Christian Ecological Responsibility
Intimations of Prophetic Witness for the Church in the New Millennium

by

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Inuksuk Builders - Pitseolak Ashoona

If you travel in Canada you will likely come across the symbol of the Inuksuk. This symbol, appearing in many forms has become co-equivalent with the maple leaf - our national symbol. Inuksuk landmarks are found, among other places along Canada's most northern shores and are native to the Canadian arctic. To those who recognize them they represent eternal symbols of collaboration, direction and leadership. They are also powerful reminders of the importance of the values of mutuality and interrelatedness.

The Inuksuk (inuk -> person; suk -> substitute) meaning "in the image of [hu]man’s spirit" are magnificent lifelike figures of stone which historically were erected by the Inuit. Throughout time the Inuksuk have served as directional markers on the treeless horizon guiding those who followed them by pointing the way back to the Arctic Ocean. As such, they were a tool for survival and a tangible symbol of communication - a universal means of voicing guidance and offering leadership. The creation of the Inuksuk figure serves as a
messenger and a guide which points the way for those travelling in unknown territories. In the building of an Inuksuk diverse parts are brought together to form a cohesive whole and this whole constitutes a meaning of its own.

The efforts of an entire group is required to build these massive stone sculptures. Each stone is a separate entity. Each stone supports and is supported by the one above and the one below it. The stones which make up the Inuksuk are secured through balance. They are chosen for how well they fit together. The strength of the sculpture lies in their ultimate unity. The symbolism of the Inuksuk is derived from this unity or oneness.

The Inuksuk are the product of collaboration revealing the truth that as good as our individual efforts may be, together we can achieve even greater success. The Inuksuk is a symbol of the human spirit’s desire to succeed and our ability to succeed with others, where we would fail alone. Finally, the Inuksuk offers a reminder of the need to always think of those who are to follow in the future. How will our lives today be a sign pointing the way forward to a better tomorrow?

This symbol of the Inuksuk speaks to me of my Doctor of Ministry studies and thesis-project in many ways. Perhaps the most important is that the project builds in the element of collaboration and is impossible without it. Having come through a two year intensive study program I can say “Alleluia” but only because of the active collaboration of so many gifted individuals in the midst of the course work and beyond during the research and writing phase.

At the beginning of our D.Min. program we were invited and perhaps for some, challenged to set aside our competitive tendencies and to see our time of study as one based on mutuality and reciprocity. With such a wide range of countries, cultures, talents, and professions present it was pointed out to us that there was much richness to be gained if we were able to approach our new undertaking with a stance of openness, attention to “otherness” and collaboration.
From start to finish I have welcomed this invitation to collaboration and have believed in this model. I feel deeply grateful for having found many others who also shared my belief particularly: Dr. Edward Foley, Capuchin, Director of the Ecumenical Doctor of Ministry Program at Catholic Theological Union; my thesis-project guide, Dr. Dawn M. Nothwehr, O.S.F.; my project readers, Dr. Edmund Chia, Sr. Mary Ann Meyer, S.S.S.F., and Rev. Kevin S. Collins, C.M.; the Social Justice Network from the Diocese of London and beyond who willingly shared their experience during my research especially Inge Barthlomeiczik; the art contributors, Annette Zobel, Marion C. Honors, C.S.J., Mr. John Young, Thomas Seungwon Nam, S.S.C.; all my dear companions in the D.Min. program of 2007-2009; my friends from the Institute for Spiritual Leadership, the Chicago RSCJ community, my family and my religious community - Ursulines of the Chatham Union, all who were constant in their love and support.

There really are no adequate words to fully express what this D.Min. journey of “inuksuk building” in its completion has wrought. Yet, if the final product of this study concerning Christian tradition and the motivation of ecological responsibility serves in any way to transmit the Divine Call to embrace the promise of creation, then the final words must inevitably be heartfelt prayers of joy and gratitude. Gracias... Qujannamiik...Gam Sa Ham Ni Da... Merci...Thank you!
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Revelations of ongoing scientific study point to the fact that the Earth community today is plagued with an unprecedented and accelerating ecological conflict which has brought about severe deterioration of the quality of life within Earth’s community. As a result, recent Catholic Social Teaching, has made an urgent plea for the development of ecological consciousness and responsibility. There is a call to assess and reflect on the current practice of and motivation for care of creation within local faith communities so as to strategize for the deepening of such. Hence, this thesis-project intends to explore the question to what extent is Christian tradition providing motivation for the current practice of ecological responsibility of lay ecclesial leaders.
Only a small fraction of the public is aware that humans are precipitating what could rapidly become the greatest mass extinction of species in the past 65 million years, having irreversible impact on the viability of the ecosystem and quality of life on Earth for ten of millions of years into the future.¹

I begin this introduction to my thesis-project concerning the practice of Christian ecological responsibility with a modern day “star” narrative...

On February 12, 2005, Dorothy Stang was murdered in Brazil as a result of her solidarity with the rain forest protection projects in that country. After testifying at a government panel investigating illegal incursions into protected areas, Dorothy was denounced as a “terrorist” by powerful companies and began receiving death threats. Refusing to be intimidated, she continued her work—until two gunmen shot her six times on a rural Amazon road. At her funeral, her sisters of the Notre Dame community proclaimed: “We’re not going to bury Dorothy; we’re going to plant her.” For those who knew of her dedication, courage and conviction, Stang is considered a martyr for the environment of Brazil and its people.

In her capacity as a teacher she educated through the embodiment of her beliefs. When Dorothy told her friends: “The death of the forest is the end of our lives,” she conveyed a spirituality which eventually led to her own death. Her spirituality revealed a deep mystical commitment to the integrity of creation. Her passion for and commitment to the sacred interconnectedness and mutuality of all life resulted in total self-donation for the protection of the rain forests, one of the most vital life systems on the planet. Stang modeled an engaged Christian spirituality, the integration of

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5 According to recent statistics the Amazon rainforest covers an area of some 600 million hectares (2.3 million sq miles). It is the biggest rainforest on Earth, responsible for about 40 per cent of the world’s rainforest absorption of carbon dioxide. Satellite surveys indicate that about 5,800 sq miles of the Amazon rainforest is burnt or cleared each year to make way for cattle ranching, farming or other kinds of development. More than half of the world’s estimated 10
mysticism and moral responsibility, by living what she taught and believed. For Christians today, she is a vivid example of one who within her own life context responded to the call for ecological conversion through her efforts to protect the forests. Stang’s living out of her ecological responsibility serves as a powerful story from one whose life commitment shines as the stars. She has become an inspiration for all others attempting to take seriously the reality of our contemporary ecological conflict.

Transforming Ecological Conflict

Revelations of ongoing scientific study point to the fact that the Earth community today is plagued with an unprecedented and accelerating ecological conflict which has brought about severe deterioration of the quality of life within Earth’s community. Deforestation, species extinction, climate change, flooding, ecosystem collapse,

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million species of plants, animals and insects live in tropical rainforests. One-fifth of the world's fresh water moves through the Amazon basin. Scientists estimate that there are at least 100 billion tons of carbon stored in the trees of the Amazon rainforest and each year the Amazon absorbs about 2 billion tons of carbon dioxide from the atmosphere. For more details see: Steve Connor, “Revenge of the Rain Forest,” http://www.independent.co.uk/environment/climate-change/revenge-of-the-rainforest-1638524.html (Accessed March 09, 2009).

In his 1990, World Day for Peace message John Paul II spoke of the need for ecological conversion: “I wish to repeat that the ecological crisis is a moral issue... An education in ecological responsibility is urgent... a true education in responsibility entails a genuine conversion in ways of thought and behavior.”

Although more commonly used is the term ecological crisis, throughout this study I will use the language of ecological conflict. The current state of the Earth community can be described as one of hyper conflict. To understand this state in terms of a conflict - the struggle for survival, for respect and for a right to exist - between the diverse beings which make up the community is helpful in encouraging an understanding of what needs to be transformed to reduce the conflict. The ecological conflict and the results of this conflict will only be reduced when space and place are provided for all members of the Earth community to flourish according to their unique destiny. In this present state of ecological conflict, the human species is in a struggle with other-than-human species. We are also in conflict with ourselves over Earth issues such as protection as can been seen in the case of Dorothy Stang.
contamination of air and water, and soil erosion are just a few of the enormous ecological problems the community is experiencing. These far reaching problems have consequently called forth and required tremendous acts of dedication and determination in the search for ways to transform the underlying conflict. One outstanding example of the extent of the ecological conflict we face and the risks involved in responding can be found in the life narrative of missionary, Dorothy Stang.

A Plea for Collective Responsibility

Reflection on the Christian witness of Dorothy Stang, as well as on that of countless other lay persons who are currently responding to the ecological realities of our times, has served as the inspiration for the central investigation of this thesis-project. In addition, recent Catholic Social Teaching, has made an urgent plea for the development of ecological consciousness and responsibility as is evidenced in this statement by Pope John Paul II:

I wish to repeat that the ecological crisis is a moral issue...An education in ecological responsibility is urgent: responsibility for oneself, for others, and for the earth. This education cannot be rooted in mere sentiment or empty wishes. Its purpose cannot be ideological or political. It must not

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9 In his study on conflict, John Paul Lederach presents the approach of transformation as an alternative to that of resolution or management. He outlines five capacities that are key for the work of conflict transformation. For details see: The Little Book of Conflict Transformation, (Intercourse, PA: Good Books, 2003).
be based on a rejection of the modern world or a vague desire to return to some "paradise lost." Instead, a true education in responsibility entails a genuine conversion in ways of thought and behavior.\textsuperscript{11}

John Paul II, will further argue that care for Earth is not an option. From the Christian perspective, it forms an integral part of our personal life and of life in society. Not to care for the environment is to ignore the Creator’s plan for all of creation and results in an alienation of the human person.\textsuperscript{12}

From a more local context, a similar concern has recently been raised by the Canadian Bishops who have questioned the level of ecological responsibility among citizens. According to the Bishops’ recent environmental statement of March 2008, Canadians are not sufficiently conscious of the impoverished inheritance they are leaving for the generations to come.\textsuperscript{13} The concern of the Bishops has led them to follow their first reflection of 2003 entitled “You love all that exits...all things are Yours, God, lover of life” with a new pastoral letter, “Our Relationship with the Environment: The Need for Conversion.” In this letter written for the United Nation’s 2008 \emph{International Year of Planet Earth} the Bishops’ state: “We wish to take this opportunity to continue our reflections with our nation’s Catholics.” These efforts by the Bishops to raise awareness and issue a localized call to conversion towards ecological responsibility is a positive pastoral action and at the same time raises important questions.


\textsuperscript{12} Ibid., Pope John Paul II.

As a member of a community of Catholic women religious dedicated to ecological spirituality, and as one who has worked in justice education for the last 10 years, it has become apparent in the proverbial signs of the times that there is a call to assess and reflect on the current practice of and motivation for care of creation within local faith communities so as to strategize for the deepening of such. Hence, this thesis-project intends to explore the question to what extent is Christian tradition\(^{14}\) providing motivation for the current practice of ecological responsibility of lay ecclesial leaders.

Study Overview

While the directives from Church officials tend to focus on what should be happening, this study purports to take the next step and test what actually is happening. The directives clearly advocate the need for ecological conversion of both thought and behavior. The ministerial issue underlying this thesis-project proposal is concerned with how these directives are in fact being lived out among the membership. How is ecological responsibility taking place within local faith communities? Are Christians experiencing motivation for responding to the ecological conflict in connection with their faith tradition or do they have other sources of motivation? If there are other

\(^{14}\)Tradition for Christians encompasses those beliefs, convictions and practices imbedded not only in Scripture and the church councils of Nicea and Chalcedon but in denominational history as well, with its theological statements and pastoral guidelines. For Christians, our tradition is our heritage and is pluriform in nature. The tradition is a vehicle which hands on gifts, insights and challenges to assist the daily life of its adherents however the riches of the Christian heritage often remain largely under accessed. For more insights on tradition see Chapter 1 in, Method in Ministry: Theological Reflection and Christian Ministry by James D. Whitehead and Evelyn Eaton Whitehead( New York: Sheed and Ward, 1995), 6-9.
sources from the culture, what are some of these sources and how do they interact with Christian sources?\textsuperscript{15}

These questions concerning contemporary care for creation will serve in part as the guide for this study. Quite presumably there may be other questions that will arise during the survey which can serve as further insight for our conversation towards the reformulation of future praxis.

The primary audience is presumed to be educators, especially those dedicated to promoting ecological responsibility and ecological justice. A secondary audience could be parish pastoral teams and all those planning parish formation programs. Also diocesan and Bishops’ commissions, all those who have the task of writing directional statements.

Goals

The central goal for this project is to contribute to the growing number of voices who seek to identify and claim viable sources of motivation for ecological responsibility from within the Christian tradition. A secondary goal for this project is to make available materials beyond the Christian tradition which can help to motivate care for creation.

\textsuperscript{15} The Whiteheads suggest three potential directions that are helpful: i) religious tradition challenges the culture; ii) the religious tradition is challenged by the culture; iii) the religious tradition engages the resources of the culture in pursuit of its own mission. See: \textit{Method in Ministry: Theological Reflection and Christian Ministry} by James D. Whitehead and Evelyn Eaton Whitehead (New York: Sheed and Ward, 1995), 54-64.
Limits

Main limits of this thesis project are connected with the collection of data. The focus group is small and those participants chosen to represent church affiliates are to some extent arbitrary although not without legitimacy. Also, this study is taking place within a North American church context and thus cannot present a wider global church perspective.

Ministerial Imports: Breaking New Ground for Ministry

Within local Christian faith communities there is an ongoing challenge to encourage and motivate membership growth towards ecological conversion and responsibility—an area of ministry which is still very new in the life of parishes. A study of this type has the potential to assist parish leaders and educators to expand their understanding of current practices and sources of motivation, and to deepen the grounding of ecological responsibility from a faith perspective. The study also has potential to serve as a window into the thinking of ordinary Christians regarding their life and faith. Do they experience their faith tradition as a “positive motivator” and energizer for the challenges in their daily lives of responding to environmental needs and issues?

Methodology

Not just any ministerial experience is selected for theological reflection. The specific type of ministerial experience that the Whiteheads have in mind is an
urgent concern or pressing issue, something more, therefore, than business as usual or the routine fulfillment of pastoral duties.¹⁶

In developing this thesis-project which itself is motivated by the urgent concern of how Christians are responding to the ecological conflict, I will use a ministerial style of theological reflection, by appropriating the methodology prescribed by James and Evelyn Whitehead. I will develop three conversation partners: *tradition, experience* - current practice and *culture*. I will engage in attending to i) the voice of tradition: eschatology and motivation as interpreted primarily by John F. Haught ii) to the voice of experience: current practice of care for creation by lay ecclesial leaders from the Diocese of London, Canada and iii) to the voice of culture: motivations arising from cosmological studies grounded in the new science. Assertions of the perspectives from these three partners will then be correlated analogically using classical images in a new way- allowing for a style of interpretation which is more imagistic than conceptual. I will introduce the use of Eucharistic imagery as an entry point and central guiding analogy for examining the correlational dynamics.

Research on Current Practice

The engaged research: I plan to conduct this study with adult lay ecclesial leaders. These leaders are specifically volunteers who participate in social justice ministry in the parish and beyond. I am choosing to focus on these volunteers based on my experience working as director of the Office for Social Justice. These volunteers assume leadership roles by facilitating social justice awareness. Many have also begun to bring the

ecological conflict/crisis forward to the faith communities where they serve and are practicing some form of care for creation themselves. As volunteers who are in a position to form others, I would like to explore if and how their practice is informed and shaped by Christian tradition. Their input will be solicited through survey questions (and personal conversations where feasible) from 4 groupings in the diocese. 2 groups will be from a rural setting and 2 from urban centers.

Content Summary

In *Chapter One* of this thesis project, I will undertake a presentation and an examination of some potential ways in which Christian tradition offers motivation for ecological responsibility - for care of creation. As a point of entry, in Part One I will examine John F. Haught’s theological analysis in his seminal work *The Promise of Nature*.\(^\text{17}\) I will consider Haught’s proposition that the principal theological motivation for care of creation is grounded in Christian eschatological imagination which envisions a promissory, future-orientated quality of creation. In order to appreciate the distinct contribution of the *eschatological* tradition it will be useful to discuss this approach in relation to the *apologetic* approach and the *sacramental* approach outlined by Haught.\(^\text{18}\) Further along in the Part 2 I will discuss the writings of, Gregory Brett, Catherine Keller, David Toolan, and Elizabeth A. Johnson in order to draw out and expand upon

\(^{17}\) Haught uses the language of *nature* but I will adapt this to the language of *creation*. It has been pointed out and I agree that the language of creation suggests a more inclusive view of the human and other-than -human subjects.

\(^{18}\) Haught, Ibid., 90.
Haught’s eschatological approach to care of creation. Lastly, in Part 3 I will consider the implications of a renewed eschatology for ecological spirituality.

In Chapter 2, I will present a case study based on contemporary practice. I will review recently conducted field research in order to begin to uncover to what extent current lay ecclesial leaders’ care for creation - their practice of ecological responsibility, receives motivation from Christian tradition.\(^{19}\) As it has been observed, interaction with the source of religious information called tradition brings us face to face with questions about its force in our life or perhaps its lack thereof.\(^{20}\) It is hoped that an examination of the experiences garnered through this very modest case study will shed some light on the ways in which the Christian tradition in all its vastness is or is not serving as a motivational force in current practice of ecological responsibility - light which can ultimately illumine and strengthen both the efforts of those in faith communities seeking to establish a similar practice as well as the educational efforts of the leaders of these groups. The following procedure for presenting and reflecting on results of the study will occur in seven parts:

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\(^{19}\) Tradition for Christians encompasses those beliefs, convictions and practices imbedded not only in Scripture and the church councils of Nicea and Chalcedon but in denominational history as well, with its theological statements and pastoral guidelines. For Christians, our tradition is our heritage and is pluriform in nature. The tradition is a vehicle which hands on gifts, insights and challenges to assist the daily life of its adherents however the riches of the Christian heritage often remain largely unaccessed For more insights on tradition see Chapter 1 in, *Method in Ministry: Theological Reflection and Christian Ministry* by James D. Whitehead and Evelyn Eaton Whitehead,( New York: Sheed and Ward, 1995).


In Chapter 3, I will consider the potential of cosmological imagination – the cultural practice of cosmology, to inspire and motivate care of creation. Following a review of the significance of functional cosmologies within culture and the developmental impact of scientific cosmologies specifically in Part One, I will then proceed in Part 2 to examine a current model, that of *The Universe Story*\(^1\), which has emerged as a leading example of the work of cosmological imagination. A study of this seminal model, designed by mathematical cosmologist, Brian Swimme, and cultural historian, Thomas Berry, to incorporate both the revelations of contemporary science and a reflection on their meaning, will be followed in Part 3, by an outline of how the new cosmology might function as a motivational force for ecological responsibility and transformation.

In Chapter 4 I will reflect on correlations with reference to methodology modeled by James and Evelyn Whitehead.\(^2\) According to the Whiteheads’, there is an ongoing search for new, lively and truthful images and metaphors which can ultimately guide the practice of theological reflection. In this fourth chapter aimed at the study of the

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\(^1\) Brian Swimme and Thomas Berry, *The Universe Story* (San Francisco: Harper, 1992). This is the original text. I don’t believe a revised version has been produced yet.

interrelationships or interplay occurring between the three partners from tradition, experience and culture, I have joined in the efforts to practice theological reflection metaphorically using classical images in a new way - allowing for a style of interpretation which is more imagistic than conceptual. I will introduce the use of Eucharistic imagery as an entry point and central guiding analogy.

Upon examining the relationship of the partners’ assertions with regards to the question of eco-responsibility and motivation, the relational dynamics which emerge call to mind and resonate with those from classic Judeo-Christian symbolism and ritual: that of the sacramental chalice, the commingling of the water and wine therein, and finally the act of “pouring forth” or the sharing of the chalice. By drawing on the interplay of these traditional images I believe it is possible to capture and transmit something of the correlations perceived in the study thus far presented. In order to make this presentation analogically I will use Part One to briefly review the history of the practice of commingling and to describe the traditional symbolic meanings of the chalice. Part 2 will apply the analogy to three partners: the lay ecclesial leaders, eschatological imagination and cosmological imagination in order help illustrate the correlations. In this process I will also refer to the Whiteheads’ approach which is aimed at identifying points of challenge and enrichment which arise through the interactions of the partners. Part 3 will draw together a synthesis of insights concerning the correlations which serve as a foundation for renewed praxis.
In Chapter 5, I will present recommendations for the renewal of praxis - for a holistic approach to formation for Christian ecological responsibility. In keeping with the vision and goals of practical theology out of which this thesis-project has been born, I will present these recommendations concretely in the form of a sample workshop that may be useful to educators/leaders. The workshop will present the Cosmic Walk as a contemporary spiritual tool and practice which is ideal for cultivating ecological imagination. This presentation will be divided into the following parts 1) Introducing The Cosmic Walk: Context and Origin 2) Awakening Ecological Imagination 3) Appropriation of the Walk and Conclusions.

Finally, by way of the Conclusions I will begin with a brief summary of the context, goals and process which have guided this thesis-project. Next, I will present an overview of the key insights derived from my three conversation partners through the development of an analogical correlation. Lastly, I will describe how out of the diverse findings of this study some challenges for future investigation also presented themselves. As is the case with every thesis-project, some questions are answered and others are created. A reflection on questions arising in connection with Christology and ecological concern will draw this study to a close.
Chapter 1

Creation and the Discovery of Divine Promise

Thou has made thy promise as wide as the heavens. (Ps 138:2)

If through hope we perceive a promise inherent in nature, we will be all the more motivated to care for it so that it may come to its proper fulfillment.\(^{23}\)

Out of the heart of Christian tradition and perhaps even more boldly, out of the heart of God’s divine presence springs a well known mandate, “Hope!” The practice of hope as a form of spirituality has deep roots in the Judeo-Christian experience and it is

the principal matrix for interpreting the meaning of faith in Christ’s incarnation – the life death and resurrection of Jesus.\textsuperscript{24} At all times, but particularly in times of struggle and conflict or when faith in the pervasiveness of life dims, the praxis of hope is a vital spiritual discipline for Christians. Thus, in hard moments, moments of unprecedented challenge such as the present environmental dark night of ecocide, the scriptural mandate, “Always be prepared to give reasons for the hope that is in you,” (1 Peter 3:15) calls forth a movement towards the examination of Christian commitment and expanded consciousness.

Why Care?

In the context of the contemporary ecological conflict where the potential for life is being rapidly snuffed out rather than sustained and nurtured, Christian consciousness is being challenged once again to dig deep in order to provide a relevant response to where in fact and in faith, one can derive hope. In the face of the despair brought on by overwhelming evidence that humanity’s ability to rise above the odds and to choose life over death for the Earth community has been forfeited, why hope, why care? For the Christian community today, to take seriously the application of a living faith to the ecological signs of the times, the mandate be prepared to explain “why hope” is being approached as “why care.” As we shall observe in the experience of the lay leaders: “We

\textsuperscript{24} Karl Rahner, along with others such as Jurgen Moltmann, argue that we can only understand what Christian faith is when we recognize clearly the edifice of hope that is built upon it. For more details see: “The Question of the Future,” in Theological Investigations 12, trans. David Bourke(New York: Seabury Press, 1974) 183.
learned that the earth is a living organism and that our goal in life is to take good care of the earth,”

Care and concern for creation are notably genuine motivational forces. Yet, if we apply the scriptural instruction from Peter, we are presented with a challenge to search our experience to further identify a deeper level of consciousness, namely can we explain the heart of our caring? As Christians, care provides motivation for ecological responsibility but more deeply still, what are the reasons underlying this care?

Precisely, why should we care about the nonhuman natural world? Most of us probably believe that it is a good thing to do, and we can even give some very convincing pragmatic answers to the question. But theology is concerned with the religious justification of any ecological concern we might have....the ultimate reasons why we should care about the cosmos. Noted Jesuit theologian, John F. Haught offers a key insight when he states, we need to be aware of the “ultimate reasons” why we should care. For Haught, Christian ecological responsibility needs to be situated in and practiced with consciousness of ultimate reasons. Or, in other words, our actions need to find motivation and orientation within a spiritual matrix – that which orientates us toward the inexhaustible, enlivening and liberating depth of the reality we may call by the name of Mystery.

In Search of Ultimate Reasons

Haught argues that “ultimate reasons” for care of creation are foundational and can be found within the spiritual matrix that is accessible through Christian tradition. In

25 For more examples from the participants, refer to Chapter 2 pp 24-25.
26 Haught.,Ibid.,88.
27 Haught.,Ibid.,73.
Chapter One of this thesis project, I will undertake a presentation and an examination of some potential ways in which Christian tradition offers motivation for ecological responsibility - for care of creation.

As a point of entry, in Part One, I will examine Haught’s theological analysis in his seminal work *The Promise of Nature*.\(^2^8\) I will consider Haught’s proposition that the principal theological motivation for “creation care” is grounded in the Christian eschatological tradition which upholds a promissory, future-orientated quality of creation. In order to appreciate the contribution of the eschatological tradition it will be useful to discuss this approach in relation to the apologetic approach and the sacramental approach outlined by Haught.\(^2^9\) Further along in Part 2, I will discuss the writings of Gregory Brett, Catherine Keller, David Toolan, and Elizabeth A. Johnson in order to draw out and expand upon Haught’s eschatological approach to creation care. Lastly in Part 3, I will consider the implications of a renewed eschatology for ecological spirituality.

**Part One**

Haught outlines what he sees as three distinct theological “approaches” or manners from within Christian tradition in which to answer the question why care. These are: apologetic, sacramental and eschatological. Each approach establishes motivations for

\(^{2^8}\) Haught uses the language of *nature* but I will adapt this to the language of *creation*. It has been pointed out and I agree that the language of creation suggests a more inclusive view of the human and other than human subjects.

\(^{2^9}\) Haught, Ibid., 90.
ecological responsibility which Haught considers necessary, yet ultimately he wants to show that the oft overlooked eschatological framework which incorporates apologetic and sacramental elements offers the most compelling or “ultimate” motivation. It is through an analysis of these approaches then that we are able to: i) describe their unique perspectives and some current examples ii) identify some of the motivations they raise in the tradition for care of creation and iii) establish the grounds for their motivations.

The Apologetic Approach

At the beginning of history, man and woman sinned by disobeying God and rejecting His design for creation. Among the results of this first sin was the destruction of the original harmony of creation. If we examine carefully the social and environmental crisis which the world community is facing, we must conclude that we are still betraying the mandate God has given us: to be stewards called to collaborate with God in watching over creation in holiness and wisdom.30

The apologetic approach for responding to the care of creation question takes its lead from the tradition found in scripture, papal statements, church teachings and certain theological writings. “According to this approach, which runs the range from biblical literalism to very sophisticated theological scholarship, we have simply ignored the wealth of ecologically relevant material in the tradition”.31 Apologetics works to retrieve evidence from scripture and early Christian theological sources which create a foundation and/or model for care of creation. At a basic level this method has been

31 Haught, Ibid., 91.
dedicated to compiling explicit biblical examples which generally point to the importance of creation as the gift of God’s “handiwork.” At a deeper level, reflections on the biblical concepts of stewardship of creation, “Be fruitful and multiply and fill the earth and subdue it: and have dominion over the fish of the sea and over the birds of the air and upon every living thing that moves upon the earth” (Genesis 1:28); “You have made [humans] a little lower than God, and crowned them with glory and honor. You have given them dominion over the works of your hands; you have put all things under their feet,” (Psalm 8:5-6) are the central motivational basis for action.

By way of example, the Catholic Conservation Center is one such group which follows the apologetic approach.32 Both scripture and related papal teachings are central to their method of motivating ecological responsibility:

...the Bible has a great deal to say about social justice and environmental conservation. "Reflection on the biblical foundations of care for the created world can clarify the obligation to promote a sound and healthy environment," said Pope John Paul II.33 The Center’s efforts are to “promote ecology, environmental justice, and the stewardship of Earth’s resources in light of sacred Scripture and living Tradition of the Roman Catholic Church.”34 The Center stresses the importance of the apologetic

32 For a good example of this approach see: “Creation Spirituality and the New Story A Cosmos Without the Redemption of Christ” http://conservation.catholic.org/creation_spirituality.htm (November 03, 2008).
33 This is part of a “commentary by Bill Jacobs, ecologist and director of the Catholic Conservation Center. See:“Creation Spirituality and the New Story A Cosmos Without the Redemption of Christ” http://conservation.catholic.org/creation_spirituality.htm (November 03, 2008).
approach and seems to question others as is demonstrated in a quote from their website:

...according to the U.S. Catholic Bishops, "Some people think they have to adopt Creation Theology or a new cosmology to be theologically correct on ecological issues.... Nothing could be farther from the truth. Environmental justice is now thoroughly embedded in the Church's social teaching, and it has been a repeated theme of Pope John Paul II's social teaching." 35

For Haught, overall this approach is apologetic in nature because “it defends the integrity of biblical religion and traditional theology without requiring their transformation.” 36 Apologetics aims to raise to high relief the biblical testimony that God has given humanity “dominion” and “stewardship” over the gift of creation, and that this is reason enough for us to take care of our natural environment.

Haught sees this aspect of apologetics as key especially to the extent that the retrieval of the call to stewardship is demonstrated to be a call to be caring of as through the classical virtues of humility, detachment and gratitude, and not to domination. He does question, as have many others, whether this mandate to stewardship perpetuated within the tradition can be motivation enough for the degree of ecological conflict we are facing. Will it lead to the radical change in behavior and lifestyle that is needed to transform the conflict that abusive overconsumption and misuse has wrought? The answer to this question is still largely debated.

36 Haught, Ibid., 92.
The retrieval and renewed interpretation of the traditional themes of *incarnation* and *creation* within apologetics also stand out for Haught as significant. One of the most recent examples of this retrieval work entitled, *Care For Creation*, presents the perspective that conversion to ecological responsibility will ultimately find motivation through deep faith in the Incarnation or more precisely through “conversion to the Incarnation” – God’s Word-Logos-Plan made flesh in the person of Jesus Christ “through whom all things are made” (John1: 1-14). Fish, water, trees, birds, air, wind, fire. All are created through the Word of God - through Christ who since the beginning existed as the power and wisdom of God (1Cor 1:24). The wisdom and power that is Christ resides with all creation bringing order, unity and potential for the flourishing of life.

Through a retrieval of the insights of Bonaventure and John Duns Scotus who taught that: 1) God always intended to give God’s self to us in the Incarnation; 2) God’s one act of self-bestowal had the distinct dimensions of creation and Incarnation, whereby the meaning of incarnation is shifted from being a divine act in response to human sinfulness to being the primordial divine act of creative and enduring love. Creation is the embodiment of love. Creation reveals divine love. Love bodies forth in creation, thus the whole of creation is both incarnational and sacramental. Every creature is in itself a “little incarnation” expressing God’s word. Every aspect of creation reflects

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37 Haught does not elaborate on these themes to the same extent as stewardship of creation. He states briefly that at a more erudite level of interpretation the apologetic approach excavates these themes as theological warrants for an ecological theology but he emphasizes that more than anything else, the apologetic approach focuses on concepts of dominion and stewardship. For more details see Chapter 4 in *The Promise of Nature*.


39 Delio, Ibid., 2.
Divine love and radiance — a belief which resultantly provides motivation to cherish and preserve all that which provides intimacy with God.

The Sacramental Approach

Because the divine goodness could not be adequately represented by one creature alone, God provided many and diverse creatures, so that what was wanting in one in representing divine goodness might be supplied in another. Thus the whole universe together participates in the divine goodness more perfectly and represents it better than any single creature whatever.⁴⁰

The sacramental approach for responding to the care for creation question is based in the mystical practice from Christian tradition which sees all creation as sacral — a symbolic expression of divine goodness, of God’s self-revelation. Rather than focusing on the revelations of scripture, papal statements or church doctrines this approach proposes the need to focus on creation itself as sacred and revelatory book of God’s intimate presence.⁴¹ “In its typical form this sacramental approach interprets the natural world as the primary symbolic disclosure of God. Religious texts and traditions are still important, but the cosmos itself is the primary medium through which to come to know the sacred goodness of God”. ⁴² In sacramentalism, attention and value is given to the sacral quality of the universe and there is not a demand for pre-modern religious texts to provide the foundations of an ethics of care.

⁴⁰ Haught, Ibid., 81, refers to this often quoted statement from the work of Thomas Aquinas (Summa Theologica 1, 47, 1).
⁴¹ For an excellent historical review of how creation has been understood to be God’s book of revelation see: Peter M. J. Hess, “God’s Two Books: Special Revelation and Natural Science in the Christian West” in Bridging Science and Religion, eds. Ted Peters and Gaymon Bennett, (Minneapolis: Fortress Press, 2003),123-140.
⁴² Haught. Ibid.94.
In considering an example of the sacramental approach and how it arrives at motivation for ecological responsibility, Haught refers to creation-centered theology. Here creation is brought to the center of theological discourse rather than being subordinate to redemption which has caused an inadequate valuing of creation’s intrinsic goodness. Creation is understood as included in the process of redemption and so sin involves not just estrangement from God but from creation as well. “Reconciliation then implies not only restoration of human communion but just as fundamentally, our reintegration with the Earth community and the whole of the universe.” Since there is no separation within creation through the Incarnation, Christ offers reconciliation and healing for the entire cosmos. “For in him all the fullness of God was pleased to dwell, and through him God was pleased to reconcile to himself all things, whether on earth or in heaven” (Col : 19-20).

Creation-centered theology as an example of the sacramental approach upholds the intrinsic value of creation. Creation has meaning beyond its use for human purposes. Creation “is essentially the showing forth of an ultimate goodness and generosity,” that which belongs to and reveals God. Therefore since creation is the primary symbolic disclosure of God, to care for creation is to demonstrate the desire to know God and to preserve a path to such knowing.

Creation serves as the primary medium through which we come to know something of God’s Spirit and which through God provides humans with physical sustenance.

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43 Haught., Ibid., 96.
44 Haught., Ibid., 99.
Creation, then, provides both spiritual and physical nourishment for the human community. Ultimately, we must humbly assert “we belong to the earth much more than it belongs to us [and]... are more dependent on it than it is on us.” In creation, we witness God’s plans to offer spiritual and physical nourishment. Within the traditions of the Old and New Testaments both Yahweh and Jesus raise up the fruits of creation as nourishment for life. In Genesis, all that Earth produces is offered to support human flourishing. “See I have given you every plant yielding seed that is upon the face of the earth; you shall have them for your food” (Gen 1:29). Similarly, at the last supper, Jesus offers wheat and grapes as signs of the eschatological feast: a common table, a celebration of unconditional love and forgiveness, communion among friends. Thus, not to care for creation can be construed as sinful – an act of estrangement from God – a devaluing of the Source all nourishment.

The transformation of such sin comes through participation in the mission of the cosmic Christ – a mission to care for and heal all severed relationships in the living body of God’s creation. The motivation for ecological care from the sacramental approach is a motivation ultimately rooted in the belief that the body of God’s creation is our true home, and care of this home honors and preserves a communion nourished by the Spirit of the cosmic Christ.

For Haught, the motivation from the sacramental viewpoint diverts from the anthropocentric nature of the apologetic approach which claims the mandate of

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45 Haught., Ibid. 101.  
stewardship as key. This perspective moves all created life rather than human life alone, to the center (ecocentrism) of concern and care. This is a significant contribution. Nevertheless, he argues there is yet a third approach within Christianity which offers motivation for ecological care stemming from the tradition’s deepest core vision – that of eschatology.

From first to last and not merely in the epilogue, Christianity is eschatology, is hope, forward looking and forward moving, and therefore also revolutionizing and transforming the present. The eschatological is not one element of Christianity, but it is the medium of Christian faith as such, the key in which everything is set, the glow that suffuses everything here in the dawn of an expected new day.  

Haught will argue that ultimate motivation is found not in looking to a God transparently revealed in present natural harmony but rather in looking toward a future coming of God in the eschatological wholeness of creation.

The Eschatological Approach

The whole universe may now be thought of as anticipatory, that is, of being already grasped by the futurity of the Divine Mystery.  

The eschatological approach for responding to the care for creation question draws upon the Judeo-Christian practice of hope in divine promise for future fulfillment as an avenue to provide motivation for ecological responsibility. This approach largely proffered by Haught himself, depends on and incorporates a renewed sense of

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eschatological meaning. It stresses hope in a “Christified cosmos” creation’s completion and fulfillment in the future through Christ rather than the apocalyptic hope for the remaking of creation after “end times.”

In a Christian eschatology, Christ is the model for creation’s fulfillment so that what happened between God and the world in Christ points to the future of the cosmos. This future involves the radical transformation of created reality through the unitive power of God’s love. This revelation of God’s love, Christ—the Logos—is the promise hidden in God from all eternity. This promise is revealed through the Word Incarnate. Through this Word all life is joined in oneness and unfolds towards fulfillment.

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49 In her study, *Christ in Evolution*, Ilia Delio states that God’s promise of fulfillment looks like a *Christified world*. The whole creation is made for Christ because there is a spiritual potency within matter to receive the divine Word into it. This is a very dynamic view of the material world with a spiritual potency for God, which Bonaventure saw realized in the incarnation. Jesus Christ then is not an intrusion into an otherwise evolutionary universe, but the reason and goal. (Maryknoll, New York: Orbis Books, 2008), 7.

50 Denis Edwards gives a very clear summary: Should we envisage this liberating eschatological action of God taking place in and through the processes of the universe, or should we think of the “old” creation coming to an end and being reconstituted by a new action of God from “outside”? I would argue for the first option of these options. First, because it is far more congruent with everything we know of God’s way of dealing with creation. Second, it respects the biblical teaching that divine Wisdom was always at work in creation, that all things were created “toward” Christ, and that through the risen Christ the reconciliation of the universe has already begun:”God was pleased to reconcile to himself all things, whether on earth or in the heaven, by making peace through the blood of the cross” (Col). I find it difficult to believe that creation, which is the work of divine Wisdom and reconciled in Christ’s blood, is to be put aside so that something new might be done. Rather, if the risen Christ is already the secret heart and center of the created universe, through God’s gracious act, the transformation of matter has begun from within the processes of the universe. In *Jesus the Wisdom of God—An Ecological Theology*, (New York: Orbis Press, 1995), 87.

Within this viewpoint of Judeo-Christian eschatology, promise is the form that revelation comes in and hope makes reception of the promise possible.\textsuperscript{52} God’s self-revelation becomes apparent to faith first in the form of a promise that opens up to a new future. Beginning with the Old Testament, the biblical account of God’s gracious call of Abraham sets the whole tone for the main religions of the western world. The God of Abraham and Sarah is a God of promise and Jesus’ post-Easter appearances to his disciples are not so much theophanies as promissory events reminiscent of the call to Abraham to move into the great future lain open to him by God.\textsuperscript{53}

Haught’s eschatological approach aims to raise up a fundamental theme, that of “promise,” which has only recently been given due attention.

During the present century, we have rediscovered the central place of eschatology in Christian faith. Hope in God’s promise upon which Israel was built is now also seen to be the central theme in Christian faith ...The faith of Jesus and his followers was steeped in the expectation of the coming of the reign of God. Reality is saturated with promise, and the authentic life of faith is one looking to the fulfillment of God’s promise.\textsuperscript{54}

Haught contends that the renewal of a theological vision cognizant of the same divine promise which inspired the prophets, Jesus and his followers leads to an important insight about the created order. He states:

Until recently this way of looking at the cosmos, namely as embodiment of promise had almost completely dropped out of Christian understanding. It had

\textsuperscript{52} John F. Haught, \textit{Mystery and promise A Theology of Revelation}, (Minnesota: The Liturgical Press, 1993), 89.
been replaced by a dualism that looked vertically above to a completely different world as a place of fulfillment. The cosmos itself had no future...By excepting nature and its future from the ambit of human hope Christianity left the cosmos suspended in a state of hopelessness. It had forgotten St Paul’s intuition that the entire universe yearns for redemption.  

Understood as an embodiment of divine promise, creation is indeed sacred. The eschatological approach acknowledges the sacramental quality of creation and at the same time presses for an acceptance that creation suffers, is marred, incomplete and so not yet perfectly revelatory of God. Inherent in creation’s incompleteness is the anticipatory, unpredictability and futurity of the divine promise.

A purely sacramental or creation-centered approach cannot easily accommodate the uncontrollable or shadow side of nature, according to Haught. “An eschatological view of nature, on the other hand, allows ambiguity in as a partner of promise. Nature’s harshness, which so often offends...is entirely in keeping with its being the embodiment of promise. The perspective of hope allows us to be realistic about what nature is.”

The reality of creation for Haught is that it is a locus and symbol of promise where the promise of fullness of life calls for ongoing transformation. All creation, as St Paul observed, yearns for completion and thus exists in a restless state. The future – oriented promissory aspect of the eschatological approach allows for keeping the cosmos in the foreground without removing the restlessness forced on the present by a sense of yet-

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55 Haught., Ibid., 102.
56 Haught., Ibid., 111.
to-come. All creation is seeded with promise and so must undergo transformation to achieve completion. Haught concludes:

The bible not only gives thanks for present creation but it also seeks to change it. It celebrates the Sabbath on one day and permits work on the other six. Because it is based fundamentally on the sense of promise it can never remain totally satisfied with present reality, including any present harmoniously balanced state of nature.

In a further attempt to delineate his eschatological approach, Haught draws upon the significance of transcendence. In the sacramental approach, transcendence occurs laterally as a moving out beyond the narrow boundaries of the isolated self in order to be open to the ever-expanding field of present relationships belonging to creation. “But this transcendence must be complemented by a looking forward-beyond-the-present...toward the novelty and surprise of an uncontrollable future.” The transcendental nature of creation includes not only a movement towards inclusiveness but also a straining toward future realization. This straining toward an unknown future in eager restlessness characterizes the living hope associated with the promise of creation.

The eschatological approach raises to high relief the necessity for a patient and realistic acceptance of creation’s unfinished, open-ended status. In Christian tradition it is a virtue to look with the eyes of hope into all events for signals of God’s promises and fidelity.

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57 Haught., Ibid., 109.
58 Haught., Ibid., 106.
59 Haught., Ibid., 109.
Eschatology arouses a hopeful trust in the God who makes promises, who is
faithful to these promises, whose reign will bring about a new creation and
who comes to meet us out of an always surprising and ultimately fulfilling
future. In the resurrection of Christ, Christian faith discerns the future
fulfillment of the whole universe made manifest in advance.  

The Christian praxis of hope therefore is to become skilled in the habit of looking to the
resurrection for the promise at the heart of all realities and events, even when they are
apparently dead ends or seemingly beyond our control.  

In light of the incompleteness or uncontrollability of creation or more specifically in
light of the present day reality of despair for creation’s travails, the Christian tradition of
hope in the divine promise for cosmic redemption serves to motivate ecological care.
Rather than giving in to the despair brought on by the forces of ecocide and thus
foregoing care of creation for indifference, the tradition urges hope in the promise of
fullness of life for all creation. “If through hope we do perceive a promise inherent in
nature we will be all the more motivated to care for it so that it may come to its proper
fulfillment.” Where there is hope for divine fullness, there too resides sound reason
for the commitment of “caring” this life into the fullness of existence and for protecting
the place where we are able to witness God’s ultimate transformative creativity.

Summary

Ecological care inspired by the eschatological tradition both affirms and extends
motivations based on calls to the stewardship of God’s handiwork or to a mystical

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62 Haught., Ibid., 119.
communion with the gift of creation’s divine goodness. Motivated by a renewed eschatology, Christian ecological responsibility reflects the fundamental reason for being and acting as a community – to sustain hope in the Divine Promise - the full revelation of Christ in creation. In this approach creation is not just a gift that needs to be received with gratitude, nor an act of self-revelation but it is a promise that embodies the future. From this perspective we care for creation:

not simply for its sacramental transparency to God but also because it carries in its present perishable glory the seeds of a final eschatological flowering. Hence, by allowing the embryonic future to perish now at the hands of our own ecological carelessness and selfishness we not only violate nature’s sacramental bearing but also turn away from the promise that lies embedded in all of creation.  

As Haught will insist: “We are obliged to provide every possible opportunity for [creation] to move toward yet other surprising outcomes, whatever they may be.” Or, in more practical terms we are motivated to care so as to “desist from aborting hidden potential for a larger and wider-than-human future, the creativity that still lurks in the field’s of the earth’s complex eco systems.”

Ultimately, Haught claims, “we save [creation] because of the incalculable promise it holds.” Our caring and concern for the redemption or saving of creation is a response

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64 Haught., Ibid., 125.
to the challenge of faith. Faith which boldly confesses that because of Christ’s and our own inseparability as members of creation, there can be no personal liberation from the cosmos but only together with it. As Colossians 1:16-17, 20 professes, “for in him all things in heaven and on earth were created, things visible and invisible, whether thrones or dominions or rulers or powers—all things have been created through him and for him. He himself is before all things, and in him all things hold together...For in him all the fullness of God was pleased to dwell, and through him God was pleased to reconcile to himself all things, whether on earth or in heaven.”

In order to further evaluate Haught’s claim that an eschatological grounding contributes the most fundamental motivation for Christian ecological responsibility, it is helpful to examine related studies for additional insights. In Part 2, I will discuss the writings of Gregory Brett, David Toolan, Catherine Keller, and Elizabeth A. Johnson. Each author offers a unique view of the relationship between eschatology and ecology and presents additional information regarding how this approach can be interpreted as a source of motivation.

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67 The challenge before us is the absolute future calling to the present... By learning to see, by becoming alert and awake in this universe, you feel the call and the presence of the unborn God asking for, or guiding us into, the type of creative action that gives birth to the next moment in a process that called "divinization." For more details on Pierre Teilhard de Chardin’s thought see: “The Divinization of The Cosmos” at http://www.enlightennext.org/magazine/j19/teilhard.asp?page=3 (accessed on January 15, 2009.)
Part Two

Brett on Future Hope

Can the hope filled dimension of Christianity, founded on the ancient Hebrew experience of God’s promise and fidelity and grounded in the incarnation become the keystone of an environmentally sensitive vision? Or, is Christianity’s traditional longing for another world too ingrained and pervasive. 68

In his study entitled “Humanity and Ecology in the Light of Christian Hope,” Gregory Brett supports the view that significant motivation for ecological responsibility can come from the eschatological tradition. He readily acknowledges however that for many, eschatology is inescapably problematic. “The recurring emphasis on the future found in the Scriptures has wreaked ecological havoc...Hoping in a future world can lead us to sacrifice the present world for the sake of some far-off fulfillment.”69 Given the very strong critiques of the way the eschatological vision has led to the devaluing and misuse of creation, Brett takes up the challenge of delineating the basis for a renewed eschatology. He aims to demonstrate the position that,

eschatology does not look towards a spiritual heaven unconnected to the earth and its history. Eschatological promise is not tied to an other-worldly inheritance for human souls that bears no resemblance to the present state of affairs of this world and the creation. Rather, promise is seen as the culmination of the entire story of the universe...The divine presence and the glory of God

69 Brett, Ibid., 162.
includes the everlasting preservation of the transient beauty that makes up every phase of the long story of the universe.”

Brett points out that where the eschatological tradition is concerned what is critical to a renewed approach is how one understands the “orientation to the future.” He presents three principles for a balanced understanding of eschatology in this regard which are ultimately relatable to ecological responsibility.

Brett believes the insights of Karl Rahner are essential to an eschatological vision which can inform our care of creation. He begins with a summation of Rahner’s key contributions and then moves to the implications.

1) Eschatology deals with our present experience as foundational to our future fulfillment. God who is the absolute future is already present in the center of human existence.

Eschatology has an intrinsic relationship to the present and is not simply futurology. Humans can only understand themselves and their present in their relationship to the absolute future. Creation cannot be understood or find a proper orientation without a view of the past and a view of the future. To say that we are a people of anticipation or hope means that we understand our present only to the degree that we grasp it as moving toward the future.

2) Eschatology deals with God’s self-communication, which remains essentially mysterious. We remain open to an unexpected and surprising future.

Eschatological statements are seen to express an awareness of a future that remains always obscure rather than seen as predictions. Our future in the world and the universe is God. According to eschatology, the future remains uncontrollable and hidden and yet also present, something real that we look forward to. Hope calls for attention to present realities in the midst of an ongoing openness to the mystery of the future.

70 Brett, Ibid.,167.
71 Brett., Ibid, 164-166.
3) Eschatology deals with a future whose culminating point has been revealed or communicated in the incarnation of Christ. Christ ultimately reveals the destiny of creation.

Eschatology is grounded in the Christ event. Christ is the norm and foundation of eschatology. The resurrection of Jesus assures us that life is the principal and overwhelming ingredient in creation and the future of creation.

With Christ, human beings have the capacity and the responsibility of enabling the world to be more open to its absolute future. Eschatology does not dissolve human responsibility but rather radicalizes it. 72

Jesus’ life, death and resurrection initiated the fulfillment of the divine promise and opened up the direction towards future wholeness and the integrity of creation. The act of engagement with present circumstances (such as that of ecological destruction) in a way that nurtures life and works to redeem the integrity of all creation with its open-ended potentialities is an act of hope in the promise of Christ.

Ultimately, Brett promotes an understanding of the future promise which does not diminish but rather calls forth responsibility for creation. As preserved in the tradition of social teaching 73 he points out that “the expectation of a new earth must not weaken

72 Brett, Ibid., 167.
73 See for example the social teaching of Pope Paul VI. In “A Hospitable Earth for Future Generations” -Message to the Stockholm Conference on Human Environment of June 1, 1972. Here the Pope identifies creation’s promise in relation to a regenerativity which must be safeguarded: “Today, indeed, there is a growing awareness that man and his environment are more inseparable than ever. The environment essentially conditions man’s life and development, while man, in his turn, perfects and ennobles his environment through his presence, work, and contemplation. But human creativeness will yield true and lasting fruit only to the extent to which man respects the laws that govern the vital impulse and nature’s capacity for regeneration. Both are united, therefore, and share a common temporal future. http://www.franciscancoalition.org/documents/AHospitableEarthforFutureGenerations.pdf (Accessed December 09, 2008).
but rather stimulate our concern for cultivating this one. For here grows the body of a new human family, a body which even now is able to give some kind of foreshadowing of the new age.  

Care and concern for the “matters of earth” define Christian identity and bring this identity to fullness. The centrality of the relationship to all of creation and especially the land has long been part of the Judeo-Christian tradition and identity - the place of encountering God’s promise. In the context of the people of Israel, so strong was this identification that the promised future reality could not be envisioned outside of the context of the reality of this relationship. Resultantly, in their writings, the promised future would concretely be related to a land of bounty, freedom and justice - what David Toolan refers to as the “ecological tradition.”

Toolan on Land: An Ecological Tradition

For the Lord your God is bringing you into a good land. (Deut 8:8)

In an effort to address the meaningfulness of the eschatology for ecological responsibility Toolan presents what he refers to as “ecological tradition” found in Christianity. The tradition developed by the scriptural writers visualizes “promise” as the metaphor of God’s gift of land that is fecund and overflowing with potential for life. The image of the promised land is powerful. The promised land represents all that is yet

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to be. All that which the future holds is symbolized by all the potential for sustaining life which the land holds:

For the Lord your God is bringing you into a good land, a land of brooks and water, of fountains and springs, flowing forth in valleys and hills, a land of wheat and barley, of vines and fig trees and pomegranates, a land of olive trees and honey, a land to which you will eat bread without scarcity. (Deut. 8:8-9)

Raising up the metaphor of the land in connection with eschatological discourse is key to its renewal in relation to eco-responsibility. As Toolan points out, “the centrality of land has not always been acknowledged by the Christian scholars who have tended to stress the mighty acts of God in human history as opposed to God’s activity in nature.”

“Behold I am doing a new thing it springs forth, do you not perceive it? I will make a way in the wilderness and rivers in the desert...” (Isa. 43:19-21). It is through land that the promise is concretized and made real. God is committed to the land as a worthy place to dwell and as an ideal locus for self-gift. “Ever since the creation of the world, [God’s] eternal power and divine nature, invisible though they are, have been understood and seen through the things God has made” (Romans 1:20).

Today care for the land, for all creation, is an act which acknowledges and affirms the commitment, self-gift and promise God has made. Care shows forth a receptivity to the fullness of life contained in the promise. The land, all of creation, is central to the covenantal promise:

The Lord had said to Abram, "Leave your country, your people and your father's household and go to the land I will show you. I will make you into a great

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nation and I will bless you; I will make your name great, and you will be a blessing.” (Genesis 12:1,4, 6-7)

On that day the Lord made a covenant with Abram, saying, "To your descendants I give this land, from the river of Egypt to the great river, the river Euphrates." (Genesis 15: 17-18)

Incline your ear, and come to me; listen, so that you may live. I will make with you an everlasting covenant, my steadfast, sure love for David...For as the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts. For as the rain and the snow come down from heaven, and do not return there until they have watered the earth, making it bring forth and sprout, giving seed to the sower and bread to the eater, so shall my word be that goes out from my mouth; it shall not return to me empty, but it shall accomplish that which I purpose, and succeed in the thing for which I sent it. For you shall go out in joy, and be led back in peace; the mountains and the hills before you shall burst into song, and all the trees of the field shall clap their hands. Instead of the thorn shall come up the cypress; instead of the brier shall come up the myrtle; and it shall be to the LORD for a memorial, for an everlasting sign that shall not be cut off. (Isaiah 55: 3, 9-13)

To preserve and honor land is to do thus with the covenant – to demonstrate respect, value and a remembering of the covenant.

In the New Testament God’s covenant takes on a new form. The promise of a land flowing with milk and honey has evolved such that the new covenant is now found in the earthy Jesus, one who takes life from the land itself. As scripture proclaims: “Land of Judah out of you shall come forth a ruler who will shepherd my people Israel” (Matthew 2:6). The new covenant continues to revolve around land but the land has been transformed into human form. Jesus is birthed from the land of Judah to fulfill the terms of the new covenant. In him the promise is brought to full stature and through him God activates a new reality: “I will put my laws in their minds and I will write them upon their hearts. I will be their God and they will be my people. As Paul testifies Jesus
is “mediator of a better covenant, enacted on better promises” (Hebrews 8:6). Jesus comes as the holy one who witnesses to God’s oneness with earthly life and who announces the presence of God’s reign alive in the hearts of the people. He awakens them to the will of God when they have forgotten it, especially with regards to care for the most oppressed as well as respect for the earth from which all life has come.

As we see in Jesus’ pronouncement of the Jubilee year⁷⁶ (Luke 4:19), care for the land implies a willingness to respect its unique rhythms and purpose. The land as a living organism has an internal law which must be honored as is illustrated in the call for jubilee. For the land, for all of creation, rest and fallow time is essential in order to be able to come to fruition and achieve its full purpose. Ultimately, creation like God “is sovereign, awesome, mysterious, and not reducible to the meanings and purposes that human beings give to it”.⁷⁷ Creation has its own meaning, directions, purpose and promise that are beyond our control yet require our respect.

The land, all of creation, has a purpose and a destiny. Particularly, for the writers of the Scripture as in Isaiah and Exodus, the promise of the land speaks to the potential for freedom justice and bounty:

Then The Lord said, "I have seen the affliction of my people who are in Egypt, and have heard their cry because of their taskmasters; I know their sufferings, and I have come down to deliver them out of the hand of the Egyptians, and to bring them up out of that land to a good and broad land, a land flowing with

⁷⁶ God ordained that every seventh year was to be a year of rest for the land of Israel. This year was known as the year of jubilee, the year of the Lord’s favor or the sabbatical year as in: Lev 25:1-7, Deut 15:1-11, Ex 23:10-11.
⁷⁷ Toolan., Ibid 20.
milk and honey, to the place of the Canaanites, the Hittites, the Amorites, the Perizzites, the Hivites, and the Jebusites." (Exodus 3:7-8)

The wilderness and the dry land shall be glad, the desert shall rejoice and blossom; like the crocus it shall blossom abundantly, and rejoice with joy and singing. The glory of Lebanon shall be given to it, the majesty of Carmel and Sharon. They shall see the glory of the Lord, the majesty of our God. (Isaiah 35:1-3)

However, this experience of full liberation or life in the promised land requires a relationship of respect and the willingness to wait in hope during fallow times until full fecundity is realized. The Lord spoke to Moses on Mount Sinai, saying: “Speak to the people of Israel and say to them: When you enter the land that I am giving you, the land shall observe a Sabbath for the Lord” (Leviticus 25:1-3).

The inherent challenge here for ecological responsibility is not to despair over or abandon land that is seemingly infertile or has become spoiled through acts of degradation. Rather, the challenge, Catherine Keller will show in the following study is to be motivated to resist giving in to a fatalism which dwells on a vision of “new terrain” instead of a vision of redemption and liberation for the land which has become unproductive through misuse.

Keller on Despair or Resistance

We need to tap the eschatological energies of the classical prophets and of Mary and Jesus, for whom prophecy referred to the denunciation of injustices against the vulnerable and the vision of a lush future in this world for all who partake in justice and wisdom.  

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“In Women Against Wasting the World: Notes on Eschatology and Ecology,” author Catherine Keller also believes the eschatological tradition can offer motivation to eco-care but like Brett, feels strongly this will happen only in relation to a clear refocusing of its meaning. Keller’s contribution here is to make distinctions for and separate out the practice of eschatology as an apocalyptic obsession/myth from eschatology as liberative consciousness. For Keller, contemporary Christian apocalypticism (a form of doomsday annihilation) or the expectation of an end-time and of an end of time, results for some in fervent hope for the end which promises a new beginning, and for others in a gloomy resignation to global destruction.\textsuperscript{79}

While one could argue based on various apocalyptic texts\textsuperscript{80} that there are signs of end times in the current ecological melt down and, so, reasons to despair, Keller sees otherwise. She suggests that continued ecological care may be reliant on and motivated by acts of resistance that name “the apocalyptic element that has embedded world destruction within a vision of Divine providence moving history from creation to conclusion”\textsuperscript{81} as untenable and unfaithful.

The desire to resist apocalyptic voices which whisper that contemporary ecocide is immanent and thus inevitable can be experienced as motivation for care of creation. Specifically, this resistance entails contesting the apocalyptic vision which hopes in

\textsuperscript{79} Catherine Keller, Ibid., 251.
\textsuperscript{80} A key text which Keller cites is revealing: The fourth angel poured out his bowl upon the sun, and it was given to it to scorch men with fire. Men were scorched with fierce heat; and they blasphemed the name of God who has the power over these plagues, and they did not repent so as to give Him glory. (Rev. 16:8) RSVP.
\textsuperscript{81} Keller, Ibid., 253.
renewal after the catastrophic end of history with a liberative vision born of the prophets’ hope for a just and harmonious world. And for today, the hope for a world where wars and exploitation are replaced with peace and stability within the ecosphere.

Care for creation motivated by an eschatological vision for justice does not take for granted or as inevitable the loss of species in all their diversity and relational complexities – but rather sees in this complexity the evidence of creation’s promise – moving towards divine fullness. If apocalypticism has an attitude of indifference towards the inevitable loss of creation’s complexity and resolves tensions of worldly life only by destroying the world, the liberative perspective prizes this complexity as filled with potential and a sign of divine expansiveness and relatedness: “The eschatological future—it is not a literal end but a creative edge—the moment of fullness of time in which a new plenitude of relations is realized.”

For Keller, the eschatological approach can be a significant motivator if it is carefully defined and “deapocalypticized.” We need to “tap the eschatological energies of the classical prophets, and of Mary and Jesus, for whom prophecy referred to the denunciation of injustices against the vulnerable and the vision of a lush future in this world for all who partake in justice and wisdom.” Both Mary and Jesus display what Keller refers to as “eschatological consciousness” in the sense that we are “watching now with acute consciousness of the risk to all life; and in the case of ecological exploitation, that we are aware that though some processes of damage are still

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82 Keller, Ibid., 260.
83 Keller, Ibid., 261,
reversible, others are not; that we are in an edgy time, without endless time ahead- indeed that we are in end-time.\textsuperscript{84}

Mary’s “Magnificat” is a powerful model - the proclamation of the eschatological year of the Lord’s favor – the opening of the sacred community to be realized now though its fuller realization is still in the future. As well, Jesus proclaims the arrival of the “eschatological banquet” where all those who have been marginalized are given a place \textit{now} in the community rather than in some distant future reality. In Jesus’ presence and through his teachings the “glory” of the eschatological banquet” comes alive in the here and now for all those who have been neglected. The ministry of Jesus makes manifest how divine glory operates – how the promise is revealed on Earth: the blind see, the lame walk, the waters are calmed, the lost sheep are found. “Christ in you – the hope of glory” (Col 1:27). To experience the promise that is the eschatological banquet is ultimately to encounter the Spirit of glory which draws all creation into the fullness of life.

Johnson on The Spirit of Glory

Imbued with the contemplative realization of the earth as sacrament of divine glory, contemporary prophetic consciousness names what has gone awry and seeks a new paradigm that reconfigures the mystery of God, all humans, and the earth in deep interconnection.\textsuperscript{85}

Elizabeth A. Johnson, offers another eschatological metaphor for consideration in her article entitled: “Heaven and Earth Are Filled with your Glory.”

Johnson considers the metaphor of “glory” to be “to an extraordinary degree” an example of religious hope. In her presentation she highlights Isaiah: “The glory of the Lord will be revealed” (Isaiah 40:5). Here, glory referring to the resplendent manifestation of God’s indwelling and compassion appears to be interchangeable with God’s promise. The glory of God, similar to the promise of God, is never completely perceived but the Spirit of glory is made manifest in and through events of transformation and liberation. It is the Spirit of glory who brings hope by companioning all suffering creation into new life and it is active hope in and participation with this Spirit which offers motivation for Earth care.

The desire to experience the manifestation of glory which signals liberation abounds as part of Judeo-Christian heritage.

“Yearning for salvation, for victory in the struggle with evil, for deliverance for the poor and cessation of violence against the needy is expressed in the hope that God’s glory... will dwell in the land, (Ps 8 5:9), or will fill the earth (Ps 72:19), or will shine through heaven and earth (Ezek. 43).

To experience God’s glory, like God’s promise is the hope of the people. There is a deep longing to experience God’s glory in its fullness throughout all creation. This glory which mirrors the yearned for promise, serves as a synonym for God’s elusive presence and action in the midst of historical trouble.

86 Johnson, Ibid., 84-101.
87 Johnson, Ibid., 90.
To experience the presence of glory is to find one’s self caught up in a relationship of compassion and care. To encounter God’s glory is ultimately to experience God’s compassionate spirit who accompanies all life which suffers the tragedies of history. The Spirit of glory brings about healing, redemption and liberation – the promise made manifest.

To hope for the coming of the Spirit of glory connotes a receptivity and willing readiness to participate in God’s redeeming beauty that draws near to share the brokenness of the world in order to heal and set free all creation.  

The New Testament taps deeply into these meanings of glory, now translated by the Greek word doxa. It proclaims that the weighty radiance of divine presence is in the world in a new way through the very human flesh of Jesus the Christ, whose ministry makes strikingly manifest how divine glory operates...It is especially in the light of Easter, as the crucified one is raised in glory by the power of the spirit, that doxa pervades the world.  

“And the Word became flesh and lived among us, and we have seen his glory, the glory as of a father’s only son, full of grace and truth...from his fullness we have all received, grace upon grace” (John1: 14-16). For the early Christian communities, the hope of glory characterized the meaning of life in Christ (Col 1:27). To hope in the coming of Christ was to become active in his ministry of liberation and thus to make manifest the promise - his glorified presence.

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88 On page 90 of her article, Johnson provides a good explanation of the connection between the use of ruah, sophia and shekinah. In the writings of early rabbinic Judaism glory and the shekinah are used as equivalents, the shekinah being God’s compassionate spirit who accompanies the people.  
89 Johnson, Ibid., 91.  
90 Johnson, Ibid., 91.
After Jesus had spoken these words, he looked up to heaven and said, ‘Father, the hour has come; glorify your Son so that the Son may glorify you, since you have given him authority over all people, to give eternal life to all whom you have given him. And this is eternal life, that they may know you, the only true God, and Jesus Christ whom you have sent. I glorified you on earth by finishing the work that you gave me to do. So now, Father, glorify me in your own presence with the glory that I had in your presence before the world existed (John 17: 1-5).

Within early tradition, all creation was perceived as waiting for the fullness of glory (Romans 8:19 -23) - redemption through the cosmic spirit of Christ. Johnson’s exegesis provides important insights into this cosmic presence - the Spirit of glory pervading all creation. Glory as:

The life-giving Spirit of God, Dominus et vivificantis, encircles, pervades, and energizes the world, gifting it with its own intrinsic, self-organizing powers that have led to magnificence beyond our imagination, including our own human race, now responsible for the ongoing fruitfulness of the world.  

Through the Spirit of glory we discover a presence who indwells the natural and human world as source, sustaining power, and the final goal or promise of the universe. As in Psalm 139, “Where can we go from your spirit? Or where can we flee from your presence? Ascending to heaven you are there. Lying in Sheol, you are there. If we take the wings of the morning and settle at the farthest limits of the sea, even there your hand shall lead.” This Spirit acts with compassion to lead all of creation through suffering into new life.

As Christians then, our ability to actively hope in the glory of the Spirit constitutes eschatological imagination and it is this imagination which serves as motivation for ecological responsibility. If the creative, empowering glory of God pervades all of life,

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91 Johnson, Ibid., 86.
then ecological abuse that acts to weaken, impede or destroy Earth’s flourishing is an expression of evil contrary to God’s intent. On the other hand, naming the evil as an injustice that ruptures divine communion is an act of spiritual practice. In this spirit, prophetic wisdom brings the sins of biocide, ecocide and genocide to light.

[A]ction on behalf of justice for the earth participates in the compassionate care of God who wills the well-being of the whole interdependent community of life and opposes whatever mars or destroys divine glory in the world... For the world itself is a marvel, the result of millions of years of creative process still underway. Damaging or even destroying it nips its future promise in the bud and begins to wipe out one of the magnificent bright spots of the universe.

To care for Earth is to participate in and nurture the life that is creation – to nurture and sustain God’s compassionate spirit which dwells with all creation giving hope and energy. To work for justice for the whole earth community is to give release to the liberative energy of promise - the Spirit of glory.

**Part 3**

Ecological Care: A Spirituality of Hope

“Blessed are we who believe that the divine promise will be fulfilled.”

The authors presented in Part 1 and 2 provide insight into the relationship of the eschatological approach to ecological responsibility by presenting elements inherent to

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92 Johnson, Ibid., 94.
93 Johnson, Ibid., 95.
94 Johnson, Ibid., 94-95.
95 This is my adaption of Luke 1:45.
a renewed eschatological vision. Together their studies point to the role of “eschatological imagination.” Such imagination, which motivates ongoing care of creation envisions hope in a future promise which does not diminish the importance of present realities but rather radicalizes them.

The act of engagement with current ecological destruction in defense of the integrity of creation can be construed as an act of hope in the promise of the cosmic Christ – the promise of liberation for, the Christification of all creation. Ecological care motivated by an eschatological vision for ecological integrity and justice does not take for granted or approach Earth’s suffering (the loss of diverse species and complex ecosystems) as inevitable but rather finds in this suffering a reason for compassionate care - a springboard for hope.

As long as people continue to cry, there is a ray of hope, for crying is an expression that things are not right. As long as people care enough to lament and to be moved by this lament, there is a ray of hope, for it is an expression that the people have not accepted their plight as natural or as the will of God. Eschatological sensibility is borne out of suffering that has refused to be silenced to be numbed.96

Eschatological imagination taps the prophetic energies of Christian tradition which denounce and decry ecological acts of injustice and desires to respond with acute consciousness to the risk of life whose face is the evil of ecocide. This imagination is further formed and reliant on classic spiritual metaphors such as “the promised land” and “God’s glory” which come from deep within Christian heritage. The image of the promised land is powerful. All that which the future holds is symbolized by all the

potential for sustaining life which the land holds. To care for the promise is to care for the land. Such care acknowledges and shows forth a receptivity to the fullness of life contained in the promise – a receptivity to the Spirit of Glory.

The promised land and the Spirit of Glory are metaphors that are etched in the Christian eschatological imagination. Our ability to actively hope in the reality of the promised land and glory of the Spirit constitutes eschatological imagination and it is this imagination which serves as motivation for ecological responsibility. Those who wait in hope for the Spirit of Glory are not just expecting something external to themselves to come; those who wait in hope are already grasped by the power of the Spirit while they wait. The new “creation” that we strive for and look forward to is not simply out there in the future, it is in the present journey through the struggle. While we look forward to and anticipate the fullness of liberation, the struggle itself is an experience of liberation for in the struggle and the suffering is the companionship of the Spirit of glory.

The Spirit of glory is present to all suffering and accompanies all those who tend to suffering through the work of liberation. “Because eschatological sensibility is not a prisoner of outcomes, of human efforts or success, it continues to flourish even when tangible success is not within reach.” Eschatological sensibility pertains to the Spirit and is motivated by the Spirit. Thus the ability to hope - to continue to care for the suffering of Earth signals and confirms the presence of Spirit.

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97 Fernandez, Ibid., 218.
98 Fernandez, Ibid., 227.
99 Fernandez, Ibid., 227.
Ultimately, “eschatological sensibility” is an experience of a Christian spirituality of hope. It is a power that motivates us to live truly in the present and also allows for the imagining of possibilities that are simply not given by the logic of the present.”  

Such a spirituality seeks promise even in the most unpromising conditions. It is a spirituality which prompts all believers to take seriously our role in the care of creation and ecological justice, thus witnessing to the conviction that we do not regard hope as “unreal words” but rather that we take it in earnest, trusting that God will indeed one day be “all in all.”  

Eschatological spirituality understood as the dynamic experience of hoping in God’s promise for creation then, constitutes the key to motivating and orientating Christian ecological responsibility. From a renewed perspective, it is a spiritual vision geared toward the realization of creation’s coming into fullness rather than its remaking after total destruction. In the words of Pope Benedict XVI:

It seems to me that for us today, in our lives, in our world, it is difficult to sincerely pray so that this world perishes, so that the New Jerusalem comes, so that the final judgment and Christ the judge come. But... there is a way in which modern Christians can join with their first predecessors in saying "Come, Lord Jesus." Certainly, we don't want the end of the world to come now .... But, on the other hand, we want this unjust world to end. We also want the world to be deeply changed, the civilization of love to begin, [we want] a world of justice and peace, without violence, without hunger, to arrive. We all want this -- and how can it happen without the presence of Christ? Without the presence of Christ, a just and renewed world will never really arrive. Therefore... though in another way, totally and deeply, we too can and should say, with great urgency and in the circumstances of our time, Come, Lord! Come to your world, in the way that you know."Come where there is injustice and violence. Come to the refugee camps, in Darfur and in North Kivu, in so many places in the world. Come where drugs dominate. Come, too, among those rich people who have

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100 Fernandez., Ibid., 219
forgotten you and who live only for themselves. Come where you are not known. "Come to your world and renew the world of today." 

Indeed, come in your Glory to all the ends of creation so that our hope may be realized and our joy complete.

It has been the task of this chapter to examine material relevant to our first conversation partner, tradition. This examination has included an assessment of some potential ways in which Christian tradition offers motivation for ecological responsibility, most particularly as seen in John F. Haught’s proposition that the principal theological motivation for care of creation is grounded in eschatology properly understood. We will now proceed to review the thesis-project research of the current experience of lay ecclesial leaders, our second conversation partner. Here we will have an opportunity to listen to the leaders’ narratives of how Christian tradition is actually motivating ecological responsibility.

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I always loved the Earth, it is the most important factor in my life. My heart breaks over it and bursts with hope at times. I feel it is so important to act on its behalf.\textsuperscript{103}

The vast majority of the more than 1 billion Christians of the world can be lured into an ecological consciousness only if they see that it grows in some ways from the soil in which they are planted.\textsuperscript{104}

\textsuperscript{103} This quote is from a participant in the field research.
In this chapter I will present recently conducted field research in order to begin to discuss to what extent lay ecclesial leaders’ practice of ecological responsibility receives motivation from Christian tradition.\footnote{See definition as stated in my introduction, pg 8.} As it has been observed, interaction with the source of religious information called tradition brings us face to face with questions about its force in our life or perhaps its lack thereof.\footnote{James D. Whitehead and Evelyn Eaton Whitehead, \textit{Method in Ministry: Theological Reflection and Christian Ministry}, (New York: Sheed and Ward, 1995), 6.} It is hoped that an examination of the experiences garnered through this very modest case study will shed some light on the ways in which the Christian tradition in all its vastness, is or is not serving as a motivational force in current practice of ecological responsibility - light which can ultimately illumine and strengthen both the efforts of those in faith communities seeking to establish a similar practice as well as the educational efforts of the leaders of these groups. The following procedure for presenting and reflecting on results of the study will occur in seven parts:  I) Study Introduction: Context and Process II) Study Findings: Ecological Responsibility - A Look at Practice III) Study Findings: Motivation and Ecological Responsibility IV) Study Findings: Motivation, Ecological Responsibility and Christian Tradition V) Comparative Studies VI) Thesis Findings in Perspective VII) Conclusions.

I) Introduction: The Case Study in Context

Within contemporary theology as evidenced in Chapter 1, there is an ongoing conversation among scholars regarding the relationship of Christianity to the ecological
conflict of our times. Some aspects of the conversation emphasize parts of the tradition which show how Christianity has fostered the conflict and division by excerpting the Creator from the creation - the sacred from the world, as well as through over identification with the creation myth of Genesis where-in the human order is separated out from nature’s order and assumes power and control over it. As eco-feminist theologian Rosemary Radford Ruether notes:

We are latecomers to the earth, a very recent product of evolutionary life. Yet we, particularly in the West, have constructed our concept of ourselves as humans over against all that is non-human, and thereby constructed our concept of “nature” as both the non-human and the non-divine.  

Other aspects of the conversation while not denying the former have focused on how Christianity has in fact preserved and generated themes pointing to the integrity of creation, and of the cosmos –the totality of heaven and earth as the primary revelation of divine glory. In Earth Revealing, Earth Healing, Denis Edwards expresses this viewpoint:

We are all well aware that some theological attitudes have contributed to exploitative attitudes and to heedless disregard for the good of the planet. We are also convinced that the biblical and theological tradition has resources that can be retrieved and developed as an ecological theology. It is our conviction that such a theology can contribute to the healing of the planet.  

In general, scholars seem to agree on the duality of thought, the “ambiguity of how we are to relate to creation” which exists in the Christian tradition. More significantly however, one finds agreement that without a doubt the ecological conflict of our time  

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107 Ruether, ibid., 5.
perceived as the struggle for survival taking place between human life forms and other-than-human life forms is a conflict of unprecedented complexity presenting enormous and urgent challenges for renewed theological vision, spiritual consciousness and ethical actions. As theologian Elizabeth A. Johnson observed in her recent address to the 2008 LCWR conference:

In our day human practices of consumption, pollution, and reproduction are wreaking terrible damage on our planet’s life-sustaining systems of air, water, and soil, and the other creatures that form with us one community of life. The picture darkens as we attend to the deep seated connection between ecological devastation and social injustice. Poor people suffer disproportionately from environmental damage; ravaging of people and ravaging of the land on which they depend go hand in hand.

Why, have Christians who confess that God created this world not risen up en masse in defense of the natural world? One reason is that through ancient theology’s engagement with Greek philosophy, we have inherited a powerful dualism that splits all reality into spirit and matter, and then devalues matter and the body while prizing the spirit as closer to God. The task now is to develop a life-affirming theology of the earth/matter/bodies/, one that will do better justice to this world that God makes and so loves.109

This sense of urgency to rise up en masse and heed the “planetary call” for restoration has led to many theological efforts to demonstrate the ways in which Christianity can help to transform the present ecological conflict. The critical task therefore, of the Christian theologian at this juncture is “to scrutinize carefully, critically evaluate, and reconstruct (in whatever ways seem appropriate and necessary) the central Christian symbols, so they will encourage and support a faith and life which can

respond effectively to this conflict.\textsuperscript{110} Part of this task consists in raising to high relief elements of the tradition which theologians believe have the capacity to transform the present ecological conflict by creating a new paradigm of relationship. According to Johnson, this work involves retrieval of a paradigm of mutuality which has been preserved in the tradition but has been largely undetected.\textsuperscript{111}

What we search for is a way to undercut the dualism and to construct a new, holistic design for all reality built on an appreciation of difference in a genuine community. We seek a unifying vision that does not stratify what is distinct into superior-inferior layers but reconciles them in relationships of mutuality.\textsuperscript{112}

At the level of theological study and investigation large amounts of time and energy are being used to mine the Christian tradition for resources which can be used towards planetary well being. Theologians believe the Christian wisdom tradition can provide deep motivation for responsible care of creation and they are making efforts to demonstrate this as is evident in the plethora of materials being produced.

Since part of the work of theology is to serve the faithful in deepening their relationship with God, the reality of the current trend in theological study leads naturally to a question about the community of the faithful at large. It is evident many theologians experience the Christian wisdom tradition as providing deep motivation and incentive for responsible care of creation but does this hold true for Christians at large? Does this heightened awareness, vision of connectedness and growing conviction


among theologians also exist at the level of active Christians whose context of service is more commonly their local faith communities, families and places of work? What are the underlying motivations currently fueling ecological practice/responsibility? Are Christians experiencing motivation for responding to the ecological conflict from within their faith tradition or do they have other sources of motivation? If there is a diversity of motivations, how do they conflict with or compliment one another?

Case Study: Lay Ecclesial Leaders and Ecological Practice

In order to explore and gain insight into the question of motivation, this qualitative study engages the participation and current experience of 4 groups of lay ecclesial volunteer leaders from a Catholic diocese in Ontario, Canada who practice eco-earth care and who provide leadership in local faith communities in favor of this practice.

The Participants

The participants in this study come from 4 deaneries within the Diocese of London. They are adult volunteer leaders who serve in diverse faith communities, both parish and religious communities. Through personal conversation as well as through questionnaires the participants were given the opportunity to share about their practice of care for creation and to articulate the motivations underlying their ecological responsibility. The descriptions which follow therefore attempt to offer an overview of how some Catholics are practicing care for creation and the corresponding motivations

\[113\] The participants, 13 in total, are from 4 deaneries of the diocese. Of the 4 deaneries 2 are located in an urban setting and 2 are in a rural setting. One participant, as a member of the diocese presently resides outside of the diocesan boundaries.
which fuel this practice. Through these examples we can enter the story of contemporary Christians who are seeking to engage the signs of the times. Here we can listen to the voices of those who are committed to making a difference in the context of the ecological urgency in which they live. This is an opportunity to not only hear about what they do to make a difference but more significantly to discover the deep “whys” or motivational energies fueling their actions. As the participants share their motivations it becomes possible to glimpse through this microcosmic study to what extent motivation is being found in/connected with the Christian wisdom tradition as is posited by current theological study.

II) Ecological Responsibility: A Look at Practice

The lay leaders described a wide range of actions and activities which are part of but not exhaustive of their ecological responsibility. The diverse ways they are responding occur not only within their respective faith communities but also beyond in the context of family and work settings where they are also demonstrating leadership.

Through an assessment of the diverse responses received certain common threads can be identified. Responses given point to what seem to be four primary categories of ecological responsibility: (1) Actions for Awareness/Consciousness Raising; (2) Ascetic Disciplines; (3) Expressions of Solidarity; and,(4) Contemplative Practices. Within these broad categories there exists a wide variety of examples which demonstrate the creative approaches being taken to the ecological challenges encountered by the participants. The descriptions they offer allow for true appreciation of the creativity of
response and also of the energy and commitment which is growing within Christian faith communities. This first section then presents and reflects on some firsthand examples of what is being done in preparation for an examination of the motivational forces propelling these actions.

1) Actions for Awareness/Consciousness Raising

Responses regarding actions for awareness/consciousness raising occur from two perspectives. On one hand, the lay leaders are providing opportunities for others in their communities to develop greater ecological awareness through educational campaigns or through practical programs. On the other hand, they themselves are seeking ways to expand their own consciousness and sensitivity through greater exposure to issues, ongoing study and educational activities.

What they said....

*I teach T’ai Chi Chih and connect the inner circulation and balance of energy to earth’s energy...I invite others to reflect on all these realities so they will be responsible for the earth.

*I promote what we have done at Villa Angela (the eco friendly motherhouse of a religious community) and used this info to challenge City Planners and Developers to incorporate Eco-friendly practices.

*One of the ways I have practised my ecological ministry in the past 5 years has been the researching and planning for our new building (eco friendly motherhouse). I am now doing some work to evaluate the ecological features of the building as a way to share our learnings about green buildings with the people of Chatham and area.

*Through D&P (Development and Peace Organization) there are many opportunities to bring this awareness in... We do the D&P campaigns – such as the water and the mining petitions
*Through my art I tell the Story of the Universe

*My practice is to attempt to bring to those around me, this awareness... awareness of how God's Word has the message of earth stewardship as compared to always feeling the awe & appreciation of this world around us. This awareness is a fairly recent acknowledgment since listening to...the whole environmental degradation.

*I belong to a parish Social Justice group—we are very faithful, meeting every other Tuesday night and include environmental concerns and spirituality as a regular part of our work. Every week we prepare for the parish bulletin a Justice thought and Sacred Earth Green Earth thought. One of our activities for the fall is a workshop event for all the Stratford churches on Living Simply.

*Teaching others through the “Greening Sacred Spaces” program.

*Organic gardening.... People who come and share our garden and learn from it.

*We are planning a partner day with Reforest London, an environmental group, where we will be planting trees for a day—all the staff.

*Providing lectures to the public on Environmental issues; giving tours of our LEEDS (Leadership in Energy and Environmental Design Green Building Rating System) accredited building to local groups and interested parties; installing stain glass windows that tell the universe story.

*At school, I run school wide compost, recycling programs, we collect batteries and pop tabs, have a naturalized area, have acquired funding for schoolyard naturalization and tree planting. Two schools I have worked with have become Earth Schools. My present school has won a city award for the work we do. We have started a Roots and Shoots club (Jane Goodall Foundation-environmental youth program). At my previous school it was Kids for Saving Earth (environmental education curriculum). We’re going to do a big peace ceremony and parade Monday for International Peace Day. I invited the kids to [the] anti global warming protest but their parents wouldn’t bring them. A nice thing I got to do was help one of my best friends to get funding and plant trees in her kids’ suburban school, and we did it at my daughter’s school too.

*I bug the caretakers about proper disposal of things like fluorescent tubes. I inform staff about drinking bottled water. I’m the resident pest. Maybe the conscience too because lots of people say, well, I was going to do this, then I thought of you, or, they apologize to me even though I tell them it is not necessary. Recently the caretakers were letting me know they did not recycle this summer, I said, it’s okay, that is between you and God! I have felt self-conscious, pesty, but after all these years, I have come to
realize people in fact appreciate it. They want to change, but it’s hard. Some people, they still think I’m pesty.

Receiving

*Through a consciousness of the errors that I personally make with respect to mistreating the earth. I have been working at becoming more aware of eco issues, and have included my family and my office in this exploration. To me, this is a new territory of devotion, as my primary ministry has been social justice.

*My friendship with the Women in Black (Iraq war protest group) has been an education in the preciousness of this earth.

*We used the materials from Development and Peace and the problems associated with Canadian worldwide mining and the ravages of the environment.

*[We] read together every day- recently we have been using a book on evolution—our choice of materials is frequently on Creation, The Great Story, etc.

*Simplicity Circles (based on a practical guide for living simply) ... I learned about and found like-minded people who wanted to talk about these things.

*I involve myself with organizations that focus on the care of all aspects of the earth, from awareness of the impact of our lives on the lives of others, to the irresponsible acts of corporations that pollute the earth's soil, water and air. I believe that all things and all peoples are connected.

Commentary

Education for increased awareness of the ecological conflict and concrete ways to address this conflict is clearly recognized, prioritized and practiced as a necessary part of ecological responsibility. The lay leaders describe a range of educational mediums being used to raise consciousness: gardens, artwork, buildings, exercise, parish bulletins, and information campaigns are just some of the contexts which provide learning opportunities.
The lay leaders demonstrate an awareness that as leaders they are required to educate and to be educated. Through the learning opportunities they are providing they convey a range of beliefs, some of which can be summed up as:

* belief in the need for holistic responses that encompass both created reality and human subjectivity
* belief in the need for learning through praxis-based approaches that integrate action and reflection
* belief in the need for incorporating natural and social sciences into theological education

2) Ascetic Disciplines

Ecological asceticism is emerging as a new form of devotion. The lay leaders describe discipline in using the resources of Earth and demonstrate a sense of mutuality which results in valuing the other - making space for the right of the other to exist and to flourish. They are practicing a type of asceticism that does not require that one flee the world but rather requires taking the world seriously enough to acknowledge and honor the right of the other to live “live simply so that others may simply live.” Also, occurring is a “commitment to place,” for example remaining in a rural setting rather than moving to an urban setting which might be more convenient.

What they do......

* I use water, paper, hydro (electricity), gas wisely

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*We recycle – devoted to the Blue Box

*Remaining in a small town, where I feel more connected to rural life/nature.

*We just installed the programmable thermostats that allow reduced energy over night and we just signed up for Bullfrog Power (green, carbon-free electricity program) so we are continuing to work at our small part!

*Try to recycle as much as possible, try to avoid using plastic bags as much as possible.

*....living simply/lightly on the earth.

*the discipline of gardening, and the ability to say “no” to the gadgetry, etc. that can complicate life . . . and unnecessarily squander creation. . .

*by making some wise choices (even sacrifices) that can be examples to others. Practicing the three Rs, living with less—and travelling less, especially by air. Air travel is one of my biggest concerns, and while it’s possible that I would still take a flight somewhere in the next couple of years, I’m more aware than ever that air travel in the first world is one of the most destructive habits we have, and it’s an indulgence for the most part.

*I wrote a paper called, “Bury Your Car: Christian Stewardship in the 20th Century”. It was really important to me because the research I did helped me understand my belief since I wasn’t getting much if anything about that at church. It was the first I had read of Teilhard de Chardin.

*Farming and gardening the organic way [not using chemical fertilizers, pesticides and herbicides.] can be challenging and time consuming...
At our Simplicity Workshop I used organic vegetables out of my own garden to make lunch. We have to walk our talk!

*I buy very little in cans, prefer to buy locally grown produce, have a semi-large vegetable garden (to can and freeze the produce), and have many beautiful flower beds. I don’t use chemicals in my garden and the composter is almost always full. Simplicity is my preference as well in my choice of a car, small and fuel efficient.

Commentary

The lay leaders’ practice of self discipline and the modification of behavior towards simplicity as part of care for creation seems to represent a new form of asceticism.
Ecological asceticism is not a devaluing of the material world as in other forms of asceticism but rather is motivated by a deep sense of value and respect for creation.

Asceticism has been associated in our minds with a devaluation of matter for the sake of 'higher' and more 'spiritual' things...Such types of asceticism, involving as they do a devaluation or contempt of the material world, aggravate instead of solve the ecological crisis. An 'ecological asceticism' - if we may coin such a term - always begins with deep respect for the material creation, including the human body, and builds upon the view that we are not masters and possessors of this creation, but are called to turn it into a vehicle of communion, always taking into account and respecting its possibilities as well as its limitations.  

Ecological asceticism witnesses to the care for and valuing of Creation. It is a practical form of devotion which often involves saying “no” to lifestyle patterns which endanger the life and well being of Earth.

3) Solidarity

Ecological responsibility can often include an active solidarity with Creation which is expressed through concrete financial support of projects for protection and restoration. There is a desire to be especially supportive of the work that only specialists can attend to.

What they do....

*I support those who have the talent to work over the long haul to lobby and bring about changes. I don’t have the skill or the patience.

*I donate to Council of Canadians to lobby for the water resources.

*I donate to the Jesuits’ Reforestation project.

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While on the Finance Committee I encouraged that a set percentage of our charitable donations be allocated to environment concerns and actively searched out possible recipients.

Daily I do small things & take part in signings of petitions & support of our local environmental groups.

Providing bursaries for youth who wish to further their studies in the discipline of Earth care; seeking environmental groups whom we can support with charity monies.

Commentary

The lay leaders’ responses understood as acts of solidarity with Creation through cooperation with and support of environmental initiatives express a sense of commitment to the common good of the Earth community at large. This is an understanding which goes beyond the realm of human solidarity to embrace a universal solidarity.

Solidarity is a firm and preserving determination to commit oneself to the common good, and a willingness to lose oneself for the sake of others, including future generations ... Solidarity must take into consideration not only the needs of all peoples but also the protection of the environment in view of the good of all....

"We are all part of God's Creation -- we live as a human family. The whole of Creation is everyone's heritage. All equally created by God, called to share the goods and the beauty of the one world, human beings are called to enter into a solidarity of universal dimensions, 'a cosmic fraternity' animated by the very love that flows from God.... We must learn again to live in harmony, not only with God and with one another, but with Creation itself," said Archbishop Renato Martino at a 1992 UN conference in Rio.  

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By actively supporting through donations environmental projects such as those which concern themselves with the protection of water resources and forests for the future play leaders demonstrate a belief that ecological responsibility requires a solidarity concerned not only with the present life but also with future life of the entire Earth community.

4) Contemplative Practices/Ritual

The lay leaders expressed actions which are contemplative in nature. Actions which speak of a way of being present to Creation through a disposition of communion which results in the “gazing on Creation with eyes of love rather than with an arrogant utilitarian stare.” Emphasis was also placed on the practice of intimate physical contact with nature as a form of deeper communion.

What they do...

*Through a practice of awe (rejoicing/appreciating, etc. the natural world). .. and the practice of respect for all life and all “gifts” of Creation in a day to day way.

*I go to nature and do my TCC(Tai CHI CHA) amidst the trees and flowers.

*I am trying to express in my painting the inter connectedness of all creation.

*Our [community] prayers are often on themes of appreciation for the beauty and wonder of Creation.

* ...watching the 2 robins outside my window...long walks in the bioregion in which I live...

*We have had several meetings on themes relating to Creation. One session using the Cosmic Walk materials was especially reverent increasing our appreciation of the great time periods needed for evolution.

*Praying prayers and using reflective readings to try to foster attitudes of appreciation for all of Creation. In this way changes in my behavior come from a spirituality of Earth Justice.

*Work in the garden and plant flowers and vegetables to feel nature.

*We’ve had masses and last Earth Day was the most amazing assembly we all sat in concentric circles in the gym, the Grade 5 class did a “nature symphony” using leaves rocks water which sounded like a real rainstorm, at the end we raised a (vinyl) earth ball they were all cheering.

*I have this guy now and he’s changed a lot of his ways and I never thought I could be with someone who didn’t start out green! When we go out into the wilderness together we pray a lot and give constant thanks for the beauty of creation.

*It was very good fuel that has lasted a long time, to go to the Earth Day retreat a few years ago at Oxley. Very cool to see and meet so many who live their faith the way I do and very enlightening... I was also realizing the importance of just praying and not having to always be doing - thought which was supported by this retreat experience.

Commentary

Ecological responsibility is expressed through prayerful cultivation of the attitudes of reverence, gratitude and appreciation for all Creation. Prayer is experienced as a vital part of one’s care and serves to balance activism or “doing” on behalf of Earth. The lay leaders highlighted that going to nature and being present to the beauty in a contemplative awareness evoked a sense of intimacy and gratitude. “Our very contact with nature has a deep restorative power; contemplation of its magnificence imparts peace and serenity. The Bible speaks again and again of the goodness and beauty of
creation, which is called to glorify God.”¹¹⁸ As well, prayerful consideration of Earth history and the time periods of evolution through ritual was a reverent experience which increased appreciation for the created order.

Summary

Many voices throughout our world are calling for proactivity and full participation in the transformation of the current ecological conflict. As we can observe through the results of this research diverse responses are occurring. However, in many cases the reaction to these voices can seem more passive and reluctant than energy filled. We are living in a time of deep paradox and polarities. As Elizabeth Johnson succinctly summarizes:

On the one hand, we gaze in wonder at the world; on the other hand, we are wasting the world. This is a sign of our times and should be filled with meaning for people of faith. But the odd thing is that, with some notable exceptions, many religious people and church business as a whole go on ignoring the plight of the earth.¹¹⁹

The polarity Johnson identifies seems dysfunctional and inconsistent. It is a polarity which paralyzes and confuses. Our technological prowess provides insight into the grandeur and complexity of Earth history and at the same time this technology is used to destroy and diminish this grandeur. Technology has the ability to enlighten our human identity in relationship to the created order and this same technology corrupts and cancels out this relationship when it is used in acts of ecocide.

¹¹⁹ Elizabeth A. Johnson, “God’s Beloved Creation,” America, April 16, 2001,
Underlying or motivating this misuse of technology is, Johnson argues, the lack of respect for life. This disrespect also shows itself in the placing of economic profit for a few ahead of the common good of all, in ignoring the interconnection of all processes and in ignoring the well-being of future generations. The complexity and polarities of our times and the apparent lack of respect for life are overwhelming and have been cited as barriers for many to ecological responsibility. With this reality in view, a question then arises regarding those who are practicing ecological responsibility since they have apparently overcome some of the barriers and have found motivations which supersede the paralysis brought on by complexity, polarity and the despair generated by widespread disregard for life. What are the motivational forces fueling their ability to respond to the momentous challenges of the ecological conflict?

III) Motivation and Ecological Responsibility

By way of introduction to the research findings in this section some brief contextual comments are once again in order. Studies of environmental or ecological motivation by secular groups, especially in the corporate and educational sectors are legion.120 This area of motivation in relation to behavior has been widely studied for the purpose of informing developmental and educational practices.121 Similar studies appear to be much

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less common within faith sectors, especially with regard to the area of ecological responsibility which is still relatively new.

Generally, the types of motivation are understood as being intrinsic or extrinsic. Motivations can be described as the forces that account for the arousal, selection, direction, and continuation of behavior. Motivation can further be understood from the perspective of needs or desires which become the forces that create movement towards satisfying that need or desire. Intrinsic motivation is the internal desire to take action; thus creating an energy or strength compelling you to do something or in other words take-action.\(^{122}\) Extrinsic motivation would include circumstances, situations, rewards, punishment, both tangible and intangible that participation in results in an external benefit. Lastly and perhaps most significant, a motive is defined as an innate mechanism, an inner directing drive which can be modified by learning. Motivational studies therefore, are useful to teachers, leaders, parents, employers, and really, almost anyone.

“The key is in understanding that you are not motivating someone else. Instead, you are simply providing a circumstance that triggers that person to be motivated.”\(^{123}\)

At this time, we can return to the research and consider the current experience of the lay leaders. In order to draw from the extensive experience of these lay ecclesial leader they were invited to consider motivations from the early stages of their ecological awareness to the present.


Participants’ Motivational Forces

For the purpose of reviewing the research material, the responses of the lay leaders have been organized by way of three main themes: (1) Relationship (2) Concern (3) Awareness. These themes admittedly, are not exhaustive nor rigid, rather it is apparent that motivations are complex and often overlap and are interrelated.

1) Relationship

The lay leaders express motivation for ecological responsibility coming from their relationships with God, others in community and with nature. Such relationships are a source of hope, inspiration, education, support and sustenance. As motivational forces these relationships work together rather than separately to make change possible.

Why they do it......

Relationship with God

It all flows out of the same kind of response to God’s love expressed to us in so many ways. . . His Creation is just one of those truly awesome places we see manifestations of his creativity, power, etc. etc. And to be in tune with God I think we have to be in tune and responsive to/caring for/respecting those things that God has expressed as Love for us. . . love for all life. .. love of creativity.  Somehow it’s all part of a relationship of love.

Thanks & praise to God motivate almost everything I do..I feel it is an essential part of my life..so essential that it should be deeply woven in the fabric of my faith. I feel sad when I realize my humanist friends are more in tune with the spirit and preciousness of creation than many of my Christian friends.

As God has created the earth and all of the wonders of the earth, we must be responsible in our use and care of the earth. Care for the earth is everyone’s ministry. We not only need to be prudent in how our life style will affect the earth, but we also need to be vocal, so people around us get the message and they take care of the gifts God has so freely given to us.
Just being compelled by love and faith to keep trying to make things right, to get people
to see also, to love also, to bring into the mainstream these big ideas. To live by
conviction, to do what you must, to continue to seek and fulfill God’s plan for me.

All... is an expression of Faith and Justice. Faith is my belief in otherness and a life
beyond what I can humanly define. Justice is the healing of our broken relationships.
Brokenness with God, Self, Others and all of Creation.

We are called to be stewards of the earth, to protect, nourish and care for all future
generations. I'm reminded of a poem I wrote which was read by the minister at my
husband’s funeral. The poem was entitled "On Loan" and spoke of how we are all given
gifts of people and opportunities throughout our lives that are only on loan to us, and
we will have them for a short time but will one day have to account for how we cared
for them. Care of the earth is also like that. This present time, this generation, has
the responsibility to take care of God's gifts, and ensure that they are passed on to the
next generation.

I realize that God has called me to do the work and I continue knowing that some issues
can be easily dealt with and other issues take time we need to be patient and know God
is walking with us.

Relationship with Others

My mother... She taught us a basic respect for all life and really for all forms of
Creation... Mom... continues to be in awe of God in Creation after all these years and
still has time to nurture and to protect the vulnerable, and still expresses awe and
thankfulness in the sight of God manifest in Creation...Mom always had a tremendous
sense of being loved by God, but also of having a humility about it because of her
closeness to nature... When the church began talking about “stewardship” this seemed
to be a “no brainer”... it was just what you did. As the idea of “stewardship” broadened
and deepened to a sense of being part of Creation as a component of the whole that
relied on the whole and contributed to the whole (or took away from it) in day to day
living, it was a building on that sense of awe that mom instilled watching a storm sweep
across the field, or watching a small bird pick its way through an egg shell.... I don’t tend,
however, to have a “warm fuzzy” view of nature, and know that we, in nature, are
rather insignificant. That God cares for us at all in the awesome power of Creation and
the scope of the whole of Creation is a truly overwhelming kind of notion.
My Mother helped us to plant flowers and some veggies. We helped her to can foods and make jam. Whenever trees were cut near us or in the neighborhood my Mom grieved.

In the Community, awareness of nature and living from the gardens was important.

I grew up in a family that was concerned with an array of social justice concerns. After university and a number of years working in Toronto, I moved closer to home and realized that I wanted to be more involved with social justice myself.

... to live in Peru where I became deeply aware of the preciousness of water, light, paper, food and the color green... My experience in Peru has taught me what poverty and suffering are. I have no suffering in my life only inconveniences.

It was a living with less of all these things. Upon returning to Canada I was very vocal in the schools when paper was wasted in abundance.

Our Community is a force and as a member I feel blessed that I’m part of a group that chooses to focus on the environment.

There are many groups that keep before my eyes the need to live lovingly on the earth.

Other sisters, groups and friends, who share a common interest in lessening our footprint on Earth....

Through the planning and construction of this building I/we came in contact with materials that are “green”, companies that are striving to “green” their products, architects and trades people who are struggling to learn how to build to minimize the ecological footprint and to work in harmony with nature for the benefit of future generations.

My family. Both for their future and because of their deep sensibilities of what is right ... in respect to care for the earth.

On the personal/emotional level, I’d say that the energy and commitment of the group (almost 20 at this point) is my motivation. We sustain each other. It helps that we like each other a great deal too, and always have fun at our meetings! I’d say that our parish priests have also become more aware of us as a group, and very respectful and supportive of what we’re trying to do. Social justice—both as a concept and in terms of
what we’re doing as a group—is more frequently mentioned in homilies, and our pastor especially has become very open to new things that we bring to his attention.

I was very close to my grandmother who I spent a lot of time with. In my pre-school years I lived with her and my grandfather for awhile, and was at her side in the house and in the garden. She had a vegetable garden so big you could have built a house on it, and the fruit and vegetables her garden produced sustained her and her family throughout the winter months. She also had a combination chicken coop/pig pen on one side of the driveway which again provided eggs and meat. The chickens eventually found themselves in a stewing pot, and the little pigs "went to market". She was an amazing woman, small in stature but with a heart as big as the garden she so lovingly tended. She was ever mindful of the words of the Lord's prayer, "give us this day our daily bread", never failing to give thanks to her Creator for providing for herself and those she loved. Grandma Lil was also a lover of flowers and her yard was always in bloom. Woe to those who damaged any rose bush or peony bush, as Grampa soon found out every time he nicked her peonies with the lawnmower. I used to think he did it on purpose just to see her reaction. They very much loved one another and cared for one another, just as they cared for everything and everyone entrusted to them. Theirs was an (almost) perfect example of earth stewardship, taking care of what their Creator provided. Their example impacted in me a love of creation, a true source of peace, and a oneness with the earth whenever I’m on my knees planting seeds for food or beautiful flowers that bring moments of happiness to all who gaze on them. Now, as an adult, I continue to have a love of the land, an appreciation of the miracles of soil, sun and rain. I involve myself in groups that ensure that future generation will also know the blessings we have received in our time. Each time I see waste .... of food, of water, and of lives .... it brings a sense of loss, I teach my grandchildren that in the core of every apple is a potential apple orchard, hoping that someday they will see the potential in themselves as well as in everything they experience throughout their lives.

The practice of centering prayer and the centering prayer group that I belong to is my greatest source of motivation. I also love Thomas Merton and am inspired by his writings. What I read, Mike, my kids, the friends I've been blessed with and my Associates of the Sisters of St. Joseph as well as the Sisters are all supports for and give me hope...The retreat I made at Oxley with the Elderberry Connection had a great impact on me and made me see the world around me in a whole different way. Through "centering prayer" I am becoming more aware of the "Divine Presence" in all things. This awareness has had an influence on my own family and I know because all of the universe is one that it has had an influence on the universe as well.
Having married a farmer there has always been a healthy respect for the land. Also, as a teacher, I think I have always encouraged an interest in taking care of our environment. In the 90's this became more apparent when as a school we began teaching the 4 R's.

To see how many young people understand the importance of earth care and how hard they work for the causes. When you see success for issues, you supported.

Relationship with Nature

It was important to connect with nature. We always lived by the river and summers included swims at Port Lambton and Mitchell’s Bay. I would draw the flowers and water etc. to put on cards for my parents.

I think when I was doing ministry in Peru in the early /70s I became more aware of the stars, the dark of the night, the importance of fresh water – things that had not made a lot of impact on me previously. I became more aware of the vastness of Creation and my sense of nature’s diversity was stretched. I began appreciating nature in a different way as I experienced its greater diversity.

As a child nature lured me to explore her. With friends I enjoyed finding edges to explore. Trees with low, restful limbs were to be climbed. It was a place to calm down and think and cry. My friends and I found swampy areas, tied boards together to go floating and sinking.

I always loved the Earth, it is the most important factor in my life. My heart breaks over it and bursts with hope at times. I feel it is so important to act on its behalf.

We live on the farm in nature and it is very beautiful and healing. It is lots of work but we feel blessed that we are living in nature.

Commentary

The lay leaders identify motivation coming from a diversity of relationships: God, nature family, community, religious and civil groups and foreign cultures. Relationships
and their interrelations appear as a primary source of motivation for the lay leaders.

Common to their experience was a love or spiritual bonding with nature:

To experience a bonding with Earth which goes beyond feeling sorry for Earth’s suffering or scared for ourselves to experience relationship- relationship that can be spiritually as well as physically sustaining, a relationship that can empower.124

This love for nature had been transmitted to them and fostered by others-be they parents, grandparents or companions in community. The love and beauty was experienced through a call or luring into relationship:

Earth calls continually. She calls us with beauty, sometimes truly breath-taking, sometimes heart wrenching, and always provocative and visceral..If we are receptive to the ways in which the landscape speaks to us, or the ways in which perception serves as a channel for communion, we may reawaken and preserve a sense of integrity within the family of all creation.125

(2) Concern/Care

The lay leaders spoke of “concern” and “care” as motivational forces. This concern and care is linked to current issues such as global warming, land degradation, extreme wastefulness, nuclear energy and pesticide usage, all which call for urgent action. This concern also is expressed in the desire to seek a greater understanding of how best to intervene and respond to the issues at hand.

Why they do it?

Since my background is in science I have always been concerned about the state of the planet—I remember talking with classes about acid rain 20 years ago—also the dangers and advantages of Nuclear power—Ursula Franklin, Rosalie Bertell, Helen Caldecott and her groundbreaking film... If You Love This Planet.

Some of us in the world are very concerned about global, local and personal responsibility at the social/political/economic/religious/ levels. We want a broader, deeper awareness of how to save our planet and her people.

I have found great stimulus for concern for creation in the materials of Brian Swimme—the first set of videos I studied, watching the set at least three times and taking notes.

Mathew Fox--------Sallie McFague, “the Body of God” moved concern for the Earth to a new level ---Earth itself is a living, manifestation of God

Seeing the wastefulness and poor attitudes of our North American society saddens me. I know that I contribute to that—and want to do my part to control my own habits and hopefully will promote others to do the same.

It has been a lonely journey. Very few are interested. Even fewer understand. However, at every turn there has been enough, just enough, to jar anew the stirrings, the energies, the desires to stay for the long haul.

The continuing degradation of the land & the life it supports...

From the beginnings of creation we have been challenged to be those who care for her (Mother Earth).

Helping design our new Motherhouse was a lesson in how we could take better care of our earth.

For me it was part of the vocation of being a teacher, being concerned with the environment and working with children, and the “ministry” or religious/spiritual aspects of it have developed over time, over my life, with deepening faith and understanding, conviction, education.

We learned that the earth is a living organism and that our goal in life is to take good care of the earth. Farming and gardening the organic way [not using chemical fertilizers,
pesticides and herbicides.] can be challenging and time consuming but you know that this is the way to look after Mother Earth.

The many warnings about global warming should concern people enough to become determined to bring about lifestyle changes. The fact that many don't take any action, or are not willing to take action is a motivator by itself. The fact that governments think of the cost in dollars rather than the unavoidable and horrific cost of doing nothing is a motivator.

It is a desire to protect and ensure continuance for yet unborn generations... the love of all that creation encompasses, from the earliest beginnings to the present and with an eye on the future.

I'll just keep doing what I do, caring for the little corner I got, and then one day, it might still not be enough, but I’ll do what I thought was right or I won’t be able to live with myself.

Many years ago, I became aware when small appliances (toasters, mixers etc.) were not working and I took them to repair stores, I was told they could not be fixed as parts were not metal but plastic etc. And the amount of people who buy the latest appliance not because their old appliance is broken, but because they want a new color etc. This made me think about the amount of these appliances being thrown in our landfill sites. I have a hand mixer that I got as wedding gift in 1968, it stills works great, it’s white and not fancy but it does the job. I also have a dryer that we bought in 1971 and it still works, nothing fancy, does not have all these extra settings, but I dry clothes on the clothes rack or outside, so my dryer does not have a huge amount of over use. When I noticed that shoe repair shops were closing up, this also triggered the thought about landfill and how many shoes would be thrown out that could have been repaired, maybe a broken buckle, new heels etc. It was at this point that I felt the need to join a group to help promote the awareness of environmental care of our earth. Over the last 10 years with the many issues that are brought to the fore front by environmentalists – David Suzuki, Al Gore, Maude Barlow, and Social Teachings of the Catholic Church.

Commentary

A great depth of concern and care motivates the lay leaders and this concern reflects the degree of awareness of the urgency of the ecological conflict. This disposition of
care and concern is also linked to their understanding of vocation. There is a sense of being challenged and called to take seriously the need for ecological justice, to go beyond feelings of sadness and despair. It is interesting to note in addition that care and concern when it is shown to be lacking in the public response can be motivational fuel of others.

3) Awareness

The lay leaders are motivated largely by new awareness gained from both religious and scientific knowledge. To the extent that they come into contact with information being generated by the various disciplines their consciousness is being raised. This new awareness moves then into action by altering their way of being and doing.

Why they do it?

Over the last 10 years with the many issues that are brought to the fore front by environmentalists – David Suzuki, Al Gore, Maude Barlow, and Social Teachings of the Catholic Church.

There is so much info about how Mother Earth is rebelling against the way we destroy her that I have to be aware and live more consciously.

I was the Chair of the London Community Foundation Granting Committee 6 years ago, and during my time there, we talked a great deal about the need for a holistic community: all parts needed to be operational for a rich community (health, social, environment and arts/cultural). I learned there of the value that some of our local environmental groups and the work they were doing: planting trees, raising awareness of air quality, etc. This raised my awareness and curiosity ... and expanded my understanding of the community’s needs.

When I began teaching in the late 1980s it was gaining some momentum to be doing environmental education, there were lots of workshops on Project Wild, schoolyard
naturalization, Green Teacher magazine started being published so maybe I was also part of a trend.

We learned that the earth is a living organism.

It all started in the 70’s with David Suzuki’s TV series entitled A PLANET FOR THE TAKING. I pondered what I saw and heard on that programme for 5 years, and then I saw Brian Swimme’s video CANTICLE TO THE COSMOS. In the meantime I had worked at Holy Cross Retreat Centre in Port Burwell during the first summers that Thomas Berry was giving his workshops on cosmic theology. When THE UNIVERSE STORY appeared, co-authored by Thomas Berry and Brian Swimme, I was more than ready for what I read there…. And it was from that moment on that I knew a different life-style was being asked of me. Everything that I read, that I heard, that I saw, the people with whom I would associate, all my thoughts and desires were from then on to be influenced by the story of the universe. And I, in my turn, was to tell the story in my way, that is through the visual arts.

It is in becoming more conscious. So many people get cancer but the business people and the government don't look deep into this matter. We are raping the earth and this can not go on longer.

[Through] several sessions at Holy Rosary church regarding the Greening of the Bible.

I began reading some of Mathew Fox’s books and started hearing about Creation Spirituality. Some time in the /80s I took a week’s course at Maryknoll in NY and heard Miriam MacGillis talk about Genesis Farm and she introduced me to the writings of Thomas Berry.

D&P (Development and Peace) remains probably our number one “source” for earth ministry, although KAIROS (Canadian Ecumenical Justice Initiatives) initiatives too are sometimes an inspiration to us.

When I read about the mining issues in our own country and around the world. How many large mining corporations destroy the land, leach toxins into the water table, disrupt the lives of people living in the surrounding areas. When my son tells me about ways to treat your gardens and lawns by using natural ways, not chemicals. And when my grandson talks about issues they are learning at school. I am motivated to take a stand to put my voice forward when I can’t help with issues in foreign lands to work with groups in may own area to support their initiatives.
Commentary

New awareness is a key motivator for ecological responsibility. As one of the lay leaders summed up: “It is in becoming more conscious...We are raping the earth and this can not go on longer.” When consciousness of the need for ecological sensibility is experienced there is impetus to act on behalf of creation which can result in both personal lifestyle changes and social transformation.

The lay leaders indicated that their awareness has arisen from contact with both religious and scientific disciplines. Both areas have offered sources of knowledge and inspiration which have motivated ecological integrity and commitment from the participants. In keeping with the goal of this study then, it is to the religious sources identified by the participants that we now turn to further delineate elements of the Christian tradition which have motivated ecological responsibility.

IV) Motivation, Ecological Responsibility and Christian Tradition

Further analysis of the responses given by the lay ecclesial leaders with the explicit purpose of identifying connections with the Christian tradition are suggestive of motivations not limited to but indicative of 4 legacies within the tradition: creation spirituality/theology, justice/option for the poor, vocation and community of the faithful. By considering some sample responses from the participants in this study along with descriptions and examples of these legacies we begin to appreciate to some extent the elements from within Christian tradition which appear as significant motivators for ecological responsibility.
1) Creation Spirituality/Theology Legacy

It all flows out of the same kind of response to God’s love expressed to us in so many ways. . . His Creation is just one of those truly awesome places we see manifestations of his creativity, power, etc. etc. And to be in tune with God I think we have to be in tune and responsive to/caring for/respecting those things that God has expressed as Love for us. . . love for all life. .. love of creativity. Somehow it’s all part of a relationship of love.

Their’s was an (almost) perfect example of earth stewardship, taking care of what their Creator provided. Their example impacted in me a love of creation, a true source of peace..

I began reading some of Mathew Fox’s books and started hearing about Creation Spirituality. Some time in the /80s I took a week’s course at Maryknoll in NY and heard Miriam MacGillis talk about Genesis Farm and she introduced me to the writings of Thomas Berry.

Mathew Fox-------Sallie McFague ,“the Body of God” moved concern for the Earth to a new level ---Earth itself is a living , manifestation of God.

We live on the farm in nature and it is very beautiful and healing. It is lots of work but we feel blessed that we are living in nature.

The lay leaders described personal experiences of God as Creator and identified the writings of several contemporary (Matthew Fox, Thomas Berry, Miriam MacGillis, Sallie McFague) which correspond in various ways to the tradition of creation-centered spirituality and theology. This legacy within Christianity

.... can be traced in the Old and New Testament, ranging from the prologue to the Gospel of John to the Book of Revelation. Creation Spirituality is also found in the teachings of the Greek fathers of the Church. The high point of the Creation Spirituality development was from the 12th to 15th centuries with the
theories and practices of mystic-prophets such as: Hildegard of Bingen, Thomas Aquinas, Francis of Assisi, Meister Eckhart, and Nicholas of Cusa.\textsuperscript{126}

In brief, Creation spirituality and theology emerged from the perspective of God as Creator Spirit, active in the world, giving and sustaining all life. Particularly in scripture passages such as Genesis 1-2 God as Creator, Genesis 9:8-17 God’s covenant with all creation, Psalm 104 God as sustainer of all life, and Romans 8:18-23 the fullness of life for all Creation, the foundations of this legacy can be observed.

2) Justice and Option for the Poor Legacy

Justice is the healing of our broken relationships. Brokenness with God, Self, Others and all of Creation.

D&P (Development and Peace) remains probably our number one “source” for earth ministry, although KAIROS (Canadian Ecumenical Justice Initiatives) initiatives too are sometimes an inspiration to us

I grew up in a family that was concerned with an array of social justice concerns. After university and a number of years working in Toronto, I moved closer to home and realized that I wanted to be more involved with social justice myself.

The Christian tradition of working for justice and defense of the poor and oppressed members of Earth serve as motivation for the lay leaders in their ecological practices. Through their participation in parish social justice groups and in the programs of Christian organizations such as Catholic Organization for Development and Peace\textsuperscript{127} and

\textsuperscript{127} D and P(Catholic Organization for Development and Peace) is the official international development organization of the Catholic Church in Canada and the Canadian member of Caritas Internationalis. It is a membership-based organization founded in 1967 by Canada's
KAIROS\textsuperscript{128} they experience being motivated and encouraged to act on behalf of ecological justice issues. These groups claim their rootedness in the tradition of practices expressed by scriptural mandates such as Micah 6:8, “Do justice, and love kindness and walk humbly with your God”; Proverbs 31:8-9, “Speak out for those who cannot speak, for the rights of all the destitute..Speak out, judge, righteously, defend the rights of the poor and needy and Luke 4:18-19, Jesus’ mission to the poor and his proclamation of a year of jubilee for the earth. “The Spirit of the Lord is upon me, because he has anointed me to bring good news to the poor. He has sent me to proclaim release to the captives and recovery of sight to the blind, to let the oppressed go free, to proclaim the year of the Lord’s favor.”

3) Vocation Legacy

For me it was part of the vocation of being a teacher, being concerned with the environment and working with children, and the “ministry” or religious/spiritual aspects of it have developed over time, over my life, with deepening faith and understanding, conviction, education

\begin{small}
\textsuperscript{128} KAIROS: Canadian Ecumenical Justice Initiatives is a dynamic church-based social justice movement. KAIROS unites churches and religious organizations in a faithful ecumenical response to the call to "do justice, and to love kindness and to walk humbly with your God" (Micah 6:8). The KAIROS Ecological Justice program is focused specifically on three main issue areas: Climate Change; Water; and Energy Efficiency. KAIROS is developing an exciting and challenging new program, the Carbon Sabbath Initiative http://www.kairos canada.org/e/ecology/index.asp (Accessed October 01, 2008).
\end{small}
From the beginnings of creation we have been challenged to be those who care for her (Mother Earth).

It all flows out of the same kind of response to God’s love expressed to us in so many ways.

I realize that God has called me to do the work and I continue knowing that some issues can be easily dealt with and other issues take time we need to be patient and know God is walking with us.

An experience of vocation, of being called to love and serve God through care of creation is another motivational force for the study participants. From within the tradition, the legacy of vocation has been described as a call from God to each baptized person to live life as a faithful disciple of Jesus Christ. We are all called, by virtue of our baptism, to live a life that expresses the love of God made manifest in Jesus Christ. Scripture abounds with vocational calls as is evident in the lives of the prophets, in the life of Jesus and in those he called to love and to serve in his name. He summoned his twelve disciples and gave them authority (Matthew 10:1). “Love one another as I have loved you.” (Jn. 15: 12)

4) Community of the Faithful Legacy

On the personal/emotional level, I’d say that the energy and commitment of the group (which numbers almost 20 at this point) is my motivation.

Our Community is a force and as a member I feel blessed that I’m part of a group that chooses to focus on the environment.

There are many groups that keep before my eyes the need to live lovingly on the earth.

Other sisters, groups and friends, who share a common interest in lessening our footprint on Earth....
The tradition of communities of the faithful gathering in mutual support to live out their Christian vocations emerged as a significant motivation for the lay leaders’ ecological responsibility. This tradition of the role and centrality of community, is echoed throughout the scriptures in passages such as: “Let us consider how to provoke one another to love and good deeds, not neglecting to meet together...but encouraging one another”... Hebrews 9:23; and "If one part suffers, every part suffers with it, and if one part is honored, every part rejoices with it (1 Cor. 12:26)! Participants found motivation and encouragement in the energy, support and commitment of the community working together.

Study Results in Review:

The aim of this chapter has been to present and examine recent field research pertaining to the case study of the ecological practice of lay ecclesial leaders, with a view to exploring the following questions: What are the underlying motivations fueling current ecological practice/responsibility? Are Christians experiencing motivation for responding to the ecological conflict in connection with their faith tradition or do they have other sources of motivation? If there is a diversity of motivations, how do they conflict with or compliment one another?

Upon a preliminary analysis of research, the motivations most commonly identified by the lay leaders were associated with experiences of significant relationships, care and concern and awareness. Through the stories and examples shared by the participants of this study it was clear that the motivational forces were occurring as interrelated rather
than isolated experiences. Motivational forces can be complex and multidimensional as their examples demonstrate:

Mom always had a tremendous sense of being loved by God, but also of having a humility about it because of her closeness to nature... She taught us a basic respect for all life and really for all forms of Creation. ... in day to day living, it was a building on that sense of awe that mom instilled watching a storm sweep across the field, or watching a small bird pick its way through an egg shell. ... I don’t tend, however, to have a “warm fuzzy” view of nature, and know that we, in nature, are rather insignificant. That God cares for us at all in the awesome power of Creation and the scope of the whole of Creation is a truly overwhelming kind of notion.

[My grandparents]... very much loved one another and cared for one another, just as they cared for everything and everyone entrusted to them. Theirs was an (almost) perfect example of earth stewardship, taking care of what their Creator provided. Their example impacted in me a love of creation, a true source of peace, and a oneness with the earth...

The lay leaders tended to name explicitly those people who had motivated them through the sharing of values, sensibilities and practical knowledge about Earth responsibility. They also explicitly named a sense of care and concern for creation as motivation for their practice. Here again, for some, the motivation they experienced did not exist in isolation but was connected to a sense of vocation:

For me it was part of the vocation of being a teacher, being concerned with the environment and working with children, and the “ministry” or religious/spiritual aspects of it have developed over time, over my life, with deepening faith and understanding, conviction, education

From the beginnings of creation we have been challenged to be those who care for her (Mother Earth). New awareness generated through contact with scientific or religious sources and study was also a common motivational force. Once again, in describing how new awareness
impacted them it became evident that the awareness experienced by the lay leaders had connections to larger networks they were committed to:

I was the Chair of the London Community Foundation Granting Committee 6 years ago, and during my time there, we talked a great deal about the need for a holistic community: all parts needed to be operational for a rich community (health, social, environment and arts/cultural). I learned there of the value that some of our local environmental groups and the work they were doing: planting trees, raising awareness of air quality, etc. This raised my awareness and curiosity ... and expanded my understanding of the community’s needs

[through] several sessions at Holy Rosary (parish) regarding the Greening of the Bible.

When I began teaching in the late 1980s it was gaining some momentum to be doing environmental education, there were lots of workshops on Project Wild, schoolyard naturalization, Green Teacher magazine started being published so maybe I was also part of a trend.

The general summary and analysis of the lay ecclesial leaders’ motivations prepared the way for a look at their responses with regards to elements from the Christian tradition which influence ecological responsibility. From the perspective of Christian tradition as a motivational force for their practice, the lay leaders surfaced elements with connection to: creation spirituality/theology, justice/option for the poor, vocation and community of the faithful from their experience. The experience of coming out of the Christian tradition resulted in the lay leaders defining more specifically the nature of the motivational forces of relationship, care and concern and awareness underlying their ecological practice. For example, generally speaking relationships are motivators, and for some of them specifically the relationship with God as Creator of the universe and the faith community. Another example is the motivation of care and concern. Here
the nature of the care and concern for some has roots in a sense of vocation and in God’s plan for justice and peace. Lastly, is the example of awareness as motivation. For the lay leaders, in some cases, the awareness that motivates their practice is an awareness characterized by the gospel option for the oppressed and marginalized. For the lay leaders association with the Christian tradition results in a unique concretization and characterization of motivations which can and inspire and guide ecological responsibility. The Christian tradition makes distinct and provides a grounding for more generalized motivations.

The study of motivation is admittedly challenging from any context. Some motivations can often be so unconscious that they do not come to consciousness even when space is given for such a process to happen. In light of this reality, it must be acknowledged that this study has been limited to what the participants are aware of and therefore significant other motivational forces may be absent since they remain at the unconscious level. For example, participants did not give economics as a motive for their ecological responsibility even though there are more and more government programs which offer economic incentives (external material motivator) “to go green” and which emphasize the economic benefits/savings to go green. Another example pertains to the area of religious motivation. None of the participants made any explicit mention of Christ when naming their sources of motivation. Perhaps this is an example of not naming what is unconscious or on the other hand perhaps it is a case of not naming

129 See the example: http://www.mass.gov/dep/recycle/grantsfi.htm (Accessed September 01, 2008).
what is obvious or taken for granted. Another possibility is that Church teaching has not made clear links between creation and the meaning of the Incarnation. Whatever the case, it is a curious absence which raises questions which must be left for future investigation and research.

V) Comparative Studies

In order to be able to further analyze the general results from the thesis research a consideration of similar studies is useful for additional insights and clarification. Although current studies linking the practice of ecological responsibility, and motivations with Christian tradition are extremely hard to find, in fact seem unobtainable, more general studies looking at motivation and ecological responsibility from the perspective of the social sciences are more readily available.

The studies which help to situate the responses from the lay ecclesial leaders within general norms were taken from three different perspectives. The first study\textsuperscript{130} made through the Department of Education at the University of Michigan was a review of current literature dealing with motivating and sustaining pro-environmental behaviors. The second study\textsuperscript{131} conducted through the School of Journalism and Communication of Chinese University of Hong Kong, looked at motivational factors for youth regarding

environmental practices. The third study\textsuperscript{132} was from the PHD research on ecological identity conducted by Dr. E A Bragg. The diversity of perspectives which these studies represent assist in a useful comparison both for how they converge and diverge with respect to the present thesis trends. They of course do not correspond directly to the central thesis but they do confirm and expand the results obtained. Such confirmation is useful since it indicates that the experience articulated by a very small group in a particular context is common to some extent in larger groups and therefore is worthy of further analysis.

The first study from the University of Michigan on motivating and sustaining pro-environmental behaviors was a review of current research, which according to the author demonstrated some common and encouraging findings. At the same time, the truth is recognized that factors underlying behavior with regard to the environment are extremely complex and interact with one another and so are difficult to generalize. (Certainly this aspect of factors which interact and overlap was readily evident in examples given by the participants). From the vast literature reviewed for this synthesis the motivational factors or forces contributing to ecological responsibility identified in general terms were: attitudes/feelings, ability to affect change, expressed commitment, responsibility/duty, risk, knowledge of issues, knowledge of action skills, economics, perceived urgency, social pressures and norms and habits.

From the details supplied for each of these factors, several important findings were noted by the author:

(1) There is a relationship between attitude and behavior in that individuals with more positive attitudes report engagement in responsible environmental behaviors.

(2) Interventions to increase knowledge have been one of the most popular ways to create environmental behavior change within a large audience.

(3) Social support increases responsible action.

(4) Coercive motivation through fear and guilt is being replaced with more positive approaches to create a sense of good will versus the gloom and doom imagery that turns many people away from environmental issues.

(5) Intrinsic motivators such as commitment-making are shown to produce more durable change than a stronger, more material incentive, such as money.

(6) Those who believe the power to affect change resides with them (internal locus of control) rather than outside of them with others (external locus of control) are more likely to engage in ecological responsibility.

Along with the insights regarding motivation which this study provides, the author draws several conclusions pointing to the need for further research. One such area of research would look at developing techniques for motivating people who are acting in ecologically responsible ways to become active in encouraging others to do the same.
A second recent study of significance conducted with youth in Hong Kong, (called the city of stifling smog) sought to identify motivational factors for the purpose of environmental promotions and education. This research tested 500 students with regards to environmental: attitude, concern, perceptions of seriousness and responsibility, effectiveness, and behavior. Upon tabulating the survey results, the author concluded that educational efforts would best focus on three primary areas of motivation (1) sympathetic emotions towards the environment; (2) sense of individual responsibility and; (3) sense of ability to make change. The study emphasized that where younger people are concerned the knowledge of environmental problems is not sufficient to motivate ecological responsibility. In addition to information, youth are motivated by emotional connectedness to and concern for the environment. Further, a sense of their ability to make a difference, in other words, hope, acts as a source of motivation. The importance of this motivation is demonstrated in recommendations for educational campaigns which develop three themes: there is something we can do, each one can bring changes and each one has the ability to improve the environmental quality.

The final study on ecological identity by environmental psychologist, Elizabeth Ann Bragg, involved interviews with people expressing different relationships with nature. Bragg looked at individual and shared understandings of the relationship between the ‘self’ and the ‘natural environment’. Bragg presents an understanding of the ecological self as involving the experience of a strong emotional and spiritual connection with
nature. Ecological responsibility she found is motivated by this ecological self and in particular the emotional self that is capable of feeling a bond with nature.

[It] was the emotional aspect of ecological self, rather than an intellectual understanding of ecological self, which had the highest correlation with the general measure of environmentally responsible behavior. From a strategic point of view, this means that encouraging people's strength of feeling for the natural environment (com-passion - feeling with), is the key thing to foster in people. It doesn't matter why people care about nature, whether its through conceptual understanding of the fundamental interconnectedness of all things, or because we must be responsible stewards for God's creation, or because it will mean a better standard of living for future generations. The important thing is that people care.... I firmly believe that it is only through the reclaiming of emotion, of sensual/sensory experience, of the sacred, which contemporary environmentalism can move beyond from its present achievements. As a social psychologist, I do not deny that fundamental structural, political and practical changes must accompany such a psychological shift. I argue, however, that those changes without a profound shift in our emotional relationship with nature would be futile. ¹³³

Along with love and care for nature, practical activities can serve as motivational forces for ongoing involvement. Based on her findings Bragg observes:

There are a heartening multitude of visionary environmental activities happening right now - from forest blockades complete with tripods, platforms and festivals, to permaculture villages; from the co-management of forests by environmental groups and forestry, to national initiatives like Land care and Cleanup. I would venture to say that all of these inspiring activities were initiated by a strong sense of emotional connection with the natural world. They are motivated by ecological self, so any activities which foster an experience of ecological self (including the environmental activities themselves) are vitally important for the future. ¹³⁴

Bragg’s study points to the importance of empowering visions for the future which can motivate and energize. As an educator, her task is to provide others with opportunities

¹³³ Bragg., Ibid.
¹³⁴ Bragg., Ibid.
to receive and speak the visions of the future which most inspire them. The process of naming these visions takes space and listening.

The most important thing we can do is to learn to listen with our hearts, to listen with open minds and a free spirit. Listening ... to our own hearts... the most important thing that we can do is to hear inside ourselves the sounds of the Earth crying. Once we can hear that, it is just as important for us to hear the sound of the Earth rejoicing, because this is where we get the visions of what to build upon.\textsuperscript{135}

Finally, interaction and dialogue with significant others are key motivational forces for ecological responsibility. It is our significant others, according to Bragg who influence how we come to understand, integrate and live out our relationship with nature as it is transformed by new information and by visions for the future.

Summary of Comparative Studies

Considered together, these three studies are enriching. While distinct in their methods of research, they do highlight both areas of convergence as well as important areas of divergence. Together the studies raise up significant general trends regarding motivational forces which contribute to ecological responsibility:

(1) Emotional connections with nature expressed through care and concern

(2) Social Support

(3) Knowledge

(4) Sense of an ability to make a positive difference

\textsuperscript{135} Bragg., Ibid.
As well as the common trends, various motivational forces surfaced unique to their respective studies such as the importance of: future visions, verbal commitments, sense of individual responsibility and competence in bringing about change. Of least importance as a force for responsibility was guilt or fear. Both of which were more likely to ultimately deter people from becoming proactive.

VI) Thesis Findings in Perspective

The case study of the lay leaders when compared with the studies of motivation and ecological practice presented in Part V shares points of convergence around the experiences of care and concern, relationships and social supports, and awareness and knowledge. The four studies taken together seem to indicate that certain general motivations are important where ecological practice is concerned. The comparison of the studies also reveals how for the lay leaders Christian tradition adds grounding and distinction to their motivations. As was discussed earlier, we see that relationships are indeed motivational but specifically it is a relationship with the Creator and with communities of faith which give distinct meaning to ecological practice. So too with care and concern which emanates from a sense of Christian vocation and with awareness which is characterized by the plight of the oppressed.

VII) Conclusions

The field research presented indicates Christian tradition does appear to offer tangible motivation for ecological responsibility in the case of the lay leaders. The
presentation of similar studies has been significant for making comparisons which lead to a clearer appreciation of “how” the tradition does actually make a difference.

In addition to this clarification, the use of the comparative studies, specifically that of Bragg, opens up the possibility of recognizing and expressing the nature of motivations not only in terms of the Christian tradition but in an integration of these terms with those of contemporary ecological discourse. For a final summary of the study, we conclude with this integrated perspective.

The field research from the thesis case study in general points to the ongoing emergence of “the ecological self,” that which has been defined as the expansion of the individualistic sense of self to embrace human communities, the rest of the natural world, our evolutionary past and the distant unknowable future. By nurturing an 'ecological self,' an 'ecological identity,' we move beyond egoistic and anthropocentric motivation and find ourselves empowered and guided by the larger forces of nature which promote the continuation of life on Earth.\textsuperscript{136}

The lay ecclesial leaders’ motivation for ecological responsibility reflects the experience of:

1) \textit{Consciousness of an ecological self} involving a widening of identity and self-interest due to three converging developments:

\textsuperscript{136} Bragg., Ibid.
(a) The dangers that are threatening to overwhelm us and a loss of certainty that there will be a future.

I involve myself in groups that ensure that future generations will also know the blessings we have received in our time. Each time I see waste ... of food, of water, and of lives .... it brings a sense of loss, I teach my grandchildren that in the core of every apple is a potential apple orchard, hoping that someday they will see the potential in themselves as well as in everything they experience throughout their lives.

(b) The emergence of the new paradigm in science, replacing old assumptions about a distinct, separate, continuous self with a processive ‘self’ seen as an open, self-organizing system whose principal functions arise in interaction with its environment.

It all started in the 70’s with David Suzuki’s TV series entitled A Planet For The Taking. I pondered what I saw and heard on that programme for 5 years, and then I saw Brian Swimme’s video Canticle To The Cosmos. In the meantime I had worked at Holy Cross Retreat Centre in Port Burwell during the first summers that Thomas Berry was giving his workshops on cosmic theology. When The Universe Story appeared, co-authored by Thomas Berry and Brian Swimme, I was more than ready for what I read there..... And it was from that moment on that I knew a different life-style was being asked of me. Everything that I read, that I heard, that I saw, the people with whom I would associate, all my thoughts and desires were from then on to be influenced by the story of the universe.

(c) The resurgence of non dualistic spiritualities....An expanded self is emerging, arising in the grief, the anger, the fear we experience before the decimated eco-system and our deconstructed world. ¹³⁷

There is so much info about how Mother Earth is rebelling against the way we destroy her that I have to be aware and live more consciously.

Sallie McFague’s, “the Body of God” moved concern for the Earth to a new level ---Earth itself is a living , manifestation of God.

2) **Consciousness of a deep ecology.** A vision of life which believes that we cannot deal with nor transform nor solve ecological conflict by coming up with an endless series of ad hoc remedies to each new catastrophe.

We need a new and widespread attitude toward nature in which we operate with a higher regard for the biological system within which we function. Deep ecology is not only born of scientific insight into our biological “rootedness” in the larger ecosystem, but is also anchored in a spiritual sensitivity that intuits a certain ultimacy or sacredness about nature. A deep ecology awakens activity and care because it opens up a sense of fundamental connectedness between each living organism and that ultimate creative force from which all life derives.\(^{138}\)

According to the participants: “We learned that the earth is a living organism and that our goal in life is to take good care of the earth. Farming and gardening the organic way [not using chemical fertilizers, pesticides and herbicides.] can be challenging and time consuming but you know that this is the way to look after Mother Earth.”

Ultimately then, ecological responsibility motivated by elements of Christian tradition is determined by consciousness of the ecological self, where the expansion of the self acknowledges the centrality of relationship with the Creator. And where caring for all Creation is understood as a call to participate communally in the divine life where justice flourishes.

As we turn now to Chapter 3, we will consider the potential of cosmological imagination – the cultural practice of cosmology, to inspire and motivate care for

creation. In this study we will examine *The Story of The Universe* and the way in which this story promotes the fundamental connectedness of creation.
Chapter 3

Creation and The Discovery of Home

We are all suffering under the nuclear threat and ecological devastation and yet our spiritual or ethical traditions seemingly stand by unable to make a difference...What is missing is a functional cosmology that will enable the human community to organize itself in a way aimed at planetary health. Nothing less than a comprehensive vision of the universe is required.¹³⁹

Science offers humankind not only awareness of the biodiversity crisis and the tools for saving the species but also a story that can charge our very souls to take on the task.\(^{140}\)

Beyond our genetic and cultural coding, humans need to go into the earth, as the source whence we came, and ask for its guidance, for the earth carries the psychic structure as well as the physical form of every living being upon the planet.\(^{141}\)

What does it mean to say that the human is a geological formation of the earth? If we were convinced of this truth, would it change anything in our behavior?\(^{142}\)

In Chapter 1 we looked at how the eschatological imagination within Christian tradition had potential to motivate ecological responsibility through its unique responses to the query “why care.” In Chapter 2 we examined the various motivational forces which spark the imagination for creative responses to contemporary ecological challenges of lay ecclesial leaders. In Chapter 3 we will consider the potential of cosmological imagination – the cultural practice of cosmology, to inspire and motivate care for creation. Following a review of the significance of functional cosmologies within culture and the developmental impact of scientific cosmologies specifically in Part One, I will then proceed in Part 2 to examine a current model, that of *The Universe Story*,\(^{143}\)


\(^{141}\) Thomas Berry, *The Dream of the Earth* (San Francisco: Sierra Club, 1988), 195.

\(^{142}\) Brian Swimme, *Canticle to the Cosmos* (San Francisco: Sounds True Audio, 1990), 15. This is taken from the study guide edition. There is also an audio tape version of *Canticle to the Cosmos* which tells the scientific story of the Universe with a feeling for its sacred nature. Brian Swimme, BS, PhD., featured in the BBS series Soul of the Universe along with Stephen Hawkins, hosts this classic series on the New Story of the Universe. Designed to be used as part of an academic curriculum, in small group study, or for individual enrichment.

\(^{143}\) Brian Swimme and Thomas Berry, *The Universe Story* (San Francisco: Harper, 1992). This is the original text. I don’t believe a revised version has been produced yet.
which has emerged as a leading example of the work of cosmo-
logical imagination. A study of this seminal model, designed by mathematical cosmologist, Brian Swimme, and

cultural historian, Thomas Berry, to incorporate both the revela-
tions of contemporary science and a reflection on their meaning, will be followed in Part 3, by an outline of

how the new cosmology might function as a motivational force for ecological responsibility and transformation.

Part One

The Cultural Practice of Cosmology

The concept of 'cosmology' first originated in Greek: 'cosmologia' meaning order, orderly arrangement or ornaments, together with the word 'logos' meaning word, reason or plan. Cosmology as an exploratory enterprise exceeding some three hundred thousand years, has emerged from at least three main regimes: religion, philosophy and science. This ancient universal practice consisting in the study of the origin and nature of the cosmos and the transmission of these explorations through narrative is innate to human culture and holds evolutionary significance.

Cosmological narratives generally involve the unfolding story of the birth, development and destiny of the universe for the purpose of assisting human cultures in their task of identifying their roles and destiny. According to Freya Mathews,

144 In her book Radical Amazement, author Judy Cannato provides a good overview on the meaning and development of cosmology over time. See her Chapters 1 and 2. (Indiana: Sorin Books, 2006).
a cosmology serves to orient a community to its world, in the sense that it defines, for the community in question, the place of humankind in the cosmic scheme of things. Such cosmic orientation tells the members of the community, in the broadest possible terms, who they are and where they stand in relation to the rest of creation. Some conception of a cosmic scheme of things is active too in the prescription of a system of norms, or at least in contributing to the normative tone of the community.....A culture deprived of any symbolic representation of the universe and of its own relation to it will be in a culture of non-plussed, unmotivated individuals, set down inescapably in a world which makes no sense to them, and which accordingly baffles their agency. What are they to do in this world to which they do not belong? No natural directives appoint themselves. Self-interest is the only rational motive.\textsuperscript{145}

Historically, cosmologies have functioned to unite, orientate and motivate large communities of people in their quest for meaning. They are stories which provide an overarching context and guidance for human life and activity in relation to the wider reality.

The cosmological narrative is the primary narrative of any people, for this is the story that gives to a people their sense of the universe.... All human roles are continuations, further elaborations, expansions, and fulfillments of this story. So any creative deed at the human level is a continuation of the creativity of the universe.\textsuperscript{146}

In addition, it has been suggested that the act of cosmological imagining itself is rooted in human genetic make-up such that in order to become fully human, we need to ponder the universe to discover our respective place and role as a species.\textsuperscript{147}

Consequently, the activation of this imagination in an effort to answer questions such as

\textsuperscript{146} Thomas Berry, \textit{Evening Thoughts: Reflecting on Earth as Sacred Community} (San Francisco: Sierra Club Books, 2006), 59.
\textsuperscript{147} Brian Swimme, \textit{The Hidden Heart of the Cosmos} (New York: Orbis Press, 1996), 12.
“Who are we?,” “Where do we come from?” and “Where are we going?” is vital to human development and maturity.

The human practice of cosmological imagining and exploration has been situated traditionally within three main streams of thought: religious, philosophic and scientific. Cosmological quests and their resultant narratives have emerged in history largely under the influence of these three streams - sometimes through the convergence of their concepts and at other times through the individuation of such. In the last few hundred years, scientific study has produced vast insight into the life of the Universe and planet Earth. These insights have resultantly precipitated a movement towards (at least in Western culture) new worldviews and paradigms of human existence. To understand the vital role and impact of science on the renewal of contemporary cosmological imagination and narrative in the wider culture, it is useful to consider, if ever so briefly some highlights of this process.

Scientific Cosmology

Scientific or physical cosmology studies the origins, nature, evolution and large scale properties or powers of the Universe as a whole. It endeavors to use the scientific method to understand not only the history of the Universe but its ultimate fate as well. The early cosmological scientists such as Aristotle and Ptolemy, focused on understanding the relationship of the heavens to the earth. They formulated what is referred to as earth centric theories to explain this relationship where-in the earth was

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148 The main reference for the materials summarized in this section is from Judy Cannato’s Chapter 1 on cosmology in her work Radical Amazement (Indiana: Sorin Books, 2006).
believed to remain fixed and was thus circled round by the sun, moon, planets and stars. This earth centric approach was prevalent until the 15th and 16th centuries when the studies of Nicholas Copernicus of Poland, Johannes Kepler of Germany, and Galileo Galilei of Italy produced new claims all pointing to a sun-centric system. This perspective that the earth and its inhabitants were not the “center of the universe” was a radical shift in perspective not easily absorbed at the time it was promoted.

In 1687, the English scientist and mathematician, Isaac Newton presented his “Principia Mathematica." Here Newton presented his discoveries regarding the laws of planetary motion and universal gravitation. The belief in heaven as distinct and completely other than earth was shattered by his studies which revealed that the motion of earth and all other planetary bodies operate out of the same laws. Newton’s studies provided an understanding of gravitation as that primary force that holds the universe together. His discoveries opened the doors to rapid advance in further explorations and technologies for the wider community.

Influenced by the physics of Newton, which projected that the cosmos was in a fixed state, German mathematician, Albert Einstein (1879-1955), also initially did his research from a mechanistic cosmology. As a result of his own theories however his mathematical computations eventually pointed to the fact that the universe was not fixed but was expanding in all directions. The radical implications of this discovery for

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149 Scholars suggest that while Greek, Indian and Muslim academics formulated the sun-centric theory centuries before Copernicus, his reiteration that the Sun and not the Earth, is at the center of the solar system is considered among the most important landmarks in the history of modern astronomy.
centuries of science and the community at large led Einstein to hide his discovery. Instead of presenting his proof of the universe’s expansion he introduced “a cosmological constant” that argued against the universe contracting or expanding.

The growth and development of science however did not permit Einstein’s discovery to remain buried in the equations he had fudged. Through the work of Russian mathematician, Alexander Friedman and sometime later, that of American astronomer in 1924, Edwin Hubble, Einstein’s original discovery of the expanding universe was confirmed. Thus science gave birth to a dynamical cosmological model of general relativity which would eventually come to form the standard for the “Big Bang Theory” (1927), of Belgian physicist Georges Lemaitre- the idea that the universe has expanded from a primordial hot and dense initial conditional at some finite time in the past, and continues in a process of expansion.

At the same time that the true nature of the Universe was coming to light, studies in science were also going further to reveal the nature of Earth. Austrian biologist, Ludwig von Bertalanffy, known as the father of general living systems theory, conducted his science, his “way of seeing,” by looking at wholes instead of parts, as processes instead of substances. This way of seeing led to the discovery that wholes-be they cells, bodies, ecosystems, are not a collection of unrelated parts but are dynamically organized and
intricately balanced systems, interdependent in every movement, function, every exchange of energy and information.\textsuperscript{150}

The Gaia hypothesis articulated by geologists James Lovelock and Lynn Margulis in the 1960’s, drew particular attention to studies of Earth as a living, self-regulating organism with numerous interdependent life support systems. Adding to the understanding of Earth, evolutionary biology and conservation biology together introduced our other-than-human kin, promoting knowledge and valuing of biodiversity throughout the whole of creation - life in all its multifarious forms. Studies in ecology as well made known the particular watersheds, nutrient cycles, and biological communities that are the lifeblood of particular human communities.\textsuperscript{151} Together all the revelations of these sciences have brought great awareness to Earth’s dynamic living process. As evolutionary biologist, Connie Barlow summarizes:

We are privileged through science, to know and witness the immense and fecund journey of life on Earth. Time thus becomes history, and history sacred story. We are privileged through science to augment folk wisdom of ecosystems and to begin to learn the physiology of the whole Earth, Gaia.\textsuperscript{152}

Even the briefest and most limited of historical reviews exposes how the revelations of science from across the disciplines of biology, physics, geology and astronomy have altered to as yet an unconceivable extent the understanding of the place of human identity within the living process of Earth and the greater Universe. These revelations


\textsuperscript{151} Connie Barlow, \textit{Green Space, Green Time} (New York: Copernicus, 1997), 14.

\textsuperscript{152} Barlow, Ibid., 15.
have led to an expansion of cosmic consciousness such that the cosmologies of earlier times which do not incorporate this awareness are now being rendered non-functional since they no longer reflect meaningfully reality as we know it. As Swimme summarizes, the achievements of science have revealed and continue to reveal amazing developments of the workings of the universe. We have yet to integrate this new revelation of nature within our own lives, this includes economic, political and religious systems. The discoveries of science then have ultimately precipitated the need for the renewal of contemporary cosmological imagination and narrative within the wider culture. Scientific cosmology shaped by a variety of disciplines has undergone tremendous growth and transformation. As Berry sees it:

This endeavor over the past three centuries might be considered among the most sustained meditations on the universe carried out by cultural tradition... Science has proceeded by an intense inquiry into the deep recesses of the universe by a special quality of empirical observation, analysis and interpretation. This has brought us into the far depths of the heavens into the inner spaces of the atom. Through this knowledge the very structure and functioning of life itself have been so affected that we can do very little anymore without this type of scientific understanding.¹⁵³

Today we need scientific understanding for the enhancement of life and it is the knowledge of science in contemporary times which has become the inspiration and foundation for the creation of what is considered an urgently needed renewed evolutionary epic or meta narrative of the cosmos. One which allows for an identity reflecting an intimate relatedness to Earth and activates genuine concern for the future of this relationship.

The Way of Cosmological Renewal: Scientific Foundations and a Comprehensive Story of the Universe

According to those that have traced its history, the cosmological imaginings of science have gradually opened the way to a new revelatory experience and intimacy with all the created order. This experience it seems must not be put aside because as Berry points out, we are in difficulty because the foundational story that has been at the heart of Western civilization and culture has lost its power. In brief, the lack of a compelling cosmology impedes action on behalf of the needs of the planet. Therefore it is concluded: “Only a rigorously contemporary myth...can place our hopes where our energies can a make a difference...The ecological crisis demands a mythopoeic solution on a global scale.”¹⁵⁴ Not just any science-based cosmology will suffice however since as Mathews has pointed out, “a cosmology needs to be validated by its potentially integrative effect on the culture. If a cosmology is to gain currency at all in our culture it must possess scientific credibility. But while this is a necessary condition for its acceptability...it must also serve to focus and integrate our experience of reality. It must promote self-realization in those who embrace it.”¹⁵⁵

Part Two

In order to be able to appreciate how the practice of cosmology can motivate care for creation I have first needed to discuss the meaning of cosmologies for culture and to

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¹⁵⁴ Connie Barlow, Green Space Green Time (New York: Copernicus, 1997), 50.
show some aspects of a functional cosmological narrative. With this in mind, I will now proceed to study some current models of cosmological imagination. I will primarily look at the practice of Brian Swimme and Thomas Berry through their common work of The Universe Story as well as their independent works where feasible. I will consider the areas of their: goals, context, content and central ecological insights. To a lesser extent I hope also to refer to the cosmological works of Loyal Rue, *Everybody’s Story* and *Earthdance: Living systems in Evolution* by Elisabet Sahtouris so that having done so I will be able to show what insights from this practice can be instrumental in motivating care of creation.

A New Cosmology : Telling The Universe’s Story

Goals

Cosmology aims at articulating the story of the Universe so that humans can enter fruitfully into the web of relationships within the Universe.\(^\text{156}\)

Berry and Swimme have formulated a cosmology which responds to the classic existential questions and goals with tremendous imagination and insight. The cosmological imaginings or practice of Swimme and Berry are frequently referred to as a prime example of the “new cosmology” which blends scientific study on the history of the universe with a deep reflection on the significance of this history. The authors have created a cosmology for the purpose of and in a style which gives voice to the Universe’s own life-story as it is now known today through the sciences. In their process they do not want the reader to simply read “about” facts of the history of the universe. Instead,

\(^{156}\) Brian Swimme and Thomas Berry, *The Universe Story* (San Francisco: Harper, 1992), 23.
they want the reader to hear “from” the Universe, to feel part of one with and transformed by this expanding reality. They intentionally avoid a cosmological narrative that acts as an objectification of the external physical universe in favor of a process which illustrates the mystery of the Universe’s subjectivity and listens for its unique being to emerge.

The universe bloomed into existence, settled on its fundamental laws, and stabilized itself as baryons and simple nuclei. For several thousand years it expanded and cooled and then, in an instant, at the very end of the fireball, the universe transformed itself into the primordial atoms of hydrogen and helium... Atoms of hydrogen and helium formed – seemingly such microcosmic events - and yet the fundamental qualities of the fireball were changed forever. Hydrogen and helium allowed light to shoot through them. The universe broke itself apart to begin an entirely new era of the macrocosmic adventure, an adventure opened up by the creativity of these first hydrogen and helium beings.157

The new cosmology of Berry and Swimme takes on the challenge of writing from “within the very journey itself, within the heart of the universe, within its unfolding power, within its creative potentialities and surprises.”158 As Swimme tells it:

From the beginning we regarded the articulation of a new cosmology as a task for the species as a whole. What was clear to both of us was that this story is being told by the universe – by the galaxies, by the birds, by the Earth, by the winds, by the stellar explosions, by fossils, by the rising and falling of the mountain ranges, by the children of every species. Our primary task was to learn how to listen, and to establish rapport with others who are listening. No one person or culture or intellectual discipline by itself had the capacity to hear the full story the universe was telling.159

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157 Ibid., 29.
159 Brian Swimme and Thomas Berry, The Universe Story (San Francisco: Harper, 1992), 295.
The key goal for the new cosmology is ultimately to transmit the dynamic life and interiority/spirit of the Universe. From Berry’s perspective, “the reality and value of the interior subjective numinous aspect of the entire cosmic order is being appreciated as the basic condition in which the story makes any sense at all.” This desire to have readers recognize the depth and subjectivity of Universe so as to be able to claim their identity and participation there-in is an energy which permeates and guides the cosmological imaginings of this story.

Contextualization

The work of imagining a new cosmological narrative comes out of the authors’ deep desire to respond to the phenomenon of unprecedented global suffering and to the related ecological crisis. For Swimme, much of the culture especially in the West is acting out of a pathological mindset and so has lost sight of what he sees as the true purpose of being - to “evolve into our larger role as earthlings.” According to Swimme,

our deep seated arrogance toward the non-human components of the earth community has crippled evolutionary advance. The nuclear impasse stems from our delusion that territorial ideological disputes qualify as issues for which the

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160 For Berry appreciation of the spirit of the universe is key, for as he asserts if the human has a psychic-spiritual mode of being, then the universe must be a psychic-spirit-producing process...Indeed, since the universe is a singular reality, consciousness must, from its beginning, be a dimension of reality, even a dimension of the primordial atom that carries within itself the total destiny of the universe. For more details see Chapter 5: Creative Continuity in, Evening Thoughts Reflecting on Earth as Sacred Community, ed. Mary Evelyn Tucker (New York: Sierra Club Books, 2006).

161 Thomas Berry, The Dream of The Earth (San Francisco: Sierra Club Book, 1988), 135.

four billion year process of life can be sacrificed. The commercial-industrial impasse results from our delusion that consumer demands are reason enough to ruin any habitat, any community of life, even the conditions from which life emerges and evolves on this planet. The sickness of the present situation will continue to escalate until we learn the fuller dimensions of our role with evolution’s unfoldment...It is the challenge of living within a new story, a story of cosmic and terrestrial dimensions.\textsuperscript{163}

The conflicts, impasse and distress occurring for the majority of the global community are also the points of departure for Berry’s acting. Along with Swimme, in these cultural realities Berry identifies what he believes is the need for a new paradigm of human existence. He also highlights the need for guidance towards living out of such paradigms. According to Mary Evelyn Tucker,

Berry’s articulation of the need for a new orientation and direction was motivated by his deep concern for the almost suicidal path of humans in their destruction of the earth and in their violence and indifference to one another. The need for a New Story or a functional cosmology, then, arose not as an abstract idea, but as a response to the sufferings of humans in a universe where they saw themselves as deeply alienated...\textsuperscript{164}

Berry interpreted the pervasive experience of alienation and despair occurring in Western culture particularly, as a symptom of a culture that was tied too closely to a consumeristic identity and so had become adrift without substantial moorings. Along with this faltering identity was a widespread disassociation from and indifference to classic forms of religious narratives. Together these symptoms, along with an ongoing assessment of science’s revelations and the lack of integration of such, lead Berry to his

\textsuperscript{163} Swimme, Ibid., 1.
overarching motivational insight regarding the need for a newly conceived cosmology - a functional framework for the orientation of human purpose and destiny.

Humans are in between stories. The coherence provided by the old stories is no longer operative, Berry asserted, proposing instead the new evolutionary story of how things came to be and where we are now as a comprehensive context for understanding how the human future can be given meaningful direction. Berry stated that to communicate values and orient human action within this new frame of reference we need to identify basic principles of the universe process itself. These, he suggested, are the primordial intentions of the universe towards differentiation, subjectivity, and communion.¹⁶⁵

The need for a new story which represented the best of scientific cosmology with the best of the humanities' interpretive tools has led to the evolution epic created by Swimme and Berry. For the authors then, their cosmology has as its primary basis the account of the emergent universe.

Content: The Universe’s Story

In telling the Universe’s story Swimme and Berry have described a reality filled with beauty, life-giving conflict and deep mystery. This work of cosmological imagination traces and celebrates many moments of birth: the birth of the Universe, the birth of Earth and the birth of human being – that unique form of being filled with potential for creation to reflect on itself. As the authors bring all these stories together in a new form of cosmology they emphasize the importance of recognizing how the stories are connected.

¹⁶⁵ Ibid.
The universe story of the great flaring forth is a story for each person to claim, to know well and to share with others.

The flaring forth of the primordial energy carried within itself all that would ever happen in the long series of transformation which would bring the universe into its present mode of being. The primordial emergence of the beginning of the Earth story, as well as the beginning of each of us, since the story of the universe is the story of each individual being in the universe. Indeed the reality inherent in the original flaring forth could not be known until the sharpening forces held in the process had brought forth the galaxies, the Earth, the multitude of living species, and
the reflection of the universe on itself in human intelligence.\textsuperscript{166}

In order to tell this epic of evolution in an integral way, the authors have had to listen with long and with great attention. As Swimme admits the Universe’s many stories, our stories, have long since been available but only recently have we come to read them.

The universe’s primordial origin has been here with us for millions of years...Our own generation is simply the one to emerge at the time when human consciousness has become subtle enough and complex enough to awaken to what the universe has been telling us from the beginning...The deepening of consciousness necessary to hear the story of the universe required complexification of consciousness coming from our four million years of human journey.\textsuperscript{167}

For both Berry and Swimme, the human being is the space created in the universe’s process for hearing and celebrating all the cosmic stories which have and will unfold. For this reason, their efforts at creating a cosmology take great pains in unfolding the cosmic journey by incorporating the stories gathered from scientific cosmology, physics, biology, geology and anthropology.

Scientific investigation has revealed that every individual organism, every mineral, every ecological community possesses within itself a significant story in relation to the whole emergence of life on earth. Each existent being or community of beings can be considered a voice that speaks from 20 billion years of cosmic development. We are only just now understanding how to listen to the voice that speaks in these systems of life and being. Only in the last few decades have we been able to listen to the story of the universe’s origin that is contained in the radiant energy that bathes the earth.\textsuperscript{168}

The cosmic timeline which follows gives a glimpse into the many stories which the authors describe in much greater detail in each Chapter. The stories which are presented in the time

\textsuperscript{166} Thomas Berry, \textit{The Great Work} (New York: Bell Tower, 1999), 27.
line are only part of our cosmic history, however reflection on at least some of these stories is crucial preparation for understanding what the authors articulate regarding their deeper significance in relation to the quest for human identity and destiny.

A Journey Along the Cosmic Timeline

**Story 1** The Deep Well of Potentiality

In the Beginning was Mystery - the churning, spontaneous, quantum foam of potentiality. The Originating Cosmic Power. The Primordial Matrix.

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169 Summary Time Lines of The Universe Story have been created to make the volume of material from Swimme and Berry more accessible. These summaries are often used in the exercise known as the Cosmic Walk. For the most part I have used material from the time-line entitled VERSION 1 found at: http://www.rainforestinfo.org.au/deep-eco/cosmic.htm#Version%20one (Accessed November 5, 2008).
**Story 2** The Primordial Flaring Forth

From the quantum foam was born the Universe, a flashing forth of evanescent beings. In every instant the universe was fresh, as a flickering flame’s shape is fresh, newly created. In the beginning the universe was sparkling. From the void, from the dark, came the light and the spark. Time, space, and energy were the gifts of existence. From this great mystery, all came to be.

Some 15 billion years ago, a great ball of fire expanded outwards into the creation of the Universe - space and time, shadows and light. The universe expands and cools rapidly. After a million years, things cool sufficiently for hydrogen and helium to bring with them new forms of matter.

**Story 3** The Galaxies and Supernovas

A billion years later, Galaxies come forth. Stars are born, live, and die. Larger stars in their death throes explode and become supernovas. As they blast out into the cosmos Supernovas create in their wombs the elements of life.

**Story 4** The Solar Systems

10 billion years later or 4.6 billion years ago, our Grandmother Star becomes a supernova. She gives up her life in an explosion that gives rise to our Star, what we call the Sun.
Story 5 Living Earth

4.5 billion years ago, our Solar System forms from the remains of the supernova explosion. The sun and a great disk of matter emerge—all the planets and other members of our solar system family.

Here begins the story of what will become one blue-and-white pearl of a planet.

Great Bombardment! Comets and meteorites pelt the Earth’s thickening crust as it cools off. The moon is born when Earth is impacted by a mars-sized body that causes the Earth to tilt to the side giving rise to the seasons of the year.

4.4 - 4.1 billion years ago - Over hundreds of millions of years, Earth has grown from dust particles to a large, hot, molten planet with a thin rocky crust. The crust thickens as cracks and exuberant volcanoes expel hotly agitated deep Earth magma to the surface.

As steam condenses above the Earth, the miracle of rain and weather cycles begin. The first rains fall, then torrential rains fall on, and on, and on until rivers run over the land and pool into great seas.
4 billion years ago, the rich chemical brew brings forth invisibly small creatures that we call bacteria. The first living cells!

3.9 billion years ago, bacteria run out of free food supplies. They invent ways to capture energy from the sun which they then use to create new sources of food from water and simple minerals. In the process, however, they give off oxygen, a deadly corrosive gas that eventually piles up in the atmosphere and threatens life.

**Story 6 Eukaryotes**

2 billion years ago, oxygen loving cells emerge. The first global environmental crisis is averted by the creativity of these tiny cellular creatures who invent a use for oxygen as they breathe it in (like we do) and use its energy. Oxygen levels continue to rise until they reach near present-day levels.

Individual bacteria learn to cooperate and specialize within giant cell cooperatives. Within one cell, some creatures make food while others invent tiny electric motors that move the colony into sunlight, where others capture the energy of the sun. The individual parts become less independent but more secure as inseparable parts of the new wholes. These types of organisms are the same stuff of all plants and animals today. Cooperatives!

1 billion years ago, Organisms begin to eat one another in the predator-prey dance that promotes the vast diversity of life as predators pick off the least healthy members among their prey species.

700 million years ago, some organisms begin living together in colonies, finding ways to
communicate with each other using chemical messages. Life on Earth rediscovers Community!

**Story 7 Plants and Animals**

600 million years ago, light sensitive eyespots evolve into eyesight. The Earth sees herself for the first time. The first animals to evolve in the oceans are soft-bodied. Over the next 70 million years, previously naked animals protect themselves with shells. Jaws, beaks, and skeletons follow suit.

460 million years ago - Leaving the water, animals such as worms and mollusks and crustaceans seek the adventure of breathing air, surviving weather, and raising themselves against gravity. Algae and fungi venture ashore as well. The first plants evolve as mosses. Insects evolve with nearly weightless bodies that permit them to take to the air as the first flying animals! Algae, fungi, insects!

395 million years ago - The first amphibian animals hop and lumber onto land, trading in their gill slits for air-breathing lungs, transforming fins into stubby legs and continuing to return to the water to lay their eggs. Frogs and toads!

335 Million years ago, the first forests evolve. Over generations, these forests load themselves with carbon extracted from the atmosphere which later becomes fossilized as coal and oil. As the forests spread, amphibians transform into pre-reptilian creatures with the grand innovation of self contained eggs that allows them to move inland. The Great Age of Reptiles begins.
235 million years ago, Following the 4th and greatest mass extinction, the end of the Permian period is followed by the emergence of dinosaurs. For 170 million years these creatures flourish. Dinosaurs, sometimes as large as 40 meters, are social animals that often travel and hunt in groups. Dinosaurs develop a behavioral novelty unknown previously in the reptilian world - parental care. Some of them carefully bury their eggs and stay with the young after they hatch, nurturing them toward independence.

225 million years ago, the first mammals, small and nocturnal, jump, climb, swing, and swim through a world of giants. Some rodent-sized insect-eaters evolve lactation, enabling mothers to spend more time in the nest keeping their young both fed and warm.

150 million years ago. Birds emerge as direct descendants of certain dinosaurs whose foreleg bones evolve into wing bones, jawbones into beaks and scales into feathers. Far larger than today's birds, wing spans are as large as 12 meters. Birds!
114 million years ago, Flowers evolve gorgeous and overt sexual organs, making themselves irresistible to insects by way of colors, perfumes, and delightful nectars. Insects, drawn to the nectar, unknowingly transport pollen from one flower to the next, fertilizing the plants on which they feed. The Earth adorns herself magnificently and invites the sky creatures into a new dance. Flowers!

**Story 8 Ecocene Catastrophe**

65 million years ago - Shortly after primates appear on the scene, the Cretaceous period ends with the 5th mass extinction after an asteroid 6 miles in diameter hits the Yucatan peninsula leading, in time, to a severe drop in temperature. This marks the end of the age of dinosaurs and the beginning of the age of mammals, the Cenezoic era. With the dinosaurs gone, the once dark and sheltered small mammals stride into daylight moving quickly to occupy available ecological niches.

Over the course of the next 60 million years Earth greets rodents, whales, monkeys, horses,
cats and dogs, antelopes, gibbons, grazing animals, orangutans, gorillas, elephants, chimpanzees, camels, bears, pigs, baboons and the first humans. The Age of Mammals!

**Story 9 Human Emergence**

4 million years ago, Hominids leave the forest, stand up, and walk on two legs. The savanna offers the challenges and opportunities for these early creatures to evolve into humans. They move over the surface of the Earth eventually spreading themselves over all six continents.

*100 thousand years ago, Modern Humans emerge. Language, shamanic and goddess religions, and art become integral with human life.*

*11,000 years ago, Agriculture is invented. Humans begin to shape the environment, deciding which species shall live and which shall die.*

**Story 9 Emergence of Classical Religious Forms**
*3,000 years ago, Classical Religions emerge. Hinduism, Confucianism, Judaism, Buddhism, Christianity, Islam.

**Story 10 Our Earth in The Expanding Universe**

*250 years ago, scientists begin to calculate the Age of the Earth. Humans try to understand how old the Earth is through empirical observations.

*70 years ago, empirical evidence of an Expanding Universe is discovered.

*33 years ago, scientists find evidence of the Origin of the Universe as they see the Primordial Flaring Forth.

**Story 11 Humans Travel away from Earth**
*30 years ago Earth is seen as Whole from space. The Earth becomes complex enough to witness her own integral beauty.

**Story 12 Today**

*2008. The Story of the Universe is being told as our common story of origin. The Flaring Forth continues as this moment, as us, as one.

**Insights: What’s in a Story?**

The process of creating a story of the universe informed by the many stories of evolution which science provides has led Berry and Swimme to new levels of awareness.

In these and many other examples we are beginning to appreciate the way in which every existent being is the whole universe’s story told from a particular viewpoint and history... therefore a voice that is lost means knowledge and information lost for all time: a story that will never be recaptured. We must move into the future with a deep reverence for all beings and the story that each is able to tell.\(^{170}\)

Through their efforts of bringing together and reflecting on the many science-based stories of the Universe’s unfolding, Berry and Swimme are able to draw out and piece together insights which are central to their cosmology. Their quest for “the story within the great story” have led them to unveil the “hidden heart of the Cosmos,” namely its propensity for *differentiation* (diversity, complexity, variation, disparity), *autopoiesis*\(^{171}\) (subjectivity, 128


\(^{171}\) For a long time scientists had no clear definition of life. It is interesting to note that *autopoiesis* – literally, self-composition or self-organization was proposed by Chilean biologists Humberto Maturana and Francisco Varela as recently as 1980, to be a real definition of life. The definition stated that an entity is alive if it creates and continually renews itself, including its defining boundary (read: cell wall, skin, membrane, bark). For more details see, *A Walk Through*
sentience, identity, self-manifestation) and communion (interrelatedness, mutuality, kinship, complementarity), which they believe can create the grounds for a renewed understanding of human identity and the basis of a more comprehensive eco-social ethic\(^{172}\) of mutually enhancing human-Earth relationships.\(^{173}\)

Their prolonged meditation on the Universe’s unfolding story has resulted in a naming of three patterns or constants which are seen as fundamental tendencies or principles of the universe at all levels of reality. As Swimme imagines it, this is cosmic grammar.

\[\text{This is Cosmic Grammar...}\]

\begin{itemize}
  \item Differentiation
  \item Autopoiesis
  \item Communion
\end{itemize}

\textit{It is the way all things are held together.}

\textit{It is the fundamental ordering of the Universe.}

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\(^{172}\) Berry believes to establish viable social ethics, norms, codes, etc. which can respond to the present ecological challenges we must go beyond cultural coding to genetic coding and to the structural codings of Earth and Universe. In this larger context we find the imperative to make the changes now required of us – a radical living out of, acceptance of and reverence for the values and principles of differentiation, autopoiesis and communion. See Chpt. 15, Our Way into the Future in Berry’s work, \textit{The Dream of the Earth} for an extensive description of the urgency for a return to the genetic imperative from which human cultures emerge and from which they can never be separated without losing their integrity and their survival capacity. (San Francisco: Sierra Club, 1988).

\(^{173}\) Mutuality or mutually enhancing relationships as a norm for social ethics has been discussed at length by Dawn M. Nothwehr. With somewhat differing language she covers the three values of Berry as related to mutuality. See, \textit{Mutuality A Formal Norm for Christian Social Ethics}, (Eugene, Oregon: Wipf and Stock Publishers,1998).
These principles identify *the dynamic reality* of the universe, *the values* of the universe and *the direction* in which the universe is proceeding. They also represent and provide what the authors consider to be an urgently needed ordering or code for human ethics and behavior. According to Berry, differentiation, autopoiesis and communion are the central cosmological orderings of the creative display of energy everywhere and at any time throughout the history of the universe. For this reason he sees them as a coherent model for constructing a renewed system of ethics or cosmic mutuality.\(^\text{174}\)

**Differentiation, Autopoiesis and Communion**

Differentiation refers to the extraordinary variety, complexity and distinctiveness of everything in the universe. Berry would say that,

differentiation is the primordial expression of the universe. Out of the fiery violence of the "Big Bang" came radiation and differentiated particles that through a certain sequence of events, found expression in an overwhelming variety of manifestations. The universe is coded for an ever increasing, non-repeatable, biodiversity as exemplified by the incredible variety of life that has evolved on the earth. From its rich and abundant tropical forests to the stark beauty of its polar regions, the evidence of this tendency towards biodiversity is obvious. Humankind would not have appeared as a species if somehow the process towards increasing biodiversity had been allowed to shut down.\(^\text{175}\)

\(^{174}\) When speaking of communion - an experience incorporating differentiation and autopoiesis, as the basis for a systems of ethics which has the potential to provide criteria for “evil,” Berry asserts that the loss of relationship - to be denied of intimacy with other beings with its consequent alienation constitutes a kind of supreme evil in the universe. See his comments in *The Universe Story*, p78. Berry further suggests that the ultimate source of evil in the existing order of life is perceived as its commitment to human well-being at the expense of the natural world. See Chapter 6, Technology and the Healing of the Earth in, *The Dream of The Earth* (San Francisco: Sierra Club, 1988).

\(^{175}\) Robert Chotti, “The Architecture of Eco –Theology,”
HTTP://WWW.FAITHANDFORM.COM/FEATURES/41_1_CHOTTI/INDEX.PHP (ACCESSSED DECEMBER 12, 2008).
This propensity for differentiation characterizes human nature. To be is to be a unique manifestation of the universe’s life and pluriformity. As humans we discover purpose in relation to differentiation. We have a part to play in assuring Earth's ability to continue its growth towards an expanded biodiversity.

Autopoiesis or as it is more generally referred to, subjectivity, is the interior numinous self-power present in all reality. This power not visible to the eye, is the potentiality to participate directly in the cosmos-creating endeavor - that of self-manifestation. It is a power of spontaneity and creative self-organization. This power can be witnessed in unique forms such as human life, ecosystems and stars alike. Take for example, the autopoiesis of a star. “The star organizes hydrogen and helium and produces elements and light. This ordering is central to the activity of the star. That is the star has a functioning self, a dynamic of organization centered within itself.”\(^{176}\)

Through autopoeisis all creation exhibits an inner creativity – the potentiality for self organization and the inner capacity for self manifestation. In a unique way human creativity is informed by the diversity of subjectivity that is allowed to declare itself around us. Any human activity that contributes to the impoverishment of this diversity will then inevitably contribute to the impoverishment of a sense of wonderment and awe – to the diminishment of our very sources of inspiration for our own creativity. Our own creativity and ability to survive as a species will depend to a great extent on the ability of all natural entities on the

\(^{176}\) Brian Swimme and Thomas Berry, *The Universe Story*, (San Francisco: Harper, 1992), 75.
planet both living and non-living to develop their full potential.\textsuperscript{177} As humans we discover purpose in relation to the subjectivity of other life forms. We have a part to play in assuring that the subjects which inspire our own ability to self-manifest continue to have space for their ongoing expression and transformation.

The final principle of communion refers to relationship as the essence of existence. Nothing is itself without everything else nor is there life outside of relationship. At the moment of cosmic birth when all the primitive particles poured forth everyone of them was connected to every other one in the universe.

[W]e are an inextricably related community of subjects. This genetic interrelatedness of everything in the universe to everything else means that the universe is in dialogue with itself as a community. The original bursting forth of energy at the beginning of time contained all the elements necessary for the

\textsuperscript{177} In a recent study exploring stock managers’ perceptions of the human-animal relationship on dairy farms and an association with milk production, Catherine Douglas (nee Bertenshaw) and Peter Rowlinson found that on farms where each cow was called by her name the overall milk yield was higher than on farms where the cattle were herded as a group. By placing more importance on the individual, such as calling a cow by her name or interacting with the animal more as it grows up, we can not only improve the animal’s welfare and her perception of humans, but also increase milk production. Dairy farmer Dennis Gibb, who co-owns Eachwick Red House Farm outside Newcastle with his brother Richard, says he believes treating every cow as an individual is “vitally important”.”They aren’t just our livelihood - they’re part of the family,” says Dennis. “We love our cows here at Eachwick and every one of them has a name. Collectively we refer to them as ‘our ladies’ but we know every one of them and each one has her own personality.” Dr Douglas and Dr Rowlinson questioned 516 UK dairy farmers about how they believed humans could affect the productivity, behavior and welfare of dairy cattle. Almost half – 46 per cent – said the cows on their farm were called by name. Those that called their cows by name had a 258 litre higher milk yield than those who did not. Sixty six per cent of farmers said they “knew all the cows in the herd” and 48 per cent agreed that positive human contact was more likely to produce cows with a good milking temperament. Almost 10 per cent said that a fear of humans resulted in a poor milking temperament. For the more details see: “Names give cows a lotta bottle”http://www.ncl.ac.uk/press.office/press.release/item/names-give-cows-a-lotta-bottle (Accessed February, 09, 2009).
evolution of the universe up to and including human culture.\textsuperscript{178}

The reality of this essential connectedness is exemplified through the experience of breathing. As Swimme recounts: “we figured out how many molecules there are in single breath of air. When you take a breath you are sharing in the breath of every creature that has breathed throughout history.”\textsuperscript{179} This “communion of breath” exemplifies the intimate interrelatedness of all life.

Life in the universe is a “communion experience.” As humans we discover our identity from this experience. We discover an authentic sense of “place.” Rather than seeing our place as being beyond or separate from the created order we discover our place is “one with” creation. This authentic recognition and ownership of our communion provides important criteria for all our actions and calls forth efforts to overcome dualistic behaviors.

\textbf{Part Three}

Led by the Universe’s Wisdom: Motivation for Ecological Responsibility

\textit{The ultimate aim of the Universe is...}

\textit{The deepest subjectivity} \hspace{1cm} \textit{The fullness of differentiation}

\textit{The most intimate communion.}


\textsuperscript{179} Swimme, \textit{Canticle to the Cosmos} (San Francisco: Sounds True Audio, 1990), 14.
Meditation on the Universe’s story leads to the realization that at the heart of the Cosmos order exists in the form of the dynamic principles differentiation, subjectivity and communion. This order can also be understood in terms of wisdom or knowledge of rightness, which is inherent to the human story as well. The three principles which identify the right reality of the universe, the right values of the universe and the right direction in which the universe is proceeding at the same time identify the core reality, values and direction of human existence. As beings of the universe, humans are created with the potential for the fullness of differentiation, the deepest subjectivity and the most intimate communion. Inherent also in this potential is a corresponding force urging or calling forth the realization of this potential - a call which serves to motivate the actualization of such. Sharing in the story of the universe is also to share in the wisdom and potential for fullness which permeates this great story.

The revelation of the direction of the Universe which emerges from within the great story ultimately provides, according to Berry and Swimme, the orientation of desire and a way forward for what they propose as the great and urgent work of our age – that of unleashing
the potential for the flourishing of all life but most specifically life within the Earth community. This work, consequently requires the nurturing and safe guarding of differentiation, subjectivity and communion through actions of respect, reverence and relational integrity. ¹⁸⁰

*) Respect for the diverse modes of expression which can replace a hierarchy of values. Each being coming forth from the Universe is different from the other, a particular expression of beauty with a unique voice. All beings have something of value to give that the other cannot give. ¹⁸¹ For example as Swimme sees it, achieving economic profit can no longer be the norm which determines behavior towards the environment rather the norm must be a respect which results in the safeguarding of endangered voices. “We must therefore insist that all future inventions and policies recognize and respect this great truth, this great mystery of history’s presence within each being. A voice that is lost means knowledge and information lost for all time.” ¹⁸²

*) Reverence for the deep interiority/ sacred dimension of the “other” which can replace objectification. As Berry states, “the universe is composed of subjects to be communed with not primarily objects to be used...As a subject, each component of the universe is capable of

¹⁸⁰ Through the Incarnation of God in creation, the three principals - the right order or wisdom of the universe are understood as being of a “divine order.” This divine order, for the good of the Earth community cannot be transgressed. It is an order which must be honored. This order calls for right actions-respect reverence, integrity. The sacredness of these principals as part of the created order can also be understood as an example of panentheism – the deep relationship of God in the universe and the universe in God. For more details see the explication of cosmic mutuality by Dawn M. Nothwehr. Mutualiy A Formal Norm for Christian Social Ethics (Eugene, Oregon: Wipf and Stock Publishers,1998), 92-93.
having rights...Every component of the Earth community, both living and nonliving, has three rights: the right to be, the right to habitat or a place to be, and the right to fulfill its role in the ever-renewing processes of the Earth community.\textsuperscript{183} Humans however have often acted against these rights and have acted to control or domesticate creation for it sometimes seems possible. As in our capacity to evoke the vast energies hidden in the nucleus of the tiny atom. Yet when we invade this deepest most mysterious dimension of matter, nature throws at us its most deadly forces - forces that cause us to fear lest we be rendering the planet a barren place for the vast range of living beings.\textsuperscript{184}

*) Relatedness which can replace alienation and the stranger mentality. Life’s emergence in this Earth system is a story of continued growth into a community of being. The integral community is the principal accomplishment of the long history of the earth process. Though our human processes might involve destruction, it must be a destruction that promises to nurture the conditions for an integral community to continue evolving.\textsuperscript{185} We are bonded into a pattern of togetherness with all that is. We have the capacity for relationship, a gravitational attraction that must extend from ourselves, to other humans, to the natural world, to all that is. Only so will life on this planet survive, flourish and be permeated with compassion.\textsuperscript{186}

\textsuperscript{184} Thomas Berry, \textit{The Great Work} (New York: Bell Tower, 1999), 50.
Ultimately, Berry and Swimme conclude that awareness of the principles and values reflecting the reality of the Universe itself can awaken and motivate human desire for action on behalf of care of creation. For this reason they have gone to great lengths to tell the Universe’s story and then to draw out insights related to ecological consciousness which can serve as models for personal transformation as well as for social criticism and creative change. From the heart, the very depth of being of the Cosmos wisdom is offered to ensure healing and wholeness for the entire Earth community. What is required is the cultivation of mutually enhancing relationships which honor and preserve differentiation, subjectivity and communion. The challenge for human beings is to allow themselves to be guided and energized by the cosmic wisdom for the sake of all creation’s well-being.

Contemporary evolutionary cosmology has potential to motivate care of creation because of its witness too and transmission of the essential dynamic wisdom at work in

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187 Along these same lines is the approach of Loyal Rue author of Everybody’s Story Wising Up to the Epic of Evolution. Rue finds passion to imagine a new evolutionary cosmology in his conviction that “we will not serve what we do not love. And we can not love what we do know.” In stating his purpose he says directly: The story told here is an invitation to know and to love the fifteen billion year old process that has blessed us with the lives we have. To know the process is to love it. And to love it is to serve it in whatever measure we are able. (Albany: State University of New York Press, 2000), xiii.

188 In her presentation of a contemporary cosmology, Elizabeth Sahtouris, evolution biologist, elaborates on personal transformation and change in terms of the process of maturity. She comments that: We see ourselves in the context of our planet’s biological evolution, as a still new, experimental species with developmental stages that parallel the stages of individual development. From this perspective, humanity is now in adolescent crisis and, just because of that, stands on the brink of maturity... If we humbly seek help from the nature that spawned us, we will find biological clues to solving our biggest problems...We will see how to make the transition into maturity. For more details see Chpt. 1 in her book Earthdance: Living Systems in Evolution which is accessible on line. http://www.ratical.org/LifeWeb/Erthdnce/chapter1.html (Accessed November 02, 2008).
the universe. Through familiarity and engagement with this cosmology it is possible to become more deeply sensitized to wisdom and be motivated by it. Evolutionary cosmology can also serve as a transmitter of “empowering hope” for those working in ecological care when attention is paid to the incredible “near death” moments which have been averted throughout cosmic history. For example, the story of photosynthesis most vividly points to the ways that hope exits in the most fragile of situations.

In the history of the universe, scientists have identified several critical episodes of mass extinction and “near death” – these episodes occurred when conditions were such as to make the continuance of life impossible. Due to the unrelenting creative power of evolution however these deaths were averted. In the case of photosynthesis the near death was on a cellular level. As Rue recounts the story:

The first living cells on the planet basked in an economic utopia, one in which environmental conditions allowed everyone to consume at will while no one was constrained to produce. These single-celled organisms made their living by fermenting energy-rich nutrients that had been cooked up in the primordial soup. At first there was more than enough for everyone, but eventually the increasing population of consumers brought the primordial community to the brink of ecological disaster. The breakthrough came with a series of mutations leading to photosynthesis. Photosynthesizing organisms are able to utilize the sun to manufacture their own food supply, thus freeing them from dependence on ready-made energy locked in dwindling supplies of molecular food. [These] photosynthesizers offered a literal opportunity of a lifetime to nonphotosynthesizers as well—that is, they stored energy in the form of sugars, which would nourish organisms capable of eating photosynthetic bacteria.189

The story of photosynthesis serves as a constant reminder of the spontaneous and unpredictable creativity of the universe. The existence of such creativity within the

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189 Loyal Rue, Everybody’s Story Wising up to the Epic of Evolution (New York: State University of New York Press, 2000), 69-70.
evolutionary process offers tremendous hope for contemporary ecological challenges. Awareness of how this evolutionary creativity within the universe’s being has responded to the challenges of the past provides the hope which can be a motivational force for ongoing ecological care.

The ongoing transformation to greater levels of complexity of the universe’s life has been a process not without intense conflict and episodes of crisis. Recognition of the inevitability of these stages of transformation becomes a source of hope when one considers the current ecological conflict we are facing and the responsibility required to attend to this reality. The level of devastation and damage that has occurred and which needs healing is daunting.¹⁹⁰ And, as has been observed, if we are honest we do not know what will happen. However, though it is true no one has the power to control the future of evolution, each of us is free to determine how we will contribute to the circumstances out of which the future will evolve. At the very least we can open ourselves to the wonder and wisdom of science’s stories: the immensity, grandeur, and spontaneity of the universe, the fortuitous position of our planet; the delicacy of the ozone shield; the billions of random mutations; the miracle of multicellularity and the splendors of biodiversity. Such wonders help us discover our rightful place in the process of the Universe -- a dynamic evolutionary process in whose powerful spirit we share and through which we can be motivated and energized to assume a

¹⁹⁰ For example, the gravity of the depletion and contamination of the world’s fresh-water supply is so severe that wars over water are predicted for the near future. For more details see: Maude Barlow and Tony Clarke, Blue Gold: The Fight to Stop the Corporate Theft of the World’s Water (New York: The New Press, 2002).
compassionate, caring, generative role for the Earth community which supports our very existence.

Before embarking on the work of Chapter 4 it is helpful to review the trajectory undertaken by this thesis-project thus far. Our first step was a quest of retrieval guided by the question, what elements within Christian tradition have potential to serve as motivational forces for ecological responsibility. Our second step was to explore, through field research with lay ecclesial leaders, the question how is ecological responsibility taking place among Christians within contemporary local faith communities. This second step of the research went on to address the question are Christians experiencing motivation for responding to the ecological conflict in connection with their faith tradition or do they have other sources of motivation. Our third step was guided by the question regarding what sources from culture come into play as motivational forces with particular attention paid to science as expressed in the new cosmology. This fourth chapter will now address the question of what are the results of bringing together the insights from tradition, experience and culture. How might their interplay contribute to a renewed understanding of motivation for care of creation?
Wisdom speaks. “Come ...and drink of the wine I have mixed. Lay aside immaturity and live, and walk in the way of insight.” (Proverbs 9: 5-6)

Now, even though the realms of religion and science in themselves are clearly marked off from each other, nevertheless there exist between the two strong reciprocal relationships and dependencies.

Albert Einstein\textsuperscript{191}

In this fourth chapter dedicated to identifying correlations—the interrelationships found between the partners in Chapter 1, 2 and 3, I would like to introduce the use of Eucharistic imagery as an entry point and central guiding analogy. Upon examining the relationship of the partners’ assertions with regards to the question of eco-responsibility and motivation, the relational dynamics which emerge call to mind and resonate with those from classic Judeo-Christian symbolism and ritual: that of the sacramental chalice, the commingling of the water and wine therein, and finally the act of “pouring forth” or the sharing of the chalice. By drawing on the interplay of these traditional images I believe it is possible to capture and transmit something of the correlations perceived in the study thus far presented.

In order to make this presentation analogically I will use Part 1 to briefly review the history of the practice of commingling and to describe the traditional symbolic meanings of the chalice. Part 2 will apply the analogy to three partners: the lay ecclesial leaders, eschatological imagination and cosmological imagination in order help illustrate the correlations. In this process I will also refer to the Whiteheads’ approach which is aimed at identifying points of challenge and enrichment which arise through the interactions of the partners. Part 3 will draw out several insights and conclusions from the dynamics brought forward through the analogy which are foundational for creating recommendations towards a renewed Christian praxis.
Part One

A Brief History of “Commingling”

The Eucharistic celebration is the source and summit of Christian life. It is a celebration with layers of meaning which have gradually evolved and complexified. One such example of this complexification has to do with the understanding and significance of the commingling of the elements of water and wine as part of the liturgical rite. This liturgical practice has its roots in Jewish tradition. Historically, it is an ancient custom of both the Greeks and the Jews. The combining of these elements together had at least two distinct practical motivations. On one hand, there was often the need to purify water with wine so as to make it safe for drinking. On the other, was the need to temper the potency of wine by adding water to it. In both cases, although the ratios of the mixtures would vary according to the situation, the purpose and result of the mixture was to produce a healthy more holistic substance for consuming.

Within the Christian community the practical purpose and meaning of this custom was largely appropriated and infused with spiritual symbolism. The meanings which

192 St. Thomas Aquinas, in his Summa Theologiae, III pars q 74, 6-8: "Water ought to be mingled with the wine which is offered in this sacrament. "First of all, on account of its institution: for it is believed with probability that our Lord instituted this sacrament in wine tempered with water according to the custom of that country: hence it is written (Proverbs 9:5): 'Drink the wine which I have mixed for you.' "Secondly, because it harmonizes with the representation of our Lord's Passion: hence Pope Alexander I says (Ep. 1 ad omnes orth.): 'In the Lord's chalice neither wine only nor water only ought to be offered, but both mixed because we read that both flowed from His side in the Passion.' "Thirdly, because this is adapted for signifying the effect of this sacrament, since as Pope Julius says (Concil. Bracarens iii, Can. 1): 'We see that the people are
developed in association with the sacramental practice of commingling were quite diverse and a source of much debate. One predominant meaning for the mixing of water and wine had again to do with wholeness. For the early church, the water and wine were seen as elements representing the transformation of human life and divine life into oneness - a holistic coming together in Christ.

Along with the water and the wine, the chalice as a sacred receptacle or “vessel” also has carried important symbolism – that of salvation (Ps 116:13), that of sacrifice (the cup of the Garden), that of reconciliation (the cup of the Last Supper) and that of blessing and thanksgiving (1 Co.10:16). “The cup has significance in both Testaments as a vessel for gathering together and collecting...the drawing together of diverse elements, experiences and emotions.” The cup was also a means by which these elements could be passed on to others. In the context of our present study of the relational dynamics and interactions which occur between the elements of tradition, experience and culture and their respective viewpoints, this Eucharistic symbolism associated with images of the water and wine commingled in the chalice has potential to function as a useful analogy and entry point for the discussion. It is to the application of this analogy which we now turn.

signified by the water, but Christ’s blood by the wine. Therefore when water is mixed with the wine in the chalice, the people [are] made one with Christ. Fourthly, because this is appropriate to the fourth effect of this sacrament, which is the entering into everlasting life: hence Ambrose says (De Sacram. v): ’The water flows into the chalice, and springs forth unto everlasting life.’ For more details see the ZENIT article: “Why Water with Wine”, Father Edward McNamara, professor of liturgy at the Regina Apostolorum Pontifical University, http://www.ewtn.com/library/liturgy/zlitur39.htm (Accessed Jan. 24, 2009).

Part Two

Application of the Analogy: The Chalice - Organic Vessels

Through the lens of our Eucharistic analogy we can envision the lay leaders’ lived consciousness of creation- their practices and disciplines as chalice- like, resembling an organic vessel (Jeremiah 18: 1-7, Romans 9:20-22). This dynamic consciousness lived out in practices of ecological responsibility shows itself as receptive of, holding together in various degrees and moved to outpouring action by distinct motivational forces (as summarized in the second chapter) – two with notable impact being those from the disciplines of religion and science which we will examine in depth.194

As organic or ecological vessels the lay leaders’ consciousness of creation195 is made up of certain qualities: (i) an identification with Earth’s subjective existence: “I always loved the Earth, it is the most important factor in my life. My heart breaks over it and bursts with hope at times. I feel it is so important to act on its behalf” (ii) with feelings for Earth’s companionship: “As a child nature lured me to explore her. With friends I enjoyed finding edges to explore. Trees with low, restful limbs were to be climbed. It was a place to calm down and think and cry” and (iii) with concerns for Earth’s vulnerability and suffering: “Some of us in the world are very concerned about global, local and personal responsibility at the social/political/economic/religious/ levels. We

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194 Insights from new paradigms in both science and religion are of consequence here. See Appendix A for a summary of key insights from the emerging paradigms.
195 Often used in conjunction with the language of creation are the terms: nature, earth and planet.
want a broader, deeper awareness of how to save our planet and her people.” The lived experience of this ecological consciousness- renders the leaders open to ongoing transformation of their awareness and course of action on behalf of the Earth community. Such openness is the space where the forces of religion and science have potential to enter and can be seen to interact and commingle in varying ways. The presence of these forces and their coexistence transform and motivate ecological responsibility. Without these “living chalices” characterized by care, concern, openness and receptivity however, the commingling of the forces could not occur.  

Spaces of Commingling

For the lay leaders as living vessels what is the experience of being the space which receives and holds together these forces? Here we will consider some examples from the lay leaders of how religion and science generate among other things: calls for compassion, visions of connectedness and longings for the future.

Call For Compassion

As the leaders hold together the forces of religion and science they are made conscious of a call to respond with compassion to the needs of creation. Both religion and science speak to them of the need for ecological responsibility either through the awareness raised concerning practical issues like water contamination or global

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196 In his explication of knowing as transforming event, James Loder states that the more one cares about the conflict affecting them (that being challenges related to ecological integrity in the case of the lay leaders) the more powerful will be the knowing event. In fact, he insists, one cannot come to know what one does not care about. For more details on the dynamics of transformative knowing see: The Transforming Moment (Colorado Springs, CO.: Helmers and Howard, 1989), 37.
warming or through a consciousness of spiritual obligation or vocation. As one leader notes, the sense of being called to responsibility stems from “the many issues that are brought to the forefront by environmentalists – David Suzuki, Al Gore, Maude Barlow,” as well as from Social Teachings of the Catholic Church and a theological position which states that, “as God has created the earth and all of the wonders of the earth, we must be responsible in our use and care of the earth.” In this same regard, other leaders relate how the call to action comes through both the ways of science, “[t]he many warnings about global warming should concern people enough to become determined to bring about lifestyle change” and the ways of faith. “Their (my grandparents) ... was an (almost) perfect example of earth stewardship, taking care of what their Creator provided. Their example impacted in me a love of creation, a true source of peace, and a oneness with the earth.”

Visions of Connectedness

The leaders also experience science and religion as voices which herald a message of relational connectedness. Both provide resources and insights which stimulate consciousness about and address issues regarding the implications of being connected. For some leaders science provides insights about the intricate physical details of connectedness to ecological destruction. “Air travel is one of my biggest concerns ... I’m more aware than ever that air travel in the first world is one of the most destructive habits we have.” At the same time, religious traditions speak to connectedness by the
promotion of communal faith responses. “[B]ecause we work with D&P (Catholic Organization for Development and Peace) our focus is strongly environmental.”

Along with environmental science, some leaders also receive visions of connectedness through scientific insight presented as cosmology and with cosmic theologies. As one leader demonstrates her awareness has come through a convergence of scientific and religious reflection on the cosmos: “It all started in the 70’s with David Suzuki’s TV series entitled A Planet For The Taking. I pondered what I saw and heard on that programme for 5 years, and then I saw Brian Swimme’s video Canticle To The Cosmos. In the meantime I had worked at Holy Cross Retreat Centre in Port Burwell during the first summers that Thomas Berry was giving his workshops on cosmic theology.”

Motivated by the findings of science which have been presented cosmologically, ecological responsibility becomes for some deeply rooted in a consciousness which can appreciate the implication of connectedness within creation. In the experience of one leader, “[t]here is so much info about how Mother Earth is rebelling against the way we destroy her that I have to be aware and live more consciously.” In this case the revelations of science awaken consciousness to the fact that to be a part of creation is to be in relationship with a living organism which responds either positively or negatively to our actions. As this leader sees it, Mother Earth, as the “other,” is not indifferent to human treatment and can rebel. Earth has its own way of calling for just treatment and faith reinforces this need for justice. “Faith is my belief in otherness and
a life beyond what I can humanly define. For me justice is the healing of our broken relationships. Brokenness with God, self, others and all of creation.”

Longings for the Future

As the leaders hold together the forces of religion and science they are awakened to their longings for a sustainable future. Both religion and science communicate the importance of sustaining hope in the future so as to avoid turning away from the challenges of the present moment. “This present time, this generation, has the responsibility to take care of God's gifts, and ensure that they are passed on to the next generation...“It is a desire to protect and ensure continuance for yet unborn generations... love of all that creation encompasses, from the earliest beginnings to the present, and with an eye on the future.” As one leader summarized, “it is in becoming more conscious. So many people get cancer but the business people and the government don’t look deep into this matter. We are raping the earth and this can not go on longer.” “I’ll just keep doing what I do, caring for the little corner I got, and then one day, it might still not be enough, but I’ll do what I thought was right or I won’t be able to live with myself.”

The lay leaders as ecological vessels are receptive to and hold together the forces of religion and science. The leaders experience these forces as building up and generating consciousness of deep felt calls to compassion for creation, visions of connectedness and longings for the future. The leaders’ own narratives lead to some initial insight regarding the way in which the disciplines of religion and science show potential to
come together to motivate ecological responsibility. More extensive insight into this potential can be gained however by applying the analogy of commingling to specific models coming from religion and science. It is to these models of eschatological imagination and cosmological imagination that we now turn.

Water and Wine: The Commingling of Imagination

To continue the application of the Eucharistic analogy to our study findings in Chapters 1 and 3, we recall the practice of mixing the substances of water and wine together and the results of a new more holistic creation. In the example of the commingling of water and wine it is clear that each substance has its separate properties yet these properties do come together to create a derivative substance with its own uniqueness – a hybrid of sorts. Keeping in mind this dynamic of water and wine being commingled, we now consider the commingling between religious practice/eschatological imagination and scientific practice/cosmological imagination.

Through the presentations in Chapter 1 and 3, we have seen that each model in its own right has potential as a motivational force for ecological responsibility. At this point our task is to consider their interrelationship. How as unique forces or “substances” they mix when brought together? For example, does a dilution or purification occur? Or does their active commingling result in a hybrid motivational force? Can they really be
blended together into one? Is there resistance from some of their elements to a blending? How does their commingling mark the chalices which hold them together?

In the preliminary process of bringing together the forces of eschatological and cosmological imagination one notices that both on their own terms address the meaning of creation and the human place therein. Applying a process of commingling further reveals that associated with these two main themes are certain key elements where interrelationships with shades of convergence and confluence can be identified. Here we will consider the elements of: vocation–sacred summons, cosmic redemption-interdependence and hope-creative continuance.

Vocation- Sacred Summons

Keepers of the Promise

Eschatological imagination operates as a motivational force for Earth care through its promotion of a vision of the human vocation that resembles one of “promise keeping.”

As has been discussed at length, eschatology raises to high relief a view of creation as

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197 The work of bringing the motivational function of religion and science together towards the goal of ecological responsibility is admittedly complex. In general there are many challenges to the combining of religion and science. One constructive form of approaching such efforts is through what is referred to as “hypothetical consonance”. The term consonance suggests that there are areas of correspondence, connection, or relevance between the understandings of nature as conceived by the natural sciences and as developed through the discernments of various religious traditions. The provisional form of consonance functions as a hypothesis, thus hypothetical consonance...Hypothetical consonance begins with the assumption that science and religion are trying to make sense of a single – even if complex or multi-faceted- reality. Working from this assumption hypothetical consonance asks a question: Is it reasonable to assume that, if science and religion are making claims about the same reality, those claims at points will reinforce, critique or illuminate one another? For more details see the Introduction by: Ted Peters and Gaymon Bennett eds., Bridging Science and Religion (Minneapolis: Fortress press, 2003), 12.
the embodied manifestation of divine promise or potentiality. Through the gift of the promise of creation God offers a pathway to the fullness of life and provides both physical and spiritual sustenance for the journey. Arising from this view of creation is an understanding of the human vocation. As part of the created order, humans have been accorded by God a unique role or vocation – we are called to be the keepers of creation. That is to say, keepers of the gift of divine promise.

To be called to be the keeper’s of creation – of all that is God’s potentiality, is as we have discussed earlier, a calling which requires the willingness to listen for the promise spoken through the Word incarnate in all that has been created and to nurture this living word of God into the fullness of expression, into the fullness of existence. It is a calling for action on behalf of justice for Earth. This action participates in the compassionate care of God who wills the well-being of the whole interdependent community of life and opposes whatever mars or destroys divine glory in the universe. Damaging or even destroying Earth nips its future promise in the bud and begins to wipe out one of the magnificent bright spots of the universe. To care for Earth is to participate in and nurture the life that is creation – to nurture and sustain God’s compassionate spirit which dwells with all creation giving hope and energy. To work for justice for the whole Earth community is to give release to Christ’s liberative energy of promise - the Spirit of glory.
Hearers of the Voices

Cosmological imagination also functions as a motivational force for ecological care through the understanding of vocation which it engenders. As Berry and Swimme have shown us from the perspective of evolutionary cosmology, creation is a cosmogenesis. It is an ongoing and unfolding story of an interacting and genetically related community of beings bound together in an inseparable relationship in space and time. Each being is profoundly implicated in the existence and functioning of every other being/member of the community. This community is a dynamic, expanding reality expressing differentiation, subjectivity and communion. As an inseparable community of beings the universe/creation consists of dynamically organized and intricately balanced systems with self-creating, self-healing potentials.

Within this vision of creation the human being has derived the role of being the space in the universe’s ongoing process for hearing, reflecting on and celebrating in a special mode of conscious self-awareness all the cosmic stories which have and will unfold. This role as listener- of hearing and becoming attuned to the many voices within the created order lends itself to the further task of giving witness or expression to what is heard. As Swimme and Berry have demonstrated, to hear the stories of the universe is to realize the existence of an underlying wisdom or plan for wholeness. The stories reveal glimpses of differentiation, subjectivity and communion – principles which when respected and nurtured provide the key to well-being for the entire Earth community.
Vocation Commingled

The concept of vocation, the knowing of one’s role or place in the scheme of things is key to the motivation offered by both eschatological and cosmological imagination. In this sense then we can say there is a certain “cohesion of substances” observed in their commingling. There can also be found a form of purification of sorts in the way that the combination of the substances eliminates the danger of narrowness. One example occurs with regards to the understanding of the vocational source itself. From the perspective of eschatology, vocation comes *primarily* from being in relationship with God where God summons humankind to a form of compassion or sharing in the divine work of redeeming and nurturing the promise of creation, the potential of the future. In the case of cosmology, the call emerges *primarily* from our relationship with Earth wherein the human being understood as a derivative of Earth - of the universe’s creative process, derives her/his role or call from this same Earth. Earth also calls humankind to a compassion which listens and acts as a self witnessing presence – a presence which identifies ecological suffering and responds with justice. This call is a call to move toward bringing these two perspectives together such that the notion of vocation is purified and expanded in its meaning. Vocation becomes a call to be compassionate promise keepers through the pursuit of justice for the entire Earth community.
Cosmic Redemption

Eschatological imagination promotes an understanding of redemption as an inclusive process and therein lies its motivational power for Christian ecological responsibility. If redemption involves the entire cosmos then participating in the transformative works of Christ include care for both human and other-than-human life forms. Because of Christ’s and our own inseparability as members of creation, there can be no personal liberation from the cosmos but only together with it. As Colossians 1:16-17, 20 professes, “for in him all things in heaven and on earth were created, things visible and invisible, whether thrones or dominions or rulers or powers—all things have been created through him and for him. He himself is before all things, and in him all things hold together...For in him all the fullness of God was pleased to dwell, and through him God was pleased to reconcile to himself all things, whether on earth or in heaven.”

The awareness of cosmic redemption as inclusive of all creation orientates and motivates efforts for building up the Reign through acts of compassion, justice and liberation. Care of creation motivated by an eschatological vision for ecological integrity and justice does not take for granted or approach Earth’s suffering (the loss of diverse species and complex ecosystems) as inevitable but rather finds in this suffering a reason for compassionate care - a springboard for hope.
Cosmic Relatedness

Cosmological imagination presents the revelations of science which confirm ancient intuitions that the universe exists in radical interdependence. Such connectedness and interdependence has afforded the conditions for the complexification of consciousness of humankind. Humankind would not have appeared as a species if somehow the process towards increasing complexification had been shut down.

Life in the universe is a “communion experience.” As humans we receive and discover our identity from this experience, we discover an authentic sense of “place.” Rather than seeing our place as being beyond or separate from the created order we discover our place is “one with” creation. This authentic recognition and ownership of our communion provides important criteria for all our actions and calls forth efforts to overcome dualistic behaviors.

Access to a more complete grasp of the depth of our interdependence/communion facilitates an awareness of what is at stake when eco–destruction occurs. We do not exist outside of the well-being of systems which are being seriously compromised or destroyed altogether but rather depend on their well being for ours. Earth is so integral in the unity of its functioning that it cannot survive in fragments. Thus the integral functioning of the planet must be redeemed/preserved. A lack of reciprocity, for example, being nourished by the soil without in turn nourishing/replenishing –giving it proper rest results in soil exhaustion. Without appropriate reciprocity the Earth cannot survive. The well-being of Earth is primary. Human well-being is derivative. We are
intimately interrelated with the Earth community and as such need to work towards the integrity of this relationship.

Interdependence Commingled

Cosmological imagination motivates ecological responsibility through its vision of the radical nature of the interdependence of all members of the Earth community as confirmed through science. As has been discussed in various moments of this thesis-project the universe is a communion of subjects not a collection of objects. From this perspective each member of the Earth community is profoundly and inescapably implicated in the existence and functioning of every other member. Science helps us see the truth that human well-being cannot exist apart from the well-being of Earth’s eco-systems. In the light of this truth we are motivated to work for a universal well-being. From a religious context, eschatological imagination also offers motivation which is contingent on a vision of relational interdependence. This vision is that of cosmic redemption. As members of a *sacred communion* - the oneness with Christ of all creation, there can be no personal liberation from the cosmos but only together with it. Through the mystery of the Incarnation, Earth is the place and means for the flourishing of life. Cosmic redemption as inclusive of all creation orientates and motivates efforts for building up the reign- life in abundance through acts of compassion, justice and liberation.

Through a comingling of these approaches regarding the significance of interdependence as a motivation for care of creation we find that cosmological
imagination serves to illuminate the meaning of working for redemption - the redeeming or the realization of the full potential of each member of the Earth community to flourish. Redemption requires collaboration with Christ through works which bring about justice for all creation. Concretely, in order to accomplish justice these works will need to seek the right order of the universe itself and provide for the flourishing of differentiation, subjectivity and communion. From a perspective of the radical interdependence with creation, creation is understood as containing within itself profound wisdom and thus offers this wisdom as the remedies to injustice. As partners our role is to liberate these wisdom properties which contribute to health and wholeness. As partners we are called to nurture a bonding with Earth which goes beyond feeling sorry for Earth’s suffering or scared for ourselves to a depth of mutual relationship which respects creation’s inherent wisdom - a relationship that can be spiritually as well as physically sustaining. A relationship with Earth that can empower and heal. This is an ecological response which can foster the flourishing of a mutually enhancing relationship, fullness of life in Christ – the Glory of God, all creation fully alive.

Hope - Creative Continuance

Eschatological imagination as a motivational force for ecological care is rooted in hope in the divine promise – the full flourishing of Christ’s life in creation. Hope for a Christified cosmos is a power that motivates us to live truly in the present and also allows for the imagining of possibilities that are simply not given by the logic of the
present. Hope as a spiritual power or spirituality seeks promise even in the most unpromising conditions. It is a spirituality which prompts all believers to take seriously their role in care of creation and ecological justice, thus witnessing to the conviction that we do not regard hope as “unreal words” but rather that we take it in earnest, trusting that God will indeed one day be “all in all.”

Christ’s glorified spirit is present to all suffering and accompanies all those who tend to suffering through the work of liberation. Because eschatological sensibility is not a prisoner of outcomes, of human efforts or success, it continues to flourish even when tangible success is not within reach. Eschatological sensibility pertains to the Spirit and is motivated by the Spirit. Thus the ability to hope - to continue to care for the suffering of Earth, signals and confirms the presence of Spirit. Hope does not come to an end.

Evolutionary Creativity

Cosmological imagination takes shape around the wonders of the evolutionary process. Attention to the details of this process can awaken a sense of hope which encourage and motivate ecological responsibility at a time when despair is a common response. As we have seen, evolutionary cosmology serves as a transmitter of “empowering hope” for those working in ecological care when attention is paid to the incredible “near death” moments which have been averted throughout cosmic history.
In the history of the universe, scientists have identified several critical episodes of mass extinction and “near death” – these episodes occurred when conditions were such as to make the continuance of life impossible. Due to the unrelenting creative power of evolution however these deaths were averted. For example, the story of photosynthesis presented earlier most vividly points to the ways that hope exits in the most fragile of situations. The story of photosynthesis serves as a constant reminder of the spontaneous and unpredictable creativity of the universe. The existence of such creativity for self-continuance within the evolutionary process offers tremendous hope for contemporary ecological challenges. Awareness of how this evolutionary creativity within the universe’s being has responded to the challenges of the past provides the hope which can be a motivational force for ongoing care of the Earth community. The universe has shown itself to possess the creative powers to overcome catastrophe and we are of the universe. Like the universe we possess the knowledge and creativity to re-establish the intricate balance required to sustain life.

The ongoing transformation to greater levels of complexity of the universe’s life has been a process not without intense conflict and episodes of crisis. Recognition of the inevitability of these natural, “built-in” stages of transformation and their inherent dynamics of conflict also becomes a source of hope when one considers the current ecological conflict we are facing and the responsibility required to attend to this reality.
Hope Commingled

Cosmological imagination stimulates hope by presenting the reality of the universe’s creativity and perseverance in the face of life threatening conditions. Hope within the framework of cosmological imagination is activated by looking backwards to the past for stories of “cosmic survival.” On the other hand, eschatological imagination envisions hope as, forward looking and forward moving, revolutionizing and transforming the present. Through a comingling of these distinct sources of hope: stories of life triumphing in the past and visions of life triumphing and coming to fullness in the future the experience of hope as a motivational force is stretched and fortified. In a sense, hope becomes intergenerational. In such a comingling the hope which comes from accomplishments of our microbial ancestors in the defense of life are linked with the hope stemming from the realization of future possibilities for the flourishing of life that are simply not given by the logic of the present. Hope is enlarged through a connection with an extended stream of life flowing from the deep past into the deep future. Past and future hope comes together to energize ecological practice for the sake of life in the present.

The Fruits of Commingling: Forming an Ecological Imagination

When religion as eschatological imagination and science as cosmological imagination come together their confluence forms what we can refer to as “ecological imagination” - a dynamic combination of vocation, radical relatedness and hope. Ecological imagination can be understood as a transcendental calling, a vocation, a sacred
summoning which occurs simultaneously from God who calls us out of ourselves –
transformation into Christ, and from the Cosmos which calls us towards ourselves- Earth
aware of Earth. The inescapable reality of our communal bond and our interdependent
natures serves as a reminder that we are not alone in our vocation, we share a common
calling. The communal nature of our call means we carry the responsibility of our
vocation together –this reality being a source of hope in the potential of communal
wisdom and creativity to reach out in compassion to the entire Earth community. In the
case of the lay leaders, ecological imagination transforms consciousness and motivates
ecological responsibility. Ecological imagination allows them to experience themselves
as vessels with the potential to contain and share wines of compassion, salvation and
blessing.

Vessels of Compassion

    It is in becoming more conscious. So many people get cancer but the business
people and the government don’t look deep into this matter. We are raping the
earth and this cannot go on longer...

    Ecological imagination envisions vocation as that which expresses compassionate
care for both the suffering and sacredness of creation. A vocation of compassion listens
to the stories of how creation although sacred is suffering from abusive treatment: “the
threats of acid rain and nuclear power [and] Earth as a living manifestation of God,” and
seeks to restore Earth’s integrity through acts of justice.
Vessels of Salvation

As the idea of “stewardship” broadened and deepened to a sense of being part of Creation as a component of the whole that relied on the whole and contributed to the whole (or took away from it) in day to day living...

Eschatological imagination promotes a vision of creation’s radical relatedness. The nurturing of this interdependence in all relationships is key to healing and saves the integrity of the Earth community. Through a lived interdependence members which have been disregarded as insignificant or undervalued are brought into the community for the sake of its wholeness and well-being. “I believe that all things and all peoples are connected. A positive change in the lifestyle of one has the possibility of bringing about positive changes in others; on the other hand, continued negative actions continue negative actions.”

Vessels of Blessing

“Sometimes there are disappointments, huge disappointments that are heart breaking. So at my former school in Essex we had, with the hundreds of children, over several years, planted and cared for an acre of trees that over about 15 years had become a very nice little woodlot with a wide variety of native species, and obviously nice habitat too. I loved going out there for a walk to see how the trees were doing. Last year they spent ONE DAY taking it out to make room for the new arena parking lot. So then you say, why should I? What is the point?...Then someone calls you with a tree to plant. So you keep trying.”

Ecological imagination provides a deep experience of hope. To experience this hope is to carry a blessing which moves one beyond the realm of despair that says “efforts are in vain” or that “it is too late for ecological restoration” to a realm of unlimited potentiality. This is a deep-felt hope or desire for life’s flourishing into the future: “It is a
desire to protect and ensure continuance for yet unborn generations ... to protect, nourish and care for all future generations.”

**Part Three**

Vessels Shared: The Pouring Forth of Compassion, Salvation and Blessing

“The water flows into the chalice mingling with the wine and springs forth unto everlasting life.”

In the Jewish Passover celebration during the meal three cups are shared in a ritual of remembering. The first is the kiddush cup in memory of God calling the people of Israel into covenant. The second cup is offered after the recounting of the Passover story. The third and final cup at the end of the meal is the cup of blessing. In sharing the three cups the community recalled their journey together and joined together in an unifying act. In Christian tradition the cup is also shared as a sign of unification, wholeness and participation in the ministry of Christ. The sharing of the Eucharistic cup concretizes the oneness of the community unity and ensures the continuance of Christ’s transformative service.

The lay leaders as ecological vessels who are motivated by the force of ecological imagination demonstrate that they experience themselves as vessels pouring forth their wines of compassion, salvation and blessing. This outpouring, the sharing of their transformed consciousness is envisioned as going beyond their own individual actions of compassion to call forth the transformation and compassion of others. “As God has
created the earth and all of the wonders of the earth, we must be responsible in our use and care of the earth. Care for the earth is everyone’s ministry. We not only need to be prudent in how our life style will affect the earth, but we also need to be vocal, so people around us get the message and they take care of the gifts God has so freely given to us.”

It is an outpouring which offers blessing through a witness to sustained humility and hopefulness. “Through a consciousness of the errors that I personally make with respect to mistreating the earth... I have been working at becoming more aware of eco issues, and have included my family and my office in this exploration...Seeing the wastefulness and poor attitudes of our North American society saddens me...I know that I contribute to that – and want to do my part to control my own habits and hopefully will promote others to do the same.”

It is an outpouring which nourishes the development of holistic relationships: “...to learn how to build to minimize the ecological footprint and to work in harmony with nature for the benefit of future generations.” Such holistic relationships reflect the incarnated word of the divine Creator and the full wisdom of creation’s creative continuity in favor of life... life onto life... onto everlasting life.
“Let Creation become …

Christified
Luring Force
Reality
Emerging
Living Manifestation of Love
Differentiated
Celebration
Gift of Sustenance
Complexifying
Home
Deep Well of Potentiality
Act of Self-Bestowal
Expression of Self Disclosure
Locus of Stewardship
Blessing
Healing
Intricately Balanced
Embodiment & Symbol of Divine
Promise
Expanding
Energy-laden
Explosive
Evolutionary
Self-witnessing Consciousness
Interdependent
Community of Beings

..and so it continues to be!”

Conclusion: Towards a Renewed Praxis

When we engage in a corporate reflection on some significant question for Christian life, a discernment which intends to move through clarification and purification towards some practical, graceful action, what are we doing? We want to suggest that what we are doing is playing. The paradigm of play has been gaining increasing attention and favor in philosophy, psychology, and theology as we better recognize the role of imagination in interpretation and the play involved in conversation. Theologian John Dominic Crossan suggests that play is more than a metaphor; it is in fact, a “metaphor or metaphors,” a
comprehensive image of human living. We would suggest as well, that play is an appropriate image for practical ecclesial reflection.\textsuperscript{198}

According to Evelyn and James Whitehead, there is an ongoing search for new lively and truthful images and metaphors, which can ultimately guide the practice of theological reflection. In this fourth chapter aimed at the study of the interrelationships or interplay occurring between the three partners from tradition, experience and culture, I have joined in the efforts to practice theological reflection metaphorically using classical images in a new way- allowing for a style of interpretation which is more imagistic than conceptual.\textsuperscript{199} In this exercise I have drawn on classic Judeo-Christian symbolism and ritual: that of the sacramental chalice, the commingling of the water and wine therein, and finally the act of “pouring forth” or the sharing of the chalice for the purpose of bringing to light the interplay of the partners who have contributed their particular perspectives to the questions: Are Christians experiencing motivation for responding to the ecological conflict in connection with their faith tradition or do they have other sources of motivation? If there are other sources from the culture, what are some of these sources and how do they interact with Christian sources? Through use of this symbolism I have been able to enter into the dynamics of the partners’ interplay, looking at in what ways they are present/relevant to one another, what they offer to each other, how they become engaged with one another and something of their mutual critic and enrichment.

By way of a synthesis of the dynamics brought forward through the analogy we arrive at several conclusions which are foundational for creating a renewed Christian praxis.

\textsuperscript{199} Robert J. Schrieter makes an important point that spiritualities are concrete and express themselves more in images than in concepts...They are concerned with concepts, but mainly as to how the concepts are translated or applied to a specific problem or situation. For a good description of spirituality see: \textit{In Water and In Blood A Spirituality of Solidarity and Hope},(New York: The Crossroad Publishing Company, 1988), 130-132.
➢ The lay leaders live out of an ecological identity - a conscious identification with creation (earth, nature, planet). This conscious identification with creation is in a process of transformation towards greater expansion. The transformation of their consciousness is impacted by religion- elements of the Christian tradition but not by religion alone. Other motivational forces such as science do play a part. Both environmental science and science in the form of cosmology speaks to them.

➢ Since there is more than one source, the question arises about how do/might these sources interact. Through the case comparison of eschatological imagination and cosmological imagination it was determined that their interplay has potential for contributing to a motivational force in the form of ecological imagination within the leaders.

➢ Ecological imagination shaped by visions of sacred summons, radical relatedness and enduring hope gives the leaders the ability to see in the current ecological conflict possibilities for the flourishing of life not given by the logic of the present – that being a destructive course of behavior resulting in ecocide.

➢ Ecological imagination as a force which grounds and motivates action on behalf of the Earth community including private acts or devotions as well as efforts to facilitate the transformation of others is the key component of an ecological spirituality.²⁰⁰

➢ The process of cultivating ecological imagination as part of Christian education and spiritual formation for care of the Earth community necessarily includes

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²⁰⁰ The Whiteheads propose that the imagination is a creative resource...Imagination is being recovered as a constructive source of religious faith. Faith is the surprising ability and gift to imagine or construe life in a certain fashion. A believer is precisely a person with a certain kind of imagination. James D. Whitehead and Evelyn Eaton Whitehead, Method in Ministry: Theological Reflection and Christian Ministry, (New York: Sheed and Ward, 1995),143.
exposure to the revelations and experience drawn from the traditions of religion and science.\textsuperscript{201}

With these conclusions from our study as indicators to guide formation for ecological responsibility, we will now turn to our final chapter to look at recommendations for a renewed praxis – a practical proposal for nurturing ecological imagination.

\textsuperscript{201} According to Schreiter: For a spirituality to call itself Christian, it must resonate with the larger Christian tradition. At the same time, however, a Christian spirituality needs to be rooted in contemporary human experience. Not to be so founded will lead to an antiquarianism or romanticism that will necessarily fall short of truly responding to the mission of the Christian in the world today. Spiritualities have a dual rootage. They are rooted in both Christian tradition and contemporary experience. Robert J. Schreiter, \textit{In Water and In Blood A Spirituality of Solidarity and Hope},(New York: The Crossroad Publishing Company, 1988), 131-132.
Chapter 5
Creation and the Discovery of the Cosmic Walk

In keeping with the vision and goals of practical theology out of which this thesis-project has been born, Chapter 5 will outline a recommended model for the renewal of praxis - for a holistic approach to formation for Christian ecological responsibility, namely the promotion of the practice of the Cosmic Walk. It is my aim to offer elements of a potential workshop that may be useful to educators/leaders who are working at the “greening” of Christian identity and commitment. The workshop will present how the Cosmic Walk which is being appropriated for use throughout the world.

202 It is important to point out that this recommendation for the promotion of the Cosmic Walk is just one of many approaches which might be taken to cultivating ecological imagination. One strength of this approach is that it can be adapted as needed.
can serve as a contemporary spiritual practice geared to awakening and “growing” ecological imagination – the force which permeates and inspires care of creation. The presentation will be divided into the following parts 1) Introducing The Cosmic Walk: Context and Origin 2) Awakening Ecological Imagination 3) Appropriation of the Walk and Conclusions.

Before beginning this presentation on the Cosmic Walk and how it can be utilized by individuals seeking to deepen their ecological consciousness or by Christian educators/leaders engaged in forming the ecological responsibility of those in their communities, I would first like to recall the theory about motivational education from Chapter 2. This theory as we have heard states that the key to this education “is in understanding that you [as educator] are not motivating someone else. Instead you are simply providing a circumstance that triggers that person to be motivated.” Based on the insight from this theory I would propose then, that one main challenge for educators is to create a conducive atmosphere, a “learning space” which provides the opportunity where individuals can awaken to their own motivational energies –their own ecological imagination.²⁰³

²⁰³ Joanna Macy has done extensive work in this area of ways to encourage individuals to grow in what she calls their ecological identity. Some of her suggestions to encourage this growth which could use the cosmic walk as an ideal springboard are: to provide people the opportunity to experience and share with others their innermost responses to the present condition of the Earth community; to reframe their pain for the world as evidence of their interconnectedness in the web of life and hence of their power to take part in its healing; to provide people with concepts-from systems science, deep ecology, or spiritual traditions which illumine this power, along with exercises which reveal its play in their own lives; to provide methods by which people can experience their interdependence with, their responsibility to, and the inspiration they can draw from past and future generations, and other life-forms; to enable people to support each
In response to this challenge comes the concrete recommendation of this chapter for formation opportunities which invite individuals to participate in the practice of the Cosmic Walk as one viable path to awaken or expand the motivational force that is ecological imagination – a deep vision of vocation, interdependence and hope which leads to expressed ecological responsibility. To illustrate how in fact participation in the walk can evoke among other things, a deep sense of vocation, interdependence and hope will be the central focus of our discussion after an introduction is provided.

Part One

Introduction to the Origins of the Cosmic Walk

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other in clarifying their intention, and affirming their commitment to the healing of the world; to enable people to embrace “The Great Turning” (the shift from the industrial growth society to a life-sustaining civilization) as a challenge which they are fully capable of meeting in a variety of ways, and as a privilege in which they can take joy. For more details see: Joanna Macy and Molly Young Brown Coming Back To Life: Practices to Reconnect Our Lives, Our World, (Gabriola Island: New Society Publishers, 1998), 58.
As I begin this presentation regarding the use of the Cosmic Walk as a contemporary form of spiritual practice to awaken ecological imagination it is interesting to note that many large cities in the global community will soon be participating in what the Chicago Tribune describes as the “observance of Earth Hour.” This hour long observance or rather practice of energy reduction wherein citizens and businesses alike turn off lights, represents a growing response to the urgent situation of planetary global warming. Earth Hour, a new action campaign in its third year, is organized by the World Wild Life Fund with a goal to send strong messages to government that their leadership is needed to reduce global warming. Earth Hour organizers report:

The campaign began last year in Australia, and traveled this year from the South Pacific to Europe to North America in cadence with the setting of the sun. "What's amazing is that it's transcending political boundaries and happening in places like China, Vietnam, Papua New Guinea," said Andy Ridley, executive director of Earth Hour. "It really seems to have resonated with anybody and everybody....Lights went out at the famed Wat Arun Buddhist temple in Bangkok, Thailand; shopping and cultural centers in Manila, Philippines; several castles in Sweden and Denmark; the parliament building in Budapest, Hungary; a string of landmarks in Warsaw, Poland; and both London City Hall and Canterbury Cathedral in England. Earth Hour officials hoped 100 million people would turn off their nonessential lights and electronic goods for the hour. Electricity plants produce greenhouse gases that fuel climate change.

The initiation of observances such as Earth Hour demonstrate the growing consciousness of the urgency to create a critical mass of global citizens who together take action to reverse ecological damage of the planet by listening to the needs of Earth.

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This listening is a call to spiritual conversion and as Pope Benedict XVI stated recently it is a call to prevent our own destruction:

Today, we all see that [wo]man can destroy the foundations of his[her] existence, his earth, hence, that we can no longer simply do what we like or what seems useful and promising at the time with this earth of ours, with the reality entrusted to us. On the contrary, we must respect the inner laws of creation, of this earth, we must learn these laws and obey these laws if we wish to survive. Consequently, this obedience to the voice of the earth, of being, is more important for our future happiness than the voices of the moment, the desires of the moment. In short, this is a first criterion to learn: that being itself, our earth, speaks to us and we must listen if we want to survive and to decipher this message of the earth. ...we must be obedient to the voice of the earth...

It is in this context of action on behalf of Earth’s well-being that we situate the origins of the Cosmic Walk. The Cosmic Walk was born out of a one woman’s deep desire to enter into the sacred mystery of the universe and to learn from the voices of creation for the sake of Earth’s survival and flourishing.

Creator of the Walk

Miriam MacGillis, a Dominican sister and the co-founder of Genesis Farm, created the walk out of a deep belief that nurturing an ecological imagination is critical:

“We're at a moment where there are no guarantees as to the Earth's future. It's a question of our own critical choices. And I think what we're deeply in need of is a transforming vision....A vision that opens the future up to hope.”

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The Dominican ministry at Genesis farm has had a history of working for the well-being of the Earth community through formation in Earth literacy. As is chronicled by the sisters:

Genesis Farm was founded in 1980 by the Dominican Sisters of Caldwell, New Jersey. This 140-acre farm, with its rolling hills, woodlands, marshes, its houses and farm buildings, was bequeathed by Rupert and Mary Von Boecklin.

The decade of the 1970’s marked a growing awareness of the urgent problems that were affecting the planet worldwide. The pollution of air, water, and soils had been documented by Rachel Carson and a steady stream of other scientific and ecological writers. During the 1960’s and 1970’s the family farm crisis with its consequent effects of malnourishment and world hunger had also become evident. Racism and war had torn deep rifts in the fabric of our national life, and the connections between our local and global problems had become much clearer. Genesis Farm is a learning center for Earth studies. We focus on the connections between the health of our global commons of air, water, land and nature, and the health of our local communities and bioregions. We root ourselves in a spirituality that reverences Earth as a primary revelation of the divine.208

The ministry and educational outreach of the Farm eventually lead to work with the new sciences and the related history of the universe. According to MacGillis, the birthing of the walk came about from her desire to help others to listen well to and to understand the revelations of science concerning the unfolding universe.209

As a non-scientist and a lay person in the new cosmology, I was pretty desperate for ways to learn the major events, then simplify the story in order to help others understand. I used it for the first time in a gathering of missionaries at a program I had been invited to give at Maryknoll, NY. They had a large room, lots of candles and I brought the long cord. I wrote a simple narration and the cosmic walk was born!

After returning home, I began to refine and expand it with directions for others to recreate. I guess we have never stopped refining it and other people have taken it and continue to in: India, South Korea, Australia, New Zealand, South

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209 See Appendix B for a full explanation of how to prepare a cosmic walk.
Africa, Chile, Canada, and throughout the US. It may well be in other places.  

**Part Two**

Experiencing the Mystery of the Universe- Awakening Ecological Imagination

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210 Miriam MacGillis, personal e-mail, March 30, 2008

211 The experience of awakening ecological imagination may be likened to an experience of mysticism. Teilhard de Chardin suggested that by learning to see, by becoming alert and awake in the universe, one feels the call and the presence of the unborn God asking for, or guiding us into, the type of creative action that gives birth to the next moment in the unfolding process. This is an encounter with the absolute future calling to the present. For more details on the concept of awakening to eternity see: Susan Bridle, “The Divinization of the Cosmos - An Interview with Brian Swimme on Pierre Teilhard de Chardin,” http://www.enlightennext.org/magazine/j19/teilhard.asp (Accessed January 12, 2009).
In Our Cosmic Walking...

We Recover a meaningful story of creation.
We Discover the beauty of the Earth, given to us over a thirteen billion year span of time.

We Explore the role of human consciousness in our ongoing evolution and the evolution of the universe.
We Celebrate the Sacredness of the whole Earth community.

We Rejoice that the dream of the Creator, indeed the dream of the universe, continues to unfold, and we are part of that unfolding.\(^{212}\)

The creation of the Cosmic Walk was surely a gift of the Spirit with far reaching consequences. As MacGillis mentions, her first priority was crafting a learning process to help others connect in a personal way to the sacred revelations of the universe in which they shared, to which they belonged.

We're told that the Earth is 4.6 billion years old and the elements of the Earth and of our bodies are even older than that. We're told the Universe is 12-14 billion years old so that the stuff of which we are made is unfathomably ancient. The cells in our bodies have a direct lineage to ancient cells with a nucleus that developed around two billions years ago. This remarkable new knowledge, as much as it fascinates us, seems initially to be impersonal scientific information about a vast cosmos and to not really matter or affect our daily comings and goings. But this information actually crystallizes with a great deal more, to form a coherent story of the unfolding and differentiation of the universe from the beginning to its present condition. This story challenges and informs our most basic, often unquestioned assumptions about how things are. We need great acts of imagination, of intuitive perception and celebration to help us embrace the revelatory material being offered us.\(^{213}\)

\(^{212}\) Adapted from “The Cosmic Walk,”

\(^{213}\) Mary Coelho, “The Cosmic Walk-Background Information,”
MacGillis designed the walk as a way to allow those who participated to meditate on the history of the universe according to the revelations of the new science. Participants walk a spiral path that represents the entire story of the unfolding and gradual differentiation of the Universe and the Earth from beginning to the present.

We walk into and join the unfolding of our very being and that of the entire earth and ecosystems of which we are a part. By walking along the symbolically very long path and lightening a candle to mark a particular event we seek to identify with our history. The walk enables us to celebrate the noble creatures of Earth, both ancient and new, to identify with the earth and to grasp the depth of our independence and communion with the Earth and other beings as we participate in its unfolding out of common origins.\textsuperscript{214}

The Cosmic Walk is an integrative meditation on various levels. Participants participate bodily in the unfolding mystery of the universe by moving along the spiral and observing the stages of development over a 15 billion year expanse.\textsuperscript{215} Also, since the stages of development are written from the perspective of contemporary scientific knowledge consideration of each stage draws participants into a place where religious awe and scientific revelation meet. Meditation on each stage along the walk leads to greater intimacy and identification with the intricate details of the universe’s creative process.

\textsuperscript{214}Mary Coelho, Ibid.
\textsuperscript{215} The walk is an example of an \textit{embodied practice} or ritual which lends itself to the activation of deep emotion and social connectedness. Our sense of connection is based on multiple remembering practices, involving our bodies, emotions and thoughts. Historically, ritual physicality including, touch, taste, sound and smells has been central to heightening spiritual focus and enlivening spiritual experience. The practice of embodied rituals is especially significant to Christian practice because of the central belief of the incarnation. For more details regarding the connection between spirituality and embodied practice see: Why Bodies Matter by Meredith B. McGuire in \textit{Minding The Spirit The Study of Christian Spirituality}, eds. Elizabeth A. Dreyer and Mark S. Burrows, (Baltimore, Maryland: The John Hopkins University Press,2005),119-134.
“The universe shivers with wonder in the depths of the human.” From the tiniest fragment of matter to the grand sweep of the galactic systems, we have a new clarity through our empirical modes of knowing. We are more intimate with every particle of the universe and with the vast design of the whole. We see it and hear it and commune with it as never before. Not only in its spatial extension, but in its emergent process, we are intimate with the world about us. We experience an identity with the entire cosmic order within our own beings.  

Through an encounter with the empirical revelations of science the walk facilitates an expanded awareness of the “oneness” which defines the universe and in so doing confirms and contributes experiential meaning to the Christian revelation of oneness in the body of Christ.

Awakening Vocation, Interdependence and Hope

The Cosmic Walk gradually has become recognized for its value as an integrative spiritual practice which can awaken and nurture ecological imagination. To understand more precisely how a sense of vocation, interdependence and hope are nurtured it is helpful to examine the dynamics of the walk through the lens of key elements for contemporary spirituality.  

217 We will consider here how the walk confirms and promotes the elements of: narrative, silence, listening, compassion, interconnectedness of beings, renewal of the divine human relationship and inclusivity.

216 This quotation is by Thomas Berry who also quotes Brian Swimme in the opening line but Berry does not provide a source. *The Dream of the Earth* (San Francisco, CA: Sierra Club Book, 1988), 16.

217 The criteria referred to here was derived from a course on “Spirituality for the New Millennium” given by Father Paul LaChance, O.F.M., at Catholic Theological Union in 2008.
Engagement in the meditation of the Cosmic Walk first most requires participants to slow down and become open to the power of story. In her work *Organic Spirituality*, Nicki Verploegen Vandergrift, sites participation in and the practice of storytelling as a spiritual discipline which strengthens bonds, renews one’s sense of humility and cultivates self awareness. This practice of storytelling is a transformative process which requires reverent silence and listening. Since it is a process which often awakens and exposes vulnerabilities in self and others, a disposition of compassion is essential.

To participate in the Cosmic Walk is to attend to the magnificence of the story of the emerging universe. By giving one’s attention to this story there is a dynamic experience of the interconnectedness of one’s being to the life of the universe and to the creating force, the mystery of God active in the process. The Cosmic Walk allows participants to discover the depths of God’s creative powers and in so doing acknowledge a share in these powers as well as a call to use their own potential responsibly for the furthering of the unfolding process. Through the Cosmic Walk we awaken to our “long panoramic history as integral parts of the evolving universe and feel within us the presence and summons of this history...remembering evokes the ecological self and loosens the grip of the anthropocentrism of today’s culture...fosters an authority to act on behalf of Earth community from which we have emerged.”

Because the walk conveys a story which stands as “our universal truth” the ritual is inclusive of all persons. This inclusiveness lends itself to a deep experience of hope that

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from common origins can emerge a common resolve to work for justice and healing of our common home. Unlike certain rituals that are exclusive in nature and so create a sense of division and separateness, the Cosmic Walk lends itself to universal usage which can have a unifying effect where ecological needs are concerned.

Summary

The experience of the new story of the universe through the meditative ritual of the cosmic walk acts as a springboard for developing a holistic vision of creation in which everyone has a place and responsibility. Through the action of walking the story of the universe MacGillis hopes participants can experience more tangibly the miracle and wonder of creation’s unfolding. As well, the walk could enable those who participated to appreciate more fully the place of human consciousness in the grand unfolding. Here MacGillis reflects the belief of Thomas Berry who states, “if we continue to tell our religious stories without this new scientific understanding, then we are trivializing the religious tradition. And similarly, if the scientific community continues to tell the story of the universe only in its material terms - without this inner/psychic/spiritual dimension - then we are trivializing science. Neither one alone can awaken the vision of our children, and their hopes for the future.”

For MacGillis, participation in the walk sparks the imagination and opens up the pathway to a renewed sense of identification with the universe. She believes:

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We're beginning to realize now that the self is an expression of this deeper Earth self, and the even deeper Universe self - that there are no separations. The whole is my whole self. Psychically, the sense of unity - true unity - with the inner dimension of the universe then becomes an incredibly beautiful and enticing mystery to enter into. And in terms of our emotional life, the feelings of communion, union with the whole, or oneness are no longer just the idealistic notions of poetic insight. They are empirically founded, because we know that in our very genes we are connected to the whole...Physically, it's the same idea. When we begin to identify with the whole physical being of the planet, then we can see the necessity of enhancing and conserving the integrity of the whole natural world - because it's the functioning of this part of the planet that makes it possible for humans even to exist. Without air, water, soil, vegetation, there's no human life. I mean, the Earth literally is our body.  

The opportunity to discover human oneness with the natural world, to see the Earth as our body which sustains us and the potential for life, to comprehend the significance of our responsibility to care for “Earth - our body,” all these learnings contribute to the awakening of and nurturing of ecological imagination.

**Part Three**

Creative Appropriation

The potential for the walk to inspire ecological imagination receives ongoing confirmation from those who are making it their own. As MacGillis mentions in her history of the Cosmic Walk, its usage has spread throughout the globe: India, South Korea, Australia, New Zealand, Ireland, South Africa, Chile, Canada and the US. As a spiritual practice and educational tool, the viability of the walk shows itself in the way it is being adapted and appropriated in diverse contexts. Various creative versions of the

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walk have appeared, each used to spark ecological imagination in their own way. For those wishing to apply the walk in their own context it may be helpful to see examples of how others have done so. Here are just a few....

1) The Cosmic Walk Tapestries – South Africa

Thirty-one embroidered tapestries collectively titled, "The Cosmic Walk" tell the story of the universe from Earth's formation to galaxies emerging to life. They were produced by 18 women from the Kopanang Women's Group who live in Geluksdal, a South African community ravaged by AIDS/HIV, poverty and the effects of apartheid.  

222 A full display of the tapestries can be found at http://www.faithfulfools.org/project_kopanang.htm (Accessed March 02, 2009).
Humans + carbon dioxide (burning fossil fuels) = global warming

The Ozone Hole
A hole in the ozone layer which blocks harmful ultraviolet radiation from the Sun seems to be growing. By 2000 it was the size of the United States.

We are in the midst of another mass extinction caused by humans.

Maritime accidents have a disastrous effect on marine life.

Earth’s Glorious Biodiversity Threatened
2) Lenten Series – USA

“We’ll prepare for Lent by taking the Cosmic Walk”. This is a multi-media presentation created by the Communications Office of the Diocese of California; it is poetic, meditative, and prayerful. After the presentation, participants are invited to form small groups and discuss their connection to the earth. 223

3) Cosmic Walk Scripts in Diversity – USA and Ireland

Several more versions of scripts have been created. For those who are interested in the variety or would like to design their own it is helpful to check the versions of Larry and Jean Edwards. Also see, Ruth Rosenhek and John Seed who describe the Cosmic Walk and post two versions of the Walk, plus a description of their experiential “Timeline of Light” workshop. Diarmuid O’Murchu, from Ireland, posts a short version on his website. Cosmic Storyteller Mary Ellen Hill posts her version of the Cosmic Spiral Walk on her Storytelling website. 224

4) La Marche Cosmique – Quebec, Canada

Marie-Andrée Michaud on her site, “Voice of the Earth” has created a French version of the Cosmic Walk available also through workshops on the Walk. Marie is the co-founder

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223 This event was listed in “The Epistle.” For more details see: http://www.stpaulswc.org/images/2008FebE.pdf (Accessed March 19, 2008).
5) Outdoor Cosmic Walk – Maine, USA

In the summer of 1998, the Sisters of St. Joseph created a Cosmic Walk in the pine grove on the property of the Living Water Spiritual Center. Using 25 hand-painted slates, the history of the universe is depicted with certain events proper to the Sisters being included. Retreatants are invited to make the cosmic walk (following a printed guide) in order to contemplate the marvelous story of our universe.  

6) St. Gabriel's Eco Friendly Church - The Cosmic “Stations” - Toronto, Canada

St Gabriel’s church was built to promote a deep sense of inclusiveness, as it links the community of faith with the community of Earth. The Sun plays through skylights during worship. The Garden is not simply beautiful, but also instructive about the interrelationship with all living beings. Pedestrians who approach the church from Sheppard Avenue are greeted with "stations of our cosmic earth" situated strategically along the path through the garden.

At St. Gabriel’s Church the stations depict significant moments in the evolutionary story of the universe and the pilgrim journey of humankind within that story.227

Conclusions

The practice of the Cosmic Walk is taking hold around the globe. To many who have become familiar with the walk, it connotes the signs of the times - signs of the Spirit’s manifestation through new movements such as the environmental movement and through the practices which they inspire. As Elaine M. Wainwright, of the Earth Bible project228 notes, in her reflection “The Dawning of a New Day-The Telling of a New Story”:

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228 The basic aims of the Earth Bible project are: to develop ecojustice principles appropriate to an Earth hermeneutic for interpreting the Bible and for promoting justice and healing for Earth; to publish these interpretations as contributions to the current debate on ecology, ecoethics...
These movements are seen as movements of the life-spirit, the life-force, the divine spirit that permeates the Earth community and its unfolding. They are movements, inviting participants into processes of deep reflection and grounded praxis toward social, cultural, and cosmic transformation. These movements have only just begun; their inherent processes are in the embryonic stage of evolution.  

The Cosmic Walk is a practice involving deep reflection. It is a practice which encourages an interiorization of the “facts” of science in a way which can spark imagination, transform consciousness and encourage healing actions on behalf of Earth. Such opportunities for interiorization are primary for formation in ecological responsibility. As Brian Swimme tells it, practices of interiorization will make the difference between long term commitments or passing fads:

Even if the discovery of the birthplace of the universe is the greatest of the twentieth century or all time, it is meaningless until it comes alive within us. The discovery itself was not the result of an accidental or automatic action, but came through the sustained effort of millions of humans. So too with its meaning. It is easy for anyone to become momentarily fascinated or titillated with the wild data of the new story of the universe, but it is another thing altogether to absorb this over time into the center of one’s being. Facts by themselves are not enough; what is needed is embodiment. What is needed is a transformation from the form of the humanity of today into forms of humanity congruent with the ways of the universe. Such a re-education will take place only in those individuals who have the courage, imagination, and energy necessary for the journey.

Offering opportunities for the practice of the Cosmic Walk as spiritual formation towards ecological responsibility is one path to cultivating an ecological imagination which can envision new forms of human/Earth relationships which are not in conflict and ecotheology; to provide a responsible forum within which the suppressed voice of Earth may be heard and impulses for healing Earth may be generated. For more details see: http://ehlt.flinders.edu.au/theology/institute/earthbible/ (Accessed March 1, 2009).


with the ways of the universe but rather which express a peaceful co-existence with them. Spiritual formation which cultivates ecological imagination is ultimately a contribution to the Christian mission for peace, recalled by the gospel of John 14:27: “My peace I leave. My peace I give.” As emphasized by John Paul II when speaking for the celebration of the World Peace Day in 1990:

> When the ecological crisis is set within the broader context of the search for peace within society, we can understand better the importance of giving attention to what the earth and its atmosphere are telling us: namely, that there is an order in the universe which must be respected, and that the human person, endowed with the capability of choosing freely, has a grave responsibility to preserve this order for the well-being of future generations.231

Christian formation and education which includes the practice of the Cosmic Walk fosters consciousness of creation’s rightful order which if respected can ultimately result in the fulfillment of the prophet’s vision: Peace and well-being for the entire Earth community.

> The wolf shall dwell with the lamb, and the leopard shall lie down with the kid, and the calf and the lion and the fatling together, and a little child shall lead them. The cow and the bear shall feed; their young shall lie down together; and the lion shall eat straw like the ox. The sucking child shall play over the hole of the asp, 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. (Isaiah 11:6-9)

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The human has taken over such extensive control of the life systems of the Earth that the future will be dependent on human decision and responsibility to an extent never dreamed of in previous time.\textsuperscript{232}

In an era of unprecedented threat to the peace and well-being of the Earth community the issue of contemporary ecological responsibility is of the utmost concern. A plea for ecological responsibility and the promotion of such has gone out from many sectors including that of the Christian churches. It is a plea which leads many Christian educators to ask about resources for this promotion. Instinctively there is a turn to the faith tradition itself for such resources.

\textsuperscript{232} Brian Swimme and Thomas Berry, \textit{The Universe Story} (San Francisco: Harper, 1992), 4.
Guided by this instinct, my thesis-project has sought to explore the question: To what extent does Christian tradition provide motivation for ecological responsibility? I have looked at this question specifically through the lens of the current practice of lay ecclesial leaders as it is occurring in one Catholic diocese in Ontario, Canada. For the purpose of creating a dialogue, I then looked at the experience of tradition/eschatological imagination and culture/cosmological imagination. It was my hope that engaging in a dialogue with these three perspectives might provide information: i) to help leaders in local faith communities, especially educators expand their knowledge of current practices and sources of motivation; and ii) to offer suggestions for formation to deepen the experience of ecological responsibility from a faith perspective.

Upon gathering insights from the correlations several conclusions were reached:

- The lay ecclesial leaders live out of an ecological identity - a conscious identification with creation (earth, nature, planet). This conscious identification with creation is in a process of transformation towards greater expansion. The transformation of their consciousness is impacted by religion - elements of the Christian tradition but not by religion alone. Other motivational forces, such as science do exist. Both environmental science and science in the form of new cosmology speaks to them.

- Since there is more than one source of motivation, the question arises about how do/might these sources interact. Through the case comparison of eschatological imagination and cosmological imagination it was determined that their interaction has potential for contributing to a motivational force in the form of ecological imagination within the leaders.
Ecological Imagination shaped by visions of sacred summons, radical relatedness and enduring hope gives the leaders the ability to see in the current ecological conflict possibilities for the flourishing of life not given by the logic of the present – that being a destructive course of behavior resulting in ecocide.

Ecological imagination as a force which grounds and motivates action on behalf of the Earth community including private acts or devotions as well as efforts to facilitate the transformation of others, is the key component of an ecological spirituality.

The process of cultivating ecological imagination as part of Christian education and spiritual formation for care of the Earth community necessarily incorporates the revelations and experience drawn from the traditions of religion and science.

As a result of these insights and in keeping with the vision and goals of practical theology out of which this thesis-project originated, I then made recommendations for a renewed praxis: employing the Cosmic Walk as a spiritual practice geared to awakening and cultivating ecological imagination for the renewal and deepening of ecological responsibility.233

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233 At its root, the meaning of responsibility derives from the Latin respondere –to promise in return. The person who internalizes a sense of responsibility is a person who can be counted on to keep promises. He or she can be trusted to tell the truth, to be faithful, to stay with a relationship even when things are difficult. He or she honors commitments and is willing to share in the work of building healthy relationships. They respond to the needs of “the other” from within an interiorized sense of themselves and a generative desire to nurture life. Finally, becoming responsible implies increasing capacity to respond appropriately, in mutually enhancing and life-giving ways. Fran Ferder and John Heagle, *Tender Fires* (New York, NY: The Crossroad Publishing Company, 2002), 132-133.
Out of the diverse findings of this study some challenges for future investigation also presented themselves. As is the case with every thesis-project, some questions are answered and others are created. Perhaps one of the most salient questions arising from this research has to do with the virtual absence of explicit mention of or connection to Jesus or Christ by the lay ecclesial leaders when naming their sources of motivation.

As was pointed out in Chapter 2, the study of motivation is extremely challenging. Motivations are often unconscious and perhaps the absence of Christological references is an example of not naming what is unconscious. Or, on the other hand perhaps it is a case of not naming what is most obvious or taken for granted. Whatever the case, the lack of references is significant in the context of our study and warrants further investigation.

Although the question regarding the “why” of the lack of explicit Christological references cannot be responded to within the scope of this study the deep significance of the question does merit some reflection here. To my mind the lack of references begs the question: Are there any Christological images found in scripture which might speak with meaning to the need for ecological concerns and integrity? If so what are they?

My answer to this question is “yes,” and thus in the process of drawing this study to a close while simultaneously opening up new vistas I offer the following portrait of
Christological motifs as a way of both initiating future conversation and as inspiration for the present journey into ever deepening ecological imagination and responsibility.\textsuperscript{234}

**Jesus - True Vine**

I am the true vine and my Father is the vine grower... I am the vine, you are the branches...Just as the branch cannot bear fruit by itself unless it abides in the vine, neither can you unless you abide in me. (John 15:1-5)

In John's gospel, Jesus is shown as appropriating imagery and metaphors from creation to communicate mystical sensibilities, self awareness and the meaning of life as a community lived in the Spirit of God. Drawing on an example of the interdependence and interrelatedness of creation: the vine, the vine grower, the branches, Jesus illustrates the intimacy he shares in communion with God and his disciples whom he

\textsuperscript{234} I have chosen here to reflect on scripture as a resource. Other sources which are equally rich can be found within the Franciscan tradition. Bonaventure, for example, worked extensively with the symbol of the “tree of life.” Jesuit, Teilhard de Chardin, developed the concept of “cosmogenesis” – Christ as the incarnation of evolution which consists of a multi-faceted process of binding together matter and spirit. These Christological traditions are invaluable for motivating ecological responsibility but they have not been utilized well by the Church at large.
wants to call friends. The imagery employed in John highlights an awareness that the interconnectedness of the elements is the way of life and separation or divisive acting is the way to death. Here, through intercommunion with Jesus fruitfulness and harmony of life are realized.

The image of the Vine Grower conveys an understanding of God as Initiator of and the Potentiality for life. God is a life-giving, life-nurturing power which permeates and interacts creatively with the entire Earth community:

We begin to feel deep respect...a sense of awe before the life-giving, yet fragile interwovenness of the earth. The earth becomes sacred. ...The life-giving fecundity of the land with the water is the source of food coming from God’s bosom. The wind and the air become God’s breath. Then we cannot destroy earth since God is there. This intimate relationship between God and the cosmos is exploding seminal energy that generates and regenerates life.²³⁵

Jesus-Living Water

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Throughout scripture Jesus is often identified with the element of water with a key reference coming in his conversation with the women at the well. Here Jesus seems to self–identify as “living water.” The theme of water is enduring throughout scripture. For the people of Israel sojourning in the desert made water a prize possession –life would not be sustained without it. Water is truly a life source which speaks once again of the human-Earth connection and the interdependence and vulnerability of the relationship. Humans need water and water requires careful attention lest it become useless through contamination.

We can appreciate the potential that Jesus - Living Water has as an image to counteract and heal the human-Earth divide, through awareness of what science presents as a contemporary understanding of water’s nature.

Water is a raw material of creation. 3500 million years ago, the watery, chemical brew brought forth invisibly small creatures adept at ‘stealing’ energy, and remaking molecular structures. The emergence of life and the presence of water are intimately bonded. Most life originated in the oceans. The salt in our blood is the history of the emergence of life from the salty oceans - literally. All life is related to water. Mammals, including humans still emerge from water - the embryonic fluids. Water flows through our bodies, our memories, and every cell of every life form...Water exists in an ever moving cycle - delicately balanced - where the sun causes water to rise as vapor from the oceans, cool, and fall back on the Earth as fresh water, returning to the ocean. The entire climate system with its gravitational pull towards the Earth, is integrated within the hydrologic system. The parts are a dynamic of the whole cycle that nourishes, purifies and cleanses. Living organisms are active participants in this cycle - absorbing and filtering water molecules - and breathing water vapor. With breath-taking genius and creativity each life form relates to water in specific, and extremely diverse, ecosystems.

Water is a life sustaining element which teaches us about the interconnectedness and interdependency of human and natural systems. All life is related to water. Without water there would be no life. With this understanding of the significance of water’s role in creation, we appreciate the relevance of using water as a way to image Jesus in order to present an alternative to the human/earth dualism. The portrait of Jesus as one who is intimately bonded to creation, who sustains, nourishes and purifies relationships and who seeks balance and equilibrium continually is a portrait which serves as a reminder of the Earth community’s essential wholeness of being. Jesus - Living Water corrects a distorted dualistic view which splits humans and Earth apart in denial of their mutual vulnerability.

Jesus - Tree of Abundant Life

Unlike the images of the vine and the water, Jesus does not directly self identify with the tree image although this image is found repeatedly in his parables and instruction. However, by virtue of the manner by which he died he is forever identified with “the tree.” Jesus died hanging from a tree in faithfulness to his mission of bringing the hope of liberation to the oppressed. Jesus died on a tree and he was also the “green tree”237 whose life was cut short by those who could not tolerate his solidarity, mutuality and inclusiveness of the marginalized. Once again, to appreciate the potential that Jesus – Tree of Abundant Life has to counteract the dualism which contributes to ecological abuse it is necessary to review the nature of trees:

The tree’s roots go deep into the soil of mother earth, strengthening it against erosion yet sucking its life giving moisture. Its trunk thrusts upwards into the freedom of the sky with consummate uniqueness in its texture, shape and size, its leaves, roots, branches. The leaves transform death-dealing, poisonous carbon dioxide into life-giving oxygen. They provide shelter and shade for the life and growth of diverse insects, plants, birds, animals and humans. Its fruit gives food for the body and its flower gives food for the soul.

Trees like water are images of profound interconnectedness and interdependency. The tree in its very being manifests the ongoing life and death cycle, the cycle or creation and recreation. The power of the tree to give life, to support life, protect life and to counteract death corresponds closely with power Jesus manifested. The image of Jesus as the green tree of abundant life conveys how all of the subjects of the Earth community are able to give and receive as a result of their interdependence rather than apart from it.

Jesus-Holy Rest

Within the gospel of Luke (4: 18-21), we see Jesus associated with the Jewish

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scriptures: The Spirit of the Lord is upon me and has anointed me to bring good news to the poor, sent me to proclaim release to captives, recovery of sight to the blind, to let the oppressed go free, to proclaim the year of the Lord’s favor. Upon proclaiming the word, Jesus concludes with “Today this scripture has been fulfilled in your hearing”. Jesus here identifies himself as fulfillment of the time of favor, as the person who remembers where domination has occurred and where the need for compassion, justice, solidarity and repose are needed in the restorative process. Those who are listening know that to speak of the “year of favor” is to speak of a time of rest, of fallow land and return of goods and persons to their rightful place. Jesus identifies as God’s Sabbath-Holy Rest. He is the manifestation of the essence of jubilee where balance and harmony are restored to the land and to the human community.

Jesus as the embodiment, the fulfillment of the year of favor or Holy Rest, witnesses to a tradition much needed to save the Earth community from the long standing forces of domination. In Hebrew the root YS “to save” implies space, spaciousness or bringing to a spacious place as in Psalm 4: 1, “You gave me room when I was in distress.” The saving action of Jesus or the salvation he represents is connected to rest. Jesus as a Jew, was aware of the observance of Sabbath –not simply in the physical sense but in the way practicing Sabbath was an outward manifestation of inward knowing. To practice Sabbath honors God. If God is a God of restfulness as noted in the acts of Genesis then resting is to practice one’s godliness.

The image of Jesus as Holy Rest confronts the unceasing demands on the earth and
on human labor which often characterize domination expressed as “power over.” This image suggests the need for the arresting of behaviors of domination - the enslavement and exploitation of Earth and of the poor who are largely women and children. If Jesus is Holy Rest then to appropriate his spirituality is to realize holy rest as an act of justice in favor of all of creation, human and other-than-human which has suffered loss of life due to acts of unchecked domination.

We who have lost our sense and our senses - our touch, our smell, our vision of who we are: we who frantically force or press all things, without rest for the body or spirit, hurting our earth and injuring ourselves: we call a halt.

We want to rest. We need to rest and allow the earth to rest. We need to reflect and discover the mystery that lives in us, that is the ground of every unique expression of life, the source of the fascination that calls all things to communion. We declare a Sabbath, a space of quiet for simply being and letting be: for recovering the great, forgotten truths, for learning how to live again.239

Jesus as Holy Rest issues a challenge to a renewed sense of life lived in God. It is an invitation to rediscover our lost identity, to reawaken our ecological imagination and to reclaim the integrity of being one with Earth.

Epilogue

Deep peace of the Fruitful Vine to you;

Deep peace of the Flowing Wave to you;

Deep peace of the Greening Tree to you;

Deep peace of the Quiet Earth to you;

Deep peace of Creation’s Promise to you;

Deep peace to you!
Appendix A


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The old scientific paradigm may be called Cartesian, Newtonian, or Baconian, since its main characteristics were formulated by Descartes, Newton, and Bacon.

The old theological paradigm may be called rationalistic, manualistic, or Positive-Scholastic, since its main characteristics were formulated in theological manuals based on Scholastic proof texts.

The new paradigm may be called holistic, ecological, or systemic, but none of these adjectives characterizes it completely.

The new paradigm may be called holistic, ecumenical, or transcendental-Thomistic, but none of these adjectives characterizes it completely.

New-paradigm thinking in science includes the following five criteria — the first two refer to our view of nature, the other three to our epistemology.

New-paradigm thinking in theology includes the following five criteria — the first two refer to our view of divine revelation, the other three to our theological methodology.

1. **Shift from the Part to the Whole**

   In the old paradigm it was believed that in any complex system the dynamics of the whole could be understood from the properties of the parts.

   In the old paradigm, it was believed that the sum total of dogmas (all basically of equal importance) added up to revealed truth.
In the new paradigm, the relationship between the parts and the whole is reversed. The properties of the parts can be understood only from the dynamics of the whole. Ultimately, there are no parts at all. What we call a part is merely a pattern in an inseparable web of relationships.

In the new paradigm the relationship between the parts and the whole is reversed. The meaning of individual dogmas can be understood only from the dynamics of revelations as a whole. Ultimately revelation as a process is of one piece. Individual dogmas focus on particular moments in God’s self-manifestation in nature, history, and human experience.

2. Shift from Structure to Process

In the old paradigm it was thought that there were fundamental structures, and then there were forces and mechanisms through which these interacted, thus giving rise to processes.

In the old paradigm it was thought that there was a static set of supernatural truths which God intended to reveal to us, but the historical process by which God revealed them was seen as contingent and therefore of little importance.

In the new paradigm every structure is seen as the manifestation of an underlying process. The entire web of relationships is intrinsically dynamic.

In the new paradigm the dynamic process of salvation history is itself the great truth of God’s self-manifestation. Revelation as such is intrinsically dynamic.
3. Shift from
Objective Science to
“Epistemic Science”

In the old paradigm scientific
descriptions were believed to be
objective, i.e., independent of the
human observer and the process
of knowledge.

In the new paradigm it is
believed that epistemology — the
understanding of the process of
knowledge — is to be included
explicitly in the description of
natural phenomena.

At this point there is no con-
sensus about what the proper
epistemology is, but there is an
emerging consensus that episte-
mology will have to be an
integral part of every scientific
theory.

4. Shift from Building
to Network as Metaphor
of Knowledge

The metaphor of knowledge as
building—fundamental laws,
fundamental principles, basic
building blocks, etc.—has been
used in Western science and phi-
osophy for thousands of years.

3. Shift from Theology
as an Objective Science to
Theology as a Process
of Knowing

In the old paradigm theological
statements were assumed to be
objective, i.e., independent of the
believing person and the process
of knowledge.

The new paradigm holds that
reflection on nonconceptual ways
of knowing — intuitive, affective,
mystical — has to be included
explicitly in theological
discourse.

At this point there is no con-
sensus on the proportion in which
conceptual and nonconceptual
ways of knowing contribute to
theological discourse, but there is
an emerging consensus that non-
conceptual ways of knowing are
integral to theology.

4. Shift from Building
to Network as Metaphor
of Knowledge

The metaphor of knowledge as
building—fundamental laws,
fundamental principles, basic
building blocks, etc.—has been
used in theology for many
centuries.
During paradigm shifts it was felt that the foundations of knowledge were crumbling.

In the new paradigm this metaphor is being replaced by that of the network. As we perceive reality as a network of relationships, our descriptions, too, form an interconnected network representing the observed phenomena.

In such a network there will be neither hierarchies nor foundations.

Shifting from the building to the network also implies abandoning the idea of physics as the ideal against which all other sciences are modeled and judged, and as the main source of metaphors for scientific descriptions.

5. Shift from Truth to Approximate Descriptions

The Cartesian paradigm was based on the belief that scientific knowledge could achieve absolute and final certainty.

In the new paradigm, it is recognized that all concepts, theories,

During paradigm shifts it was felt that the foundations of doctrine were crumbling.

In the new paradigm this metaphor is being replaced by that of the network. As we perceive reality as a network of relationships, our theological statements, too, form an interconnected network of different perspectives on transcendent reality.

In such a network each perspective may yield unique and valid insights into truth.

Shifting from the building to the network also implies abandoning the idea of a monolithic system of theology as binding for all believers and as the sole source for authentic doctrine.

5. Shift in Focus from Theological Statements to Divine Mysteries

The manualistic paradigm of theology suggested by its very form as "summa" or compendium that our theological knowledge was exhaustive.

The new paradigm, by greater emphasis on mystery,
and findings are limited and approximate.

Science can never provide any complete and definitive understanding of reality.

Scientists do not deal with truth (in the sense of exact correspondence between the description and the described phenomena); they deal with limited and approximate descriptions of reality.

acknowledges the limited and approximate character of every theological statement.

Theology can never provide a complete and definitive understanding of divine mysteries.

The theologian, like every believer, finds ultimate truth not in the theological statement but in the reality to which this statement gives a certain true, but limited expression.
Appendix B

Preparing The Cosmic Walk

by Claudia McNeil & Paulita Bernuy, Still Point Retreat Center in Seattle, WA

http://www.threeeyesofuniverse.org/cosmicwalks/StillPointRetreatCenterSeat.pdf

This ritual was originally created in the mid 1980s by Sr. Miriam Therese MacGillis, of Genesis Farm in Blairstown, New Jersey, who was inspired by the "New Story" as told by Thomas Berry. It is designed to provide some sense of experience of the awesomeness of the time and space and creativity of the universe. It conveys a sense of sequence in the "story of the universe" and in the Earth's unfolding process. It also conveys a brief history of humanity, the uniqueness of each life event—of each unique expression of the cosmic story in the unfolding of the whole, of which each of us is a part.

A large portion of the text of the narrative is adapted from the "Prologue" to The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era, by Brian Swimme and Thomas Berry (NY: HarperCollins, 1992). The events that have been chosen as stations in the walk are to some degree arbitrary. There may be other events that you would choose to highlight. "Timelines" of universe and Earth history can be found in many sources, including The Universe Story, A Walk through Time by Sidney Liebes, Elisabet Sahtouris, and Brian Swimme, and What Is Life? by Lynn Margulis and Dorion Sagan.

Materials:
• A length of rope to represent the timeline of the universe. Total length is arbitrary. The measurements we use are based on a rope 130 feet long. Riverstones are placed along the rope where special events spoken of in the narrative took place.
• A tall candle, placed at the center of the spiral, represents the Flaring Forth.
• 38 riverstones mark the times when significant events in the story took place. You may wish to paint the "date" on each stone; for example: "13 billion years ago" or "13 bya" or "13,000 mya" for the central rock; "4.5 billion years ago" or "4.5 bya" or "4,500 mya" for the riverstone representing the time when the Earth formed; etc. - "bya" is an abbreviation for "billion years ago" and "mya" is an abbreviation for "million years ago."

• Optional: You may wish to print a brief description of each event on a card to be placed beside each riverstone for people to look at as they walk through the spiral; For example: "Flaring Forth" at central rock; "Earth and other planets form" at 4.5 billion years ago; "First Life" at 3.9 billion years ago; etc.
• 37 votive candles inside 37 small glass candle holders are placed with the
riverstones, to be lit one at a time as the narration is read
- A votive candle in a small glass candle holder for each participant reflect the light each life brings to the story.
- A taller, thin candle will be lit from the center candle and carried through the spiral to light each of the 37 votive candles. You may wish to construct a handguard out of a circular piece of cardboard to protect the person carrying the candle from having melted wax run onto their hand. If a center circular hole, smaller than the diameter of the candle, is cut out, and six or eight small straight cuts are made outward from the center hole, the candle can be pushed through the center hole and the cardboard circle will not slide off the candle.
- Matches

**Music** - tape or CD and tape/CD player
Use any appropriate contemplative piece. The music used by Sr. MacGillis and the Foundation for Global Community is *The Fairy Ring* by Mike Rowland.

**Instructions for laying out the rope, riverstones, and votive candles:**
- Lay the rope out in a large spiral. A 130' rope can easily create a spiral 25' in diameter. It may be easiest to fill up a given space if you start at the outside and spiral your way in to the center. If the rope will be used for more than one presentation, you may want to wrap a piece of tape around the rope at each spot where a marker will be placed (which can be found using the instructions below), to make it easier to set up.
- Each foot on a 130' rope represents 100 million years in a universe that is approximately 13 billion years old.
- Place the 13-billion-year riverstone and the tall candle in the center. Place the stone for 300,000 years later next to it. Walk out about 10 feet to place the 12-billion-year riverstone.
- Now go to the outside end of the rope and
  - walk back 6 feet to place the 600-million-year riverstone,
  - another 4 feet to place the 1-billion-year riverstone,
  - another 10 feet to place the 2-billion-year riverstone,
  - another 20 feet to place the 4-billion-year riverstone,
  - another 5 feet to place the 4.5-billion-year riverstone,
  - another 5 feet to place the 5-billion-year riverstone.
- The 4.6-b.y. riverstone is one foot toward the center from the 4.5-b.y. stone.
- The 3.9-b.y. riverstone is one foot toward the outside from the 4-b.y. stone.
- The 3.7-b.y. stone is another two feet toward the outside from the 3.9-b.y. stone.
- The remaining riverstones, representing millions, thousands, and tens of years are laid out in the last feet.* When you get to the point where it is no longer possible to place them to scale, do not be concerned - just place them close together. You may choose to group them in a cluster on either side of the rope within the last foot of the rope, or you may choose to place them in order along the last section of
the rope (possibly alternating them on either side of the rope). To the extent that you have space:
- 600 million years ago is 6 feet from the outside end;
- 510 million years ago is 5 feet from the outside end;
- 460 million years ago is 4 feet 8" from the outside end;
- 425 million years ago is 4 feet 3" from the outside end;
- 395 million years ago is 4 feet from the outside end;
- 370 million years ago is 3 feet 9" from the outside end;
- 235 million years ago is 2 feet 4" from the outside end;
- 215 million years ago is 2 feet from the outside end;
- 150 million years ago is 1 foot 6" from the outside end;
- 120 million years ago is 1 foot 3" from the outside end;
- 65 million years ago is 8" from the outside end.

• Place a votive candle (in its holder) on or beside each riverstone (the 13-billion-year stone is next to the central candle). Also, place one extra votive at the very beginning, for the walker to light to represent her/himself at the end of the narration.

*The most recent dates are, of course, getting further away each year. Here are the dates being referred to, so you can calculate the "years ago" yourself:
1917: Einstein's equations of general relativity described an expanding universe. He could not imagine that this could be so, and therefore added a term (the "cosmological constant") so that the equations would represent a static universe.
1929: Edwin Hubble made calculations based on the redshifts of galaxies outside our own that demonstrated that the universe was indeed expanding.
1958: Rachel Carson's Silent Spring was published.
1965: Arno Penzias & Robert Wilson, at the Bell Research Laboratories in New Jersey, detected background radiation from the Flaring Forth.
1969: The first humans landed and walked on the moon.

Place:
You will need a large space with room for people to sit around the spiral (preferably 30' wide or more). The larger the feel of the spiral, the more effective it is.

People:
• 1 narrator
• 1 walker - this person is the first to walk the cosmos as the narration is read, and lights the votive at each "cosmic event."
• All the participants
Procedure and Narration

Begin music.
The narrator stands off to the side and the walker waits in the center for the narration to begin. As the narrator says "... the Cosmos flared forth ..." the walker strikes a match and lights the center candle. As the walker is stooped or kneeling by the candle, she or he may choose to lift the candle above the level of her or his head and hold it there for just a moment for all to see, then put it back in place.

As the narrator reads, "If in the future ... same numinous energy ..." The walker lifts the carrying candle from central candle and then turns to the next candle. That second candle is lit from the carrying candle as the narrator reads "... the first atomic beings of hydrogen and helium to emerge. ..." Again, and at each station, the walker may briefly lift the lighted votive before moving to the next station.
The walker then stands and walks to the next station (12 b.y.a.), lights the votive as the narrator reads, "... fashion the galaxies ...", lifts the lighted votive, and continues on in this way from station to station as the narration is read.

Timeline: Narration:

*(Prologue)* We wish to know: *What came first? What was the beginning? The event before all other events? The time before all other times?* We do not know.
It may be that we cannot know. And yet we have named it: the Dream, the Mystery, the quantum vacuum, God ...

*(1. 13 bya)* Thirteen billion years ago, from that place that was no-place, from that time that was no-time, the cosmos flared forth in a silent blaze of inconceivable brilliance. All the energy that would ever exist in the entire course of time erupted from a point smaller than a grain of sand. Unimaginably vast quantities of elementary particles, light, and space-time itself, unfurled and expanded from this quantum vacuum, this unity of origination. If in the future, stars would blaze and lizards would blink in their light, these actions would be powered by the same numinous energy that burst forth at the dawn of time.

*(2. 300,000 years later)* Thick with its power, the universe billowed out in every direction as the elementary particles cooled and stabilized, enabling the first atomic beings of hydrogen and helium to emerge. These elemental atoms were new unions made possible by the Universe's powers of allurement drawing the elementary particles into bonded relationships. Neither inert, dead, nor passive, each atom roared with its own particular activities.

*(3. 12 bya)* One billion years of uninterrupted night enabled the universe to prepare itself for its next macrocosmic transfiguration. In the depths of its silence the universe shuddered with the immense creativity necessary to fashion the galaxies (including our own Milky Way galaxy), over one hundred billion galaxies in all.
These gigantic structures pinwheeled through the emptiness of space and swept up all the hydrogen and helium into self-organizing systems, and
clusters of systems, and clusters of clusters of systems. Each galaxy presented its unique form to the universe. Each brought forth billions upon billions of primal stars. The most brilliant stars rushed through their natural sequence of transformations and exploded in colossal supernovas that matched a billion stars in luminosity and spewed stellar materials throughout the galaxy. New stars formed out of the materials that had been created in the nuclear furnaces of these primal stars. The second generation stars were richer in complexity and possibility, because the primal stars had created the elemental beings of carbon, nitrogen, oxygen, and all the other hundred elements.

(4. 5 bya) Five billion years ago, the sun's mother star sacrificed itself in a supernova explosion. New elemental powers were dispersed in all directions so that the universe's adventure might deepen.

(5. 4.6 bya) Four billion six hundred million years ago, our Milky Way galaxy shocked the dispersed remnants of our sun's mother star into giving birth to ten thousand new stars, including our own, the sun. Once granted existence, the sun showed its own self-organizing abilities.

(6. 4.5 bya) Four and a half billion years ago, the sun blasted off most of the clouds of elements yet hovering about it and spun the rest into our solar system. The charged early planets boiled as molten and gaseous materials. Each created its own story through its geological evolution. One among them, the Earth, formed in a way uniquely suitable for continued creativity to unfold, due to its position in the solar system and the exact balance of its own internal dynamics.

(7. 4 bya) Over the next half a billion years, as Earth's surface quieted and cooled, an atmosphere began to form. The first rains fell upon the Earth, and the oceans emerged. Water was continually exchanged between atmosphere and ocean. Mass upheavals of the crust formed great mountain ranges. Erosion brought rich minerals to the sea. These minerals, along with those arising from volcanic action in the depths of the sea, provided a creative chemical womb, and the conditions for a new and radically different step in the universe's development.

(8. 3.9 bya) Three billion nine hundred million years ago, this vibrant and fertile womb brought forth the first living cells. These primal beings had the power to organize themselves, as did the stars and galaxies, and they had stunning new gifts as well. They could remember significant information, including the patterns necessary to knit together new living cells.

(9. 3.7 bya) Over the next 200 million years, the cells developed a new order of creativity, as they learned to capture the packets of energy hurled by the sun at the speed of light, using these glowing quanta as food, thus inventing the process of photosynthesis.

By gathering their hydrogen from the oceans, the sun-eating cells, in their vast multitudes, released oxygen into Earth's system. Over hundreds of
millenia, the oxygen slowly saturated the land, the atmosphere, and the seas. By two billion years ago, the sun-energized cells had unknowingly pushed Earth's system into a condition beyond their own capacity to endure. The vast majority of the earlier cellular communities perished as their interiors were set ablaze by oxygen. Yet out of this crisis, threatening the very viability of the living planet, arose a new and radically advanced being.

(10. 2 bya) Two billion years ago, through the merger of separate and distinct living beings, the first cells with nuclei emerged. These new, more complex beings had the ability not only to endure oxygen, but to shape its dangerous energy for their own purposes. Thus, they seethed with creativity.

(11. 1 bya) One billion years ago, life was drawn toward union as these cells learned to reproduce sexually, thus vastly increasing the creative potential for new life.

(12. 600 mya) Six hundred million years ago, single-celled creatures took the daring step of submerging themselves into a larger mind, as trillions of them gathered together and evoked the first multicellular being. Early animal life flourished on Earth, as worms and spiders, snails, clams, and insects emerged. Eyes appeared, and Earth saw herself for the first time.

(13. 510 mya) Five hundred and ten million years ago, the first fish moved through the oceans with their fleshy fins, developing backbones to protect Earth's earliest nervous systems.

(14. 460 mya) Four hundred and sixty million years ago, ocean waves left algae stranded on the shore. Unable to crawl home, they adapted to life on land, enlivening the long-barren continents in company with the insects who soon joined them.

(15. 425 mya) Four hundred and twenty-five million years ago, plants developed wood cells and learned to stand upright, first living along the shores of oceans and rivers, and then transforming themselves into trees capable of covering entire continents with life.

(16. 395 mya) Three hundred and ninety-five million years ago, insects, cooling themselves by fanning heat away from their bodies, unexpectedly took off and became the first creatures to inhabit the sky.

(17. 370 mya) Three hundred and seventy million years ago, fish followed plants and insects onto the land, and soon the continents heaved with amphibians and reptiles.

(18. 235 mya) Two hundred and thirty-five million years ago, the dinosaurs spread across Earth in all their wonderful diversity of form, size, and lifeways. Some, reaching up into the sunlit canopies, reached heights unsurpassed by any other creatures.

(19. 215 mya) Two hundred and fifteen million years ago, mammals emerged from the
reptile family, bringing emotional sensitivity into Earth's living community, a new capacity within their nervous systems for feeling the Universe. Their developed parental care for their offspring has eventuated today into our deep concern for future generations of all species.

(20. 150 mya) One hundred and fifty million years ago, birds soared out of the dinosaur family and followed the insects into the vast vault of the sky.

(21. 120 mya) One hundred and twenty million years ago, flowers appeared in an abundant array of colors and shapes, inviting the sky creatures, their partners in the ongoing creativity, into a new dance.

(22. 65 mya) Sixty-five million years ago, an astronomical collision so changed Earth's atmosphere and climates that nearly all forms of animal life had to reinvent themselves or perish. In mass extinctions, many animals followed the dinosaurs into their graves. But such destruction also opened up new possibilities, which were seized upon by the birds, mammals, and others who proliferated in the wake of the disaster.

(23. 20 mya) Twenty million years ago, in its incessant, restless creativity, the Earth's crust brought forth new mountain ranges: the Sierra Nevada, the Himalayas, the Alps.

(24. 4 mya) Four million years ago, our early ancestors stood up on two legs and emerged from their forest home to explore the African plains.

(25. 3 mya) Three million years ago, Earth entered a cycle of transformational change with the advent of the recent ice ages.

(26. 2 mya) By two million years ago, the early humans were using their hands to shape Earth's materials into tools, opening a door to infinite creative possibilities.

(27. 1.5 mya) Some half a million years later, these restless hands began to control fire, shaping the sun's energy to advance their own projects.

(28. 50,000 ya) Fifty thousand years ago, modern Homo Sapiens emerged in the unfolding life process. Through the human, the universe realized its capacity for conscious self-awareness.

(29. 35,000 ya) By 35,000 years ago, humans were migrating across the Bering land bridge, down through North and South America. As if unable to restrain any longer their astonishment at existence, humans began a new level of celebration, with music-making and festivals that shaped ceremonials around the passing of friends and seasons. Deep within the Earth, cave paintings, with their artistic depiction of the animals, expressed some of the beauty that had seized the depths of human hearts and minds.

(30. 10,000 ya) By ten thousand years ago, humans were consciously shaping the activities and patterns of nature through the domestication of plants and animals. A secure supply of food enabled populations to surge. Small villages arose
around the planet, and pottery, weaving and architecture were developed, as were calendars depicting the cosmic rhythms. Rituals and shrines to the Great Mother deity replaced devotion to totemic animals.

(31. 5,000 ya) Five thousand years ago came urban civilizations, with soaring populations. Military systems arose to protect concentrations of power and wealth.

(32. 3,500 ya) Three thousand five hundred years ago, the Classical Religions began to emerge with the teachings of Moses, followed, over the next millenium, by the teachings of Buddha, Lao Tzu, and Confucius. The Mayan civilization flourished. Still later, the lives and teachings of Jesus and then Mohammed led to the rise of Christianity and Islam.

(33. 300 ya) Three hundred years ago, Western philosopher naturalists began a threecentury plunge into matter, a heroic quest to empirically discover the nature of the cosmos, from the movement of the planets and the age of the Earth to the innermost workings of living creatures.

(34. 84 ya) Eighty-four years ago, Einstein's equations of general relativity revealed the possibility that the universe is not a static place, but rather an ongoing, developing entity, that emerged at some distant moment in time, and some day may die. Soon after, observations of distant galaxies confirmed that the universe is indeed expanding.

(35. 43 ya) Forty-three years ago, the publication of Rachel Carson's *Silent Spring* marked the beginning of the ecological movement, and the dawning recognition that humans, with our tremendously expanded populations and huge demands on the body of the Earth, are claiming so much space in Earth's living community that our relatives in all the families of life are disappearing at a rate greater than any since the asteroid collision of 65 million years ago.

(36. 36 ya) Thirty-six years ago, scientists heard echoes of the birth of the universe through instruments sensitive enough to detect the radiation that is still expanding throughout the universe from the primordial flaring forth, thirteen billion years ago.

(37. 32 ya) Thirty-two years ago, humans stood on the moon and witnessed the Earthrise, as Earth became complex enough to witness her own integral beauty as a whole for the first time.

(38. Today) Today we recover a meaningful story of the universe. Today we celebrate the sacredness of the whole Earth/human community. Today we explore the role of human consciousness in our ongoing evolution and the evolution of the universe. Today, we enjoy the beauty of the Earth, given to us over a thirteen billion year span of time. And the greatest gift is that the dream of the Earth, indeed the dream of the universe, continues to unfold, and we rejoice in being part of that unfolding.
When the candle for "today" has been lit, and the narration is concluded, the walker lights the extra votive that has been left at the end, blows out the carrying candle, and makes some personal statement of presence, such as, "I am Margaret and I am here," or "I am Jonathan and this story is my story."

The other participants are then given votive candles and invited to spiral their way into the center, light their votive from the central candle, and walk meditatively back out, placing their candle near the walker's candle at the end, and making some statement of presence if they wish to do so. To make it easier for people to light their votives from the central candle, it may be helpful to give the carrying candle to the first person who enters the spiral, so that it can be left at the center for each person to use in transferring the flame from the central candle to their votive.
Appendix C

The Green Rule
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“The Cosmic Walk.”


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