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SACRED SPACE FOR SACRED SUSTAINABILITY

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The recent United Nations Conference on Sustainable Development, held in Rio de Janeiro from June 20–22, 2012, with its ensuing document entitled *The Future We Want*, indicates that world leaders are coming to grips with the costs of development in relation to ecology. Amidst the multivocal discussions of the global summits thus far on sustainable development, there are emergent discourses that draw the world's attention to the crises of sustainability for our planetary home, the only habitat of humankind. These impending crises focus our attention on the hermeneutics of space and sustainability. In the first section, an attempt will be made to understand the relation of space to place. Space is explained not in terms of its void of meaning but as sacred and spirited, which the second section attempts to postulate. The sacredness of space, as the third section argues, has become countercultural in a world of unbridled resource exploitation. Since space is made sacred by God's indwelling omnipresence which suffuses creation, a theological insight known as sacred sustainability is explained in the fourth section. In the fifth section, a critique of the UN's concept of sustainable development in its exclusion of the transcendental dimension of culture and space is articulated in relation to sacred sustainability. This insight finds an interreligious resonance in the teachings of the other

religions as explained in section six. An interreligious conversation on sacred sustainability encourages further interdisciplinary conversation between religion, science and technology. Section seven shows how this conversation leads to greater mutual enrichment. In the last section, professionals in religion, science and technology are encouraged to engage in multilevel collaboration in order to ensure the holistic sustainability of life for humankind and the earth.

1. Relation of Space to Place

Space is an *a posteriori* concept in relation to place. The scientific view of reality in the past was that space was "absolute, infinite and empty" whereas a plurality of places "was a mere apportioning or compartmentalization of 'natural' space."[1] This perception of place is problematic on several counts. First, it presumes that there is "such an objective reality as nature apart from how we interpret it," and second, it assumes that, upon such neutral reality as nature, humankind is at liberty to impose, exploit and manipulate for self-gain. Such a view favors "an intellectual preference for the universal or the general over the local or the particular rather than what derives from experiences."[2] This preference tends to marginalize the particular stories, myths and rituals connected to historical subaltern communities.[3]

In the contemporary context, it is more appropriate to explain space as "an abstract analytical concept whereas place is always tangible, physical, specific and relational" and thus "a sense of place actually precedes and creates a sense of space."[4] Modern European philosophy

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[1]Philip Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity* (Baltimore, Maryland: The Johns Hopkins University Press, 2001), 6.

[2]Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 6.

[3]Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 6.

[4]Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 7.

of place[5] argues that "we come to know in terms of the particular knowledge of specific places before we come to know space as a whole or in the abstract," leading to the conclusion that "spaces" receive their being from locations and not from "space."[6] The interrelation of space to place allows for a discourse on "place is space" that is rich in historical meanings, memory and myths, embedded in the religio-cultural traditions of communities/villages, and which promotes continuity and ensures identity across generations. Place is space that defines personal and communal vocation and envisioned destiny. Moreover, place is space for the community to stage protest against the unbridled commoditization, "financilization" and desacralization of nature and humankind. Furthermore, place is space for recreation of sacred space so that desecrated places where persons and communities are violated are resacralized. Finally, place is space that "offers access to the sacred" and "perhaps, crucially, relates us to *life itself as sacred*."[7]

2. Space is Sacred

Contemporary explanation of space affects the way we regard space. The space in discussion is inclusive of the space within the human body or "body-space" and space as the entire earth or earth-space, even outer space as in the entire universe. Spaces are made sacred by the indwelling and presence of the sacred Spirit of God. In the indigenous perspective, the indwelling and presence of the Great

[5]According to Philip Sheldrake, "philosophers such as Martin Heidegger, Gaston Bachelard and Edward S. Casey have re-embraced the conviction that place is prior to space …. In his essay 'An Ontological Consideration of Place,' Heidegger insisted that 'place is the house of being'" to the extent that to be a person (Heidegger's *dasein*) is "literally 'to be there,' to be in a particular place." See Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 7. Also see "An Ontological Consideration of Place," in Martin Heidegger, *The Question of Being*, ET (New York: Twayne Publishers, 1958), 19.

[6]Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 6.

[7]Sheldrake, *Spaces for the Sacred: Place, Memory, and Identity*, 17.

Spirit, the ancestral spirits and nature-spirits make space sacred. By virtue of the omnipresence of God's Spirit and the Great Spirit, the human body, the earth and the universe are all sacred. The world is therefore spirited, according to the elders, sages and shamans of the indigenous peoples. By extension, the living and non-living beings inhabiting the earth-space are to be considered sacred as well.

What makes space and beings sacred is explained by Mircea Eliade[8] in terms of hierophany and singularization. Hierophany ranges from the most elementary manifestation of the sacred in some stone or tree to vision quests of the Native Americans and the visions of the Old Testament prophets. Eliade argued that hierophanies contribute to the sacralization of space and all organic and inorganic species found therein.

> But hierophanies have the peculiarity of seeking to reveal the sacred in its totality, even if the human beings in whose consciousness the sacred "shows itself" fasten upon only one aspect or one small part of it. In the most elementary hierophany *everything is declared*. The manifestation of the sacred in a stone or a tree is neither less mysterious nor less noble than its manifestation in a "god." The process of sacralizing reality is the same: the *forms* taken by the process in man's religious consciousness differ.[9]

In addition, Eliade[10] clarified that the most elementary hierophanies "are nothing but a radical ontological separation of some objects from the surrounding cosmic zone" and the objects could be some trees, stones and places "by the mere fact that it *reveals that it is sacred*, that it has been, as it were, 'chosen' as the receptacle for a manifestation of the sacred … and occupies a different, supernatural plane."

Singularization, in Eliade's exposition, is a process that sacralizes persons. It occurs "by 'election,' by 'choice,' of those who experience

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[8]Mircea Eliade, *Shamanism: Archaic Techniques of Ecstasy* (Princeton, U.S.A.: The Princeton University Press, 1964), xxii.

[9]Eliade, *Shamanism: Archaic Techniques of Ecstasy*, xxii.

[10]Eliade, *Shamanism: Archaic Techniques of Ecstasy*, 32.

the sacred with greater intensity than the rest of the community—those who, as it were, incarnate the sacred because they live it abundantly, or rather 'are lived' by the religious 'form' that has chosen them (gods, spirits, ancestors, etc.)."[11]

When a place has undergone the process of hierophanies, spatial sacralization imbues the place with a sense of sacredness and it is regarded as sacred space. Such a space is valued-added with the presence of persons singularized for ritualization of ceremonies in the sacred space. Such an explanation has become countercultural and the contestation of the perception and meaning of space becomes inevitable.

3. Sacred Space as a Counterculture

Contrary to a developmental logic that perceives space as place with resources to be exploited, the indigenous logic promotes sacred space as a counterculture wherein full human flourishing is made possible only through a sacred relationship with mother Earth and all creatures therein. This counterculture is poignantly articulated in the 2012 Kari-Oca 2 declaration that asserts the sacredness of human-earth-space. This sacredness calls for a "new relational paradigm" of *Buen Vivir* (living well) with the earth characterized by the spirit of communal and planetary survival, dignity and well-being.[12] This

[11]Eliade, *Shamanism: Archaic Techniques of Ecstasy*, 32.

[12]This is a new paradigm that was expounded and proposed in the Rio+20 Declaration of The International Conference of Indigenous Peoples on Self-Determination and Sustainable Development which declares that "cultures are new ways of being and living with nature, underpinning our values, moral and ethical choices and our actions …. We believe that all societies must foster cultures of sustainability, and that Rio+20 should highlight culture as the most fundamental dimension of sustainable development …. We call upon the world to reestablish dialogue and harmony with Mother Earth and adopt a new paradigm for civilization based on *Buen Vivir* in the spirit of survival, dignity and well-being" (http://cupuladospovos.org.br/en/2012/06/indigenous-peoples-international-declaration-on-self-determination-and-sustainable-development/ [accessed November 19, 2012]).

paradigmatic perception that the earth is sacred enabled the indigenous movements at Rio+20 Summit to argue that sustainable development and self-determination are complementary and achievable through the realization of three conditions: the states a) "recognize the traditional systems of resource management of the Indigenous Peoples," b) have "respect for full participation in decision-making and the Free, Prior and Informed Consent to policies, programs and projects," and that c) the indigenous communities secure their "land rights and territorial management and the building of vibrant community economies."[13] The complementary notions and their ensuing practices constitute the indispensable core of the indigenous cultures of sustainability. This core is the basis of an indigenous counterculture in an age driven by neo-liberal capitalism.

The emergent discourse on sacred space countervails the top-down development model that gains ascendancy and legitimacy under the aegis of global capitalism. In fact, this discourse has shored up the elitist and exploitative, even ethnocentric capitalistic logic that postulates "that nothing stands in the way of converting the rest of the earth—'the undeveloped world,' … into resources and markets."[14] The resultant ecological disasters and escalating human miseries due to the desecration of the sacred order have proven the profound irrationality of the capitalist tenets that promote "greed and venality in the name of self-interest and market competition"[15] and posit that

[13]Rio+20 International Conference of Indigenous Peoples on Self-Determination and Sustainable Development, http://www.rightsandresources.org/publication_details.php?publicationID=5196 (accessed September 9, 2013).

[14]David R. Loy, "Pave the Planet or Wear Shoes? A Buddhist Perspective on Greed and Globalizaton," in Paul Knitter & Chandra Muzaffar, eds., *Subverting Greed: Religious Perspectives on the Global Economy* (New York: Orbis Books, 2002), 72–73.

[15]Ameer Ali, "Globalization and Greed: A Muslim Perspective," in Paul Knitter & Chandra Muzaffar, eds., *Subverting Greed: Religious Perspectives on the Global Economy* (New York: Orbis Books, 2002), 142; Steven C. Hackett, *Environmental and Natural Resources Economics: Theory, Policy and the Sustainable Society* (Armonk, N.Y.: M. E. Sharpe, 1998).

"fair distribution and sustainability will eventually work themselves out."[16] Such irrationality is ultimately unmasked in the preposterous admission that "[All] for ourselves and nothing for other people, seems, in every age of the world, to have been the vile maxim of the masters of mankind."[17]

In this contestation of two contrastive logics related to space, a new discourse on sacred sustainability that is founded on sacredness of space and creation is in order.

4. Sacred Sustainability: An Emergent Discourse with a Future

4.1. An Overview

Sustainability in general bespeaks of humankind's relationship with Mother Earth and is understood particularly in relation to responsible stewardship of the earth and management of the planet's human and natural resources. Since March 20, 1987, the Brundtland Commission of the United Nations linked sustainability to the concept of sustainable development which specifies the kind of "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[18] The Earth Charter Initiative of 2000 portrays "a sustainable global society founded on respect

[16]Sallie McFague, "God's Household: Christianity, Economics, and Planetary Living," in Paul Knitter & Chandra Muzaffar, eds., *Subverting Greed: Religious Perspectives on the Global Economy* (New York: Orbis Books, 2002), 126. In the same vein, Polanyi argued that to "allow the market mechanism to be sole director of human beings and their natural environment … would result in the demolition of society," civilization, and Mother Earth altogether. See Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1957), 73.

[17]Adam Smith, *The Wealth of Nations* (London: Everyman's Library, 1981), 336; see Ali, "Globalization and Greed: A Muslim Perspective," 142.

[18]See "Sustainability," http://en.wikipedia.org/wiki/Sustainabilitylopedia (accessed October 2, 2012).

for nature, universal human rights, economic justice, and a culture of peace."[19] In 2005, the UN World Summit mentioned the "three pillars" of sustainability: a) ending extreme poverty; b) ensuring that prosperity is shared by all, including women, the youth and minorities; and c) protecting the natural environment. These three goals can be termed the economic, social and environmental pillars of sustainable development, or, more simply, the "triple bottom line" of sustainable development.[20] The "triple bottom line" is not mutually exclusive as it is mutually reinforcing.[21]

This UN definition of sustainability has by no means achieved the intended consensus. The terms "sustainability" and "sustainable development," the goals intended and the manner of achieving these goals remain open to interpretation and debate. To the environmentalists, there can be no sustainable development without the concomitant degradation of the environment, the depletion of resources, and a massive extinction of species.[22] Others argue that sustainability must have quantifiable limits and an intergenerational

[19]The Earth Charter Initiative (2000). "The Earth Charter," http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html (accessed November 21, 2012).

[20]See "Sustainable Humanity: Need of the Hour," http://www.aljazeera.com/indepth/opinion/2012/02/20122195052606548.html (accessed February 12, 2012).

[21]See "Report of the World Commission on Environment" and "Report of the World Commission on Environment and Development: Our Common Future," United Nations General Assembly (March 20, 1987). Transmitted to the General Assembly as an annex to document A/42/427—Development and International Co-operation: Environment; Our Common Future, Chapter 2: Towards Sustainable Development; Paragraph 1, "United Nations General Assembly," http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html (accessed November 21, 2012).

[22]Little wonder ecological economist Herman Daly asked, "What use is a sawmill without a forest?" See Herman Daly & John Cobb, Jr., *The Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future* (Boston: Beacon Press, 1989).

perspective for all humans and life forms. Most will agree that sustainability embraces a call to action, a task in progress, a political process aimed at the gradual realization of some envisioned goals and values for attaining a sustainable community of life on earth.

4.2. A Theological Insight

Sacred sustainability is a theological insight that emerges out of a dialogue with a few renowned indigenous shamans and a subsequent reflection on the initiatory experience of the sacredness of the mystery of life that pervades all of creation.[23] This insight elevates the civilizational wisdom inherent in the indigenous cosmology of sustainability which many renowned elders, sages and shamans around the world expound in relation to the sustainability of life on earth.

4.3. A Working Definition

This definition explains sacred sustainability in relation to the tenet that God is omnipresent. This concept postulates that the indwelling Creative Spirit pulsates through the whole of creation with the sacred power that makes all things, all life forms, all spaces and all persons sacred. This pulsation of the sacred power of the Creative Spirit sustains life in creation. In other words, the abiding presence of the Creative Spirit is the basis for the possibility of the sustainability of life in creation. God's Creative Spirit is responsible for making creation sacred (hence sacralizes creation) so that creation is suffused with the sacredness of God's sacred power. Conversely, when creation is desecrated and violated by greed it becomes devoid of this sacred power of the Creative Spirit and thus sustainability of life in creation is no longer tenable and viable.

This theological insight correlates with a faith response or an anthro-theological response to God's sacred creation. Sacred

[23]I was initiated by a renowned shaman by the name of Garing Bin Muntalan of the Murut ethnic community of Sabah, East Malaysia, from July 19–21, 2001, in a stream near his village called Bantul.

sustainability calls forth a felt-conviction that sustainability of life on earth and in God's creation is qualitatively possible for an emerging civilization with profound ***reverence*** and ***respect for*** all things, all life forms, all spaces and all persons because God's all-pervasive Creative Spirit is intuitively and mystically experienced as ***sacredly alive*** in all of creation. It is this omnipresence of God's Creative Spirit that ***sacredly sustains*** all of God's creation.

The ensuing vocation of humankind is to render to creation a "dialogic reverence" which calls on all humans to reverentially behold and respect all things, all life forms, all spaces and all persons in our planetary home due to the pulsating presence of the sacred power of the Creative Spirit. Every breath is a felt-experience and every perceivable presence of life produces a notional conviction that God's Creative power is sacralizing and sustaining all human lives and all life forms on earth. In this dialogic reverence for creation, human engagement in agriculture, pottery and weaving is as sacred as human involvement in worship, as all these apparently mundane activities are actually ways of expressing and manifesting reverence for the all-pervasive sacred mystery.[24]

Reverence for the sacredness of creation will dictate an ethical level of human consumption of the earth's resources that is sustainable of life on earth for all life forms. It will be based on a communal ethics of need-to-use rather than greed-for-profit, resembling the "*Sumaj Kawsay*,"[25] a concept of the indigenous peoples of Bolivia that resonates with the Kari-Oca 2 understanding of "living well" or living in harmony with nature and people, rather than with the current focus on producing more goods and stimulating consumption.[26] Only

[24]See Bede Griffith's *A New Vision of Reality: Western Science, Eastern Mysticism and Christian Faith*, ed. Felicity Edwards (London: HarperCollins Publishers), 279.

[25]The same concept of the Bolivian indigenous peoples is known as *sumak kawsay* in Quechua (Ecuador, Peru and Bolivia) and *Suma qamaña* in Aymara (Bolivia and Peru). Thanks to the August 16, 2010 email communication of Xavier Albo, S.J. (accessed August 16, 2010).

[26]Interestingly, the law would give nature legal rights, specifically the rights to life and regeneration, biodiversity, water, clean air, balance, and restoration.

a need-based ethos between humankind and the earth will sustain human livelihood with dignity and security, both for current and future generations. Ultimately, only a reverential need-based relationship, rooted in the sacredness of creation, ensures the sustainability of life for humankind, all other life forms, and most significantly, planet earth.

At the same time, the vocation of humankind is a dialogic reverence[27] of the sacredness of persons in interpersonal-cultural-religious relationship. In this relationship, the Other is to be regarded "as our 'neighbour,' 'a helper' (cf. Gen. 2:18–20), to be made a sharer, on par with ourselves, in the banquet of life to which all are equally invited by God."[28] The Other is "not only a human being with her or his own rights and a fundamental equality with everybody else, but becomes the image of God the Father, redeemed by the blood of Jesus Christ and placed under the permanent action of the Holy Spirit."[29] The Other is truly an "earthen vessel" (2 Cor. 4:7), suffused with God's

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Bolivia's law mandates a fundamental ecological reorientation of Bolivia's economy and society, requiring all existing and future laws to adapt to the Mother Earth law and accept the ecological limits set by nature. In practical terms, the law requires the government to a) facilitate the transition from non-renewable to renewable energy, b) develop new economic indicators that will assess the ecological impact of all economic activity, c) carry out ecological audits of all private and state companies, d) regulate and reduce greenhouse gas emission, e) develop policies of food and renewable energy sovereignty, f) research and invest resources in energy efficiency, ecological practices, and organic agriculture, and g) require all companies and individuals to be accountable for environmental contamination with a duty to restore damaged environments. For more information, kindly see "The Law of Mother Earth: Behind Bolivia's Historic Bill," *Truthout* (Friday 22 April 2011), http://www.truth-out.org (accessed November 22, 2011).

[27]For a more detailed explanation of "dialogic reverence" in the light of Catholic Social Teachings, see Jojo M. Fung, "Grievance and Groaning: A Theological Reflection on the Uprising and Tsunami," *Asian Horizon* 5:2 (June 2011): 372–380.

[28]See John Paul II, *Sollicitudo Rei Socialis,* 30.

[29]John Paul II, *Sollicitudo Rei Socialis*, 30.

omnipresence and rightly so, the temple of God's indwelling Spirit (1 Cor. 6:9). By the process of singularization, the other is the one called to ritualize at the sacred space and recreate it as sacred. The Other is truly the embodiment of a counterculture that resists all forms of violent desecration of persons. The sacredness of the Other calls for a dialogic reverence that involves a conscientious option for dialogic relationship with fellow "im-planeted" humans rather than barbarity.[30]

This germinal insight has brought forth an emergent discourse on sacred sustainability which posits that the omnipresence of God is a sacred indwelling that suffuses creation and thus sacralizes the earth as a sacred space. This emergent discourse finds the UN model on sustainable development inadequate to sustain a culture of sustainability.

5. A Critique of Sustainable Development

As a theological insight of reality, sacred sustainability finds the UN model on sustainable development wanting in a religious understanding of space and culture.[31] In the 1987 and 2012 UN documents, space is understood in an immanent and secular sense as place inhabited by citizens of the developed and developing nations, from the different socio-economic classes, located in the marginal, regional and international communities, playing their roles as major or lesser stakeholders. In the 1987 UN document, space is a world where humans promote sustainable development through the political, economic, social, production, technological, international, and

[30]Cardinal Jean-Louis Tauran, President of the Pontifical Council for Interreligious Dialogue, made the remark "Between dialogue or barbarity, we choose dialogue" on the occasion of the memorial mass in Rome on March 6, 2011 for Shahbaz Bhatti, Pakistan's Catholic minister for religious minorities, who was assassinated by Muslim extremists in Islamabad, Pakistan on March 2, 2011 (http://www.catholicnewsagency.com/news/despite-christians-being-murdered-church-chooses-dialogue-over-barbarity/ [accessed October 3, 2012]).

[31]See Chapter II "Sustainable Development," in *The Future We Want* (UN Document), http://www.un-documents.net/ocf-02.htm (accessed October 3, 2012).

administrative systems.[32] In the 2012 UN document, space refers to the global society in which sustainable developments calls for "poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development."[33] In steering the document clear of any particular religion, the UN has rendered the discursive perception of space void of any cultural and religious meanings.

Even the understanding of culture is devoid of the religiosity of the sacred. Culture has been so hollowed that it has become a godless and/or god-free matrix of life in which humans and the physical/

[32]"Towards Sustainable Development," no. 81. The UN calls for the pursuit of sustainable development that requires a) a political system that secures effective citizen participation in decision-making, b) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis, c) a social system that provides solutions for the tensions arising from disharmonious development, d) a production system that respects the obligation to preserve the ecological base for development, e) a technological system that can search continuously for new solutions, f) an international system that fosters sustainable patterns of trade and finance, and g) an administrative system that is flexible and has the capacity for self-correction. Also see the 66th Session of the UN General Assembly, held on September 11, 2012, which adopted Resolution 66/288 (UN A/RES/66/288) of the United Nations Conference on Sustainable Development, entitled *The Future We Want*, which "reaffirms the need to achieve sustainable development by promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting the integrated and sustainable management of natural resources and ecosystems that supports, inter alia, economic, social and human development while facilitating ecosystem conservation, regeneration and restoration and resilience in the face of new and emerging challenges" (no. 4), http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf (accessed December 2, 2012).

[33]"We recognize that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development" (*The Future We Want*, UN Document A/RES/66/288, no. 4, p. 2).

material reign supreme. The closest the 2012 document comes close to any understanding of religion is in the recognition in no. 58 (j) of the importance of "cultural heritage, practices and traditional knowledge, preserving and respecting non-market approaches that contribute to the eradication of poverty."[34] The same document alludes to the importance of emerging cultural values of inclusiveness and people-centeredness,[35] and conservation, regeneration, restoration and resilience in the face of new and emerging challenges.[36] Such a notion of sustainable development that "aims to promote harmony among humans and between humanity and nature" is admittedly very anthropocentric. In other words, sustainable development is driven by what Kasi[37] believes to be "an anthropocentrism that is a major concept in the field of environmental ethics and environmental philosophy, where it is often considered to be the root cause of problems created by human interaction with the environment."[38] Anthropocentricism,

[34]*The Future We Want*, no. 4. The reference is made under section III entitled "Green economy in the context of sustainable development and poverty Eradication." No. 58 affirms that the green economy policies in the context of sustainable development and poverty eradication should recognize the relevant contribution of traditional cultures and knowledge.

[35]"We emphasize that sustainable development must be inclusive and people centered, benefiting and involving all people, including youth and children. We recognize that gender equality and women's empowerment are important for sustainable development and our common future. We reaffirm our commitments to ensure women's equal rights, access and opportunities for participation and leadership in the economy, society and political decision-making" (*The Future We Want*, no. 31). Also see no. 64: "We acknowledge that involvement of all stakeholders and their partnerships, networking and experience-sharing at all levels could help countries to learn from one another in identifying appropriate sustainable development policies, including green economy policies."

[36]See footnote 32.

[37]Rayappa A. Kasi, "Anthropology Versus Cosmology: A Schism in Cosmogenesis," *Journal of Dharma* 37:2 (2012): 171.

[38]See Kasi, "Anthropology Versus Cosmology: A Schism in Cosmogenesis," 169–190.

Kasi believes, has molded humankind into *homo economicus* who is "an undersocialized loner, concerned only with maximizing his/her own preferences in order to become 'better off.'"[39]

The UN has operated on a notion of culture and nature that is dominated by scientific positivism. As a global agency with the noble aspirations of guiding humanity, it is important for the UN to integrate culture and religion with its multidisciplinary advocacy for sustainable development. In the opinion of Chandrakunnel,[40] "science and technology need to have its own other, the sacred to complement it and lead it to the realization of fullness in an absolute sacred reality."[41]

With this discourse on sacred sustainability that posits the world as a sacred space, it is urgent that culture be included as the fourth pillar to sustainability development. Only the inclusion of the "transcendent reality as the ultimate beginning and end of the cosmic processes" can lead to such a foundational "belief in the spirituality and sacredness of the Supreme Consciousness" that "can only guide the progress of humanity."[42]

6. An Interfaith Perspective

Christianity is not alone in this theological exposition of sacredness related to the beliefs of culture and how fundamental is sacredness to the sustainability of the environment and creation. The African religious traditions have always maintained the indispensable interconnection

[39]Kasi, "Anthropology Versus Cosmology: A Schism in Cosmogenesis," 176.

[40]Mathew Chandrankunnel, C.M.I., "In Support of a Sustainable Green Earth: A Paradigm Shift from *Homo Faber* towards *Homo Custos*," *Journal of Dharma* 37:2 (2012): 146.

[41]Chandrankunnel, "In Support of a Sustainable Green Earth: A Paradigm Shift from *Homo Faber* towards *Homo Custos*," 129–146.

[42]Chandrankunnel, "In Support of a Sustainable Green Earth: A Paradigm Shift from *Homo Faber* towards *Homo Custos*," 146.

between humankind and creation.[43] Life is a relational web that includes creation, ancestors and humankind. To the Tanzanians, the sacredness that sustains the Bomaswa hill has been the basis of its preservation from exploitation. The local inhabitants may have stripped the surrounding forests for wood and charcoal to build and warm their houses, but Bomaswa hill has remained a sacred space.[44] Hinduism upholds that nature is a sacred gift. Many of its tenets promote the inseparable human-divine partnership. Humankind is enjoined to exercise an ethical stewardship over creation. By virtue of the sacredness of nature, Hinduism enjoins humankind to hold the land in trust for God and the common good of humankind. Trees and plants are regarded as sacred as they are sustained by the Gods and Goddesses who dwell in them. *Ahimsa* or non-injury dictates that any desecration and exploitation is deemed as irreligious and sacrilegious.[45] Likewise in Buddhism, the interrelationship between human morality and natural environment is shaped by a cosmic sense of harmony between heaven and earth that manifests itself in a concern and compassion for all living beings. Humankind needs to live a responsible relationship with the earth and all creatures therein.[46] In Islam, respect and responsibility not only define but sustain the ethical relationship between the creator and creation. Taoism declares Tao as the way that nourishes, transforms and sustains all relationship with all things, especially the location and role of humankind in the universe.[47]

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[43]A case in point of the African Religion is the story of the Kunda people of the Mambwe District in Eastern Zambia who regard the ancestral land as sacred. When the land developers pressured them to sell their land, they refused because it was totally inconceivable for them to be disconnected from their present semi-arid and unproductive land. See Special Report on Ecology, "Healing a Broken World," *Promotio Iustitiae* 106:2 (2011): 1–68, www.sjweb.info/sjs/PJnew (accessed November 28, 2012).

[44]"Healing a Broken World," 65.

[45]"Healing a Broken World," 66.

[46]"Healing a Broken World," 66.

[47]"Healing a Broken World," 66.

Given this interfaith expose on the sacred as the basis of sustainability, it can be argued that the future of an emergent discourse on sacred sustainability is in establishing its interreligious foundations so that all the religions are involved in the culture of sustainability of creation. Moreover the future of this discourse lies in an inclusive multidisciplinary conversation, more urgently between science and religion.

7. Interdisciplinary Collaboration on Sustainability

Sacredness as the basis of sustainability provides a "dialogical grammar" for science and religion to engage each other. The Church acknowledges that the world God created "was very good" (Gen. 1:31)[48] and sacred, as creation shares in God's holiness. Science regards our planetary home as sacred and deserving of our respect and care.[49] Indeed both science and religion have acknowledged the sacredness of creation as a gift of God to humankind and thus should be regarded with loving reverence.

Science and technology have done irreparable damage to humankind and the earth which amounts to what the Appeal for Joint Commitment in Science and Religion described as "crimes against

[48]See no. 451 in *Compendium of the Social Doctrine of the Church* (Vatican, Rome: Liberia Editrice Vaticana, 2005), 255.

[49]An open letter entitled "Preserving and Cherishing the Earth" from a group of prominent scientists to the religious community, declares that "As scientists, many of us have had profound experiences of awe and reverence before the universe. We understand that what is regarded as sacred is more likely to be treated with care and respect. Our planetary home should be so regarded. Efforts to safeguard and cherish the environment need to be infused with a vision of the sacred. At the same time, a much wider and deeper understanding of science and technology is needed. If we do not understand the problem, it is unlikely we will be able to fix it. Thus, there is a vital role for both religion and science" (http://www.earthrenewal.org/Open_letter_to_the_religious_.htm [accessed December 29, 2012]).

Creation."[50] The same letter acknowledged that "a much wider and deeper understanding of science and technology is needed" and that "there is a vital role for both religion and science" in a manner that there will be "a spirit of common cause and joint action to help preserve the Earth."[51] Yet this group of scientists agreed that "the Earth is the birthplace of our species and, as far as we know, our only home."[52]

These scientists' declaration that the earth is "our only home" complements the theological sense of "gift" in the Church's teaching that "nature is a gift of the Creator,"[53] inferring that the earth is "God's gift to all people."[54] Both science and theology value the earth as a common "treasure" for humankind. The scientists in the same open letter (1990) admitted that "a much wider and deeper understanding of science and technology is needed" through "radical changes not only

[50]In 1990, a group of well known scientists like Carl Sagan, Hans Bethe, Freeman Dyson, and Stephen Jay Gould issued an open letter to the religious community in which they admitted that "We are now threatened by self-inflicted, swiftly moving environmental alterations about whose long-term biological and ecological consequences we are still painfully ignorant: depletion of the protective ozone layer; a global warming unprecedented in the last 150 millennia; the obliteration of an acre of forest every second; the rapid-fire extinction of species; and the prospect of a global nuclear war which would put at risk most of the population of the Earth. There may well be other such dangers of which we are still unaware. Individually and cumulatively, they represent a trap being set for the human species, a trap we are setting for ourselves" ("Preserving and Cherishing the Earth"). See "Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science & Religion," http://earthrenewal.org/Open_letter_to_the_religious_.htm (accessed October 4, 2012).

[51]"Preserving and Cherishing the Earth."

[52]"Preserving and Cherishing the Earth."

[53]See Benedict XVI's World Day of Peace Message 2012, 6 (http://www.vatican.va/holy_father/benedict_xvi/messages/peace/documents/hf_ben-xvi_mes_20091208_xliii-world-day-peace_en.html [accessed December 29, 2012]).

[54]Benedict XVI's encyclical, *Caritas In Veritate*, 48 (http://www.vatican.va/holy_father/benedict_xvi/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate_en.html [accessed December 30, 2012]).

in public policy, but also in individual behavior."[55] The same concern is echoed in *Caritas In Veritate*[56] in which Benedict XVI appeals for "professional competence and moral consistency" and in his Message for the World Day of Peace[57] which calls for "a lifestyle marked by sobriety and solidarity."

Such complementarity of views serves as a common premise for further dialogue and collaboration between science, technology and religion. Pope John Paul II (1988) issued a clarion call to both parties: "you are called to learn from one another, to renew the context in which science is done and to nourish the inculturation which vital theology demands. Each of you has everything to gain from such an interaction, and the human community which we both serve has a right to demand it from us."[58] This clarion call has enabled science and religion to make further progress in interdisciplinary enrichment and critique.

Recent science has generated the chaos theory[59] and the quantum theory to understand the origin and structure of the universe. Henry Novello[60] has demonstrated how chaos theory uses deterministic equations to "show that very small fluctuations in initial conditions can produce very large and unpredictable changes in macromolecular

[55]See footnote 52.

[56]Benedict XVI, *Caritas In Veritate*, 71.

[57]Benedict XVI, Message for the World Day of Peace 2010, http://www.vatican.va/holy_father/benedict_xvi/messages/peace/documents/hf_ben-xvi_mes_20091208_xliii-world-day-peace_en.html (accessed October 4, 2010), 5.

[58]Benedict XVI, *Caritas In Veritate*, 48.

[59]James Gleick, *Chaos: Making a New Science* (London: Heinemann, 1988), 3; James P. Crutchfield, J. Doyne Farmer, Norman H. Packard, & Robert S. Shaw, "Chaos," in *Chaos and Complexity: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications, 1995), 35–48.

[60]Henry L. Novello, "God's Action of Furthering Nature in the Resurrection of Jesus Christ," *Pacifica* 25 (2012): 230.

states." Quantum theory explains that[61] "there are millions of such small changes, some of which will produce unpredictable effects on a large scale."[62] Theology inculturates this emerging scientific knowledge and articulates a bottom-up approach in which "God acts at a lower level of complexity in nature to influence the processes and properties at a higher level" and conversely in a top-down approach whence "God acts at a higher level of complexity so as to influence processes at lower levels."[63]

The interdisciplinary dialogue needs to encourage both parties to engage in multilevel collaboration aimed at furthering the sacred sustainability of life in creation.

8. Sustainability through Multilevel Collaboration

Creation that is sustained by God's sacred presence encourages professional in religion, science and technology to realize that there is a need to respond to the God who is already active at all levels of society and thus collaborate with the most noble life-giving impulses in the different cultures and religions.

This theological horizon orientates professional in science and technology to attain the greater moral good for all humanity and the earth. The Special Report on Ecology (2011), in no. 24 maintains

[61]Keith Ward, *The Big Questions in Science and Religion* (West Conshohocken, PA: Templeton Foundation Press, 2008), 96–97.

[62]See Novello, "God's Action of Furthering Nature in the Resurrection of Jesus Christ," 217–238; see also Ward, *The Big Questions in Science and Religion*. For chaos theory, kindly see Gleick, *Chaos: Making a New Science*; Crutchfield, et. al., "Chaos," and Ilya Prigogine & Isabella Stengers, *Order Out of Chaos: Man's New Dialogue with Nature* (London: Heinemann, 1984); on the relation of quantum theory to God, see Thomas F. Tracy, "Particular Providence and the God of the Gaps," in *Chaos and Complexity: Scientific Perspectives on Divine Action* (Vatican City State: Vatican Observatory Publications, 1995).

[63]Novello, "God's Action of Furthering Nature in the Resurrection of Jesus Christ," 231.

that scientific and technological knowledge directed to "areas such as clean energy production, energy efficient architectural design, water reclamation, microbial degradation of pollutants, and sustainable agriculture hold promise for climate change mitigation."[64] In no. 26, the same document mentioned that the strategies of integrated management of resources calls for further scientific research on the properties and potential use of resources. This involves the "innovation of more efficient processes of photosynthesis, phytochemical and biochemical transformation, of new technologies of materials, and new energy sources."[65]

At the same time, science and technology "have opened up the possibility of organizing a sustainable economic process" that is "grounded in the generation of a more complex, dynamic, and flexible technical structure, integrated with the global ecological process of production and reproduction of natural resources."[66] This emerging economic process "offers more versatile options for sustainability" in that "it allows for better space distribution of productive resources and more equitable access to social wealth" in contrast with "those that emerged from the valuation of resources by means of market signs and sectored economic planning."[67]

Second, the discourse on sacred sustainability encourages science to seek collaboration at all levels of society. In no. 25, the Special Report on Ecology[68] urges professional to be "willing and able to learn from those working on the ground, the peasants and laborers." At the same time, this collaboration "needs supportive external institutions" ranging from "local groups and institutions capable of managing

[64]"Healing a Broken World," 24.

[65]"Healing a Broken World," 24.

[66]"Healing a Broken World," 24.

[67]"Healing a Broken World," 24.

[68]"Healing a Broken World," 25.

resources effectively" to finally "policies that support these features."[69] This multilevel collaboration leads professional to "revaluate, revive and improve an ensemble of traditional techniques and to develop new practical and scientific expertise."[70]

Third, professional scientists and theologians are encouraged to be contextual and interreligious in their endeavor. This means that learning has to be inter-contextual rather than confined to the more familiar context of one's research and teaching. Such inter-contextual engagement will enable professional to go beyond the use of a human reason[71] that is context-specific, imbued with a Cartesian,[72] secularist and "this-worldly" reductionist conception of nature and culture.[73] In contexts that value the divine, human reason realizes an innate capacity for self-transcendence and experiences its infinite openness to a sense of awe and mystery. The professional who dialogue with mystics of the other religions will be helped to arrive at a genuine mystical experience of the divine emerging from the very heart of human existence. This sense of self-transcendence connects professional to a religious sense of the divine "beyond" all the religions and yet "within" the world and creation. In theological terms, the experience of transcendence opens up the heart

[69]"Healing a Broken World," 26.

[70]"Healing a Broken World," 26.

[71]Kurian Perumpallikunnel, "Beyond Bounds of Faith and Secularism: Brave Horizons of Mysticism," *Third Millennium* 15 (2012): 115.

[72]Orla O' Reilly Hazra argues that the "Cartesian coed is based on a sense of radical separation from aspects of self, each other and earth … to the extent that the earth is no longer sacred" since "Cartesian culture is secular" ("Awakening the Cartesian Dreamer: Universal Values in Solidarity with an Evolutionary Universe," *Journal of Dharma* 37:2 [2012]: 147–168, here at 153).

[73]Perumpallikunnel defines secularism as "a system of moral and social action firmly established on human reason, shaped exclusively by 'this-worldly' considerations, irrespective of religious beliefs" and warns that "whenever and wherever secularism had supremacy it turned out to be autocratic, irrational and blind" (Perumpallikunnel, "Beyond Bounds of Faith and Secularism: Brave Horizons of Mysticism," 108–124, here at 115).

to be touched by a God "who comes to mind" rather than "from the mind" and who ultimately "is in consciousness and awakens the desire for God."[74] In this manner human beings are "slowly and gradually led to a path that commences with an unwavering responsibility to a neighbour and culminates in a faith to a Wholly Other."[75]

Conclusion

The crises of sustainability have spurred the UN to generate a model of development that is sustainable. In the multivocal discussion on sustainable development, Indigenous Peoples alerted humankind to a cultural notion of space as sacred and creation as spirited. The specific contribution of a dialogue between Christian faith and indigenous religiosity is a theological insight of sacred sustainability that finds resonances in the sense of the sacredness of creation as found in the tenets of other world religions, and more particularly in the cosmology of sustainability at the core of indigenous cultures. Creation that is suffused with God's omnipresence is a sacred space wherein the inclusion and practice of sacred sustainability ensures the intergenerational survival of humankind and our treasured planetary home. The emergent discourse on the sacred sustainability of creation impinges on science and technology to integrate transcendence within their discourse as much as it enjoins the UN to incorporate culture as the fourth pillar of sustainable development. Only by beholding human-earth space as sacred and realizing how the omnipresence of God sustains life in the human-earth space will humankind be able to understand and promote sacred sustainability of all forms of life and ensure a sustainable future for all humankind and the earth.

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[74]Rayan C. Urbano, "A-Dieu: Approaching the Divine," in Part II: Religious Languages and Transcendence, *Budhi—A Journal of Ideas and Cultures* 33:1, 2 & 3 (2009): 320, 321.

[75]Urbano, "A-Dieu: Approaching the Divine," 309–322.