

CONTEMPORARY MISSIOLOGY AND THE BIOSPHERE

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"Missiology has to do with the witnessing engagement of Christians in the concrete situations of life. It is a critical reflection that takes place in their praxis of mission. It is an analytical interpretation, evaluation and projection of the meaning, effectiveness, obstacles and possibilities of the communication of the Gospel to the world.²

—Orlando Costas

We live within the constraints of a pretty small biosphere, upon which we depend for our physical health and well-being, and against whose life-sustaining processes we find many of human actions and enterprises to be engaged. This is our recent discovery; this our concrete global situation. This is the broad context of contemporary missiology.

This chapter establishes biblically the ownership of the biosphere and then, puts our current scientific understanding of the world into interactive relationship with missiology as "the witnessing engagement of Christians in the concrete situations of life." It employs this scientific-missiological interplay to freshen the biblical roots for respecting and responding to God's creation, and opens a window on a refreshed missiology that cares for the gift of creation and doxologically responds to creation's divine testimony.

GOD'S OWNERSHIP OF THE BIOSPHERE

"If we are to develop a world view which is informed by revelation we have to take seriously the whole of the earth because it is God's world." So writes missiologist Orlando Costas who goes on to say that God's ownership of creation is "an authentic Christian world view" richly informed "by the conviction that 'the whole earth is the Lord's and the fullness thereof' (Ps. 24:1)— that all of it is the arena of God's revelation and that all of its parts make a contribution to an understanding and appreciation of the whole."³

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² Orlando Costas, "Missiology in Contemporary Latin America: A Survey" in H. M. Conn and S. F. Rowen, eds., *Mission and Theological Education in World Perspective* (pp. 81-112) (Farmington, Mich: Associates of Urbanus, 1984), 90.

³ Orlando Costas, "Internationalizing the curriculum in Christian higher education," in R. A. Hess, ed., *Internationalizing the Curriculum* (St. Paul, Minn. The Christian College Consortium, 1986), 10-11.

The text to which Costas refers is Psalm 24:1, a text that profitably can be examined for its missiological significance by comparing its translation into English from the Hebrew and from the Greek Septuagint:

The earth (*'eret*z) is the Lord's, and the fulness thereof; the world (*tebel*), and they that dwell therein. —Psalm 24:1 KJV

The earth (*ge*) is the Lord's and the fulness thereof; the world (*oikoumene*), and all that dwell in it. —Psalm 24:1 LXX⁴

The Hebrew *'eret*z here is translated *ge* in the Septuagint, the root of our word, *geology*. Most interestingly, the Hebrew *tebel* is translated *oikoumene*, from which we get the word, *ecumenical*. In contemporary scientific context, the word *oikoumene* (οἰκουμένη) would be translated *biosphere*. The *oikoumene*—the habitable earth—and all that it contains defines the *biosphere*. The biosphere, owned by God, is the concrete global context of contemporary missiology.

This is the concrete context within which we can profitably ask two questions: what does Scripture mean by “good news,” and to what and to whom is it proclaimed?

Is and should this be good news to all creation? Is and should this be good news to the biosphere. Is this and should this be good news to every creature?

Our answers to these questions, most certainly, can be given strongly in the affirmative based upon Scripture. And remarkably, within our contemporary global scientific context, if our intent might be to restrict the good news to human recipients only, we would be compelled to ask how can such news possibly be good within a biosphere whose increasing abuse and correspondingly declining ecosystem health increasingly brings with it lessened human health and increased environmental disasters? Even with a focus on human recipients, therefore, it no longer is possible to isolate the life-giving Gospel from the life-giving provisions and service of a healthy biosphere. The health of the biosphere is the global context of the health of human beings, worldwide.

What this means, directly or indirectly, is that the good news must necessarily be good news for every creature, for the biosphere, and for the whole creation.

The contemporary challenge for contemporary missiology is how *would* this good news be proclaimed? And how *should* this good news be proclaimed?

⁴ Parallel translations in the King James Version (KJV) and the Septuagint (LXX) show a consistent correspondence of the Hebrew *'eret*z with the Greek *ge* as in the following: “Come near, ye nations, to hear; and hearken, ye people: let the earth (*'eret*z) hear, and all that is therein; the world (*tebel*), and all things that come forth of it” (KJV) and “Draw near ye nations; and hearken, ye princes; let the earth (*ge*) hear, and they that are in it; the world (*oikoumene*), and the people that are therein” (Isaiah 34:1, LXX).

Should the good news be proclaimed in words and words only? Should it be proclaimed in practical witness in lives and landscapes!⁵

Should it be witnessing engagement and practical example and leadership “in truth and grace!” Should it be proclaimed, as the Christmas carol puts it, “far as the curse is found!”⁶

AN INTERPLAY BETWEEN THESE UNDERSTANDINGS OF THE BIOSPHERE AND MISSIOLOGY

The oikoumene—the biosphere—owned by God, and now dominated by human beings, is the concrete situation of contemporary global missiology. In putting our contemporary scientific understanding of the world into interactive relationship with the understanding of missiology, as Costas and other missiologists envision, we can profitably address the topics of (1) witnessing to the concrete situations of life, (2) critical reflection, (3) analytic interpretation, (4) and obstacles and possibilities, as these are given in the quote at the beginning of this chapter.

Witnessing to the Concrete Situations of Life.— Costas says that missiology has to do with Christian witnessing to the concrete situations of life. As we ask what this might include, we recognize clearly that this includes the concrete situations of people in whatever place or status they occupy: their home and habitat, food and spirit, joy and sorrow, justice and injustice. And in our day of global stewardship and knowledge of the nature of the biosphere and our relationship with it, it also includes the entire biosphere.

The biosphere has become part of our concrete situation. Ocean level rise may affect the area of floodplains covered by water and island communities may lose much or all of their land. Climate change may well alter the productivity of the land and settlement patterns of people. Deforestation may well change the climate and hydrologic cycle upon which local communities. Deforestation and habitat destruction also destroys extractive enterprises in harvesting native materials nuts for consumption and oils, and flower petals for perfumes and fragrances.

Because connecting the local with the global is often difficult for the citizen and even the missionary locally, there is the need and also the capacity at the level of mission boards and agencies to connect with and to influence the issues and policies of regional and global stewardship, within these agencies individually and in collaboration and coalition with others, to work in accord to develop effective global responses and solutions. Work at the

⁵ The use here and in the following sentence of the “exclamatory interrogative” is intentional.

⁶ The reference in these two quotes is to Isaac Watts and his Christological rendition of Psalms 96 and 98 in “Joy to the World,” a widely published hymn, as printed for example in the *Psalter Hymnal* (Grand Rapids, Mich.: Publication Committee of the Christian Reformed Church, 1959).

regional and global levels then can feed back to shape and re-shape the contributions at local levels that sum up around the world as improvements toward the global environmental situation—toward establishing the good news of the Kingdom of God lovably and globally in lives and landscapes.

Critical Reflection.— Costas point to “critical reflection,” in the “praxis of mission.” In so doing he intends, as also do we, that missionaries and missiology need to be critically reflective upon what they are doing and accomplishing, both in the immediate and present situation, and at the regional and global levels on into the future. It is at these higher levels that missiology, particularly in their institutions and agencies, has the time, capacity, and can garner the resources for critical reflection and action, often well beyond those in the communities they serve.

In developing such critical reflection at the local and agency levels, it can be very helpful to engage a framework of thinking that keeps three basic questions at the surface and continuously interact with the questions and their answers informing each other:

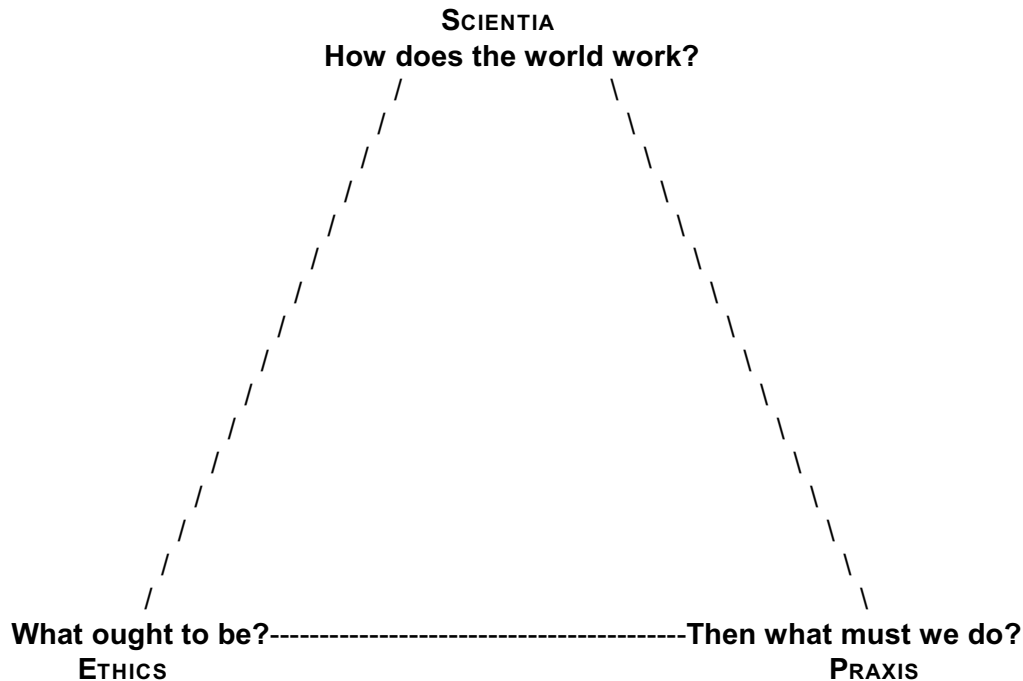
First, there is the need for understanding and in critical reflection upon how the world works, in whatever situation applies. This of course must include the immediate individual context but extend to embrace the the wider contexts of community, region, soil and climate, and biosphere. In addressing how the world works, clearly there is need to immerse people into what is understood through the natural science about such things as the hydrological cycle, role of forests and vegetation in the landscape, the variety of living species, etc. But goes well beyond this to include how people and communities work, how they interact with, contribute toward, and diminish the broader environments and contexts within which they operate, on through regional and continental levels, to the whole biosphere.

Second, in critical reflection, there is the need to develop a full understanding of what ought to be, at the individual, community, and global levels. What ought to be—the subject matter of ethics—evaluates what is happening in life and the environment with a concern for whatever it is that degrades individuals, communities, and the environment locally and globally needs to be responsibly and effectively addressed. Just *doing* things without reflecting upon whether these things and their impacts really ought to be is not acceptable, no matter how well-intended. What ought to be involves not only the things over which the missionary worker or community member has control but necessarily must deal with the wider society and environment, on up to the entire biosphere, and the various institutions that provide the incentives and constraints on the life of people and the land.

Third, in critical reflection, is the profound need to consider practices as these are engaged in tending to our environments, providing food and shelter, processing wastes, transporting people and resources, and relating to sustaining these resources and the wider creation. Praxis is not simply a matter of *doing something*, but is wisely constrained by what we know and understand about how the world works and by the bounds by what we know and understand constitutes right living. For missiology, this recognizes that members of the community need to engage in practices of benefit to right living in the community, but also that they must do so with critical reflection in its broader regional and

global aspects. Good practice locally might be found, upon its accumulation across a community, region, or the biosphere, detrimental to its larger contexts, and will need appropriate modification or replacement. Responsive missiology reflectively puts into regional and global contexts local praxis, and makes adjustments toward living rightly on earth at regional and global scales.

This framework of thinking with its three questions can be summarized in a Science-Ethics-Praxis Triad, as follows:



Analytic Interpretation.— Missiology, Costas tells us, involves analytic interpretation. This means that critical reflection engages the best analytical thinking and methods to address the needs for a vital and refreshing missiology. It is critical reflection that involves evaluation and projection, again with a depth of thought that goes well beyond a reflective entry into the missionary journal. And this in turn is directed to “the meaning, effectiveness, obstacles and possibilities” for communicating the Gospel—the Good News—to the world.

By reflecting upon the meaning of the Gospel here, we can fruitfully consider the definition of Wayne C. Booth of religion as “the passion to live rightly and spread right living.”⁷ The

⁷ This is a contraction of Booth’s full definition, “Religion is the passion, or the desire, both to live right—not just to live but to live *right*—and to *spread* right living, both desires *conceived as responses* to some sort of cosmic demand—that is, to a demand made to us by the *way things are*, by the way the world is, by the nature of Nature (as some would say) or by God himself (as explicitly religious people put it).” Booth’s is a restatement of Ernest Hocking:

Gospel message, so clearly and convictingly presented in the Gospels, is passionate. It is passionate toward living rightly—toward right living on earth. It also is passionate for *spreading* right living. Passionate missiology necessarily works to preach, teach, and model right living. Passionate missiology seeks to spread right living across communities and cultures, thereby bringing good news to every creature.

Obstacles and Possibilities.—As we are advised by Costas to evaluate and project obstacles and possibilities of communicating the Gospel to the world, we confront an expression that is perhaps our greatest obstacle. It is the wide-spread proclamation, “Well, you have to look out for number one!” Remarkably, at least in scriptural contest, this proclamation defines “number one” as oneself.⁸ This expression, and its increasing incorporation across American society and around the world, represents one of the greatest obstacles to bringing good news to every creature, the biosphere, and the whole creation. It does, however, present a missiological opportunity, and this is its replacement, by missionary proclamation and witness with the expression, “Well, you have to look out for Number One.” Here, however, Number One means the Creator of heaven and earth to whom the earth and its fulness, the world and all who dwell therein, belong. Here, Number One means Jesus Christ, the one by whom all things (*ta panta*) are created, held together, and reconciled to God (Col. 1:15-20).

Neither the earth nor our own selves belong to us, in the biblical view. Instead the earth and biosphere belong to God. Moreover, all human beings also belong to God. This is our missiological comfort and it is God’s ownership of the biosphere, and of ourselves, that opens our missiological opportunity. “Looking out for Number One,” as central to the Gospel in our time, places Christian missions among the solutions for addressing the care of God’s creation, even as it withdraws them as participants in degrading and destroying the biosphere. It brings corrective actions whenever and wherever needed, and moves with deep dedication to the practice of faithful earthkeeping in all of its many dimensions.

“If, to agree on a name we were to characterize the deepest impulse in us as a ‘will to live,’ religion also could be called a will to live, but with an accent on solicitude—an ambition to do one’s living well. Or, more adequately, *religion is a passion for righteousness, and for the spread of righteousness, conceived as a cosmic demand.*” W. C. Booth, “Systematic Wonder: The Rhetoric of Secular Religions.” *Journal of the American Academy of Religion* 53(1984):677-702.

⁸ “Seek first yourself—preserve and transmit your own genes”—would seem to be our evolutionary heritage. But religion counters this selfishness, as Mahatma Gandhi reminded us in his talk to the Economic Society at Allahabad University, India in 1916. He told his audience he had read the most basic book on economics. Identifying this book as the New Testament, Gandhi paraphrased Matthew 6:33, “Let us seek first the Kingdom of God and His righteousness and the irrevocable promise is that everything will be added to us.” And, countering an economics that puts self-interest as a principal presupposition, he concluded, “These are real economics. May you and I treasure them and enforce them in our daily lives.”

INSPIRATION FOR MISSIONARIES AND MISSIOLOGISTS

Bringing of the good news is a joyful calling. This is the experience of missionaries and of missiology. When it is informed and inspired by the testimony of both the scriptures and of the creation, bringing of the good news can lead to living life as a psalm to the Lord both by its witnesses and by its hearers. While it is clearly possible to become burdened by environmental and societal degradation, so much so that enthusiasm for life and vocation can be crushed, it also is possible to live a life of thanksgiving and praise for the good news, its proclamation, and its being put into practice.

The interplay between scientific and missiological understandings of the biosphere, introduced in the preceding section, now leads to its contribution to bringing good news as a joyful calling.

For this contribution I have selected two topics of missiology: missiology and “things very small,” and missiology and “things very big.” At the “very small” level, missionaries often introduce recipients of the good news local plants and animals with whom they share their home-sites or adjoining habitats. For this I particularly have in mind ecologist-missionaries and former students, Rob and Tara Cahill and their missions work in Guatemala. At the “very large” are things that operate largely at the level of the biosphere. And for this I have in mind my colleague, global climatologist Sir John T. Houghton.

“Seeing” God in Things Small and Great.— In considering “things very small” and “things very big” it is important to understand that, while no one ever has seen God, we do see God indirectly in the creation. An important example is through the thing God has made that we learn from Romans 1:20 is so convicting that we are left without excuse by them to know God’s everlasting power and divinity. Another is the proclamation of the heavens to God’s glory, as we are reminded in Psalm 19:1, “The heavens declare the glory of God... And another is our seeing God indirectly by God’s garment of light as we sing in Psalm 104:1-4,

1 Praise the LORD, O my soul.

O LORD my God, you are very great;
you are clothed with splendor and majesty.

2 He wraps himself in light as with a garment;
he stretches out the heavens like a tent

3 and lays the beams of his upper chambers on their waters.
He makes the clouds his chariot
and rides on the wings of the wind.

4 He makes winds his messengers, [a]
flames of fire his servants.

Here the psalmist, “In comparing the light with which he represents God as arrayed to a garment...” God “irradiates the whole world by his splendor...” It is by this means that God, “who is hidden in himself, appears in a manner visible to us.” This statement by John Calvin continues, “That we may enjoy the light of him, he must come forth to view with his clothing; that is to say, we must cast our eyes upon the very beautiful fabric of the world in which he wishes to be seen by us...” And to see him we need only to look about us—to creatures great and small in the fabric of the biosphere, since he meets us in the fabric of the world, and is everywhere exhibiting to our view scenes of the most vivid description.”⁹

Missiology and “Things Very Small”

What, using the words of Orlando Costas, is the “concrete situation of life” at the beginning of the 21st Century? On the “very small” scale of the creatures with whom we share our places, it is our long-standing presence of the plants and animals that live with us and around us. It is at this very small end of the spectrum of “all creatures great and small” we can come to learn and understand much about God and God’s Creation by observing, reflecting, listening, talking, recording, drawing, expressing, praying, and “praising God almighty, who has made all things well.”¹⁰

One of the early creeds explains how we know God this way:

“We know him by two means: First, by the Creation, preservation, and government of the universe; which is before our eyes as a most elegant , wherein all creatures, great and small, are as so many characters leading us to see clearly the invisible things of God, even his everlasting power and divinity, as the apostle Paul says (Romans 1:20). All which things are sufficient to convince people and leave them without excuse. Second, He makes Himself more clearly and fully known to us by his Holy and divine Word, that is to say, as far as is necessary for us to know in this life, to His glory and our salvation.”¹¹

The very first thing that studying the creatures around us can bring is *awareness*. Awareness of Creation and God’s sustaining action in the world leads toward *appreciation* of God and Creation. And appreciation can lead to *stewardship* of Creation, of all the materials and energy that come from Creation. This can be expressed as:

⁹ John Calvin, Commentary on the Book of Psalms (Grand Rapids: Baker Book House, 1993).

¹⁰ Cecil Frances Alexander [1848], “All things bright an beautiful,” *Hymns for Little Children*, widely published in hymn books, for example in *Hymnal: A Worship Book* (Elgin, Ill.: Brethren Press; Newton, Kansas: Faith and Life Press; and Scottdale, Penn.: Mennonite Publishing House, 1992).

¹¹ Belgic Confession, Article II [1561]. Philip Schaff, *The Creeds of Christendom*, (Grand Rapids, Michigan: Baker, 1931).

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

Awareness means taking off our “blindness,” getting out of our offices and living rooms, leaving our virtual “worlds,” and wanting to know and to name the creatures we see, providing ourselves and our students with peace and reflective time, and entering the natural world intentionally to discover God’s marvelous work.

Appreciation means tolerating such things as worms and hyenas and respecting creatures like bears and whales, but goes beyond this to value and cherish God’s creatures and creation in such a way that we echo God’s declaration, “It is good!” *Stewardship* means appropriate and caring use and conservation of Creation, but goes beyond this to make sure that by our’s and others’ actions Creation is not degraded, that damage we do to it is repaired, that we pursue right living and work to spread right living in the world.

Stewardship means serving, which includes: serving before we act adversely on Creation (pre-serving); serving reciprocally so that service to us by God and Creation is returned with service of our own (con-serving); bringing back to fulness and fruitfulness what has been damaged and smeared (re-storing, reconciling); helping our students and community to hold in trust what we and others have learned, preserved, conserved and restored (en-trusting); and serving God responsibly and worthily by tending, caring for, and keeping God’s word and world (worth-ship, worship).

While the first step toward Creation stewardship is often called awareness, the Bible moves beyond awareness to *beholding*. It tells of people inspired and told by their teachers to behold.! *Behold* the Lamb of God...(John 1:29); *Behold* the fowls of the air (Matt 6:26). Theologian Joseph Sittler tells us that the word “behold” is directed toward God’s creatures with a kind of tenderness which suggests that things in themselves have their own wondrous authenticity and integrity... “To behold’ means to stand among things with a kind of reverence for life which does not walk through the world of the nonself with one’s arrogant hat on... it is... a rhetorical acknowledgment of a fundamental ecological understanding of man whose father is God but whose sibling is the whole Creation...”¹²

In all of this, we must remember our Creator (Ecclesiastes 12:1) and follow our master teacher Jesus into the field. Whether we take a sidewalk safari to study the remarkable plants of sidewalk cracks, or walk through woodlands, prairies, and marshes to observe them and their inhabitants, we and our students should not only become aware, but should also *behold* what we see. And our beholding should lead us all to appreciation and to stewardship of the great heritage of God’s world and God’s word that is entrusted to our love and care. But first, *behold* the plants of the sidewalk, lawn and field; *behold* the birds of the air!

¹² Sittler, Joseph [1970], Ecological commitment as theological responsibility. In: Steven Bouma-Prediger and Peter Bakken, *Evocations of Grace: Writings on Ecology, Theology, and Ethics* (Grand Rapids: William B. Eerdmans Publ. Co., 2000) 76-86.

This means, among other things, that our missiology must foster a persistent curiosity and vigorous pursuit of knowledge about the little things that make up the living fabric of the biosphere—a pursuit that will bring us from awareness to stewardship, and one that will join “all creatures here below” in praising God “from whom all blessings flow.”¹³

Missiology and “Things Very Big”

What the “concrete situation of life” at the beginning of the 21st Century is—on the grand scale of the whole world and its global economy—is our recent scientific understanding of the thin envelope of life that encompasses the earth and sustains us all. As never before, we have come to know the workings of the biosphere’s living fabric of creatures, including their spatial and functional interweavings and their dynamic relationships from microscopic through macroscopic levels. Earth’s living creatures produce and consume, multiply and diminish, develop and decompose, with each and every of its species characterized by particular niches (roles) and all each also engaged in fluxes and flows of matter, energy, and information. Earth’s biosphere interfaces with the rest of the universe through its enveloping atmospheric filter, principally through energy transfers among Earth, sun, and outer space.¹⁴ One cannot help but join with the psalmist in proclaiming the text of Psalm 19, 104 and 148; the heavens and the earth truly are “telling the glory of God!”¹⁵

Biodiversity—the totality all biological species on Earth—is sustained by an array of dynamic ecosystems (lakes, marshes, tidepools, forests, prairies, etc.) and is the source of all of our cultivated plants and domesticated animals, animal pollinators, biological agents for pest and disease control, and thousands of pharmaceuticals. It also is responsible for a wide range of “ecological services” provided by the biosphere, including soil formation and fertility renewal, reducing flood peaks and increasing drought flows of streams, processing oxygen and carbon dioxide, moderating local climates, and maintaining a wide array of biogeochemical cycles (e.g., phosphorus cycle and nitrogen cycle)¹⁶. In gratitude, the poet proclaims, “Thy bountiful care, what tongue can recite? It breathes in the air; it shines in the light!”¹⁷

¹³ Thomas Ken, 1693, “Praise God, from whom all blessings flow,” a widely published doxology, as printed for example in the *Psalter Hymnal* (Grand Rapids, Mich.: Publication Committee of the Christian Reformed Church, 1959).

¹⁴ DeWitt, C. B. 2003. Biogeographic and Trophic Restructuring of the Biosphere: The State of the Earth Under Human Domination. *Christian Scholar’s Review* 32:347-364.

¹⁵ Haydn, Franz Joseph [1798], “Die Himmel erzählen die Ehre Gottes” in *Die Schöpfung* (“The heavens are telling the glory of God,” in *The Creation*) (Leipzig, Germany and New York, NY: C. F. Peters).

¹⁶ Ibid. In biblical terms “ecological services” are rightly identified with God’s provisions for creation.

¹⁷ Robert Grant [1833], from verse 3 of his “O Worship the King,” a widely published hymn based upon Psalm 104, as printed for example in the *Psalter Hymnal* (Grand Rapids,

A practical response to “things very big” and a fine example of incorporating and acting on new scientific knowledge of the biosphere is a recent profession during a joint meeting of evangelical leaders and leading climate scientists. They affirmed that “God created the Earth, and continues to sustain it,” and that “the Christian community has a special obligation to provide moral leadership and an example of caring service to people and to all God’s creation” including to Earth’s climate system “as a remarkable provision in creation for sustaining all life on Earth.”¹⁸

What this means, among other things, is that our missiology must foster a persistent curiosity and vigorous pursuit of knowledge about the living fabric of the biosphere. This pursuit is one that will bring us from awareness to stewardship, and one that—“for the beauty of the earth”—will bring to their Creator and Sustainer a continuing “hymn of grateful praise.”¹⁹

MISSIOLOGY IN BIBLICAL AND BIOSPHERIC CONTEXT

In moving forward from what we thus far have addressed, we now can refresh our thinking on the Great Commission and related teaching as the biblical basis for missiology and its witnessing engagement of Christians in the concrete situations of life. And we can proceed to re-connect with these biblical foundations as they are informed by the concrete situation of the present—God’s oikoumene and all that dwell therein as the biosphere. Our reading of the book of creation and our development through this reading a scientific understanding of how the world works now must be joined by our reading of the book of Scripture. Following this reading, and summarizing some key biblical teachings, we can move to develop a stewardship that is both biblically and scientifically informed, and directed toward right living and the spreading of right living around the Earth. Of the many teachings of scripture, I have selected four biblical ethics that are particularly meaningful to contemporary, biosphere-respecting, missiology, the Earthkeeping Ethic, the Fruitfulness Ethic, the Sabbath Ethic, and the Con-Service Ethic.²⁰

Mich.: Publication Committee of the Christian Reformed Church, 1959).

¹⁸ From the “Oxford Declaration on Climate Change,” produced by Forum 2002 on Global Climate Change, held July 14-17, 2002 at St. Anne's College, Oxford, England, attended by scientists, policymakers, and religious leaders, and sponsored by Au Sable Institute and the John Ray Initiative. The full text of the Declaration is accessible at: www.climateforum2002.org.

¹⁹ Follitt S. Pierpoint [1864], “For the beauty of the earth,” in *Lyra Eucharistica*, and widely published as a hymn, for example in *Hymnal: A Worship Book* (Elgin, Ill.: Brethren Press; Newton, Kansas: Faith and Life Press; and Scottdale, Penn.: Mennonite Publishing House, 1992).

²⁰ These four ethics were published earlier in DeWitt, C.B., “Complementarities of Scientific Understanding of Nature with Religious Perspectives of Creation”, in Stephen R. Kellert and Timothy Farnham, eds. *Good in Nature and Humanity: Connecting Science Religion and Spirituality with the Natural World*, (Washington, Island Press, 2002), 38-42.

1. Earthkeeping Ethic.— The concept of earthkeeping is derived from Genesis 2:15 where we read of God's expectation Adam of *adamah*²¹ will **keep** the garden. The Hebrew word translated here as *keep* is *shamar*," and merits our careful attention. It is the same word used the blessing of Aaron (Numbers 6:24): "The Lord bless you and **keep** you."²² This is a blessing that looks not for a preservationist keeping as would be indicated by the Hebrew word, *natsar*. Both *natsar*, and *shamar* are applied to keeping the Law, which must both be preserved and kept. Given the availability of both words, it is significant that *shamar* is the word used for keeping people and the garden. For people, it expects that God's keeping will nurture human life-sustaining and life-fulfilling relationships with vibrant wholeness and dynamic integrity—social relationships with parents, mates, children, siblings, and neighbors; ecological relationships with land, air, water, and other creatures; and human relationship with God.

As in "peoplekeeping" so in "earthkeeping." Earthkeeping maintains and assures dynamic vitality, energy and beauty of the garden and its creatures. When informed by science, we know that keeping involves the fine balancing between constructive and destructive processes. In people and other vertebrate creatures it includes, for example, the dynamic re-formation of the skeletal system of dynamic creatures in a dynamic world. Osteoblasts build up bone where needed while osteoclasts tear it down where superfluous, in a highly controlled and finely-tuned process that maintains a strong skeletal system that yet responds to the needs of a changing body under changing stresses. In nature and creation it includes the dynamic re-formation of living systems from previously living systems in a dynamic biosphere. Photosynthesis builds up material and energetic resources energized by the sun while respiration and decomposition processes break down dead materials to energize and perpetuate species and ecosystems, controlled by constraints of material and energy budgets that sustains life as a flowing stream of biotic intricacy, complexity and biodiversity.

When people **keep** the garden and creation they do so in this deep, full, and dynamic sense. Reflecting God's keeping of them, they profess and confess in their very deeds and actions that the creatures under their care must be kept with dynamic integrity. They must be maintained and enabled to maintain their proper connections with members of their own kind, with the many other kinds with which they interact, with the soil, and with the air and water upon which they depend for their life and fruitfulness. They must even be maintained, in ways complementary to our scientific understanding of the world, within the trophic cycles of life and death and in energy and material transfers upon which the life of the biosphere depends.

²¹ *Adamah* is the Hebrew word for earth.

²² Harvard Hebrew scholar, Prof. Krister Stendahl, notes that the use of the Hebrew word, *shamar*, is largely used in relating God's keeping, not as much the keeping of things by human beings (personal communication, April 17, 1998). This, linked with consideration of human beings as made in the image of God may have significance in Genesis 2:15 in the sense that this keeping by human beings reflects God's keeping.

As God keeps and sustains us, so must we keep and sustain the God's Creation.

2. Fruitfulness Ethic.— The fish of the sea are accorded God's blessing of fruitfulness. So are the birds and the other living creatures. In Genesis 1:20 and 22, "Let the water teem with living creatures, and let birds fly above the earth across the expanse of the sky," and "Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth." And this blessing is also given to, Creation's caregivers, as next we read in Genesis 1:28.

God's Creation reflects God's fruitful work of giving to land and life what satisfies.

He makes springs pour water into the ravines;
it flows between the mountains.

They give water to all the beasts of the field;
the wild donkeys quench their thirst.

The birds of the air nest by the waters;
they sing among its branches.

He waters the mountains from his upper chambers;
the earth is satisfied by the fruit of his work. (Psalm 104: 10-13)

As God's fruitful work brings fruit to Creation, so should people. Imaging God, people should also provide for the creatures. And as Noah spared no time, expense, or reputation when God's creatures were threatened with extinction, neither should we. To those who would allow people and their houses and fields to flood across the land at the expense of all other creatures, our science of human population and land use provides the complementary knowledge for the proclamation of the prophet Isaiah: "Woe to you who add house to house and join field to field till no space is left and you live alone in the land" (Isaiah 5:8).

"When you lay siege to a city, you must not destroy the fruit trees." This law, published in the book of Deuteronomy 19:19-20, is the basis for the Jewish teaching of *bal taschit*, Hebrew words that mean "do not destroy!" It allows people to take from the fruit of the garden, but people also must use their knowledge of the requirements for maintaining the lineages of living species, so they do not destroy creation's fruitfulness. "When you come across a mother bird on its nest with young, you may take the young but not the mother," is the law given in Deuteronomy 22:6-7. While we might never want to take birds, if we do we must not destroy the ability of the bird to produce more offspring—we must preserve its fruitfulness.²³

²³ Some reflection on Job 40:19 suggests that the Maker of the creatures is the only one who has the license to destroy them, the curator does not. What this in turn suggests is that the great extinction event at the Cretaceous/Tertiary boundary gives human beings no excuse not to halt human behaviors that are bringing modern species to extinction.

Speaking strongly to the Fruitfulness Ethic are passages in the Psalms and Ezekiel:

He maketh me to lie down in green pastures;
He leadeth me beside the still waters;
He restoreth my soul.

God's provision for contented living and peaceful fulfillment described in Psalm 23 parallels the Ezekiel passage quoted by Leopold from Ezekiel 34:18,

Is it not enough for you to feed on the green pastures?
Must you also trample them with your feet?

Is it not enough for you to drink the pure water?
Must you also muddy it with your feet?

In our use of the gifts of creation we are restored and satisfied. But we are admonished not to so accept these gifts that we make a mess of them-- we are not to go beyond our grateful and reasonable use of them. And, with Noah, we must keep creation's biodiversity and the biosphere.

We should enjoy, but must not destroy, Creation's fruitfulness.

3. Sabbath Ethic.— Exodus 20 and Deuteronomy 5 require that one day in seven be set aside as a day of rest for people and for animals. The reason given is that God also rested after having made the heavens and the earth. As human beings and animals are to be given their times of sabbath rest, so also is the land. Exodus 23 commands, "For six years you shall sow your land and gather in its yield; but the seventh year you shall let it rest and lie fallow, that the poor of your people may eat; and what they leave the wild beasts may eat." "You may ask, 'What will we eat in the seventh year if we do not plant or harvest our crops?'" God's answer in Leviticus 25 and 26 is: "I will send you such a blessing in the sixth year that the land will yield enough for three years," so do not worry, but practice this law so that your land will be **fruitful**. "If you follow my decrees and are careful to obey my commands, I will send you rain in its season, and the ground will yield its crops and the trees of the field their fruit"

In Mark 2:27, Jesus describes the meaning of the Sabbath in terms of its beneficiaries: the Sabbath is made by God for the ones served by it. Thus, the sabbath year is commanded to protect the land from relentless use and in its rest from exploitation it can rejuvenate itself and get things together again. The sabbath land ethic is that all creatures, the land, and the whole biosphere must not be relentlessly pressed. Failure to carry out the divine commands, the land will no longer support people and "...then the land will rest and enjoy its sabbaths. All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived in it."

We must provide for Creation's Sabbath rests.

4. Con-Service Ethic.— In addition to recognizing the fullness of the meaning of *shamar* in Genesis 2:15, it is also helpful to attend to the word, '*abad*, that proceeds it. In Young's Literal Translation of the Holy Bible²⁴ it is rendered, "And Jehovah God taketh the man and causeth him to rest in the garden of Eden, to **serve** it and to keep it." It is also used in the well-known blessing of Aaron, "...choose for yourselves this day whom you will **serve**... But as for me and my household, we will **serve** the Lord."²⁵ While serving the Garden, or serving creation might have a peculiar ring in our society today, we should consider its meaning in Eden. Eden's garden was planted by God²⁶ where hoe, shovel, and plow might have simply been out of place, especially if was more like a botanical garden or the gardens of some tropical peoples where inter-planting and high diversity are the rule. It might better be viewed as a tropical garden not amenable to turning over the ground but still open to service. In Christian teaching, the human role as servant is widely taught and even Jesus is described as someone who took the form of a servant.²⁷

The biblical expectation is that human work in the garden are acts of service. When supplied with the prefix, *con-*, *service* becomes *con-service*. Clearly any garden and all creation serves us and other creatures. Its service is returned with our service to the garden. There is reciprocal service between people and creation, one reciprocally serving the other. People are expected ethically to be about the business of con-servancy. Conversely, when people fail to serve, but abuse creation, they have reason to expect payment back of similar kind. The reciprocal relation between people and the garden can be service; it also can be the form of human abuse and creation's retribution. Intended and unintended abuse of creation can have severe consequences.

Key to proper service always is to consider our service as Christ's service. Our service should reflect God's love for the world.²⁸

²⁴ Revised Edition, Grand Rapids, Michigan: Baker Book House, 1953. Emphasis on the word, "serve," in this and the following quoted text from Joshua has been added.

²⁵ Joshua 24:15.

²⁶ Genesis 2:8.

²⁷ It is interesting to ponder something Loren Wilkinson first pointed out to me in this regard, that Jesus Christ following the resurrection was taken to be the gardener. We might then rephrase this sentence as follows, "Reflection of the stewardship of Jesus Christ as described in Philippians 2:5-8, may be helpful here, especially the observation that the One who is taken to be the gardener (John 20:15), had "made himself nothing, taking the very nature of a servant."

²⁸ See John 3:16, Psalm 104, and the very popular hymn, "O Worship the King," for illustrations of God's love and care for the world. To probe this in greater depth, consider Christ's role in creating, holding together and reconciling all things (Colossians 1:15-20), his being called the final Adam (I Corinthians 15:45), and his being the exact image of God (Hebrews 1:3).

When dominion is taken as license to do whatever is in one's self-interest, it misappropriates the image of God and fails to follow the example of Jesus. However, responsible appropriation of God's image seeks not self, but the Kingdom of God.

To image God is to image God's love and law is to reflect God's goodness, righteousness and holiness. It is to employ intellectual powers, natural affections, and moral freedom to reflect the wisdom, love, and justice of God. It is to express the depths of one's soul in responsible praxis.

We must con-serve Creation.

These four biblical ethics can be compared with what we know scientifically about Earth and the biosphere and their alteration by human action, examining them for complementarity, as follows:

	Ethic	Science
Earthkeeping	We must keep the Earth and biosphere with their dynamic integrity.	The integrity of Earth and the biosphere can be and is degraded by human action.
Fruitfulness	We must behave in ways that assure continued fruitfulness and biodiversity.	Biodiversity and the flourishing of life can be diminished and degraded by human action.
Sabbath	We must provide creatures and creation with times for restoration and regeneration.	Relentless exploitation of Earth and the biosphere can work against their sustainability.
Con-Service	We must return service we derive from the Earth and its creatures with our own.	Continuous taking from Earth and the biosphere degrades and tends to deplete it.

These four biblical ethics complement our scientific understanding of the natural world, with science describing the world and the consequences of human action in the world and biblical ethics describing what human beings ought to be doing in the world, and this richly informs a contemporary missiology because it brings it to address our concrete situation as stewards of the biosphere.

The linkage here does not equate science and ethics; rather, it recognizes the distinct complementary contribution of each, and it provides a basis for acting upon what we know and believe. The re-ligation of science and ethics respects the language of each and is respectful of each having a distinctive role. But how to re-ligate both of these with praxis? That is the problem we must squarely face in missiology.

MISSIOLOGY AND STEWARDSHIP

As we move on to address missiology in contemporary context, we necessarily come to stewardship of the biosphere. This stewardship is rooted both in biblical teaching and scientific understanding. It is, and has been to various degrees, also developed in and by every person and every society throughout history. Any society that survives over the centuries owes its persistence in large degree to observing, recognizing, and acting upon the consequences of individual and collective actions in the world. The degree to which a society or culture responds to the positive and negative effects of their actions upon their landscapes and environments, and successfully passes the knowledge of these responses to future generations, contributes to the societal and cultural survival.

Stewardship, locally and regionally, develops more or less along the following lines: If human and societal actions serve to maintain the sustaining and restorative processes in the local and regional environment, people continue in these actions. Otherwise, they change their actions, both to correct adverse consequences and to restore control to the natural systems that sustain us and other life. Stewardship then, is generated by the interplay between human action and reaction in local and regional environments. It comes as a necessary consequence of living in the world and the incentives people recognize for behaving in ways that sustain human communities, cultures, and their environments.

Stewardship therefore can be viewed as responsiveness to the positive, neutral, and negative consequences of human action in the direction of doing things that continue or are neutral to sustainable living and correcting actions that do otherwise. The contribution of biblical teaching to this process is the experience of several thousands of years of work at living rightly and of spreading right living toward responsible stewardship of lives and landscapes. Moreover, the persistence of biblically-based cultures and societies give witness to the effectiveness of the biblical teachings of stewardship.

Today, however, the context has broadened from the community and the region to the entire biosphere. And this means that the interactive dynamic between human beings and the earth must be extended and broadened to engage the entire biosphere.

What this means is that the scientific context and the four biblical ethics, among other things, need now to shape human behavior in the direction of developing a passion for right living, not merely locally or regionally, but at the level of the biosphere. And it means the passion not only to live rightly in this context, but to spread right living within the world view of the whole biosphere—not only our local and regional situation—being our home. The biosphere is our new practical situation. The biosphere is the new domain of our stewardship. The biosphere is the new domain of our missiology.

What does this mean for missiology in contemporary context? It means that missiology in contemporary context involves a dynamic relationship between people and the systems with which they interact—a dynamic relationship involving reciprocal service between people and systems, sustaining and keeping the earth and its component systems, preserving fruitfulness of the earth even while carefully utilizing its fruit, preventing the land, water, and creatures from being relentlessly pressed, working toward harmonious

integrity of all things, and making sure that stewardship principals are put into practice. Contemporary missiology is informed by this dynamic relationship between people and the systems with which they interact.²⁹

It is to the good reputation of the missiology of William Carey that we owe an early example of how we can approach missiology in the context of contemporary understanding of the world and the biosphere. William Carey, widely acknowledged as a principal founder of modern missions, was a missionary earthkeeper engaged in responsive and responsible stewardship. He not only understood biblical teachings, but exercised the curiosity and passion that is so vital to missiology. It was this curiosity and passion that made him an amateur botanist who deeply respected the natural world. In practical application of this passion, he founded the Agricultural and Horticultural Society of India, and as a conservationist and member of the Linnean Society of London (that in 2007 marked 300 years cultivating the science of Natural History) he understood and practiced missionary earthkeeping. In a paper published in 1811 he even made an unprecedented call for forest conservation. Then there is the early 20th century missionary Toyohiko Kagawa who influenced Japanese land reform and mountain reforestation and Luther Copeland who brought people beyond stewardship to holding a tangible reverence for creation as God's handiwork. And there is James Gustafson who in our day is helping people in Thailand build Christian communities, complete with sustainable crop production, each of which is self-replicating.³⁰

The Importance of Biblical Ethics and Addressing the Human Predicament

In developing a contemporary missiology, we may well ask, would it not be preferable to develop a new set of ethics, rather than refreshing the four ethics from the Bible as given above? Not according to Welsh Professor of Philosophy, Robin Attfield, who concludes that "whatever the causes of the problems may be, our traditions offer resources which may, in refurbished form, allow us to cope with these problems without resorting to the dubious and implausible expedient of introducing a new environmental ethic." This most certainly is the case for contemporary Christian missiology, that can "offer materials from which an environmental ethic equal to our current problems can be elicited, without the need for the introduction of a new ethic to govern our transactions with nature." Attfield rightly concludes, that "in our existing moral thought and traditions (whether religious or secular) the roots may be found from which, with the help of findings of ecological science, a tenable environmental ethic can grow."

But what about the human predicament? The human predicament that finds human beings so often doing what they should not do, and not doing the things they should?

²⁹ See my paper, "Stewardship: Responding Dynamically to the Consequences of Human Action in the World," in R. J. Berry, *Environmental Stewardship: Critical Perspectives — Past and Present* (New York: T & T Clark International, 2005), 145-158.

³⁰ See Dennis Testerman, "Missionary earthkeeping: glimpses of the past, visions of the future," and the *Preface* in C. B. DeWitt and Ghilleen T. Prance, eds, *Missionary Earthkeeping*. (Macon, GA: Mercer University Press, 1992).

Here again, contemporary Christian missiology has a vital contribution to make, as summarized by British historian of science, Colin Russell. In his examination of the history of science and technology, he concludes that the motivating springs of human action, particularly arrogance, ignorance, greed, and aggression, are responsible for the disasters and degradation that people inflict on the environment. Identifying this as a long-standing problem, he concludes that the scriptures identify and offer a comprehensive solution to the human predicament within the concept of stewardship in the Gospel of Jesus Christ.³¹

MOVING FORWARD

In applying what we have discovered and reflected upon in this chapter, we know that a contemporary missiology in our time must incorporate

- (1) preserving of biospheric systems that are working quite well
- (2) applying something akin to the physician's art at setting the conditions for restoration and healing of whatever we have abused and degraded, and
- (3) making peace with creation and its creatures in deliberate and determined reconciliation.

In working to develop and apply a contemporary missiology, every person, institution, and agency needs to

- (1) identify responsible stewardship paradigms (examples) already in place
- (2) amplify and replicate these across every field of work and endeavor
- (3) create and invent new and effective stewardship responses to the conditions and problems we have created at all levels of biospheric operations.

A contemporary missiology must also include embracing the work of biospheric care and restoration by missiologists, ecologists, and environmental scientists, encouraging them in the necessary progression from reservation ecology and restoration ecology on to reconciliation ecology.³² Such missiology must seek to make and encourage significant contributions to biospheric stewardship by publishing not only in journals and web pages, but also in lives and landscapes. And, readers of books on missiology, such as this one, need to conduct periodic self examinations, as we:

Seek to know

- (1) ourselves,
- (2) our relationships with people and other living things,
- (3) and our relationships with the biosphere,

³¹ Colin A. Russell, *The Earth, Humanity, and God: The Templeton Lectures*, Cambridge 1993 (London: UCL Press, 1994).

³² Michael L. Rosenzweig, *How the Earth's Species Can Survive in the Midst of Human Enterprise* (New York: Oxford University Press, 2003).

And to develop

- (4) the courage and resolve to speak the good news
- (5) the capacity and resolve to cooperate across boundaries and disciplines,
- (6) and the passion and curiosity necessary to learn how the world works

And to create and apply

- (4) the means and resolve to bring good news to every creature, and
- (5) the means and resolve to practice keeping the earth and its fruitfulness
- (6) the ethics of sabbath for the living creatures of the biosphere,
- (7) and returning the services of creatures and the biosphere
with equal or greater service of our own.

What are some examples that might ignite or fuel this vocation?

From the secular world there is the example of the founders of the journal, *Conservation Biology*, who...

...knew we could no longer simply follow the traditional academic model—placing bricks in the wall of knowledge and claiming them to be available to whomever wants to use them—and still have much hope of altering the course of world events. They saw that changes in the way the world operates would not come about through passive building of that wall... Like it or not, conservation science operates in a world increasingly defined by dishonesty, blatant self-interest, blasé acceptance of the loss of nature, increased tolerance for ugliness, global corporate control, growing fascination with an artificial cyberworld, and anti-intellectualism. To shy away from such realities and pretend they do not exist would consign us to irrelevancy. We must face these issues head on and begin new—and perhaps uncomfortable—conversations if this field is to be more than an odd historical curiosity to be cast upon the rubbish heap of indifference in future decades.³³

And from active missions endeavors there is the example of James Gustafson who is leading a self-replicating system of creation-sensitive missions in Thailand, who summarizes what he believes needs to be done...

if you want to be great, then serve
if you want to be first, be last
if you want to live, die
if you want to be strong, be weak
if you want to be good, admit you're bad
do not curse, but bless
do not take, but give
do not love yourself only,
but love your neighbor as you love yourself.

³³ Gary K. Meffe, 2001, "The Context of Conservation Biology," *Conservation Biology* 15 (4): 815-816.

And doxologically, from a long-standing Christian hymnody, we have the poetic gift from Anglican Bishop Thomas Ken:

Praise God from whom
 all blessings flow;
Praise God, all creatures...
 here below...

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