with flying creatures of every kind. He *filled* the water with swimming creatures of every kind. He *filled* the land with plants of every kind and with animals of every kind. He made creepy crawly things as well. These three realms in which His creatures live, the atmosphere, hydrosphere, and lithosphere together comprise what scientists call the biosphere, a thin envelope of life approximately twelve miles thick wrapped around the earth. It extends from the top of Mount Everest to the bottom of the Mariana Trench. As Edward Wilson marveled, "creatures of one kind or another inhabit every square inch of the planetary surface."[293] And in spite of the Fall, and in spite of everything we have done to despoil it, God continues to create life and to create it abundantly.

The Bible itself gives us glimpses of this creaturely diversity that may surprise us. It either names or alludes to more than one hundred species. It makes mention of thirteen domestic animals (dogs, horses, donkeys, bulls, cows, sheep, rams, goats, pigs, oxen, cattle, gerbils, hamsters); and twenty-nine wild animals (lions, elephants, apes, leopards, striped hyenas, bears, wolves, foxes, jackals, behemoth, camel, wild oxen, deer, gazelle, roebuck [fallow deer], ibexen, antelopes, hares, badgers, mice, monkeys, boars, water buffalo, ferrets, hedgehogs, mole rats, mongoose, Arabian oryx, and porcupines). It names only three species of creatures that live in the water (sea cows, whales, leviathan). It mentions twenty-four creatures of the air

(eagles or griffon vultures, ospreys, buzzards, black kites, nighthawks, sea gulls, hawks, little owls, carrion vultures, herons, hoopoe, ostriches, peacocks, storks, cranes, long-eared owls, eagle owls, ravens, sparrows, turtle doves, pigeons, cock hens, quail, and bats). Finally, it mentions ten creatures that creep along the ground (geckos, lizards, sand lizards, chameleons, serpents, adder [Palestinian viper], vipers [Cerastes viper], asps [Egyptian cobra], snakes, [crocodile], frogs), fourteen arachnids (scorpions, millipedes, spiders, cicadas, pestilence [wasps], bees, gnats [mosquito], flies, silk worms, moths, ants, locusts, crickets, and grasshoppers), and three mollusks (blue [Jantina], purple [Murex], snails).[294]

Several Church Fathers took note of this creaturely diversity. Basil the Great, a key author of the third article of the Nicene Creed, extolled in his *Hexaemeron* (*Homilies on the Six Days*) the diversity and variety of creation as evidence of God's creative generosity and wisdom. Basil demonstrates a wide-ranging and thorough knowledge of hundreds of animals.[295] Many of his accounts rely upon the best scientific texts of his day, namely, those written by Aristotle, Herodotus, Pliny, and Livy. But he did not confine his exploration to books. From the location of his monastery off the Black Sea he had opportunity to acquire first-hand experience as well. "I have seen these wonders myself and have admired the wisdom of God in all things."[296] Basil takes special delight in the diversity of God's creatures. He exclaims, "Innumerable are the differences in their actions and lives."[297] "How many varieties of winged creatures He has provided for. How different he has made from each other in species! With what distinct properties he has marked each kind!"[298] Each animal is marked by a different character. The ox is steadfast, the ass is sluggish, the wolf is untamable, the fox is crafty, the deer is timid, and the ant is industrious.[299]

Basil also pays close attention to the differences within species. Consider how he marvels at the different shapes and habits of the trees. "What a variety in the disposition of their several parts! And yet, how difficult is it to find the distinctive property of each of them, and to grasp the difference which separates them from other species. Some strike deep roots, others do not; some shoot straight up and have only one stem, others appear to love the earth and, from their root upwards, divide into several shoots. Those whose long branches stretch up afar into the air, have also deep roots which spread within a large circumference, a true foundation placed by nature to support the weight of the tree." He extols the various types of bark on trees. "What variety there is in bark! Some plants have smooth bark, others rough, some have only one layer, others several. What a marvelous thing! You may find in the youth and age of plants resemblances to those of man. Young and vigorous, their bark is distended; when they grow old, it is rough and wrinkled."[300]

Today the numbers and varieties of the known species of creatures defy the imagination. Scientists estimate that there are between one million to

ten million different species of fungi, bacteria, and microscopic organisms. In addition they estimate that there are approximately 900,000 species of insects, 250,000 species of flowering plants, 4,000 species of freshwater fish, 9,900 species of reptiles, and 4300 species of mammals. When the famous biologist J. B. S. Haldane was asked what he had concluded about the Creator from his work, he replied, "He had an inordinate fondness for beetles"![301] Why? Because there are approximately 350,000 species of beetles in the world! Surprisingly, our planet remains relatively undiscovered. Scientists have identified approximately 1.4 million species of plants, insects, and animals. Many believe that there may be as many as 10 million different species on earth! It might also be noted that even though 1.4 million species have been identified or named, for many of them it doesn't go much beyond that. Only about twenty percent of the earth's species have been formally described. And of these, we know almost nothing about their lives, habits, or if they are endangered. [302]

Creatures within the Company of All Creatures

The United States Forest and Wildlife Service estimates that there are approximately 46 million bird watchers or "birders" in the country. In the 1980s and 1990s the number of bird watchers grew by more than 155 percent. That is more "than twice the rate of the next-closest sport, hiking."[303] Every year, approximately 150 million people visit zoos and aquariums. This is more than the total number of people who attend all sporting events combined. Study after study has highlighted the importance of association with other creatures for our well-being. Therapy dogs are regularly used in hospitals and nursing homes to uplift people's spirits. We love animals and keep dogs, cats, and even so-called exotic species as pets. But we also love wild animals, especially the charismatic mega-fauna like pandas, polar bears, grey wolves, elephants, dolphins, and whales. Edward Wilson has labeled this phenomenon *biophilia* (love of life).[304]

It is not surprising that we find ourselves drawn to other creatures. God not only created innumerable creatures along with us, but he has created them to live among us and with us. He even suggested we find a companion among the animals as we "have the same kind of body [that is, made from the earth]! Perhaps the human being would find a helper suitable among these brothers and sisters—for that is what they are, the animals who have the same origin as humankind does."[305] Adam was pained that these "brothers and sisters whom Adam loved did not fulfill the human being's own expectation." Dietrich Bonhoeffer continues, "At the point where God wishes to create for the human being, in the form of another creature, the help that God is as God—this is where the animals are first created and named and set in their place."[306]

By naming them we participate in God's own activity of ordering creation.[307] The naming and listing in Genesis 2 parallels that of God's own

naming in Genesis 1. This listing is found again in Genesis 6. And so in Genesis 2, Adam names the creatures. He gives them an identity apart from himself (just as God has given us an identity apart from Him, so too, we now bestow such an identity upon other creatures). We are given responsibility for these other creatures. By giving the animals a name, we also enter into a relationship with them. It is one thing to see a thing flying in the air. It is another thing to say, "That's an eastern bluebird." "We cannot think clearly about a plant or animal until we have a name for it; hence the pleasure of bird watching with a field guide in hand."[308] But as Wendell Berry has argued, we don't really know a creature simply by classifying it or by knowing its general characteristics. We get to know them by knowing their particularity and that means knowing something of their life history. As we get to know them we learn something about ourselves as well.[309]

As we learn about other creatures we quickly realize many creatures do not exist only to serve us. In some ways, this should not surprise us. After all, when God gave Adam and Eve dominion over the animals in Genesis 1:28, they needed the animals for neither food nor clothing. Similarly, who among us would have designed such seemingly "useless" and odd creatures as peacocks, dodo birds, emperor penguins, and armadillos? As someone once said, these would not have been designed by a human engineer! This is the point of Job 38–41. God points to creatures about which we may know nothing and about which we may not care. They are animals that are of little use to us. God names wild animals like young lions and ravens (Job 38: 39–41), mountain goats, deer (Job 39:1–4), wild donkeys (Job 39:5–8), wild oxen (Job 39:9–12), the ostrich (Job 39:13–18), the hawk and the eagle (Job 39:26–30). He knows all the details about them. Note also the detail with which God describes the behemoth (Job 40:15–24): "His bones are tubes of bronze, his limbs like bars of iron" (Job 40:18). God delights in the leviathan (Job 41 and Ps 104:26). As Bill McKibben observes, "They don't serve us and yet God cares about them."[310]

When we realize that all of creation is not about us, we discover something about ourselves that draws us out of ourselves. Why do we, like Agur, take delight in the eagle in the sky (Prov 30:18–19)? In other words, "What is this story written in our bones that leaps to life at the sight of God's creatures?"[311] The British philosopher Mary Midgley recounts that one day while down in the dumps she saw a kestrel that lifted her spirits. She later reflected that there is a "self-forgetful pleasure in the sheer pointless existence of animals, birds, stones, and trees."[312] The world in which the kestrel lives is entirely beyond us. The bird's existence appears to be pointless. It is not a device for any human need. Midgley suggests that we are beings who are created (adapted) to celebrate and rejoice in the existence of other creatures quite independently of ourselves. We cannot live in a "mirror-lined box." "We need the vast world, and it must be a world that does not need us; a world constantly capable of surprising us, a world we did not program,

since only such a world is the proper object of wonder."[313] We may never see a wolverine, grizzly bear, polar bear, or ivory-billed woodpecker in the wild first hand. But it is good to know that they are there.

Other creatures teach us something about the Creator. All of these creatures witness to the wonder and wisdom of God. Upon reflection on the various kinds of birds and their characteristics, Basil encourages further study, commenting, "[M]ay you who are studious review by yourselves, learning the wisdom of God in all things, and may you never cease from admiration nor from giving glory to the Creator for every creature."[314] Later, Basil asks about all of the different kinds of land animals that exist, "What words can express these marvels? What ear can understand them? What time can suffice to say and to explain all the wonders of the Creator."[315] Each one in its individuality, as the work of God, is worthy of admiration. And thus Basil stresses that the elephant is no more admirable than the mouse. Everything displays God's wisdom and orderly arrangement.[316] Jesus himself adopts "the style of a Jewish wisdom teacher" and asks his hearers to consider the natural world and draw lessons from it regarding faith. He uses the sparrows and lilies of the field as examples of trust in God's gracious care.

The Bible often uses the nonhuman living world to provide us with models for our lives. The ant is an example to the sluggard in terms of what it means to be wise (Prov 6:6). Consider Proverbs 30:24–28:

> Four things on earth are small, but they are exceedingly wise: the ants are a people not strong, yet they provide their food in the summer; the rock badgers are a people not mighty, yet they make their homes in the cliffs; the locusts have no king, yet all of them march in rank; the lizard you can take in your hands, yet it is in kings' palaces.

The Church Fathers followed suit. Basil the Great used the example of the crabs hunting oysters to warn against gaining an advantage for ourselves by subtle deceit. Since they cannot open the clams they wait for a time when the clam is open and then plant a grain of sand within, thus preventing the clam from closing. He warned against imitating great creatures like eagles in their arrogance. He counsels against imitating birds with crooked talons who throw their nestlings from the nest. Conversely, he encouraged people to imitate the bees for their collaborative work. "Imitate the character of the bee, because it constructs its honeycomb without injuring anyone or destroying another's fruit." He also pointed to dogs as examples of gratitude and loyalty.

Estrangement from Our Fellow Creatures

Recent years have seen growing concerns over the possibility of zoonotic pandemics. Zoonotic diseases are animal diseases that can be transmitted to humans. Many of these have made the news in recent years.

A few years ago the avian flu caused widespread concern. In 2009 concerns about H1N1 swine flu prompted health organizations around the world to sound the alarm. In response, Egypt slaughtered thousands of hogs. The West Nile virus is carried by mosquitoes. Lyme disease, transmitted by the deer tick, is the most common vector-borne disease for people in the United States. Droughts and floods can trigger malaria outbreaks. Rabies from the bites of bats and other animals can pose a significant threat. Of some 1407 human pathogens, 58% (816) are zoonotic and 75% of all emerging diseases are shared between humans and animals. [317]

Even as we are attracted to other creatures we find that we fear them and are repelled by them. In Eden, Adam and Eve lived harmoniously with other creatures that came and went in the garden. But after the Fall it is a different story. Now we find ourselves living in an ambivalent relationship with them. Due to sin, they fear us and we fear them. "The whole 'fear and dread' scene is an act of leniency toward man, with quite explicit reminders to extend that spirit of clemency all around. When He says 'the fear of you and dread of you shall be upon every beast of the earth,' it is not exactly our proudest moment and He is not bidding us to pursue that vision."[318] It comes in the context of a divine concession. To this day, we ourselves experience either revulsion or fear at the thought of snakes, wasps, bees, mosquitos, viruses, and harmful bacteria.

After the Fall we came to view certain creatures as competitors for food and other resources of the earth. Note how the Bible describes wolves as "ravenous." Medieval stories demonized certain wild creatures (like the "big bad wolf"). In the American West settlers spoke of "outlaw" wolves. On account of this competition for food (a competition all too real in past centuries), people often came to speak of animals as pests or varmints, thereby making it easier to justify their extermination. In the nineteenth and early twentieth centuries the government embarked upon extensive programs to exterminate certain creatures through poisoning (most notably black foot prairie dogs and the timber wolves that preyed on livestock and were thought to kill people).[319] Following the Civil War, professional "wolfers" carried bottles of strychnine sulfate. An unwritten rule existed that no cowman would pass a carcass without inserting strychnine into it in the hopes of killing one more wolf.[320] By 1915 wolves had been reduced to a remnant population. Attention turned to the coyote as the "arch-predator" and as a threat to stock raising. After World War I, the government expanded its program and by the mid-1920s was killing 35,000 coyotes a year. When we see animals only as pests, varmints, or commodities, we lose sight of them as God's creatures. "And yet, we are told, each one is counted and known by Him, and I believe it."[321]

In order to secure our lives and protect ourselves from other creatures, we have witnessed the accelerated extinction or near extinction of many of God's creatures. Of all the ecological issues we face, the extinction of species

is the one truly irreversible action to which we contribute. The very word extinction may send chills down one's spine. It is "not just the death of an individual—but of all the individuals—past, present, and potential—that collectively make up a species."[322] Consider the loss of the passenger pigeon, ivory-billed woodpecker, Carolina pigeon, and more recently, Yangtzee fresh water dolphin. Scientists estimate that over 170 amphibian species have gone extinct in recent years and another 30 to 50 percent are threatened with extinction.[323] A number of interrelated reasons account for this. Conservation biologists summarize those factors with the acronym HIPPO. It stands for Habitat destruction, Invasive species, Pollution, Population, and Over harvesting or Over hunting.[324]

Conservation biologists describe three groups of creatures. First, adaptive species are called weedy species for they can live in a variety of ecological settings and eat a varied food diet. They breed prolifically and do well among humans. Dandelions, raccoons, and white-tailed deer are good examples. Species that don't thrive in human dominated environments are called relic species. They live in extreme or remote environments and have a specialized diet. They live in places where people don't go and so survive largely by human neglect. Other species become relics by living in ecologically marginal areas or in small, carefully managed "boutique populations," facing extinction as suitable habitats for them shrink. These include African elephants, cheetahs, and pandas. Outside of zoos they will always need permanent and direct management. The final group is that of the ghost species. These are creatures whose extinction is virtually certain aside from a few specimens in zoos. In 1980 there were 200,000 African lions in the wild. In 2006, there were fewer than 20,000. Similarly, there are currently about 10,000 tigers in zoos, but only 7000 in the wild. Over hunting by trophy hunters has reduced the numbers of Sumatran tigers in the wild to fewer than 300.[325] Efforts to restore wild populations persist. In 1939 only 29 whooping cranes remained in the wild. As of 2006, that number had grown to 336 whooping cranes living in the wild with another 134 raised in captivity for a total of 470.[326]

Many scientists claim that we are witnessing dramatic losses of biodiversity on our planet that will leave it and us much diminished.[327] The loss of biodiversity (also in seeds and foods) may result in a homogenized world with a bland sameness, similar to the way in which a few chains like McDonalds or Walmart have become ubiquitous, crowding out local stores along with the local culture from which they arose. A few species like house sparrows or starlings may become ubiquitous, replacing multitudes of different species created by God. The question must be asked, do we have a right to render any species extinct? Unfortunately, the loss of diversity may not trouble us. Studies in user satisfaction have demonstrated that humans are adaptable to lower and lower qualities of nature. Many of us no longer know what we are missing, having adapted to starless skies and treeless

avenues. To put it bluntly, "humankind is so adaptable that we can adapt to hell on earth and never know that we are its prisoners."[328]

Thoughts to Ponder and Things to Do

- Plant a garden with *varieties* of vegetables and fruits that are not found in the supermarket. Heirloom vegetables and fruit can introduce us to an incredible diversity of delicious foods. They were grown widely in the past but are not suitable for mass production (they do not all ripen at the same time and do not look alike).
- Learn about, purchase, and eat a diversity of foods (grains, fruits, vegetables). These products will encourage the production of different varieties for local consumption. Read about the way in which our current way of food production relies on a few varieties that all ripen at the same time and survive shipping across long distances.
- Promote biodiversity in your own backyard by planting flowers, shrubs, and trees that are native for your area and climate. These are the plants that provide the shelter and foods for the wide variety of creatures that live where you live.
- Become an expert or advocate for one particular species: birds, marine creatures, land animals, trees, or plants. Bird watching, for example, can teach us about different species, their lives, and the various habitats in which they live.
- Become a naturalist. Learn about tracking animals. Participate in citizen science projects such as FeederWatch (www.birds.cornell.edu/pfw/). Seek out a local garden club or wildlife conservation organization (e.g., the Audubon Society).
- Learn about the needs, habitats, and threats to various creatures around the country due to over-harvesting, invasive species, and habitat loss. Read books like *State of the Wild*, *Sustaining Life*, or Edward Wilson's *Biodiversity*.

Delighting in the Ecology of Our Shared Home

"There is nothing that has been created without some reason, even if human nature is incapable of knowing precisely the reason for them all."— John Chrysostom (ca. 354–407), Homilies on Genesis, 7.14.

The Crown of the Continent is a portion of the Rocky Mountains in Montana where we can find all of North America's large predators: wolves, cougars, black bears, and grizzly bears. It is also home to the elusive Canada lynx. Barely three times the size of a house cat, the Canada lynx has long legs, snowshoe-like paws, a little beard, and tufts of fur on the tips of its ears. The long legs and large paws make it ideally suited for life in that area of the Rocky Mountains. It hunts one kind of food, the snowshoe hare. This rabbit survives by the changing of the color of its fur in summer and winter. If the timing of the seasons shifts, the snowshoe hare could lose its ability to survive. Its loss would also spell the loss of the Canada lynx. "Biodiversity happens when an ecosystem brings competing species to a stalemate: all have their niche, all get by, none can completely suppress another."[329]

As we live among our fellow creatures, we discover that we share a common home with them. God not only filled the earth with an incredible diversity of creatures, but He gave each creature its own place to live and a purpose that contributes to the well-being of the whole. This does not mean they live in isolation from one another. Within the community of creation everything is interconnected and interdependent upon everything else. "All of nature is linked together by invisible bonds, and every organic creature, however low, however feeble, however dependent, is necessary to the well-being of some other among the myriad forms of life with which the Creator has peopled the earth."[330] For example, flowers are dependent upon bees for pollination and almost everything depends on ants. Wilson, an entomologist, points out that if ants disappeared, entire ecosystems would collapse and many species would become extinct.[331]

The Household of Creation (Ecosystems)

Over the past several centuries scientists have come to speak of this interconnectedness as the "economy of nature," and more recently as "ecosystems." Carolus Linneaeus (1707–1778) was one of the first to use the phrase "economy of nature" in order to identify the hand of God in nature's order. God was the supreme economist, a beneficent housekeeper. Within a mechanistic view of the world he saw God designing it benevolently as a well-oiled machine. Similarly, the Anglican clergyman Gilbert White (1720–1793) saw the wisdom of God displayed in the natural order of his little parish, which he recorded in *The Natural History of Selborne*.[332] The metaphor of the household continued to inform the idea of an ecosystem

well into the Enlightenment and up to the twentieth century.[333] Many credit Ernst Haeckel (1834–1919) with coining the term "ecology" in his *General Morphology* (1866). He used it to describe "the theory of the economy of nature,"[334] and how "all living things were bound together into a chain of interlocking links."[335] More recently, Richard Hesse has referred to it as the "science of the 'domestic economy' of plants and animals."[336] Eventually, the word "ecology" replaced the older phrase, "economy of nature."

In its simplest form, an ecosystem might be defined as the "collection of different species, the physical environment in which they live, and the sum total of their interaction".[337] Most of the attention is given to the third point, namely, the interaction and interdependence of a community of living organisms with the nonliving world in which they exist. All the living parts depend upon the nonliving parts such as soil, air, water, and light. The living parts in turn affect the nonliving parts (gypsy moths eating trees thus letting more sunlight hit the forest floor). The living organisms live in complex relationships with one another. These relationships are dynamic and constantly changing.[338]

Edward Wilson notes that the "ecologist sees the whole as a network of energy and material continually flowing into the community from the surrounding physical environment, and back out, and then on around."[339] Two processes run through an ecosystem: the cycling of chemicals and the flow of energy that begins with the sun. Aldo Leopold described this well nearly seventy years ago in "A Biotic View of the Land" (1939): "Land, then, is not merely soil; it is a fountain of energy blowing through a circuit of soils, plants, and animals. Food chains are the living channels which conduct energy upward; death and decay return it to the soil. The circuit is not closed; some energy is dissipated in decay, some is added by absorption, some is stored in soils, peats, and forests, but it is a sustained circuit, like a slowly augmented revolving fund of life."[340]

Each creature plays a role within its ecosystem that contributes to its own well-being but also affects other species as well as the environment. In other words, each species lives in an interdependent relationship that affects the health and well-being of the entire community. Some species play what scientists call a keystone role. These creatures play a role that is disproportionately greater to the continuance of the ecosystem than other creatures. Pileated woodpeckers are frequently called ecosystem engineers as they excavate cavities in trees that become homes for over twenty other species of mammals and birds. Within these ecosystems some species are called indicator species. Like canaries in a mine, their abundance or loss warns of significant changes to the environment more than other species.

How might we think about the ecosystems? Peter de Ruiter of Utrecht University suggests that ecosystems might be compared to the *Jenga* game. "Each block (except the topmost layer) supports the tower in some way. How vital the support is depends on which other blocks are present at any

given time. Every time a block is removed, the relative importance of the other blocks changes."[341] This does not mean that one species is key to the continuance or collapse of the entire system. Instead, the relative importance of each block is constantly changing. As some blocks are lost, other blocks assume a more crucial role in preventing the disruption of the ecosystem. Ecosystems do not have easily defined borders because they are constantly changing.

Ecosystems often form larger units called ecoregions that can be expanded to include the entire planet. In the case of the latter, one considers the impact of volcanoes, oceans, and climate upon the whole. In 1972, British scientist James Lovelock suggested that we think of the entire biosphere of the earth as a kind of superorganism, which he called Gaia (after the Greek goddess of the earth). This Gaia hypothesis was an attempt to think holistically about the planet and the way in which the physical environment (land, sea, air) affects the living environment and how the living creatures in turn affect the physical environment. Wilson notes that there is evidence that even individual species can exert an impact on the entire earth. For example, oceanic phytoplankton, composed of "photosynthesizing bacteria, archaeans, and algae," is a major player in the control of the world climate. "Dimethylsulphide generated by the algae alone is believed to be an important factor in the regulation of cloud formation."[342] The theory holds that the biosphere functions to stabilize the environment and maintain the balance of the entire system.

How do humans fit into ecosystems? In the past, they were at times seen as intruders and disruptors to the order of nature rather than a part of it. Ecosystems were seen as maintaining a fairly static balance in nature. It was man who disrupted the natural balance of an ecosystem. But ecologists today see ecosystems as more dynamic. Nature itself introduces things that destroy and remake ecosystems and their entire biotic communities, such as volcanic eruptions, forest fires, droughts, and floods. The paradigm has shifted away from speaking about the "balance of nature" to an emphasis on the "flux of nature."[343] Environmental ethicists increasingly acknowledge that changes produced by man are no less natural than those caused by rain and wind. However, many point out a fundamental difference between the two today in terms of time and scale. Nature typically produces changes over long periods of time and in rather widely spaced and localized settings.[344] Human beings have become capable of producing very large scale changes in relatively short periods of time (e.g., the atomic bomb, deforestation).

Original Harmony and Current "Harmony"

"God has united the entire world which is composed of many different parts, by the law of indissoluble friendship, in communion and harmony, so that the most distant things seem to be joined together by one and the same sympathy."

—St. Basil the Great, Hexaemeron, 2.2.

How might we make sense of ecosystems in light of the Scriptures? First, God's original creation exhibited a remarkable order and harmony. In Genesis 1, God establishes divisions and/or boundaries between water and land, between sky and firmament. Upon carving out spaces He proceeds to fill them with creatures of every kind. Every creature has a place and a home. Flying creatures are given the sky. Swimming creatures are given the water. Walking and creeping creatures are given the land. In each of these places, God gives His creatures a purpose. God's verdict, "It was very good," implies that each creature was fulfilling the purpose for which it was created. The sun provided light during the day. The moon provided light by night. The soil provided food for growing plants and plants provided food for the animals and humans. Genesis 2 brings this out in a different way, but makes many of the same points. The land was barren. God plants a garden. He makes a human from the humus. He then makes plants to spring from the ground. He also makes animals and birds to spring from the ground. Each has its place. The trees provide pleasing and good tasting food. One has the sense of wild and domestic animals living side by side.[345]

We should not think of this ecology of our shared home in purely static terms. Too often and too easily we in the West tend to interpret the biblical texts in Platonic terms. For Plato, perfection implies no change since change would imply a movement toward or away from perfection. Nothing in the Biblical texts suggests such an understanding either of God or of His creation. Consider two points in the text. In Genesis 1, God gives the blessing to be fruitful and multiply. He anticipated that His creatures would increase in number and presumably spread out across the earth. This applies to all of the plants, all of the animals, and the humans as well. He then gives His human creatures the command to subdue the earth and exercise dominion over it. It may be that God envisioned His human creatures exercising a role in shaping and guiding the growth of the plants and animals (no constraints were placed on their fruitfulness). In Genesis 2, we find a similar theme. God plants a garden. The trees bring forth fruits and nuts. At the same time, God tells Adam to "work and keep" the garden. However one interprets these tasks, Adam and Eve were given an active role to play in the shaping and caring of the garden. It seems that wild creatures could come and go as they pleased.

The world that most of the Bible describes is a post-Fall world. It is a world in which human sin reigns and distorts all relationships. It is a world in which God's judgment upon His human creatures is exercised through a curse upon the earth. Romans 8 describes the wider community of creation in terms of its slavery to corruption. It is a world in which chaos, the unlawful crossing of boundaries, takes place.[346] At times, the Bible provides a graphic, no-holds-barred portrayal of sin as it affects the relationships between God and His human creatures and as it distorts and destroys the human community. More often than not the earth has become something of a battlefield. God uses it for judgment. Humans wage war with each other over it.

We also see a world of violence within the realm of the nonhuman creation. Genesis 1 portrays animals in largely vegetarian terms. But after the Flood, God now gives humans not only every plant to eat, but declares, "Every moving thing that lives shall be food for you" (Gen 9:3). Violence now fills the earth. What we saw between humans and humans (Cain and Abel), we now see between humans and animals (Genesis 9) and among the animals as well. Following Genesis 9 we now have descriptions of violence among the animals. One creature eats another. We find animals preying upon, tearing apart, and eating other animals. Lions hunt for prey (Ps 104:21; Job 38:39) and eagles drink the blood of their food (Job 39:26–30).

The world today is a world of parasites, disease, and death, "of sick dolphins beaching themselves by the hundreds, of zebras dragged down by lions, wolves in pursuit of fawns, seal pups in the jaws of orcas."[347] Annie Dillard describes the horror and ugliness of nature in an account of a giant water bug that sucked the life out of a frog until it was nothing but a wispy shell that collapsed and floated away on the water. The situation today is described in vivid colors by Pulitzer Prize winning author Ernst Becker:

> Existence, for all organismic life, is a constant struggle to feed—a struggle to incorporate whatever other organisms they can fit into their mouths and press down their gullets without choking. Seen in these stark terms, life on this planet is a gory spectacle, a science-fiction nightmare in which digestive tracts fitted with teeth at one end are tearing away at whatever flesh they can reach, and at the other end are piling up the fuming waste excrement as they move along in search of more flesh.[348]

It is clear that "wild nature" is now portrayed as "red in tooth and claw." Theodore Roosevelt observed, "Death by violence, death by cold, death by starvation—these are the normal endings of the stately and beautiful creatures of the wilderness. The sentimentalists who prattle about the peaceful life of nature do not realize its utter mercilessness."[349]

Not only do we find violence, but what appears to be senselessness within nature fills us with sadness. For example, Virginia Woolf writes about

a moth caught in a window pane and poignantly describes its struggle for life and its ultimate acquiescence to the power of death.[350] This senselessness of nature proved to be a significant obstacle for Darwin to believe or acknowledge the benevolence of God in creation. He wrote, "I own that I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent and omnipotent God would have designedly created Ichneumonidae with the express intention of their feeding within the living bodies of Caterpillars, or that a cat should play with mice."[351] Such observations of senselessness and meaninglessness are not new. The writer of Ecclesiastes observed the same thing a long time ago (3:18–20; 2:24ff; 5:18; 9:10; 2:4–11, 18–23; 4:4, 8).

God's Allowance and Continuing Work of Creation

So theologically, how do we make sense of this? Science deals with the world of today, a post-Fall and pre-Resurrection world. It describes ecosystems whose very workings depend upon a cycle of death and decay followed by renewal and growth. Today, death and decay are a part of the very functioning of the world in which we now live. Some would say that "death is the engine for life." Yet the description of creation in Genesis 1 and 2 does not seem to envision such a world, at least with respect to humans and all the creatures that are described as "living creatures." As Lutherans we can bring several resources from our tradition to bear upon the topic.

To begin with, creation and its corruption now exist together. They can be distinguished but not separated. This is the lesson of the sixteenth century Flacian controversy as dealt with in Article 1 of the Formula of Concord.[352] This article makes the point that human bodies remain the good creation of God in spite of their corruption by original sin. To deny this distinction would suggest that God created sin, that Christ became a sinful man, that God raised a sinful body, and that our sinful bodies will be raised on the last day. At the same time, the Formula affirms that the corruption of sin is so deep seated that in this life it permeates every fiber of our being. Thus our bodies are good and each part continues to function for the well-being of the whole. Yet sin chips away at our health, wears our bodies down, and eventually claims them in death. The Formula's answer to Flacius may serve as an analogy for the wider nonhuman creation and the home that we share with them as well. Creation remains God's good work. All creatures remain God's good work. And yet, even though they belong to His good creative work, another destructive force is at work destabilizing the order, bringing into the harmony a chaos that results in violence and death. Having said that, what we observe and study in the world suggests not only that God sustains His creation in spite of decay and death everywhere, but that He actually works through decay and death in order to bring forth new life, the way in which ecosystems often function. But again, we have

to distinguish between the good creation and the decaying of that creation. Nonhuman creatures and human creatures alike die and return to the dirt, to the organic material from which God created them. That dirt remains the good creation of God. The organic materials that are left in the wake of death and decay remain the good creation of God. They are the very raw materials that God used to create life in the first place. They are the raw materials from which God first brought forth plants, animals, and humans. Now they become the good materials from which God brings forth new generations of living creatures.

Finally, we need to recognize that God, as described in the Old Testament, is a God who makes allowances for a marred creation, a creation bent out of shape,[353] in order to carry out His purposes. In other words, He makes adjustments to the workings of our earthly home and the interconnections of all the creatures that live on the shared home that we call earth. We see this already in Genesis 3 when God's judgment causes thistles and thorns to make human work difficult. The community of creation continues to function, but not as smoothly as before the Fall. Again, in Genesis 9, God makes an allowance for human sin and gives all the creatures that move on the earth as food for human beings, but He does not show disregard for His other creatures. He still looks after them and cares for them. He places fear of human beings within the animals so they flee from hunters, seeking safety from human attempts to take their lives.

What applies to human relationships with nonhuman creatures presumably may be extended to the relationships among nonhuman creatures themselves. God gives animals to each other for food. But He also enables species to work cooperatively with each other for their mutual benefit. Consider for example, the metalmark butterfly as found in Costa Rica. The metalmark butterfly is an easy target for wasps which often kill it, carve it up, and take it back as food for their larvae. But when the caterpillar is in its third instar, it secretes a honeydew-like substance that ants love. In fact, the ants will often stroke a particular spot on the caterpillar which causes it to secrete the sweet liquid. In return, the ants defend the caterpillar against the wasps, often staying with the caterpillar for a week or more and attacking any wasp that comes near.[354] This is incredible!

At this point, it might be worth considering St. Basil's account of God's creatures in the first chapter of Genesis. Basil does not raise the question of what were things like before or after the fall. Instead, Basil simply notes that God has "produced neither anything beyond need nor a deficiency of the necessities of life for any creature."[355] Each is ideally fitted and suited for its habitat. He observes that the more easily animals are captured the more prolific they are in reproduction. Rabbits and wild goats produce many offspring. In this way the species that are devoured by carnivorous animals do not become extinct. By comparison, beasts of prey give birth to only a few offspring. Similarly, God has fitted grazing animals with long necks (like

camels and cattle). He has fitted carnivorous animals like lions and tigers with sharp teeth and buried their necks into their shoulders so that they can grasp their prey.[356] He gives birds of prey pointed claws for catching their prey.[357]

What are we to make of all this? Each author in Psalms, Proverbs, and Job marvels at the creative work of God that he finds in his day. The creatures they find include flesh eaters and grass eaters. They regard both as the work of God. They marvel at God's ongoing creative work for the continuance of His creation in spite of the disharmony, violence, and death that everywhere mark it. This is what the psalmist does in Psalm 104, which is "a veritable cosmic-ecological doxology."[358] It describes a world that has its origins in Genesis (it has many parallels with Genesis 1) but now exists after the Fall. Whereas in Genesis 1 God originally declares it all very good, here in Psalm 104 we find "God's love for all his creation as we know it."[359] God continues to shape and sustain His creation.

First, according to Psalm 104, we see that God has given every kind of creature a place to live on this planet. Like a master gardener God designed and laid out the landscape of His garden. One might say He created different kinds of "garden rooms," ranging from mountains to deserts, grasslands to forests, fresh waters to salt waters, and marshes to hot springs. These rooms are set to a variety of climates, ranging from hot to cold and humid to dry. Then He filled each one of these rooms with creatures specially designed for them. We see birds make their nests in the cedar trees and storks in the pine trees (vs. 17). Wild goats live on the high mountains while coneys seek refuge in the crags (vs. 18). The sea is vast and spacious, teeming with creatures beyond number—living things both large and small (vs. 25). In this creation, humans have a place as well, as they too are a part of creation.

Second, God provides for the continued well-being of all His creatures. After establishing boundaries for the water, God channels it into valleys. He pours springs into the ravines between mountains and gives water to the beasts of the field, to wild donkeys, birds, and trees until the entire earth is satisfied. In addition, He makes plants to grow for the cattle to eat and for humans to cultivate, thereby bringing food from the earth. Humans are found in the same relationship to God as other creatures—dependent upon God and His provision. He provides prey for the wild animals. All of these creatures look to God to give them their food at the proper time. God provides for them all. Within this creation, birds sing (vs. 12), wine gladdens hearts (vs. 15) and the leviathan frolics (vs. 26).

Third, each creature carries out its God-given purpose within its God-given place. In Psalm 104 the moon marks off the seasons and the sun marks off days and nights. Of special interest here is the symbiosis of human and animal activities. When the sun goes down, the beasts of the forest prowl and the lions roar in search of food. Each creature seeks its good. But when the sun comes up the wild animals retreat to their dens for sleep and God's

human creatures come out to work in the fields until evening. Humans are one part of creation, creatures among creatures, but are not the end all and be all. Some creatures may exist for no other purpose than for God's amusement and delight, as is the case with leviathan. The Psalmist concludes with the hope that the Lord may rejoice in His works (vs. 31).

Thoughts to Ponder and Things to Do

- Planting and tending a garden (flowers or vegetables) will give you firsthand experience about all the local organisms (plants, insects, birds, animals) in your yard as they interact with each other and with the inorganic environment (soil, weather, seasons). Few things will better show us how to fit in with nature than to work with the conditions and schedules of creation that are not our own.
- Try to think about the beauty of the natural world in broader terms than the grand vistas of national parks. That is to say, develop a "land aesthetic" or "garden aesthetic" that sees beauty in the structure, ordering, and functioning of ecosystems and how each plant or animal fits "perfectly" within it. When we do, we will discover and delight in the beauty of plains, grasslands, marshes, and swamps.
- Explore the kind of ecosystem in which your community resides: grasslands? wetlands? mountains? Explore the interactions between the various elements from climate/weather to land and species. Are there microclimates in your area?
- Learn about the threats (both human and nonhuman) to those ecosystems. Learn about invasive species and their impact upon local ecosystems (e.g., the purple loosestrife, kudzu, zebra mussell, carp, etc.) (www.invasivespeciesinfo.gov). Exercise caution when buying plants. How does land use (agriculture, forestry, suburban development, etc.) affect, disrupt, or destroy ecosystems?
- Take a course or read a textbook on environmental science or conservation biology. It will teach you about different kinds of ecosystems (forests, rivers, oceans) and ecosystem services (food, medicine, soil stabilization, flood mitigation, etc.). How do chemicals work their way through the food chain?
- Study both sides of the climate change debate. Read peer-reviewed journals on both sides of the debate. Learn about the chemicals and toxins that go into the air from the burning of fossil fuels and their potential impact on everything from the creation of acid rain to possible warming.
- Learn about genetic engineering of plants and what effect that might have on ecosystems, diversity of flora and fauna, and its effect on food.

Chapter 4: Caring for Our Fellow Creatures of the Earth

When God created us, He placed us within a community of creation that binds us to all other creatures. In this community, nothing lives in isolation. Everything is interrelated. Thus how we live must be defined within the context of our relationships to the earth (food, water, air), to other organisms (big and small), and to each other in time and space (family, friends, society). To speak about the *shalom* of God's creation is to speak about the health or wholeness of these relationships.[360] The well-being of God's creation depends upon cultivating, maintaining, and when necessary, restoring mutually beneficial relationships with our environment and all who live within it. In the twentieth century we developed the power to destroy much of the natural world. Now its many creatures depend upon us as God's instruments for their continued survival.[361]

In one sense, the way in which we foster the wholeness of creation is not the result of a special revelation from God. Instead, it relies on human observations about the way God ordered the world. The Old Testament does not always provide Israel with specific instructions on caring for the earth that are distinctive from the practices of the nations around them. (Lev 19:25; Deut 20:19; Lev 25:4, 5; Lev 23:22; Is 28:24–26). Instead, it often sets forth and develops "general principles of moderation and wisdom"[362] in the wisdom literature of the Old Testament. "But all of this belonged to the natural wisdom with which people were created."[363]

In another sense, Christians do bring something valuable to the task of caring for creation. We bring a commitment to care that mirrors God's own commitment to creation and we approach the task with thanks for God's continued blessing upon the earth in spite of sin. We live in the time between the first creation and its complete renewal. When we carry out our "ecological commission" (Gen 1:29; 2:15) we do so with humility, that is, an honest self-assessment of who and what we are. We are one part of the entire creation. Our actions reverberate across the entire web of creaturely life. We seek to live within the boundaries of our creatureliness, contributing to the well-being of our fellow creatures and enhancing creation to the praise and glory of God.

Caring for the Earth with Creaturely Humility

"The human race is challenged more than ever before to demonstrate our mastery—not over nature but of ourselves."

— Rachel Carson.[364]

A few years ago, Ford ran a television commercial for its Expedition with the slogan "no boundaries." The slogan suggests that the purchase of the car allows you to go anywhere you wish. There are no boundaries you cannot cross. We celebrate "no boundaries" not only in automobiles, but in clothing and in song. The thought of living within boundaries and limits does not excite most of us. We can achieve our potential far better apart from any external limits. The only thing that might be allowed to hold us back would be the constraints of our inherent abilities and talent. In many instances, such approaches often express misguided efforts to emancipate ourselves from creation by mastering creation.

Within the web of creation, our lives are defined by the Creator, our fellow human creatures, and our fellow nonhuman creatures.[365] The intrinsic value of creatures, as creatures *of God*, defines both the limits and possibilities of our own creatureliness. Creatureliness, both ours and that of others, is destroyed when we transgress those boundaries. In the Old Testament God sets boundaries for His creation. Creation unravels when those boundaries are blurred or erased (e.g., land and water). The same applies to our creaturely life and the creaturely lives of others. The heart of original sin ultimately lies in the refusal to accept our creaturely limits. As it did with Adam and Eve, this refusal brings disastrous consequences in our relationships to God, others, and the wider creation.

As Christians who embrace the gift of our creatureliness we need to learn to live as creatures. "You are who you are because of me your Creator; so now be what you are . . . you are a creature, so be a creature"[366] This means we accept that we are part of a whole interconnected web of life within which each creature is a gift to the other. We see our lives as human creatures defined not by the freedom to exceed limits in the pursuit of personal fulfillment but by the freedom to limit ourselves for the sake of the other. At times dominion "is exercised as much in restraint as in use."[367] In fact, one of the distinctive features of our creatureliness and our responsibility for dominion lies in our ability to limit ourselves voluntarily for the sake of the other, and to serve within God's created design. In this way we allow other creatures to flourish by living within the boundaries of our creatureliness.

Just because We Can Doesn't Mean We Should

"The trouble was a familiar one: too much power, too little knowledge. The fault was mine." —Wendell Berry.[368]

According to economist Jeffrey Sachs, the invention of the first practical steam engine in 1712 "marked the decisive turning point in human history." Its inventor, Thomas Newcommen, developed it in order to pump water out of coal mines, thereby making mining more efficient, more productive, and cheaper. The steam engine replaced 500 horses walking in a circle. Each new technology has extended our control over the world. It has also shaped the way we look at the world. We have come to picture the physical world as a machine in which one cog turns another cog. Like the machines we build, the world operates in a predictable manner. Wendell Berry notes the consequences of such thinking. "If the world and all its creatures are machines, then the world and all its creatures are entirely comprehensible, manipulable, and controllable by humans."[369] After all, "knowledge is power."

Technological power changes the nature of our relationship to the earth in two ways. First, it has enabled us to become infatuated with our knowledge and power. Like the builders of Babel, we seek to make a name for ourselves (Gen 11:4). For most of us today,

> it is all but impossible to believe that anything is any longer beyond human adjustment, domination, and improvement. That is the lesson in vanity the city teaches us every moment of every day. For on all sides we see, hear, and smell the evidence of human supremacy over nature—right down to the noise and odor and irritants that foul the air around us. Like Narcissus, modern men and women take pride in seeing themselves—their product, their planning—reflected in all they behold. The more artifice, the more progress, the more progress, the more security.[370]

Human achievements threaten to inflate us with an undue sense of power and pride in our technological achievements. We have come to live by the philosophy, as Garret Hardin noted, "if we can imagine something, we can make it, if we can make it, we must make it."[371] We run the risk of forgetting that we are creatures.

Second, "creation is no longer an awesome mystery and reminder of our finitude, it becomes a problem to be solved."[372] Technology can solve our troubles—personal and environmental. Technology can save us and the earth. We assume that if technology causes problems technology can also solve those problems. If the natural world becomes a desert, we can create cocoons in which to live safely and comfortably.

The thought that the world is predictable and controllable is nothing

new. In fact, it is one of the key themes of the book of Job. Job and his friends worked with a widely accepted assumption about the way in which the world worked. It was orderly and predictable. In some ways, they thought of it as we might think about a machine. When you know how it works you can predict what will happen with near mathematical precision. When you know how it works you can "control" it for your own benefit. Thus in his suffering, Job laments that the system did not work for him as it should. He was a righteous man who suffered as if he were unrighteous. Job brought charges of a faulty design and unjust governance against God.[373]

From within a whirlwind God responds to Job in two speeches that initially seem irrelevant. The first speech questions the extent of human knowledge about the world and its design (Job 38–39). The second challenges human attempts to make the world work in predictable ways (Job 40–41). In both cases, God challenges Job's preconceptions by showing him the wild things of the world—wild animals, the wild sea, and wild weather (rain, hail, ice, snow, lightning).[374] God's creation "is mysterious precisely because it does not conform to human purposes."[375] Job then acknowledges the limits of his understanding and power.

In the first speech, God describes a creation that humans would not have designed. "God celebrates the wild ass, to which Job earlier likened himself (6:5), and which Zophar had then taken as an epitome of stupidity (11:12)."[376] Similarly, God celebrates the wild ox, "who does not find its food in a human crib, nor is bound to the furrow with ropes."[377] The ostrich provides a striking example of God's unconventional thinking (39:13–17). As J. Gerald Janzen notes, birds in the Bible are often "celebrated for building nests in the safety of high trees and rocks." It is a "birdly wisdom" that humans should emulate. Yet birds can also be an example of self-reliance that distrusts God and leads to injustice (Hab 2:9). In contrast with human attempts to secure themselves, "the ostrich lays its eggs on the unguarded ground." It is folly yet God celebrates it.

The second speech addresses God's governance. God parades before Job two gigantic creatures, the behemoth and the leviathan (possibly the hippopotamus and crocodile). They are part of diverse creation that lies beyond human control. Human beings by comparison have limited strength and agility. They cannot "bring under their control the very creature that God has made any more than they could bring all the wicked in the world to their just end (40:10–14)." [378] To the contrary, these creatures rule over "all who are proud" (41:34). God however praises these creatures and expresses His delight in them (41:12–34).[379] He has created a world that "has elements of the extraordinary, the beautiful, the bizarre, and the irregular."[380]

So what might we learn from Job? We live in a creation that is God's doing and not our doing. He designed it; we did not. Proverbs 30:18–19 recognizes that eagles and serpents are beyond comprehension. We must be modest when it comes to our capacity for understanding the complexities

of creation. In the last few decades, science (especially ecology) has moved away from the Cartesian view of nature as a machine that operates according to a few simple laws of physics. More and more we see that we "reside in a complex ecosystem" that we "do not entirely understand and cannot ultimately control."[381] Botanist and ecologist Daniel Botkin has put it well:

> Ecological systems are so much more complex than the solar system, and the great minds of today have been so little concentrated on the subject of ecology, that we do not yet have an internally consistent, mathematically elegant theory of ecology parallel to the Newtonian laws of motion. From where we stand, it is unclear whether such simple, elegant laws can indeed emerge for such complex systems.[382]

What holds true for ecosystems applies all the more when we consider workings of the entire planet. After all, look how difficult it is to forecast the weather!

It is wrong to think that we can "manage" creation in the sense of controlling it. The problem with viewing our role in terms of a management model is that it may perpetuate the dualism between humans and the natural world "which it is their principal task to control."[383] As Ben Quash, a professor of Christianity and the arts, points out, management models, good or bad, are prone to stress "function or utility over relationship."[384] Management models "depend on a human capacity to predict the future and the consequences of human interventions and plans."[385] What we try to manage may prove unmanageable and dangerous—especially in the long term. One need only consider human construction of levees. They often make flooding more destructive.[386]

Given that we live within a creation that we did not design, it is appropriate that we act cautiously and with humility. As Wendell Berry has observed, "we are trustworthy only so far as we can see. The limit of our vision is our moral boundary."[387] We cannot account for all the variables of a complex creation. What benefits us now may prove to be harmful both to us and the earth down the road. Even the solutions that we propose to address environmental issues like energy shortages and carbon dioxide buildup in the atmosphere may carry with them ambiguous results (e.g., the energy cost of building a hybrid car may outweigh the cost of driving an old gas guzzler whose energy costs have already been paid).

Modesty in Consumption

"Once material sufficiency is met, Life itself, which is a membership in the living creation, is already an abundance."
— Wendell Berry[388]

The standard of living for most humans perhaps doubled during the first four thousand years of human history. It has doubled in our lifetimes. The Industrial Revolution (1760 to the late 1800s) brought about a quantum leap in the ability to improve human life but fostered the separation of humans from nature in such a way that we don't see the effects of our consumption and waste.[389] In the first half of the twentieth century, our standard of living changed drastically with the advent of indoor plumbing, electricity, refrigeration, indoor heating, air conditioning, telephone, radio, and television.[390] The possibilities for improving human life, curing diseases, and extending our life spans seemed limitless. In the second half of the twentieth century, many of our improvements have been aimed at convenience, comfort, and efficiency. For example, cars still transport us from point A to point B, but now they come with heated seats, electric windows, and GPS.

Along the way, we have come to define ourselves as consumers. We have reached a point in history when many have more than they need for physical life. Much of our consumption is geared towards goods that are enjoyable but are not necessary for survival.[391] Our identity and status is determined by what we consume and how much we consume. "More is better" has become a motto of contemporary life. More means easier, more comfortable, more security.[392] The size of the average American home has doubled since 1970 even as the number living in that home has been halved. But as Bill McKibben comments, "more is better" only to a point. It reaches a point of diminishing returns when a sense of happiness plateaus or even declines.

The amount we consume impacts the wider creation. In the past quarter century, concerns have grown about whether or not our current rates of consumption will eventually exhaust most of the earth's resources. Many of these concerns center on the amounts of fossil fuels we need to run our economies, fresh water for basic human health, arable land for growing populations, and over-harvesting oceans. For example, it is estimated that the North Atlantic holds less than twenty percent of the fish that it did in 1900.[393] Environmentalists describe how much we consume in terms of "footprints." It is a way to speak about the size of the marks we leave upon the earth. For example, an eco-footprint describes how much land and water is required to produce what we consume in a given year. It is estimated that the amount of goods Americans consume per year requires approximately twenty-four acres of land and water to produce. By comparison, the rest of the world requires about four to five acres of land and water per person to produce what they consume. It has been estimated that if the rest of the

world's population consumed as much as Americans and western Europeans, we would need approximately four more earths to supply those needs and desires.

Population issues also factor into the issue of human consumption. Obviously, as the population increases, more of the world's land, food, and water must be consumed. We are the first generation in history to see the population of the world double in our own lifetimes. By 2050 it is estimated that there will be more than nine billion people on earth. Christians may debate and even disagree about the way in which the mandate to be fruitful and multiply continues to apply to the modern world. But the problem is not simply that of population alone. The problem lies with what some have called our "cult of consumption" and with it, the failure to share.[394]

The questions we face early in the twenty-first century center on the question of defining ourselves and the way in which we live. Pope John Paul II described our situation well:

> In his desire to have and to enjoy rather than to be and to grow, man consumes the resources of the earth and his own life in an excessive and disordered way. At the root of the senseless destruction of the natural environment lies an anthropological error, which unfortunately is widespread in our day. Man, who discovers his capacity to transform and in a certain sense create the world through his own work, forgets that this is always based on God's prior and original gift of the things that are. Man thinks that he can make arbitrary use of the earth, subjecting it without restraint to his will, as though it did not have its own requisites and a prior God-given purpose, which man can indeed develop but must not betray. Instead of carrying out his role as a co-operator with God in the work of creation, man sets himself up in place of God and thus ends up provoking a rebellion on the part of nature, which is more tyrannized than governed by him.[395]

What constitutes a well-lived life? How much is enough? Along with that question we might also ask—enough for what? Do we define ourselves by what we purchase and consume or by the way in which we live in our creaturely relationships?

Note that the goodness of the material creation is not in question. C. S. Lewis pointed out that our problem is not the love of material things. God loves material things—He invented them. Our problem lies in the love of *quantities* of material things.[396] Questions of consumption and waste go to issues of our lifestyle and the impact of that lifestyle upon our fellow creatures in a day when "we have unlimited appetites and unlimited means to pursue them."[397] With the emphasis on quantities, moreover, a person

might calculate the "acceptability" of environmental degradation in terms of collateral damage. In other words, one often defends "long-term damage for short-term gain."[398] In the end we alienate ourselves from God and from His earth.[399]

What would happen instead if we defined ourselves in terms of creaturely relationships? God created us as members of a larger creaturely community. Our creaturely desires are to some extent circumscribed by the needs of other creatures. We might take into account the needs of our fellow nonhuman creatures for habitat and food. This is not to say that they are as valuable to God as His human creatures. They are not. But that does not mean that God does not care for them. Thus the question raised here is not one of human life versus animal life. It is a question of how we shall we live with God, with one another, and with creation for the sake of the flourishing of life.

Traditionally, we have recognized the importance of these limits with regard to our fellow human beings. Spouses limit their freedom in deference to the needs of their mates. We might do the same with regard to the wider creation. In other words, with our basic needs met, we might sacrifice some short-term conveniences for the long-term health of our world.

It's Not a Throw-away Creation

"All abuse and waste of God's creatures are spoil and robbery on the property of the Creator." — **Adam Clarke (1762–1823)**[400]

Much of what we take out of the earth we return to the earth in a considerably altered form. Consider the ubiquitous styrofoam cup. Calvin DeWitt, a professor of environmental studies, describes it well. We take oil from the Middle East and transport it to chemical plants where it is transformed into monomers. These are then transported to factories in China that mold them into styrofoam cups. The cups are shipped to the United States and distributed to stores where we buy them for use in home, school, and church. We use them for about fifteen minutes and then throw them away into trash containers. Trash trucks dump them in landfills. There it takes thousands of years for them to decompose. As they do so, they liquefy to form leachate that drains off into groundwater springs and wells. As the cups decompose they also form carbon dioxide, methane, and other gases that pass into the atmosphere.[401]

One of the principal laws of ecology is that there is no such thing as throwing something away. In his 1971 book, *Closing the Circle,* Barry Commoner laid out what he called the Four Laws of Ecology. His second law states, "Everything must go somewhere." This means that anything we discard is transferred from place to place, from one molecular form to another. It does not simply go away. In other words, there is no such thing as waste in

nature. Everything that is discarded by one organism is taken up by another organism.[402] Even when we discard our waste into landfills and water, it does not simply stay there. It becomes part of the wider creation and it becomes a part of other creatures, for good or for ill.

As long as there have been human beings there has been pollution. In the Middle Ages people dumped garbage and sewage into the streets. At the beginning of the industrial revolution, clouds of coal dust hung over London. Today, the sheer quantities of waste products and the speed at which they are introduced threaten the well-being of many species and ecosystems, and with them human health. Tens of thousands of chemicals have been discharged into the environment in the last century. Some estimate that over 70,000 chemicals are being used in commercial quantities today with another 1,000 added every year.[403] The earth's weather, ocean, and river systems transport these chemical substances around the world. Pollution in China finds its way to the western coast of the United States. DDT shows up in Antarctic penguins. Biocides appear in a remote lake on Lake Superior's Isle Royale. High concentrations of industrial toxins show up in polar bears. As Calvin DeWitt put it, "No longer are *local* environments affected only by *local* polluters. Global toxification affects all life: all creatures, great and small; all people, rich and poor."[404] No part of the biosphere, land, water, or air, is free from human waste and pollution today.

Following World War II, the pesticides and herbicides developed as part of military research were put to "peaceful" uses. These chemicals made it possible to plant corn or any crop year after year on the same land. Traditional crop rotation, along with pasturing and fallowing, were abandoned. As a result of these practices, topsoil was lost to wind and water erosion. Its loss, however, could be compensated by the use of more fertilizers. Pesticides and herbicides alter the microscopic life of the soil. Since these chemicals are not produced by living organisms in the natural world, they become defenseless against them. Biocides, pesticides, herbicides, avidcides, and fungicides are designed to destroy life and many have unintended consequences for other creatures for which they were not intended. For example, in the 1990s, the pesticide monocrotophos, used to control grasshoppers and other pests on alfalfa crops, killed more than 6,000 Swainson hawks in Argentina. The same holds true for the chemicals that we apply to our lawns and gardens.

In 1969, the Cuyahoga River in Cleveland was so polluted with various toxic wastes that it caught fire and burned. Since then, much has been done to clean up the waterways in the United States, but work remains to be done. Heavy fertilizing of fields and lawns, along with sewage discharge, has produced large dead zones in the Gulf of Mexico. What excessive nitrogen does to salt water, phosphorous does to fresh water.[405] Pharmaceuticals like Prozac are flushed into urban and suburban waterways. Hormones and antibiotics given to cattle, hogs, and chickens also end up in the soil, seep

into the ground water, and out into aquatic systems. These cause developmental abnormalities in aquatic organisms. Pollution from municipal waste treatment plants and agricultural runoff has killed off nearly eighty percent of Caribbean coral reefs in the last couple of decades.[406]

Cities today regularly post air quality measurements in order to warn people about levels of smog which are unhealthy for people with respiratory problems such as asthma. The burning of fossil fuels during the last two hundred years has taken much of the carbon that was sequestered in coal, peat, and oil beneath the earth and transferred it to the atmosphere. A gallon of gasoline weighs about six pounds. When we burn it in our automobiles, it produces about twenty pounds of carbon dioxide.[407] The burning of fossil fuels can alter the acid balance of the atmosphere. Sulphur and nitrogen fall back to earth as acid rain and snow, thus acidifying soils and fresh water and killing sugar maples and red spruce. Carbon dioxide, a greenhouse gas that we put into the atmosphere, may be slowly raising the temperature of our climate, which would in turn affect nearly all life on earth.

Ours has become a throw away society (which in turn increases consumption) unlike any in history. Large parts of the economy are built in part on the model of planned obsolescence. Much of what we use is designed to be thrown away. In fact, most of what we throw away comes in the form of packaging, especially for the food we eat. Much of it is plastic. In addition, many of the items that came in that packaging were not designed or produced to last. They are designed to be used for a while and then thrown away. For example, we might purchase a watch for less than ten dollars and six months later discover that it no longer works. It doesn't pay to repair it since no parts exist for it. So what do we do? We throw it away and purchase a new one. We might consider purchasing fewer things of higher quality. These items would last longer, and when they break, they could be repaired and reused.

To think of something as waste is to consider it worthless.[408] Christians have a strong argument for recycling. By keeping things out of landfills and restoring them to a place and purpose we are honoring them and giving them "new life." By re-using things and finding new uses for them we offer them back to God with thanks and praise. In some ways, these "green values" are nothing new. Our grandparents probably practiced them without knowing that they were "green."

Thoughts to Ponder and Things to Do

- Avoid wanton use (for the sheer fun of it) of products that cause destruction to the environment.
- Practice organic gardening. Why do we call leaves and grass clippings yard "waste"? Waste suggests something that is useless. We pay someone to haul it away and then we pay someone to bring it back as compost. Compost yard "waste" and use it to improve the health of the soil.
- Reduce, or better yet, eliminate the use of herbicides and pesticides on lawns and gardens. If you must use them, know the dangers involved both to the biotic life of the yard as well as human health. Use them sparingly.
- Choose to live within your means or even better, below your means. Distinguish between needs and wants (www.greenlivingtips.com). Learn to live frugally. This not only teaches good stewardship but leaves goods for others that may have lower means.
- Purchase fewer but higher quality items that last. Pay more for something that will last a lifetime, rather than something that needs to be thrown away within months only to end-up in our garbage and landfills.
- Be wise in your choice of appliances (refrigerators, oven, washing machines, etc.) and your home heating/air-conditioning systems. Choose those with energy ratings and use storm doors and storm windows in northern regions.
- Whenever possible, buy only recycled products for your home. For example, recycled milk jugs can be transformed into materials for decks, bird feeders, and other items.
- Set concrete goals to lessen personal vehicle use; make one trip instead of several to the supermarket each week, carpool to work, or better yet, care for your health and the environment at the same time—ride your bike to work.
- Learn about and be careful about what you might unsuspectingly be putting into the water supply, from pharmaceuticals to detergents and lawn chemicals.

Caring for the Earth with Creaturely Kindness

"An art that heals and protects its subject is a geography of scars."—Wendell Berry[409]

In the previous section, we explored the nature of our creatureliness in terms of the boundaries within which we live as defined by other creatures. This is not to suggest that we exercise freedom only so as to do no harm. It

is out of love that we moderate our freedom and voluntarily refrain from certain ways of living for the sake of our fellow creatures. Our response to the nonhuman creation is not confined to the need for living within our creaturely limits and reigning in destructive behavior. If we live within boundaries, those boundaries also provide intersections. In the web of creation every boundary intersects with other creatures. We do not and cannot live in isolation.

We can also cultivate compassion and kindness in our treatment of creation. These actions are unique to us as human creatures. Other creatures take little notice of us and could care less about us. But we were created to mirror God's own compassionate care for His garden planet. As we have seen, even after the Fall God continues to take a delight in His creation (Job 39:5–12) that "is mysterious precisely because it does not conform to human purposes."[410] He cares for it and provides for it (Psalms 104 and 145). We must not love the creation only according to the purpose we have for it any more than we should love our neighbor only in order to borrow his tools.[411] That compassion finds practical expression in charity, and charity requires action. It requires skills in order to carry out those actions. "We must learn how we fit into creation, what its needs are and what it requires of us."[412]

So where do we begin? The Lutheran teaching on vocation focuses on the location where God has placed us and on the needs of our neighbors within that location. Their needs function as God's call to serve, so we begin where we live. We begin with the "little patch of earth" that God gave us. Wendell Berry has made the good observation that when thinking about the "welfare of the earth, the problems of its health and preservation, the care of its life," we need to have a particular place before us, "the part representing the whole." In other words, we can only care for the whole by caring for the part of the whole.[413]

Living Kindly with the Earth[414]

"Elegant solutions will be predicated upon the uniqueness of place." — **John Todd** [415]

Explosives and earth-moving machines can decapitate up to 500 feet of a mountain top in order to get at the veins of coal within it. The rubble is then dumped over the side of the mountain into its neighboring valleys, at times to a height of nearly 800 feet. Miles of the stream and river systems that flow through the valley below are buried and the water quality downstream is seriously degraded. Thousands of acres of biologically diverse forests are despoiled. This is called mountain top mining. It is destructive and it is ugly. Over 400,000 acres in Appalachia are now susceptible to mountain top mining. Some individual mines alone cover several thousand acres. The extracted coal is subsequently washed to remove the impurities of soil and rock before it is sold. The wastewater left over from the washing, otherwise

known as coal sludge, often contains a variety of toxins including heavy metals such as mercury, arsenic, selenium and carcinogenic chemicals.[416]

We receive from God all that we need for daily life by making use of the earth. Theodore Hiebert, a theologian of the Old Testament, suggests that if we take seriously *adamah* as arable soil, the same kind of soil used for growing grains, vineyards, and orchards,[417] then it might be more accurate to say that the farmer was made from the farmland or the gardener from the garden soil. Cultivating the garden was the archetypal activity for human beings.[418] Throughout the Bible we find people tending the land and enjoying its fruitfulness. Land and food provided the basis for the development of culture, a way of thinking and living with one another. Planting, harvesting, cooking, and eating provided the center for festivals and community. Throughout the Bible, we find food from farming, fishing, or hunting tied to feasts, rites of passage, and seasonal celebrations of planting and harvest.

God continues to bless the earth so that it provides us with what environmentalists call "ecosystem services." Those benefits fall into four categories: provisioning services, regulatory services, support services, and cultural services. Ecosystems such as grasslands and forests provide us with food and fuel, medicine and marketable goods, milk and mushrooms. Ecosystems also regulate our land, water, and air. They clean the air, purify water, mitigate floods, control erosion, and detoxify the soils. Wetlands and estuaries purify water. Flood plains serve as nature's safety valves. Plant canopies filter particles from the air, intercept rain and reduce its force on the ground. Tree roots bind soil particles in place and prevent them from washing down slopes. Old root channels act as drain pipes to minimize the force of surface runoff. Ecosystems provide cultural services that include aesthetics and sense of place. Finally, they provide support services by producing and cycling nutrients, pollinating plants, and controlling pests and disease carrying pathogens.[419]

To be sure, the curse has made deriving our life and enjoying that life from the earth difficult. Yet God allowed His human creatures to retain a measure of dominion over creation by developing tools (technology) that help them to bear the curse. They could develop skills for planting and harvesting. They could weave clothes to shield themselves from the elements, build shelters to protect themselves from the weather, and develop medicines to fight illnesses.

But our sin and the curse remain. Prior to the Fall, we might assume that Adam and Eve took care of each other from the earth without causing harm to its ecosystems. But for most of our history since the Fall, we have lived from the earth by living in an adversarial relationship with it. We have had to struggle against the earth in order to secure our lives and wrest our sustenance from it. In the process, we could not help but misuse it and abuse it in ways that deprive our neighbors—present and future—of God's bounty. The issue of the way in which we live from the earth has acquired greater

urgency today. We live in an age of technological mastery that can increase the scale and scope of our abuse of the natural world.

As Christians, how shall we live from the earth? On this side of the creation's final renewal, we will never avoid inflicting some damage. We can, however, seek to minimize the damage and to act kindly in our use of the earth. We might subordinate our behavior to the larger ecosystem upon which our lives depend.[420] As Francis Schaeffer put it, "Christians of all people, should not be the destroyers. We should treat nature with an overwhelming respect. We may cut down a tree to build a house, or to make a fire to keep the family warm. But we should not cut down the tree just to cut down the tree."[421]

Consider the instructions that God gave to the people of Israel. Ellen Davis, an Old Testament scholar, has pointed out that Israel occupied "a fragile ecological niche, the uplands of Canaan (later Judah and Israel), much of which is marginal for agriculture."[422] Its mountain slopes and small valleys constituted "one of the world's most varied agricultural landscapes."[423] The land had thin topsoil. Thus "periodic droughts, heavy winter rains, and strong winds" threatened to erode the land and turn it into a desert. Each family was given a small plot of this land that was "hard to farm and easy to ruin . . . there was little margin for error and no room for misusing the land." Their lives depended on the land for life and they handed it down as an inheritance through the generations.[424] How were the Israelites to live from the land and with it?

First, the Israelites were to receive what the earth offers with "thanks and praise." It is a gift from God (Deut 8:10). The people offered the first fruits of the land back to God as an expression of their dependence upon Him and his gifts. The recognition that it is God's gift entails certain obligations not to use creation as though we had created it.

Second, the Israelites were to practice good animal husbandry. Consider the instruction given about a nest with a mother bird and her young: "You shall not take the mother with the young. You shall let the mother go, but the young you may take for yourself." (Deut 22:6–7). The principle here is the preservation of the source of life.

Third, the Israelites were to engage in long-term thinking. For example, in warfare, Israel was forbidden to cut down trees, especially fruit trees, for siege works (Deut 20:19). This prohibition recognizes that "Nut, fruit, date palm, and olive trees all take years to mature."[425] By contrast, Assyrians often clear cut orchards as part of their war policy.

Fourth, the Israelites worked with the uniqueness of the place. Which plants grow best in a particular region or land or climate? Cotton may not work all over the world. Often the homogenization of plants reduces the biodiversity of the land. In our day, this suggests that grass lawns may not be best in arid climates where water is scarce.

Fifth, Israel was to remember the Sabbath and let the land rest every seven years. This allows the land to refresh itself and to regenerate itself. Israel was to let the oxen walk the fields. According to Sandra Richter of Asburry Theological Seminary, "Animals were supposed to walk the fields: in doing so, they would drop excrement, a natural fertilizer, and their hooves would break up the soil."[426]

The agricultural world of the Bible seems irrelevant today since most people no longer farm. Yet in a sense, there is no such thing as a "post-agricultural society."[427] As long as we eat, we live by farming. What we purchase to eat determines how our food was raised and prepared. Were the plants, vegetables, and fruit that we eat grown in rich and healthy soil? Healthy soil makes for healthy plants, healthy animals, and healthy people. By contrast, harsh chemical fertilizers (and pesticides) depress or destroy this biological activity (microbes, earthworms, mycorrhizal fungi).[428]

To treat the land properly may cost more and take longer.[429] We can work with the land in landscaping, in the selection of plants and grass. Often we bulldoze trees and flatten the landscape for housing developments, then give the developments names like Oak Crossing even though all the slow growing white oaks have been replaced by fast-growing Bradford pear trees. Instead, builders can bulldoze around the trees. It may cost a bit more but it honors and respects the trees.

Treating Kindly the Animals in Our Care

"How the beasts groan! The herds of cattle are perplexed because there is no pasture for them." — Joel 1:18

The animal rights movement has directed its attention at animal abuse in the food industry, entertainment industry, clothing industry, and laboratories. One of the largest and most well-known advocacy groups for animal rights is PETA (People for the Ethical Treatment of Animals). Founder Ingrid Newkirk said, "When it comes to pain, love, joy, loneliness, and fear, a rat is a pig is a dog is a boy. Each one values his or her life and fights the knife." [430] The intellectual foundation for the movement came from Princeton professor Peter Singer's 1975 book, *Animal Liberation*. He did not argue for animal rights, but said that we should determine all ethical action by a calculus of suffering and pleasure.

Conservatives often point out that Singer and animal advocacy groups equate the value of human life and animal life. That criticism is well deserved. But where are the Christian voices objecting to the abuse of animals? Matthew Scully, a speech writer in the George W. Bush administration suggests that it is "by default that Peter Singer and others with no religious faith are left to champion the causes of animals" because Christians have so little to say on practices that we know are inhumane and cruel.[431] In fact, he

suggests that if it were not to oppose the radicalism of animal rights groups, many Christian thinkers would say nothing at all about the compassionate treatment of animals. This is a shame because Christians have good reasons for urging compassion for their fellow nonhuman creatures without demeaning the value of humans.

God cares for our fellow nonhuman creatures. Consider several of Jesus' sayings about birds, creatures of little to no economic value. In Matthew 10:29–31 (cf. Lk 12:6–7), he asks, "Are not two sparrows sold for a penny? And not one of them will fall to the ground apart from your Father." Sparrows were sold in the market primarily as food for the poor. They were the cheapest form of meat. Jesus makes the point that God cares for creatures of very limited use and price. Similarly, a sparrow does not fall to the ground "when the hunter's throw-net snares it (cf. Amos 3:5)"[432] without the knowledge of the Father. God even provides for raucous (Ps 147:9; Job 38:41) and unclean birds (Lev 11:15; Deut 14:14), such as ravens.[433]

Jesus' sayings about birds argue from the lesser to the greater. The point is that God cares for His children who are of more value than birds.[434] But that does not mean that animals have no value. If that were true it would make no sense to say that humans are of *more* value. Jesus does not say that since humans are superior God does not bother to provide for animals. His arguments depend on the idea "that humans and animals are all creatures of God."[435] Jesus' sayings reflect the values of the Old Testament as well. When a human being or domestic animal kills a human that creature is subject to death. But "a human being who kills a domestic animal is required only to make financial restitution to its owner" (Ex 21:28–35; Lev 24:17–21). This suggests that animals were treated as property, yet the prohibition on eating meat with the life blood still in it (Gen 9:4; Lev 3:17, Lev 7:26, Lev 17:10; Deut 12:16, 23, Deut 15:23) recognizes that life belongs to God.

The Scriptures enjoin us to show compassion for our fellow creatures. The Israelites were to care for the land and treat their animals humanely. They were to relieve overburdened animals (Deut 22:1–4). The counsel in Deuteronomy about taking the young birds from the nest can be understood as preserving the source which will produce young again (Deut 22:6–7), but it can also be understood as compassion for the birds as well.[436] Leviticus forbids the slaughter of an animal together with its young (Lev 22:27–28).[437] Proverbs provides the general principle: "Whoever is righteous has regard for the life of his beast, but the mercy of the wicked is cruel" (Prov 12:10).

Compassion also lies behind the need to help animals on the Sabbath. The issue came up three times for Jesus and each time he pointed out that the law was generally understood as requiring the considerate treatment of animals. It was appropriate to lift a sheep from the pit (Mt 12:11–12), to pull an ox out of a well (Lk 14:5), and to untie an ox or donkey in order to give it water (Lk 13:15–16). These exceptions to the prohibition of work on the Sabbath were remarkable because they do not involve cases in which "the

lives of the animals were in danger, and so they cannot be understood as motivated by a concern to preserve the animals as valuable property. Rather they are acts of compassion, intended to prevent animal suffering."[438]

At times, Christians in the past have spoken up on the need to show compassion for their fellow nonhuman creatures. For example, John Wesley, in a sermon titled "The General Deliverance," wondered if mercy is extended to mistreated animals in eternity. He asked what the point was of dwelling "upon this subject which we so imperfectly understand." He answered that it would "enlarge our hearts towards these poor creatures to reflect that, vile as they may appear in our eyes, not a one of them is forgotten in the sight of our Father which is in heaven."[439] Christian reformers who opposed cruelty to farm animals established the Royal Society for the Prevention of Cruelty to Animals in 1824—the first animal welfare society in the world.

Since the days of John Wesley, the industrial revolution has given human beings an unparalleled mastery over the natural world and with it the capacity to magnify the abuse of their dominion. Today, most of us do not have direct contact with animals other than our pets. That makes our stewardship responsibilities more complex and difficult. How shall we treat the nonhuman creatures that lie within our care? We can ask certain questions and then act on those answers.

Eating animals was not part of God's original intention for creation. It was a concession to a fallen world. When we eat meat, we eat what Berry calls "the broken body of creation." In recognition of these two points, we can ask, "How were the animals that we eat allowed to live out their brief lives?" This is not only to ask whether they were healthy with the help of antibiotics and vaccines. It is to ask a larger question. Were cows and hogs allowed to see the sun and feel the ground beneath them or to graze in the fields? Were turkeys and chickens allowed to spread their wings? We can choose to eat those animals that were allowed to live as God intended prior to giving their lives for us.

How are laboratory animals, used in experimentation for cures and cosmetics, treated? How do we treat the animals that we hunt? Are they simply economic commodities? God allowed us to kill the beasts of field and forest for food, but not to kill only for the sake of killing. There is also the issue of the direct treatment of animals within our care, namely, pets and those that are used for experimentation. How do we care for our pets and other animals? In most states, dog fighting and cock fighting have been outlawed but puppy mills often remain unregulated. Tens of thousands of cats are released into the wild or dumped along the roadside.

Living Generously with Wild Nature

"But the only remaining wild animals in abundance that carry on in spite of human development are birds." — **Jonathan Rosen** [440]

Thousands of bird watchers from around the world flock to the Platte River in south-central Nebraska every March in order to watch nearly 500,000 sandhill cranes as they migrate north. This has become such an incredible wildlife spectacle in part because the cranes have been forced to squeeze into a sixty mile stretch of the Platte River between Grand Island and Kearney. They used to spread out over nearly 200 miles of the Platte. Numerous dams have further reduced their habitat by eliminating the spring floods that cleared away the vegetation on many of the sandbars needed by the cranes for roosting each night. Now humans must try to replicate creation's processes. Herbicides are needed to kill invasive species such as purple loosestrife and heavy equipment is used to clear the sandbars of saplings in order to maintain two critical refuges.

Our fellow nonhuman creatures need food, water, habitat, and space in order to thrive. The lack of these things pushes many to the brink of extinction. When the Endangered Species Act (ESA) was adopted in 1973 only a few hundred animals made the list. Today, more than 1300 are on the list for special protection. Regardless of the numbers, Meyer makes the astute observation that the list has become an "engine of human selection." We decide which species make the list and which do not.[441] We decide which habitats of the listed species are critical. Often the species' needs conflict with human interests of logging, ranching, or suburban development. These conflicts raise questions: How do we live with wild nature and its animals? How do we make room on earth for our fellow creatures?

Scripture does not say much about the relationship of human beings to wild nature. For most of human history since the Flood, wild animals have posed threats to human health and life. Still, Scripture provides a few intriguing hints. Already Genesis 1 notes that God created both domestic cattle and wild beasts. Genesis 2 also refers to "beasts of the field" as part of God's creation. In the Psalms and in Job we see that God delights in wild nature and in His wild creatures. Humans are encouraged to learn trust in God's provision by observing the wild creatures and to marvel at God's wisdom by reflecting upon the place and purpose of those creatures within creation.

One passage speaks of the messianic age inaugurated by Jesus. Mark 1:13 reads, "And he was in the wilderness forty days, being tempted by Satan. And he was with the wild animals, and the angels were ministering to him." Jesus begins His messianic ministry by going out into the wilderness. Generally speaking, wilderness in the Scriptures does not refer to the rugged beauty and rich biological diversity with which we associate wilderness

in North America.[442] Instead, wilderness generally refers to the nonhuman sphere of creation that exists outside of human control and is the antithesis of civilization. It is frequently described as barren desert unsuitable for human habitation. People feared that wilderness (desertification) might encroach on the precarious fertility and fragile ecosystems of land that could be cultivated.[443]

So when Jesus goes out into the wilderness He encounters nonhuman beings: Satan, angels, and wild animals. By going out to be "with them," Jesus signals the dawn of the Messianic age as portrayed in Isaiah 11:1–9 (see also Hosea 2:18–19). His action recalls the prophecy of Isaiah who spoke of the Messianic age in terms of peace between the domesticated animals (lamb, kid, calf, bullock, cow) and the wild animals (wolf, leopard, lion, bear, poisonous snakes).[444] In this context, Jesus goes out into the wilderness and is "with the wild animals," existing in harmony with them.[445]

So in light of the hope of the renewed creation, how might we live with wild nature today? We still live in fear of wild animals (Don't get too close to them!) even as we have practically eliminated them as significant threats. Yet we cannot live in complete peace with them this side of the renewed creation. In anticipation of that future harmony, we might try to work toward what might be called "reconciliation ecology,"[446] a workable symbiosis that benefits both God's human and nonhuman wild creatures.

Ecologists recognize that the number of species in a given area depends upon the size of that ecosystem. To understand why, science and nature writer David Quammen proposes the following thought experiment. Take a "beautiful Persian carpet and hack it into thirty-six pieces. You do not, he notes, wind up with thirty-six little Persian carpets but thirty-six unraveling scraps of useless material. Animals that need forests—a whole Persian carpet of land—cannot live in pieces of forest; those pieces can in fact no longer be called a forest." We may need to set aside large swaths of landscape and seascape with highly porous borders and corridors for migration.[447] Movement, migration, and colonization are goals. The corridors would be buffered by large swaths of ecologically compatible land and humans would have a stewardship mentality. The goal is to diminish the need for human selection.

Setting aside large tracts of land may not be enough. We have "taken and modified for our own use between 95 and 97 percent of all land in the lower 48 states."[448] According to the 2002 USDA Census of Agriculture, 41.4% of that land is used for agriculture, which means 53.6 to 55.6% of our land is used for cities and suburbs. So what about the areas in which we live? We "might envision and then attempt to create a pattern of human development styles of life that are adapted to the natural ecosystems in which they are enmeshed."[449] Urban areas need not be thought of as existing outside of nature. Nature does not exist only as far away places to which we vacation. How can we construct cities within the ecosystems of which they are

a part? We might re-establish wetlands and riparian corridors (plants and vegetation bordering streams, rivers, and lagoons) that contribute to the conservation of biodiversity. The development of greenways allows for the migration of wildlife. J. Baird Callicott points out that when Europeans came to North America, they were awed by its sheer abundance of fish, fowl, and game. This testified to a hands on approach that "arguably enhanced the ecosystems by objective measures of biological productivity, species diversity, and ecological integrity."[450]

What about the environment closer to home? What can we do within our own yards and neighborhoods? We might turn lawns into gardens filled with native plants that support a rich biodiversity of creatures. As those gardens connect to each other they create large swaths of habitat that support a myriad of smaller creatures. The alien grasses of our lawns are for the most part a green wasteland as far as life is concerned. Planting "native species create[s] simplified vestiges of the ecosystems that once made this land such a rich source of life."[451] This includes insects that pollinate plants and keep populations of insect herbivores in check for wildlife.[452]

Thoughts to Ponder and Things to Do

- Consider organic gardening and compost gardens and thereby improve the composition and nutrients of the soil and thus the health of the plants that you grow. Take a class in your area on how to compost leftovers and other "yard waste."
- As a congregation, plant a community garden and distribute your excess garden produce to local food banks and homeless organizations.
- Buy certified, organically raised dairy products, eggs, cereals, fruit, and vegetables. Purchase range-fed beef, pork, and poultry. How we eat determines the way in which our food is raised. This can be expensive, but we can begin by choosing one food that we will eat this way, for example eggs from cage-free chickens or range-fed beef from a local farmer.
- Volunteer your time at your local Humane Society or other local pet and wildlife rescue groups within your area. Contribute to the Humane Society of the United States or the American Society for the Prevention of Cruelty to Animals.
- Consider planting native plants in your gardens and landscaping. Create a yard that provides habitat and food for threatened migratory species such as birds and butterflies.
- Purchase recycled paper products, such as towels, toilet paper, and writing paper. It helps preserve the Boreal forests of the north. Purchase shade-grown coffee. In Central and South America,

rainforests provide a natural canopy under which shade coffee is grown. The coffee tastes better and the canopy provides a critical habitat for migratory birds.

- Purchase Migratory Bird Stamps (Duck Stamps). They provide a good way to support one our best kept secrets, namely, the National Wildlife Refuge System.
- Identify and select a conservation organization to support such as the Nature Conservancy, World Wildlife Fund, or the American Bird Conservancy. Check Charity Navigator for how they spend their money. Through such conservation organizations you can also choose to "adopt" an acre of rainforest or an endangered species.

Caring for the Earth to the Glory of God

"The earth is a theater of the glory; it is rich with the ineffable glory because God, the holy one, has made it." — Joseph Sittler[453]

Called to care for God's earth, we look after it for the well-being of both our fellow human creatures and our fellow nonhuman creatures. In the end, we care for the earth He has entrusted to us in order to bring glory to God. The Father put all things into the hands of Jesus, whose work of reclaiming and recreation reconciled all things to God, in order to present to His Father a purged, purified, and renewed creation. He presents us to the Father as the newly adopted children of God and with us, He renews the entire creation. As people who have been raised from the dead by virtue of our baptism, and who now live as new creatures, we can begin the healing in creation. We can begin living as the creatures that God intended us to be. More specifically, we can begin to live out our role as caretakers of the earth in the confidence that Christ will bring that work to completion. So what kind of an earth will we present to God when Christ returns? Will it be something much less than the one He made?

Ultimately we look after the earth for the sake of bringing glory to God. We do this by drawing attention to His work and delighting in that work. If this is our goal, then we cannot define our stewardship of creation primarily in terms of efficiency. We cannot equate stewardship with being efficient in our use of creation. That is too narrow a vision, one that often leads to a misuse of the earth resulting in ugliness. Instead, we need to think of our care in terms of nurturing, "making room" for all of our fellow creatures so that creation flourishes and can be what God intended it to be. Our work of caring seeks to make all things beautiful and enable all things to flourish.

Ultimately, the way we take care of creation shows something of what we think of the handiwork of God. Do we take care of it in such a way as to shed light on the work of God's hands or do we obscure the goodness and beauty of what He has made? Does our work draw attention to the one who made creation or does it draw attention to the fact that His human creatures have claimed creation as their own? Do we take time to delight in creation even as God delighted in it on the seventh day? Do we lead all of creation in a symphony of praise?

Work That Embellishes God's Creation

If we understand that no artist—no maker—can work except by reworking the works of Creation, then we see that by our work we reveal what we think of the works of God." — Wendell Berry[454]

J. R. R. Tolkien wrote his classic book, *The Lord of the Rings,* in part as a critique of the impact and effects of industrialization upon England in the twentieth century.[455] Two scenes stand out for the contrast they provide between working with the earth and running roughshod over the land. The evil wizard Saruman's tower, Isengard, represents the industrial age. "Cut those trees down," exclaims Saruman. The forests around Isengard are clear cut and consumed in a large machine within the ground that belches smoke and pollution until the entire land lies befouled and filled with stench. By contrast, the elves, dwarves, and hobbits seek to work in harmony with the land so as to shed light on the beauty of nature as well as the work of their own hands. For example, Frodo Baggins lives in a home beneath a tree in the shire. The roots of the tree form the arches for his home. One can see that the roots have all been polished in order to bring out their beauty.

God created and called us to participate with Him in the ongoing work of creation. This means that we are not simply outside observers of nature. Too often, nature and wilderness are regarded as places that are better off without us and as places where we do not fit or belong. To the contrary, both Scripture and ecology make the point that we are integral members of the community of creatures on earth. We are interrelated and interdependent members with all other creatures. This does not make us worshipers of nature. Instead, God has made us His co-workers, even His co-creators, within this community of creatures. In fact, He has given us the special role of maintaining and promoting the well-being of the whole of creation by looking after the individual areas of creation, beginning with those where we live.

When God enlisted us as His co-workers and gave us the earth (Ps 115:16), it did not mean that we could do with it whatever we want. To the contrary, the earth still belongs to Him. "We must not use the world as though we created it ourselves."[456] We come into creation and find that

we enter into a creation that God has already made. Unlike God's work, in which everything was created out of nothing, our work always makes use of what God has already made. Both the Creator and His creation are prior to us. The nature of our work in creation is more like *invenio,* or discovery.[457]Adam and Eve came into the garden and found that God had already been working there, preparing it for them and getting it ready for them to work and cultivate.

Our care for the earth is work that responds to God's prior work in creation. We receive His prior work as a gift and care for it accordingly. Norman Wirzba suggests that both "Work and play, at the most fundamental level, are our responses to God's own work and delight in a creation well made."[458] These are the various gifts of God in creation, Luther said, "for which it is my duty to thank and praise, serve and obey." When we receive God's gifts with gratitude we will use them in a way that honors God's work. "Work, rather than following from divine punishment, becomes the noble activity of presenting to God a creation strengthened and restored through the exercise of our hands, heart, and head. It is to join with God in the divine work of cultivating and maintaining a garden (Gen 2:8–9). It is to enter into the flow of the divine beneficence and hospitality."[459]

Refashioning the works of God means that we subordinate ourselves to what He has made. This suggests that we work with creation by subordinating ourselves to the design of God's own creation. G. K. Chesterton expressed it well. "God is that which can make something out of nothing. Man (it may truly be said) is that which can make something out of anything." Thus while

> "the joy of God be unlimited creation, the special joy of man is limited creation, the combination of creation with limits. Man's pleasure, therefore, is to possess conditions, but also to be partly possessed by them; to be half-controlled by the flute he plays or by the field he digs. The excitement is to get the utmost out of given conditions; the conditions will stretch, but not indefinitely. A man can write an immortal sonnet on an old envelope, or hack a hero out of a lump of rock. But hacking a sonnet out of a rock would be a laborious business, and making a hero out of an envelope is almost out of the sphere of practical politics."[460]

Just as an artist's chosen medium (e.g., acrylics, oils, watercolors) allows him to paint pictures that accent particular aspects of his subject, so we work with the unique features of God's creation in order to accent particular features of God's creation.

The way we work with God's prior creation will either honor His work or dishonor His work. Norman Wirzba puts it this way. "If we understand that no artist—no maker—can work except by reworking the works of Cre-

ation, then we see that by our work we reveal what we think of the works of God."[461] We need to treat those works with respect, much as a master craftsman knows how different types of wood feel and smell, understands how they may be best used, and knows what stains best bring out the beauty of their grain. We were not called to use creation without regard for its other creatures or without regard for our despoiling of it. To the contrary, we need to ask whether or not our work honors God's work. Does our use of the earth enhance and embellish creation or does it despoil and deface God's work? We care for the earth so as to reflect the glory of God's own handiwork. Rather than defacing God's creation by working against it, we seek to work creatively with creation so as to shed light on the beauty of His work.

In terms of the inanimate creation this might suggest that architecture would work with the specifics of the land so as to shed light on the uniqueness of God's creation in that place and time. The landscape designs of Ian McHarg provide a good example of working with the land rather than against it. The architecture of Frank Loyd Wright provides an example of one who sought to work with the uniqueness of the place. Thus his prairie house fit in, looking natural in the setting in which he placed it. Similarly, we would fashion from woods and precious metals and stones taken from the ground objects that reflect the beauty God's own work in creation (e.g., Solomon's temple).[462] Is the result of our work or art useful and beautiful? There is a right way of doing things. It will express the coherence of creation. "The results of work, then, when artfully made, will necessarily be beautiful, useful, durable, a delight to the hand, eye, and heart, and thus a compliment to the creator."[463]

In terms of the animate creation—Earth's "living creatures"—we seek to care for them in such a way they may flourish and thrive according to God's design. So "will our work honor those through whom we live."[464] Do we "make room" for other creatures to live out the lives God gave them? Do we plant trees and nurture them so that they can grow tall and strong? Do we deal with the soil to make it rich, crumbly, and healthy? The goal of our work in creation is to promote *shalom* so that every creature can do what it was called to do and by doing so, glorify God.[465]

Creation's Sabbath

"The key to the truth of creation is to be found in the Sabbath, for in the sabbath creation finds its fulfillment, goal, and purpose."
— Norman Wirzba[466]

The goal of our work should mirror the goal of God's own work, namely Sabbath rest and delight. When we read the account of creation in Genesis 1, we may conclude that the creation of humankind on the sixth day marked the pinnacle and climax of creation itself. Instead, the creation of the Sabbath on the seventh day marks the culmination of creation. As Genesis 2 opens,

it notes that the heavens and earth were finished. But then it continues by saying, "on the seventh day God finished his work that he had done". In other words, God finished His work on the seventh day. Abraham Heschel said that "the world would not be complete if the six days did not culminate in the Sabbath."[467] The entire creation is blessed by rest and the enjoyment of His work.[468] Here God's human creatures and nonhuman creatures alike find *shalom*, that is, wholeness and well-being. Here they share in God's own delight for His creation.

What does it mean to say that God finished His work and then rested? Walter Brueggemann observes that throughout Genesis 1, God declared His creation "good" (1:10, 12, 18, 21, 25). In verse 31 He pronounces the whole of it as "very good." Therefore we should call it good as well! Brueggemann suggests that "good" here includes an aesthetic quality and could be rendered "lovely, pleasing, beautiful" (cf. Eccles 3:11).[469] Ellen Davis concurs, noting that God continually expresses delight in His creation. As she puts it, "God saw how good it was."[470] The progression from the sixth to the seventh day involves more than the idea that "time has run its course." God rests "not because the week ends, but because there is a satisfying, finished quality in creation."[471] God takes time to appreciate His work. Norman Wirzba also notes that the heart of God's own rest is "the divine enjoyment and delight in creation (remembering that the Garden of Eden literally means a 'garden of delight').[472] Wendell Berry captures this in his poem, "To Sit and Look at Light-Filled Leaves."

> To sit and look at light-filled leaves
> May let us see, or seem to see,
> Far backward as through clearer eyes
> To what unsighted hope believes:
> The blessed conviviality
> That sang Creation's seventh sunrise,
>
> Time when the Maker's radiant sight
> Made radiant everything He saw,
> And every thing He saw was filled
> With perfect joy and life and light.
> His perfect pleasure was sole law:
> No pleasure had become self-willed
>
> For all His creatures were His pleasures
> And their whole pleasure was to be
> What He made them; they sought no gain
> Or growth beyond their proper measures,
> Nor longed for change or novelty.
> The only new thing could be pain.[473]

God's own rest becomes a pattern for creation's rest. "Humanity and earth become most fully what they are [namely creatures and creation] to be in the celebration of the Sabbath."[474] In the peaceful rest of the Sabbath we show our dependence upon God's creation and share in the delight of God's own creation. Davis suggests that this is confirmed in the one psalm devoted to the Sabbath, Psalm 92, where the psalmist chooses the good thing—the celebration of the works of God.

The people of Israel confessed who they were as God's chosen nation and witnessed to their dedication to God by observing the Sabbath. Israel had wandered in the desert for forty years. During that time, God provided them with manna for six days of the week. On the sixth day, God sent them a double portion to gather up. They were instructed, "Tomorrow is a day of solemn rest, a holy Sabbath to the Lord; bake what you will bake and boil what you will boil, and all that is left over lay aside to be kept till the morning" (Ex 16:23). The Third Commandment reiterated the need to desist from work. "But the seventh day is a Sabbath to the Lord your God. On it you shall not do any work, you, or your son, or your daughter, your male servant, or your female servant, or your livestock, or the sojourner who is within your gates" (Ex 20:10). It did not matter how busy they might be. "Six days you shall work, but on the seventh day you shall rest. In plowing time and in harvest you shall rest" (Ex 34:21). The cessation from work, even during crucial periods like planting and harvesting, had the effect "of putting our work in proper perspective."[475]

The Sabbath rest and peace extended to the entire nonhuman world as well as the human. Animals were exempted from work on the seventh day. They needed a time to rest. This was again rooted in God's own rest on the seventh day of creation (Ex 20:8–11). Luther brings this out in his *Large Catechism*, noting that the Sabbath command exists because our bodies need rest. "Nature teaches and demands that the common people—menservants and maidservants who have gone about their trade all week long—should also retire for a day to rest and be refreshed."[476] In other words, we observe it so that "man and beast" may be refreshed.[477] In the Old Testament, this found its most radical expression in the case of the sabbatical year (Lev 25:5). Every seventh year the land was to rest and lie fallow. The poor were to eat of it and what they did not need was left for the wild animals to eat.

The Sabbath rest contrasts sharply with the way in which we view rest merely as the cessation of work, and probably even as a sign of laziness. "The industrial era at climax . . . has imposed on us all its ideals of ceaseless pandemonium. The industrial economy, by definition, must never rest . . . There is no such thing as enough. Our bellies and our wallets must become oceanic, and still they will not be full. Six workdays in a week are not enough. We need a seventh. We need an eighth . . . . Everybody is weary and there is no rest . . . . Or there is none until we adopt the paradoxical and radical expedient of just stopping."[478] Berry observes that our "work-shop-consume

treadmill"[479] exhausts us as we seek to secure our lives, with the result that high stress and hypertension characterize our lives. Wirzba believes that we "do not enjoy God's peace and rest, nor do we properly understand the meaning of creation, because we have not yet learned to properly celebrate the Sabbath."[480] When we fail to observe the Sabbath, "we are prone to spoil the work of God's hands and exploit the work of each other."[481]

So what does it mean to rest? We usually associate rest with "down time" or as "time for leisure." But the "Sabbath is not an armistice, but a conscious harmony with and sympathy for all things."[482] It provides "the time when we can reflect upon and enjoy the work of God and the work of our own hands."[483] Sabbath rest allows us to look around and celebrate God's ongoing work in creation. To do so, we need to "fix our gaze" on the earth that surrounds and supports us. We need to look around and see all the life-sustaining gifts that God continues to provide. "When we do so, we will see more clearly the beneficence and the joy that is our life, if only because we will experience firsthand the grace of creation."[484] These gifts can elicit from us a work response that "is steeped in gratitude and respect rather than anxiety and greed." Leisure provides for the conscious enjoyment and celebration of these life-sustaining gifts with family and neighbors, especially around the preparation and eating of food. In this way, it becomes our most complete expression of work just as "the divine rest and delight marked the completion of God's creative work."[485]

But Sabbath rest need not be confined to a single day of the week. We need to work with the rhythms of creation and the rhythms of our bodies. Wirzba suggests that we develop practices during the day that can "be punctuated with reminders of how our acts bear directly upon the wide world of creation."[486] The purpose is to "clear the space and time in which we can cast our striving in the light of God's creative intention and presence and there to judge it to be the affirmation or denial of God's will."[487] Such "Sabbath moments" will make our lives more meaningful and remind us of our place within God's earth. Could we even turn our work into a form of worship? Brueggemann proposes that this can begin with our eating. Table prayers are "brief sabbaths" when we live from the gifts of God that sustain and nourish us. He suggests that it "will be worthwhile to make visible links between the *overpowering miracle of creation* and the daily *reality of food*."[488] One way to do that is through our table prayers. We can see this in Luther's own recommendation for table prayers. Luther prays in the *Small Catechism* by opening with the psalmist's words, "The eyes of all look to you O Lord, you give them their food in due season." We can also see it in a common table prayer of Lutherans, "Come, Lord, Jesus, be our guest, and may these gifts to us be blessed."[489]

Wirzba suggests that the "practical effect" of observing Sabbath moments throughout the day is that it reminds us that the earth is not ours. To forget this "is to make ourselves and our own interests the end of cre-

ation."[490] By entering into the peaceful Sabbath rest with God we show that the world is "sacred" to God. "Without the Sabbath the world would exist only as a world. It would be something like the 'nature' of modern science since its holy character would go unnoticed. It would be a world without rest, without delight . . . . The Sabbath lets us know that the world is not simply created by God, but that it exists before, with, and for God."[491] In the New Testament, Jesus heals the sick, restores sight to the blind, and casts our demons in order to heal and restore creation. "Jesus represents life in its fullness."[492] He makes it clear that the Sabbath was created for man, not man for the Sabbath. The church gives witness to the abiding work of this healing.

Creation's Symphony of Praise to God[489]

"Your works praise You, to the end that we may love You, and we love You to the end that Your works may praise You."

— Saint Augustine[494]

The Sabbath rest provides opportunity for the entire creation to celebrate God's work in creation and the new creation. In other words, we serve creation so that together with all creatures we may praise God. Old Testament scholar Terrence Fretheim notes that on numerous occasions, Scripture speaks of nonhuman creatures praising God. He points out that the nonhuman creation breaks out in praise of God on at least fifty occasions in twenty-five different contexts.[495] The entire earth, its mountains and hills, its forests and trees, its living creatures all break out in song to the creator (Is 44:23; Is 55:12; Ps 98:4; 1 Chron 16:33). Nowhere does creation's praise find such strong expression as in Psalm 148. It contains a series of calls to every corner of creation to praise God. The call to praise God begins with the heavens (vs 1–4) and moves to the earth (vs 7–12). These two realms are brought together in verse 13. In verse 14 the final call to praise centers on Israel. The reasons for praise relate to what God has done by His work of creation.

How do nonhuman creatures praise God since they either lack voices or the conscious awareness that we associate with giving thanks and praise? Wirzba points out that cedars and birds do not offer audible praise composed in words, instead they reflect God's goodness in their being. They do so by being the creatures that God made them to be. "They can show forth the power and presence of God, as when they fulfill their creator's intent. The cedar does this when it grows strong and majestic as only a cedar can. The blue heron praises God as it soars above a marsh."[496] The fact of creation by God is the reason for praise. "Praise occurs when the creature fulfills the task for which it was created."[497] Richard Bauckham suggests, "The creation worships God just by being itself, as God made it, existing to God's glory."[498] In doing so, as Fretheim points out, creation's praise of God becomes witness to God's work. When creatures fulfill the task for which they were

created, God's glory is made known. It witnesses to God's work. These are the two central facets of praise: the honor of God and the witness to others.[499]

Together with all creatures we praise God and testify to His work in a kind of symbiotic activity. Fretheim notes that the model of the symphony orchestra is appropriate to describe this psalm. If one member of the orchestra is missing the "complexity and intensity of the praise will be less than what it might be."[500] Each part of creation contributes what is unique to it. In doing so, each part contributes to the whole. The entire creation gives witness to the range and diversity of God's work. Overall, the summons to praise in Psalm 148 calls "attention to the range of God's creative work and hence God's praise-worthiness."[501] We need each other, for "only as all creatures of God together join in the chorus of praise do the elements of the natural order or human beings witness to God as they ought to."[502]

The nonhuman creation in some ways provides a model for the human praise of God. Other creatures assist our worship (note that human worship follows the worship of the rest of creation in Psalm 148). The call to praise suggests the possibility of refusal, at least for humans. Only humans voluntarily desist from worship. Other creatures praise God without thinking and do so continually. To be sure, the praise of God by parts of creation is occasional as in the case of hail and stormy winds.[503] But creation disrupted by sin still witnesses more constantly to God than human creatures do.[504] Bauckham notes that in the pre-modern period creation's praise of God had a much more important place in the consciousness and liturgy of the church.[505] Creation's worship also reminds us that creation does not exist only for our use.

At the same time, our care of creation serves the earth's praise of God and witnesses to his work. Humans should seek to assist the nonhuman creatures to reach their fullest possible potential, to be what they were created to be. Fretheim observes that the commission to subdue and cultivate the earth suggests that it and our fellow creatures need human beings to witness fully to God's work (a witness that integrates nature and culture). Conversely humans often prevent creation from being what God intended it to be. Wirzba notes, "Human beings are unique among creation not only because we have the choice about whether we will make our lives a reflection of God, but also because we can in our activity severely impair the ability of other members of creation to reflect God's grace."[506] When we do so, as in the case of species extinction, replacing the beauty of creation with the ugliness of strip mining, we stifle their voices if not remove them from the choir. The song of creation becomes much diminished. The witness to God's work for unbelievers becomes muted.

The earth's praise and witness of God provide a different way of thinking about creation, a sacred way, rather than a secular way in which we consider earth only as natural resources or a collection of impersonal laws. It is hard to be sympathetic with resources or laws. Czech philosopher Erazim

Kohak observes, "When we conceive of the world as God's creation, we cannot dismiss even the boulder as 'dead matter' in our modern sense. Even the boulder is an expression of God's loving will, testifying to the glory of its maker—and, as such, to be approached with respect."[507] Even the boulder praises God in its own way. And so felling a tree, killing an animal, throwing away a tool, is never a task that is to be taken lightly. Each is a gift graciously given. As gifts they merit our respect and care. But as gifts they are not ours to possess in an absolute sense. They are to be treasured in such a manner as to show creation's relation to the creator. They are, in other words, to be used in a manner that testifies to their being the effect of a divine love that defies imagination and comprehension."[508] We do so in anticipation of creation's renewal by the Holy Spirit.

Thoughts to Ponder and Things to Do

- In preparing food, crafts, yard landscaping, or home remodeling, remember that we are re-shaping God's prior creaturely gifts. Seek to do so in a way that respects and honors God's creative work.
- Take time for "Sabbath" moments during the day in order to reflect on and delight in the gifts of God's creation. When you eat, reflect on the way God brought that food to you through His creation. Give thanks frequently.
- Study all the occasions in Scripture that express wonder at creation and celebrate and praise God for His creation. Note how God continually interacts with His human creatures through creation, either for blessing or judgment.
- As a congregation, participate in a community Earth Day event so as to give witness to God's creation, our place within it, and the renewal of creation in Christ. We could devote an entire service with a liturgy centered on creation and its renewal in Christ.
- Incorporate creational themes into regular services. At one time this took place as part of the rhythms of the year as the congregation observed the seasons of planting and harvesting. In an urban society we need to become more intentional in doing so.
- Connect with your community in working with environmental issues (Be an extension of the community that cares for creation by cleaning the cities' green spaces, lakes, or rivers. People are often surprised that Christians are interested in the care of the earth.
- Once a month or more incorporate an offering for the community. The offering is given to the Lord, then taken to people who need it. The offering might also involve volunteering services to plant trees, providing care in local animal shelters, or working in a park.

- When constructing a new church building or worship center, do so in a way that incorporates it into and opens it to the world of creation in which it is set.
- Host environmentally sound workshops for the church and the community. Host a recycling event (paper, cans, cardboard, or glass) for the congregation and neighborhood.

Conclusion

"Save the Earth!" "Save the Whales!" "Save the Rainforests!" We see these and other slogans on t-shirts, bumper stickers, on shopping bags, and throughout the media. Such slogans are clearly aimed at mobilizing people to act for the rescue and preservation of those portions of creation that are in danger of being lost. But they do not tell us why we should act or how we should act. Nearly everyone acknowledges that the task involves a fundamental reorientation of mind and heart if such causes are to be more than the latest fad of the day. In other words, who and what are we? Where do we fit within creation? How do we live within creation?

Christians approach those questions from within a story that tells us about God's creation of the world, moves to His rescue of creation, and then culminates in His renewal of creation. In this story we come to see ourselves as creatures among fellow creatures. Through our creatureliness God defines what we are, shows us where we fit within the creation, and directs the nature of our lives as those who live from His gifts. In this story we also come to see that we have been called and redeemed by God to care for creation and its well-being, thus giving witness to God's good work. Both of these themes have a counter-cultural ring to them, but may best appropriate the ecological insights of our day.

Christians have an opportunity to show the way to live with creation in the twenty-first century, a century that the environmental historian Daniel Worster has called the "Ecological Century." It is a way of life shaped more by our calling to care for God's earth than by fear of the next ecological crisis. It is a way to live with creation, respecting its integrity as God's creation—sober and realistic about creaturely limits and possibilities within a world corrupted by human sin—yet living in the hope of creation's future renewal. We, together with all creatures, are part of God's story—the story that offers the best hope for cultivating an ecological ethic.

The God who set the stars in space
And gave the planets birth
Created for our dwelling place
A green and fruitful earth;
A world with wealth and beauty crowned
Of sky and sea and land,
Where life should flourish and abound
Beneath its Maker's hand.

A world of order and delight
God gave for us to tend,
To hold as precious in his sight,
To nurture and defend;

But yet on ocean, earth and air
The marks of sin are seen,
With all that God created fair
Polluted and unclean.

O God, by whose redeeming grace
The lost may be restored,
Who stooped to save our fallen race
In Christ, creation's Lord,
Through him whose cross is life and peace
To cleanse a heart defiled
May human greed and conflict cease
And all be reconciled.

Renew the wastes of earth again,
Redeem, restore, repair;
With us, your children, still maintain
Your covenant of care.
May we, who move from dust to dust
And on your grace depend,
No longer, Lord, betray our trust
But prove creation's friend.

Our God, who set the stars in space
And gave the planets birth,
Look down from heaven, your dwelling place,
And heal the wounds of earth;
Till pain, decay and bondage done,
When death itself has died,
Creation's songs shall rise as one
And God be glorified!

Timothy Dudley Smith
Tune: Ellacombe

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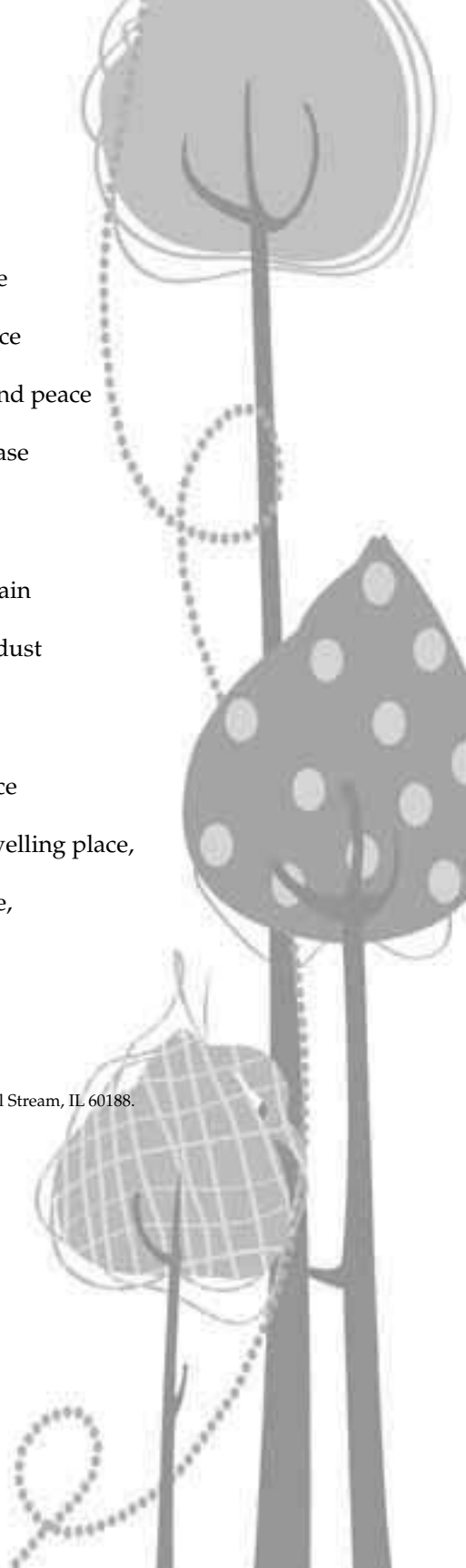

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216 Ware, 130.

217 See also, "And the Lord will be king over all the earth. On that day the Lord will be one and his name one. The whole land shall be turned into a plain from Geba to Rimmon south of Jerusalem. But Jerusalem shall remain aloft on its site from the Gate of Benjamin to the place of the former gate, to the Corner Gate, and from the Tower of Hananel to the king's winepresses" (Zechariah 14:9–10).

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450 Ibid., 133.

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457 I am indebted to Robert Rosin for this insight.

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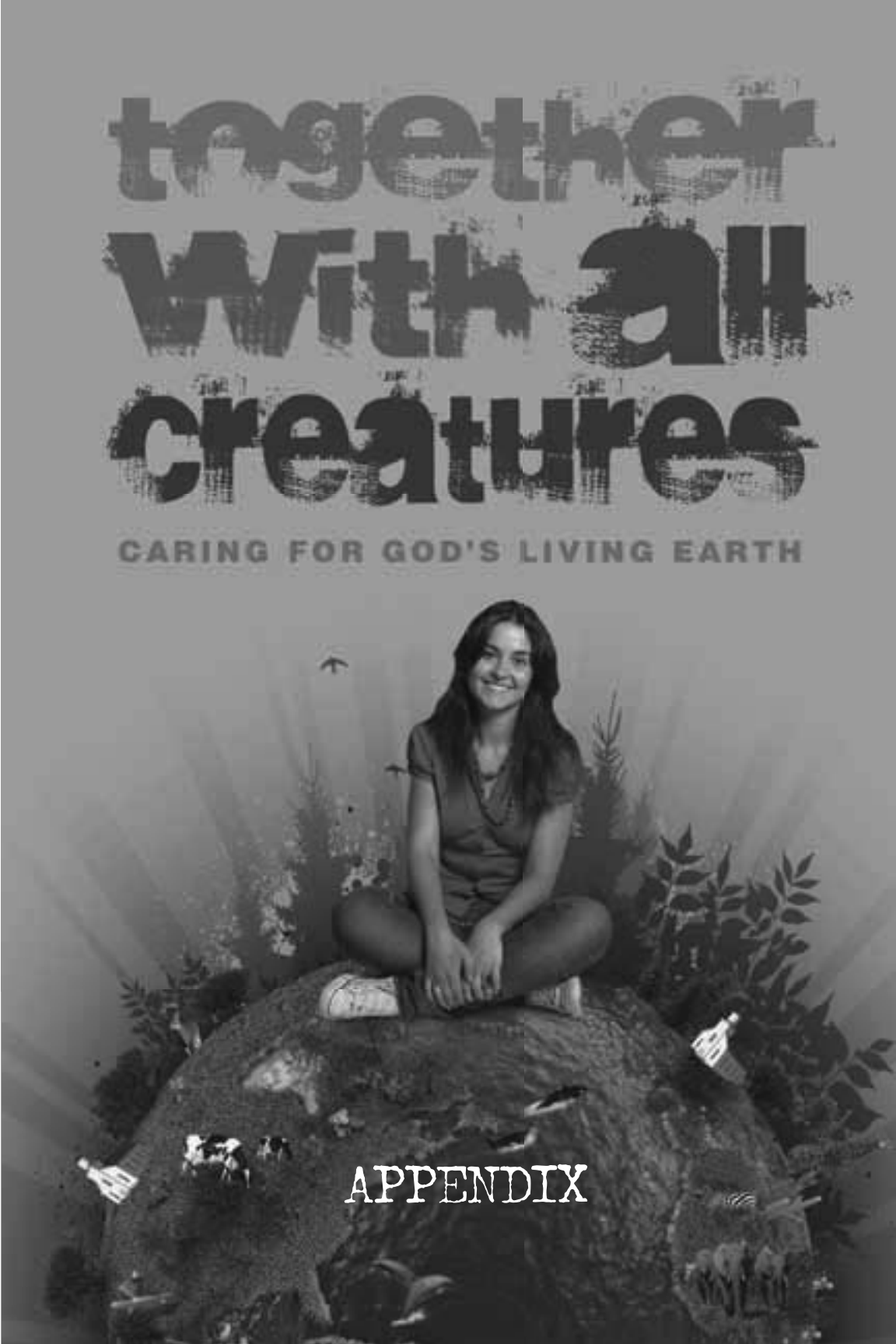
together with all creatures

CARING FOR GOD'S LIVING EARTH



APPENDIX

This document was prepared by the Commission on Theology and Church Relations (CTCR) of The Lutheran Church—Missouri Synod in response to a request "to develop a biblical and confessional report on responsible Christian stewardship of the environment" (2007 Res. 3-06). At its April 2010 meeting the CTCR adopted this document (CPH item 09-2621) and also a longer, expanded version of the same (CPH item 09-2622).

Highlighting with red letters and a larger font are used for key ideas and for Scripture references in this document to help the reader follow the train of thought and to facilitate its use as a Bible study.

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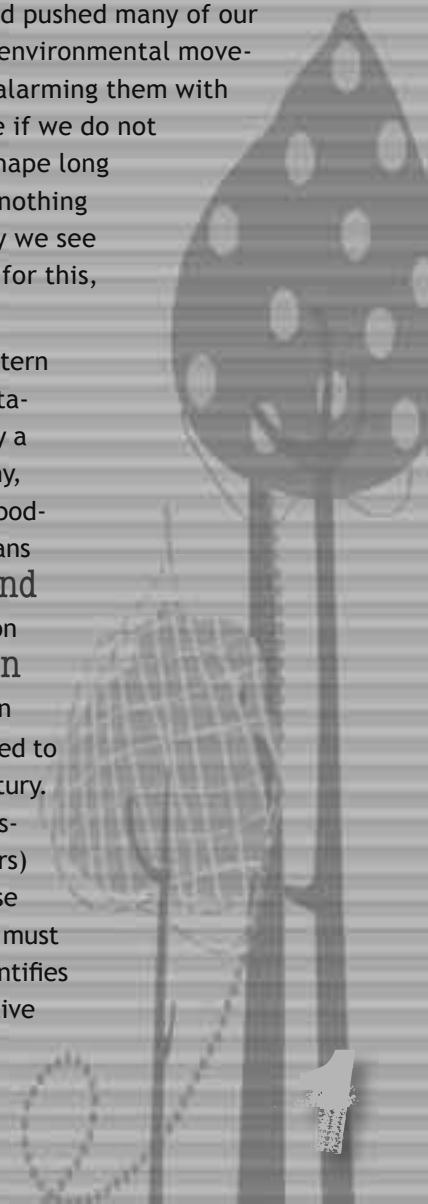
Together with All Creatures: Caring for God's Living Earth

In the last two centuries, we have acquired a mastery over the earth never before seen in human history. That mastery, fueled by the scientific and technological revolutions, has brought about dramatic improvements in human health and well-being but has also come with a heavy cost. The environmental movement has drawn attention to the way in which our domination has diminished the beauty of God's earth, damaged the health of its ecosystems, and pushed many of our fellow creatures to the brink of extinction. The environmental movement has also aroused people to take action by alarming them with doom and gloom scenarios that would take place if we do not act to avert them. But can the movement also shape long term attitudes and behavior? For that, we need nothing less than a fundamental reorientation in the way we see ourselves and our relationship to the earth. And for this, we need the Christian story.[1]

Two thousand years ago, Christianity gave western society a vision of the earth, rooted in the Old Testament, as a good creation brought into existence by a gracious God. In an age shaped by Greek philosophy, many considered the earth to be a prison and our bodies to be tombs. But in the Apostles' Creed Christians confessed that God created the heavens and the earth (Gen 1:1). This Creator sent His Son into the world to become a human creature (John 1:1, 14) so that our bodies would be raised up on the last day (1 Cor 15:51–57). Christians need to reclaim the Creed's vision for the twenty-first century. Today we have come to see ourselves either as masters of the universe (given our technological powers) or as the worst thing ever to happen to the universe (given our ecological destructiveness). Instead we must articulate a view of human creatureliness that identifies where we fit within God's living earth and how to live generously with our fellow creatures.



Where Do We Fit Within God's Living Earth?

"God has made me together with all creatures . . ." — Martin Luther

The various ecological issues of our day raise more questions about *us* than about the environment. How do we see ourselves and our place within creation? The answer to that question will shape how we live on God's earth. For example, if we distinguish ourselves too sharply from creation we might seek to free ourselves from the constraints of the earth or to control it for purely self-centered purposes. If we identify ourselves too closely with the earth we might lose our distinctive identity to the point that we value nonhuman life above human life. The Christian story avoids these two alternatives by affirming our *common* creatureliness as well as our *distinctive* creatureliness. Within this story we confess that God has called us to care for His earth as creatures among fellow creatures.

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In the Company of Fellow Creatures

"The whole creation, the entire cosmos, is on tiptoe with expectation for God's glory to be revealed to his children."

— N. T. Wright's paraphrase of Romans 8:21

The way we tell the Christian story says something about the way we see ourselves and our life on earth. Does that story include or exclude our fellow creatures of the earth? Are other creatures simply background scenery for our story or fellow participants in that story? So how do we tell the story? Does it go something like this?

God created us in His image, but Adam and Eve sinned and brought God's judgment upon the whole human race. God then sent His Son Jesus to die for us so that when we die we will be with Jesus in heaven.

This is certainly true as far as it goes. But there is more to the story. The story continues and expands to include the resurrection of our bodies and the renewal of God's entire creation.

When God created us, He formed us and our fellow creatures from the soil of the earth (Gen 1:24; 2:7; 3:19; Job 10:9). We are all made of the same "stuff," as it were. We share a bond with other creatures by way of the earth. God provided all His creatures with food from the earth. We share a common table. God blessed all His creatures and so we share with our fellow creatures a common pattern of life. We mate, procreate, and raise our young. God gave all His creatures a place to live. We share the earth as a common home. God created all of His creatures for His delight and glory. He liked what He made and declared that it was all good. With our fellow creatures we praise God by living as the creatures God made us to be. While we do not think of birds, animals, and fish as our brothers and sisters, they are our fellow creatures and, in a certain sense, our neighbors.

Not only do we share a common bond with other creatures by virtue of God's creative act, our futures are linked together as well. We see this in the sin of Adam and Eve. Their rebellion reverberated across the earth and brought down the judgment of God. Adam and Eve found themselves subject to death and decay when God cursed the ground (Gen 3:17–18). They would struggle to live, only to return to the earth from which they had been made. The earth and all of the creatures that live upon it now suffer with us in bondage to corruption. The severed relationship between humans and God ripped apart the fabric of creation. It pitted humans against each other and humans against their nonhuman fellow creatures. Fear, suffering, and violence replaced the peace and tranquility that had characterized God's creation.

In spite of human sin, God continued to care for all of the creatures, both human and nonhuman, that made up His living earth. He continued to bless them so that they would procreate. He continued to provide them with food and shelter (Psalms 65 and104; Ps 145:15). And consistent with His work of creation, God included the entire earth in His promise of the new age to come! In language reminiscent of Genesis 1, God bound Himself to a covenant with every living creature that flies, swims, or moves across the earth (Genesis 9; Hos 2:18–22). The prophets describe the new creation as a time when the wolf and the lamb will lie down together (Is 11:6; Is 65:25) and rivers will water the parched wilderness (Is 43:20). It will be a time when the mountains and the hills break out in singing and the trees clap their hands (Isaiah 55). In brief, God will bring forth new heavens and a new earth (Is 65:17–25).

The promised messianic age dawned when the Son of God became a human creature with the incarnation of Jesus Christ. As a human creature, He shared the same DNA as His mother Mary. This DNA reached back through His ancestors to Adam and Eve, whose very bodies came from the soil of the earth itself. In Jesus, the Creator bound Himself to His

creation in a most intimate way. He drank the water, breathed the air, and ate the food of the earth. When He embarked upon His messianic work, He went out to be "with the wild animals" (Mark 1:13) which did not harm Him during His forty days of fasting. The Messiah had come to restore His creation (Is 43:20). That work would center on those who had brought about its ruin—God's human creatures. Jesus fed, healed, and restored people in both body and soul. He died to reconcile them to God, and together with them reconciled all things to Himself (Eph 1:10; Col 1:15–20). When He rose from the dead, He became the vanguard of the new creation.

As the Lord of creation, Jesus Christ now works through the Holy Spirit to gather and renew His human community, to make them the children of God (Rom 8:16). God begins the renewal of creation at the point where its ruin began. The rest of creation groans and sighs in the pains of childbirth as it eagerly longs for the day when the children of God will be glorified. For at that time the earth and its creatures will also be released from their bondage to corruption. All of creation will then share in the glory of the children of God. In the meantime, we too groan inwardly as we await the redemption of our bodies (Rom 8:19–23). Until that day, we live in an age of ambiguity. We see all around us a beautiful yet

frustrated creation. Its beauty and goodness hint at the glory to come when creation is renewed. Yet we can hear its groaning in bondage to corruption as it longs to be freed in the age to come.

When Christ returns He will raise up His human creatures from the dead and will renew His entire creation. Just as Christ's resurrected and glorified body was the same body that He had assumed from His mother's womb, so Paul states that our resurrection bodies will be transformed and glorified (Phil 3:21). The same appears to happen with the wider creation as it is freed from its corruption, for "when humans are put right, creation will be put right."[2] The new creation will then come forth much as a butterfly from a chrysalis. Like Christ's body, it will be the same creation but transformed and glorified. The visions of the eschatological age described by Isaiah and the prophets will be brought to their full manifestation when the new Jerusalem comes down to the new earth. God will wipe away every tear and dwell with us here on the new earth (Revelation 21).

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Caring for God's Living Earth

"The care of the earth is our most ancient and most worthy and, after all, our most pleasing responsibility." — Wendell Berry

So in light of Scripture's story, in which God reclaims His creation in Jesus, how do we live within this groaning creation? On the one hand, the groaning of creation in bondage to corruption calls us to repentance, for on account of us the earth suffers under the curse and under human destructiveness. On the other hand, the groaning of creation in anticipation of its renewal calls us to embrace the goodness of creation and the goodness of our creatureliness. As new creatures raised with Christ, we have been set free from the need to possess the earth for our own selfish purposes. We are set free to recover our place within creation as those whom God created to live in a unique relationship with Him and with our fellow creatures.[3]

God called us to care for His living earth. He made us unique creatures among all of the creatures who share this earth. He made us in His image. God gave Adam and Eve a commission that was equally unique among all of His creatures (Psalm 8). He gave them the task of looking after His creation. Genesis 1 describes this responsibility in terms of subduing the earth and exercising dominion over "the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth" (Gen 1:28). Genesis 2 describes the responsibility in terms of tending or cultivating the earth and protecting or preserving the earth. We might summarize these four related tasks by saying that God gave man and woman the commission to care for His living earth. This calls upon us to make room on God's earth and in our lives for all of His creatures, both human and nonhuman, so that they all may flourish (Ps 72:16).[4] What does this mean?

First, God calls us to care for His creation. Yes, God gave the earth to His human creatures (Ps 115:16). But He did not give it to us in such a way that He absented Himself from His creation or relinquished His ownership of it. The earth and every creature within it still belong to Him (Dt 10:14; Ps 24:1; Ps 95:4–5, 7), including every wild animal of the forest (Ps 50:9–12). Because this is His earth, it is a treasure to be cherished by us. In addition, God affirms it to be "good" or "very good" on six occasions. Scripture repeatedly declares that the earth is filled with and declares the glory of God (Ps 72:19; Psalm 19). We are responsible to God for the way we deal with the earth and treat His creatures so as not to diminish God's delight in His creation or the glory of His work. "We must not use the world as though we created it ourselves."[5] We do not have the right to do with it as we like.

Second, God calls us to enter into His own work of caring for and preserving the earth. God cares for it and He has committed himself to it. At the same time,

God has enlisted us to serve as the gloves on His hands as He tends to His creation. Our activity should reflect God's own compassionate care for all creatures (Ps 145:9; Ps 36:6). Caring for the earth and our fellow creatures requires commitment and sustained effort. To restore impoverished farmland back to health or bring whooping cranes back from the brink of extinction may take decades. Such efforts require the sacrifice of time, energy, and resources. This is not to say that we place the lives of our nonhuman fellow creatures above the lives of humans. But it may mean that we choose to live in ways that promote the health of the earth or at the very least minimize the damage inflicted upon it.

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God has not only called us to care for His earth, but He has called us to care for it as *creatures among fellow creatures*. We care for the earth not as "outsiders" but as "insiders." God did not give this task of dominion to angels who are not made from the earth. He gave it to creatures who themselves came from the earth and are thus members of the entire community of life that comprises creation. If we forget this, dominion becomes domination. God gives us responsibility for the well-being of creation as those who live within creation.[6] Approaching our care of the earth and its inhabitants by respecting them as "fellow creatures" can alter the way we regard them and feel connected to them.[7] Francis Schaeffer, a strong advocate for the Christian faith, argues that we need to relate to other creatures both intellectually and psychologically.

Intellectually, "I can say, 'Yes, the tree is a creature like myself.'" But psychologically, "I ought to feel" that "the tree has a real value in itself being a creature made by God."[8] What does this mean?

First, as creatures among fellow creatures, we best care for creation by nurturing those webs of support that bind us together with our fellow creatures as members of God's living earth. This feature of human existence accords well with the central insight of ecology that nothing lives in isolation; everything is interconnected. On the one hand, we cannot care for each other apart from the nonhuman creation upon which we depend. For through the earth God provides us with "clothing and shoes, food and drink, house and home."[9] Through creation He provides us with inspiration for our art, literature, and music. On the other hand, our fellow nonhuman creatures cannot flourish apart from the spaces, habitats, water, and food upon which they depend. They cannot survive, much less thrive, apart from the deliberate choices that we make regarding our use or non-use of the earth.

Second, as creatures among fellow creatures, we best care for the earth by bringing our thinking and acting into harmony with God's ordering of creation. We do not *manage* the earth so much as work *with* the earth by cooperating with God's arrangement and ordering of His creation. This suggests that we need to "humble ourselves before nature's processes,"[10] and attend to the neighborhoods and particular places where we live alongside our fellow earth-born creatures (Ex 23:10–11). In the process, we must learn how this community of creatures can best live together in a groaning creation. As members of that community of creatures, we need to wrestle with the complex connections that exist between God's human and non-human creatures, between culture and nature, forest and orchard, prairie and field, between troublesome creatures and pleasant ones. "*All* neighbors are included."[11]

So how do we see ourselves? Where do we fit within creation? We are neither separated from creation nor indistinguishable from creation. We share a bond with God because we are made in His image. We share a bond with all the creatures of the earth because we are formed from the earth. These two features of our existence are brought to fulfillment in the new creation ushered in by Christ's resurrection. As Christians we now carry out God's commission to proclaim the Gospel (Matt 28:19–20). We also carry out His commission to care for creation (Gen 1:28; Gen 2:15), all the while longing for the renewal of creation at Christ's return.

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How Do We Best Care for God's Living Earth?

"Delight is the basis of right use."— Joseph Sittler

taking care of God's earth and our fellow creatures with whom we share it involves more than following a list of do's and don'ts. Such an approach can too easily become legalistic and develop into a new secular piety. One is then moved more by fear than joy. Instead, we need a fundamental orientation to God's creation that aligns us with His view of things. God liked what He had made. He took pleasure in it. It was very good (Gen 1:31). As His image-bearing co-workers, God invites us to delight in His good work as well. God's own pleasure in what He had made as good provides an avenue for our proper use and enjoyment of all created things. Delight brings us into accord and harmony with God's own view of His living earth.

Delighting in the Bond We Share with Our Fellow Creatures

"... life itself, which is membership in the living world, is already an abundance."— Wendell Berry

Many of us have lost touch with the land. We feel more at home surrounded by television screens, computers, and phones than we do in God's creation. In order to delight in God's earth as a treasured gift, we need to reconnect with it by rediscovering it and experiencing the wonder that comes from observing His handiwork (Job 38–39; Psalm 8; Prov 6:4–8). We have assistance in science and in field guides that help us develop an observant eye regarding the workings of creation. Nature writing and photography can help us experience its subtle beauty. Literature, poetry, and history can show us the interaction of creation and culture. Scripture and theology help open the eyes and ears of faith to hear the groaning of creation even as we see in it the promise of its renewal.[12]

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We begin our exploration with the discovery of our own creaturely bond to the earth. "God has made me . . . He has given me my body and soul, eyes, ears, and all my members, my reason and all my senses."[13] Our body joins us completely to the earth. We inhale the air

that circulates around the earth. We drink the water that evaporates from oceans and falls to the earth as rain. We consume the energy of the sun that has been photosynthesized by plants. We ingest the minerals of the soil in the foods we eat. Take these away and we die. Our senses interact with the full range of phenomena in creation, thus connecting us more closely to the earth. By means of our senses we hear the howling of wolves in winter, smell the scent of lilacs in spring, feel a cool spring breeze on

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our face, taste the sweetness of watermelon on a hot day, and watch flocks of sand hill cranes coming in to roost for the night. We are attached to the earth not only physically, but also emotionally, psychologically, and even spiritually. Many of us find ourselves drawn to parks and beaches where our troubles drift away. Others of us are drawn to forests and mountains where we experience inner healing, spiritual refreshment, and even something of the presence of God. In some ways this should not surprise us. God approaches us through His creation not only to feed and shelter us, but to refresh and restore us, to humble and inspire us, and to elicit thanks and praise (Psalm 148). Yet even as we are drawn to God's world, we can find it a troubling and frightening place. For we

also encounter hurricanes and tornadoes, tsunamis and typhoons, earthquakes, and volcanoes. In all of this, we can hear creation groaning beneath the corruption to which it was subjected. So together with our fellow creatures we are "prisoners of the splendor and travail" of creation.[14]

As we expand our exploration outward we quickly discover that we are not alone. We are members of a large community of creatures on the earth that includes cranes and woodpeckers, snow leopards and tigers, whales and dolphins, prairie dogs and raccoons, and countless others. It is a world filled with a rich diversity of creatures. Genesis describes this eloquently. During the first three days of creation God carved out spaces for His creatures. He made room in the air, land, and water. During the next three days, He filled those spaces so that they are "teeming" with creatures of every kind. The Bible itself lists over a hundred different kinds of creatures (e.g., Is 11:6–9; Job 39:19–27). Scientists today estimate that between one million and ten million species of creatures live on earth. Many of them have yet to be discovered, and of those that have been named there is so much more to learn.

As we find ourselves members of a larger living world, we also realize that we are emotionally connected to our fellow creatures. There is something about the sight of other creatures that lifts our spirits (Prov 30:18–19). We find ourselves drawn to them and take pleasure in them. Again, this should not surprise us. God did not create us to live in a "mirror-lined box."[15] He created us to live in the company of other creatures. God gave Adam the task of interacting with and naming his fellow creatures. Yet as we find ourselves drawn to those creatures we hear disharmony in creation. Some creatures pose a threat to human life and livelihood as predators, pests, and carriers of diseases. We in turn have responded by making less and less room for them on God's earth and within our lives, thereby pushing some into extinction.

Finally, we can expand our discovery by exploring the wider ecology of the home that we share. Here we learn that not only has God created an amazing variety of different and beautiful creatures, He has also given each a place and purpose within creation. We might think of the earth as a home we share with many different roommates. In this home each creature has been given its own room in which to live out God's created purposes. Within the economy of the household each has its assigned chores. Psalm 104 lyrically describes the ecology of our shared home. God has arranged everything to work harmoniously. Some animals come out by night to hunt for their food and the humans go in to sleep. Then the humans go out by day to farm and harvest and the animals go in to sleep (Ps 104:20–23). Each has its place. Each has its purpose. Each is cared for by God.

Of course, things did not turn out the way God intended. Violence and suffering, death and decay fill His earth. Yet God continues to create life

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in and through His earth and all its creatures. Despite the violence, pain, and suffering that are everywhere evident throughout creation, God has enabled His creatures to adjust and adapt and even to cooperate with each other for their mutual benefit. God's original word of blessing continues to nudge life into every nook and cranny of our world.[16] Today we see that the cycles of life in ecosystems work through death and decay. Death and decay return a creature to the ground and the organic material from which God which first created it. Out of that material God brings forth new life, despite the destructiveness and wastefulness of human activity.

Living in Creaturely Humility

"Learning to be creatures may be the most important work we have to do." — Ellen Davis

Once we have rediscovered our bond with God's creation and embraced it as a delightful gift, we can begin to consider how best to care for His living earth. When we embrace our membership in God's living world we can begin to learn how to live as creatures within a community of creatures. We need not rise above or seek to transcend our creatureliness to become like God. Nor do we need to seek ways by which we can possess and control creation. God is the Creator. We are His creatures. As such, we need to recognize that we are dependent upon God's gifts and that life is best lived within the boundaries of our creatureliness as God designed it.

As creatures we are limited by our creaturely capacities and by the needs of the other creatures who call this earth their home. But as human creatures, God created us uniquely in that He gave us the ability to make choices about the way we live on the earth with our fellow creatures. Other creatures lack that capacity. They act out of necessity and instinct. But we can moderate our freedom out of respect for creation in the same way that family members voluntarily limit their freedom out of love for others. Unfortunately, when we seek to overcome the limits of our creatureliness we act in unrestrained ways. In so doing we repeat the original sin of Adam and Eve (Genesis 3). Limits and boundaries are not bad. God established those boundaries as something good in creation (Job 38:8–11). The Son of God embraced those boundaries when He became a human creature for us (Luke 2:51–52).

To live within our creaturely limits, then, means to live responsibly with God's gifts— such as technology—which may help us to bear the burden of sin's curse. But at times we need to ask, "Just because we *can* do something does it mean we *should*?" Our actions can exceed the boundaries of our vision and cause unintended long term damage for short term gains.

To act responsibly, we need to act in ways that do not exceed our vision.[17] The same applies to the way we consume, which can have as much of an impact upon our fellow creatures as anything we do. Do we take care of and repair what we have? Similarly, does it make sense to become a culture in which we value the disposable for the sake of convenience? What can more dishonor God's own work than to throw away what He has made? Ultimately, we need to ask, how much is enough? What constitutes a life well-lived?

God has not only given us the capacity to voluntarily restrain ourselves, He has also given us the capacity to act kindly and generously in our treatment of the earth so as to serve the well-being of all God's creatures. All creatures need food, water, habitat, and space. We are called to reflect God's own warm-hearted goodness toward creation as He cares for seemingly worthless sparrows (Matt 10:29–31; Luke 12:6–7) and unclean ravens (Luke 12:24). This involves living in "practical harmony" with the way God designed His creation to function.[18] It means becoming better acquainted with its processes and rhythms, and more astute in observing its needs and capacities.

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To be sure, in this age there will never be a time when we do not cause some damage. But we can seek to limit that damage and patiently work to heal that damage as we await the final renewal of all things.

In order to work in harmony with God's earth we need to work with the distinctive features and needs of the land (Dt 20:19–20; Lev 19:9–10; Lev 23:10–11). Do we adapt ourselves to creation's rhythms by respecting rivers and flood plains or do we try to control and transform them? Do we exhaust water supplies in the dry southwest in order to have verdant lawns? In many ways, we interact most directly with creation through the act of eating. How we eat determines how our food is raised and how the earth is treated. God has allowed us to eat animals. But do we allow them to live their lives as God created them (Dt 5:14; Dt 22:4; Dt 25:4; Ex 23:5, 11–12; Prov 12:10)? How do we live with wild creatures? God made space on His earth for all of His creatures to live. Do we transgress those boundaries when we crowd them out until there is no longer any room for them to live or move along their ancient migration routes (Dt 22:6; Lev 25:7)?

Finally, we best take care of God's living earth when we do so to the glory of God. It would seem that our work of caring for creation should be aimed at highlighting the beauty of God's own work. After all, with our work we enter into His own work. G. K. Chesterton noted that His is a work that brings all things into existence out of nothing.[19] Our work involves taking God's created things and refashioning them into art, music, architecture, technology, and culture. But the things of creation that we refashion still belong to Him. Everything we do involves in some way a reworking of God's own creaturely works. Our work should be aimed at shedding light on God's own good work (like polishing granite or staining wood in order to bring out their hidden beauty). It should include producing things of both beauty and function that endure.

All that we do culminates in the sabbath restful delight. God finished His work on the seventh day, blessed the day, and sanctified it. Later, Exodus 31:17 describes that day as a time when God rested and was "refreshed" or "inspired." We might say that God found delight in what

He had made. The Jewish rabbis thus said that God created the Sabbath as a day of shalom, delight, joy, tranquility, and harmony. This reflects the sense of walking by the "still waters" of Psalm 23. Our work should also culminate in restful delight in what God has made, as well as in what we have made from His work (Ex 20:11). Times of rest and refreshment provide opportunity to give "thanks and praise" for all that God has made. In that regard, God has given us the honor of leading creation in that praise much as a conductor leads a symphony orchestra. All creation praises God by being what it is, His good creation.

Summary

The Christian story provides a compelling—and much needed—vision for how we see our place and purpose within creation. God has called us to care for His earth as creatures among fellow creatures. Having made us new creatures and adopting us as His children in Jesus Christ, He has set us free to care once again for His creation as He first intended. But we care for a very different creation today. It is a creation that groans under the curse imposed on account of human sin and beneath the weight of human abuse. It is a creation that longs for its complete renewal when we, God's children, are revealed in glory. In the meantime the Gospel has set us free to embrace our human creatureliness, and with it, our care for all of our fellow creatures, both human and nonhuman. "Our faith should be at home with this earth, which after all is the realm of the new creation through Christ's work of redemption."[20]

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So Where Do We Begin?

In his explanation of the first article of the Apostles' Creed, Martin Luther leads us by the hand outward in a series of concentric circles, like ripples in a pond. He first helps us discover our own bodies as gifts from God. Then He leads us to discover the basic necessities of life, and finally the wider world. We might follow that same movement here as well. We begin with our bodies and their connection to the earth. Then we move to our homes. We expand our concern and action to church and community and from there out into the wider creation. Each of these widening circles will provide opportunities to reconnect with God's creation and to live as responsible creatures within creation.

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1. Our Body: Food and Drink.

- Learn about the ways in which our food is currently raised and produced. Few activities connect us to nature as does eating. How and what we eat affects our health and shapes the way food is produced.
- Learn about the foods, fruits, and vegetables native to your area and when different foods come into season by shopping at local farmers' markets.
- Learn about the genetic engineering of plants and what effect that might have on ecosystems, the diversity of flora and fauna, and on food.
- Purchase and eat a diversity of foods (grains, fruits, vegetables). These products will encourage the production of different varieties.
- Consider purchasing some certified, organically raised dairy products, eggs, cereals, fruit, and vegetables or range-fed beef, pork, and poultry.
- Purchase shade-grown coffee to help preserve the natural canopy of rain-forests for migratory birds.
- When you eat, pause and reflect on where your food came from and how long it took to grow. Give thanks.

2. House and Home.

- Choose to live within or even below your means. Distinguish between needs and wants. Ask yourself, "What constitutes a life well-lived?"
- Replace clothes, furniture, televisions, and computers, etc., only when they are worn out and beyond repair.
- Purchase fewer but higher quality items that last a lifetime, rather than things that need to be thrown away within months, only to end up in our landfills.
- Choose energy efficient appliances (refrigerators, ovens, washing machines, etc.) and home heating/air-conditioning systems.
- Purchase products, whenever possible, from recycled materials. Recycled milk jugs have been transformed into materials for decks, bird feeders, and other items.
- Purchase recycled paper products, such as towels, toilet paper, and writing paper to support the preservation of the boreal forests of the north.
- Learn and be careful about what you might unsuspectingly be putting into the water supply from pharmaceuticals, detergents, and lawn chemicals.
- Take one trip instead of several a week to the supermarket. Carpool to work, use public transportation, or when possible ride your bike to work or to run errands.

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3. Garden and Yard.

- Learn how all the local organisms (plants, insects, birds, animals) interact with each other and with the inorganic environment (soil, weather, seasons).
- Learn how yard "waste" can be turned into compost to improve the composition and nutrients of the soil and thus the health of your plants.
- Learn how to fit in with nature and patiently work with the conditions and schedules of nature rather than your own.
- Grow varieties of delicious heirloom vegetables and fruits that are not found in the supermarket.
- Make room in your yard for other creatures by planting native flowers, shrubs, and trees to provide shelter and food for migratory birds and butterflies.
- Reduce or eliminate the use of herbicides and pesticides on lawns and gardens as these affect the biotic life of your yard and the waterways into which they are washed.
- Exercise caution when buying invasive plants.

4. Church and School[21]

- Design your worship and classroom spaces to look out upon God's creation. Are the buildings cut off from creation or do they open up to it? Plant trees and shrubs and put up bird feeders.
- Integrate elements of God's creation in the interior design as Solomon did. Use live plants in the worship space and classrooms. Pattern designs from creation into the walls, pillars, and banners.
- Incorporate creation themes into prayers, hymns, and sermons in worship and chapel services, especially at the traditional times of planting, rogation tide, and harvest.[22]
- Celebrate Earth day during the Easter season in order to draw attention to the new creation ushered in by Christ's resurrection.
- Plant a memorial garden where people can plant trees or shrubs in honor of marriage, the birth of a child, or the death of a loved one.
- Replace landscaping shrubs with native shrubs and plants. How can one maximize the green space? Replace the grass and create a little garden sanctuary.
- Plant a community garden. Invite the neighborhood to participate in the planting and harvest. Take excess produce from the harvest to food pantries and homeless organizations.
- Celebrate the harvest with a meal/festival. In the Bible festivals and communities were built around the raising, preparation, and eating of foods.

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- Participate in local or community cleanups. Participate in local park gatherings. Adopt a river or pond for cleanup.
- Conduct an energy audit. Become more energy efficient, recycle service folders, and avoid the use of Styrofoam.
- Connect with the community by cleaning the city's green spaces. Partner with other organizations in your area that work for the well-being of creation.
- Include creation care in mission programs here and overseas.

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5. Neighborhood and Community.

- Use all your senses when you walk outside. Listen to birds singing, feel the wind on your face, smell the scents of the air, and feel the rise and fall of the ground.
- Identify and learn the names of the trees, plants, birds, and other animals that live in your area. Which are native? Which are invasive?
- Learn about the natural and cultural history of your community, state, and region.
- Participate in citizen science projects such as Feederwatch (Cornell Lab of Ornithology).
- Seek out a local garden club or wildlife conservation organization (e.g., Audubon Society).
- Volunteer your time at a local Humane Society or other pet and wildlife rescue groups within your area.
- Explore the kind of ecosystem in which your region resides: grasslands? wetlands? mountains? What is your watershed?
- How has land use where you live (agriculture, forestry, suburban development, etc.) disrupted or restored the area's ecosystems?
- Listen to the "groaning" of creation as you become more aware of the violence, suffering, and death found throughout the natural world.

6. The Whole of Creation

- Learn about the needs, habitats, and threats to various creatures around the country due to over-harvesting, invasive species, and habitat loss.
- Learn about the rich diversity of life on God's earth. It will teach you about different species, their lives, and the various habitats in which they live.
- Think about the beauty of nature in broader terms than the grand vistas of national parks. Think of it in the structure and functioning of ecosystems. You will then discover beauty even in grasslands, marshes, and swamps.
- Learn about the threats to our ecosystems from invasive species (e.g., the Purple Loosestrife, Kudzu, Zebra Mussell, Carp, etc.) (www.invasivespeciesinfo.gov).
- Take a course or read a textbook on environmental science or conservation biology. You will learn about ecosystems (forests, rivers, oceans) and ecosystem services (food, medicine, soil stabilization, flood mitigation, etc.).
- Study and learn about both sides of the climate change debate.
- Become an advocate or supporter for one particular species, bird, marine creature, land animal, tree, or plant.
- Contribute to the Humane Society of the United States or other organizations that offer protection to animals.
- Purchase Migratory Bird Stamps (Duck stamps). They provide a good way to support one our best kept secrets, namely, the National Wildlife Refuge System.
- Identify and select a conservation organization to support such as the Nature Conservancy, World Wildlife Fund, the American Bird Conservancy, etc. Check CharityNavigator.org to see how they spend their money.

Conclusion

In the end, do what you can. No individual and no one congregation or school can single-handedly take on all the challenges facing us. Explore the possibilities and select a project or a cause that fits your interests and abilities. Then go for it! It may not seem like much. But as in baseball, the little things count. God has not called us to save the world. He has called us to tend our "little patch of earth" in accordance with the gifts and wisdom He has given us.

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(Endnotes)

1 Max Oelschlaeger contends, "There are no solutions for the systemic causes of ecocrisis, at least in democratic societies, apart from religious narrative." *Caring for Creation: An Ecumenical Approach to the Environmental Crisis* (New Haven: Yale University Press, 1994), 5. Al Gore has acknowledged this as well in *Our Choice: A Plan to Solve the Climate Crisis* (Emmaeus, Pa.: Rodale Press, 2009), 305–10.

2 N. T. Wright, "Jesus is Coming—Plant a Tree!" in *The Green Bible* (San Francisco: HarperOne, 2008), I-75.

3 "Not only our relationship to God and ourselves is made new through justification by faith but at the same time our relationship with 'all creatures' is renewed." Oswald Bayer, "Justification as Basis and Boundary of Theology," *Lutheran Quarterly* 15 (2001): 274.

4 See Norman Wirzba, *The Paradise of God: Renewing Religion in an Ecological Age* (Oxford: Oxford University Press, 2003).

5 Wendell Berry, "The Gift of Good Land," in *The Art of the Commonplace: The Agrarian Essays of Wendell Berry*, ed. Norman Wirzba (Berkeley: Counterpoint, 2002), 296.

6 Richard Bauckham, "Human Authority in Creation," in *God and the Crisis of Freedom: Biblical and Contemporary Perspectives* (London: Westminster John Knox Press, 2002), 174.

7 Francis A. Schaeffer and Udo Middelmann, *Pollution and the Death of Man* (Wheaton, Ill.: Crossway Books, 1970), 53.

8 Schaeffer and Middelmann, 78.

`9 Martin Luther, *The Small Catechism, Lutheran Service Book* (St. Louis: Concordia Publishing House, 2006), 322.

10 Norman Wirzba, *The Paradise of God: Renewing Religion in an Ecological Age* (Oxford: Oxford University Press, 2003), 138.

11 Wendell Berry, *Sex, Economy, Freedom and Community: Eight Essays* (New York: Pantheon Books, 1993), 15 (emphasis original).

12 Martin Luther points out that faith enables us to see creation as "our Bible in the fullest sense, this our house, home, field, garden and all things where God does not only preach by using his wonderful work, but also taps on our eyes, stirs up our senses, and enlightens our heart at the same time." Quoted in Oswald Bayer, *Martin Luther's Theology: A Contemporary Interpretation* (Grand Rapids: Eerdmans, 2008), 111.

13 Luther, *The Small Catechism*, *LSB*, 322.

14 Elizabeth Coatsworth, ed., *The Best of Beston: A Selection from the Natural World of Henry Beston from Cape Cod to the St. Lawrence* (Boston: David Godine, 2000), 18.

15 David Midgley, ed., *The Essential Mary Midgley* (New York: Routledge, 2005), 377, cf. 374–75.

16 Coatsworth, 18.

17 Wendell Berry, "The Use of Energy," in *The Unsettling of America: Culture and Agriculture* 3rd ed. (San Francisco: Sierra Club Books, 1996), 83–84.

18 Wendell Berry, "A Practical Harmony," in *What Are People For?* (New York: North Point Press, 1990), 103–108.

19 G. K. Chesterton, *What's Wrong with the World* (Peru, Ill.: Sherwood, Sugden and Company, 1942), 35.

20 Joel Kurz, "A Few Words on Behalf of Creation," *The Cresset* (Easter I, 2007): 59.

21 See Edward R. Brown, *Our Father's House: Mobilizing the Church to Care for Creation* 2nd ed. (Downers Grove: InterVarsity Press, 2008).

22 Rogationtide (days of prayer) refers to those days just prior to the Ascension when the congregation would process through the fields around the church and pray that God would bless the fields and crops, send good weather and rain, and protect all from pestilence and disaster. See for example, one of Luther's rogationtide prayers in *Luther's Works, Devotional Writings I* vol. 42 (Philadelphia: Fortress Press 1969), 87–93.

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