

Taking Nature Seriously: Nature mysticism, environmental advocacy and the Franciscan tradition

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WTU Symposium – Franciscans and Creation: What is Our Responsibility?

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Locus enim est principium generationis rerum
(For place is the origin of things)
Roger Bacon, *Opus Maior*

What is our responsibility toward creation? This is an excellent and timely question for us to address as Franciscans. But before we do so in earnest, I would like us to take a step back and ask: what is our responsibility as participants in the Franciscan Intellectual Tradition (FIT) project toward the broader mission of the Franciscan Movement? The strategic plan for the FIT¹ has provided an inspiring vision of how we might make ourselves available to the Franciscan Family and the Church as public intellectuals. The plan suggests ways we might prepare men and women in the classroom, but also undertake popular education projects to enhance our fidelity to the Franciscan charism. We have a long history as religious educators providing service in a variety of settings, but this vision we are working to implement has the capacity to enhance our collective fidelity as a Franciscan Movement. This is very exciting for me.

And for many others as well! Quite a few friars have expressed to me enthusiasm for the work we are doing, and not just friars who have specialized academic training. This project has transformative potential because it has the ability to enhance the lived vocational experience of the lives of our brothers and sisters. We are constituting ourselves more clearly than ever as a community of scholars with a shared Franciscan identity. We are describing with greater specificity and relevance the Franciscan world vision. We are articulating this vision to the broader membership of the Franciscan Family. This is all very, very good cooperative action. One additional crucial linkage for us to now articulate is with our Franciscan socio-political project, and I would like to make my professional contribution in this context.

The work of Franciscans International, the Justice, Peace, and Integrity of Creation offices of the OFMs, and similar outreach by other institutions, are the chief institutional expressions of our Franciscan socio-political project. This is some of the most important work we do as a Franciscan Movement. In addition to the tasks already identified in the strategic plan for the FIT project, I think we would do well to put our

¹ ESC-OFM, *The Franciscan Intellectual Tradition Project* (Pulaski, Wisconsin: 2001).

intellectual resources at the service of the hundreds and thousands of Franciscan men and women engaged in this work around the globe.² This tripartite project of promoting peace, justice and the integrity of creation expresses the values our Father Francis brought to his encounter with the world. Francis' conversion was profoundly religious, but from this core experience, he imagined more peaceful, respectful, and reverential relations between God, humans, and the natural world.

Our Franciscan spiritual tradition intersects with the most compelling socio-ethical global needs in the three arenas. Since the eighth centenary of Francis' birth, the Franciscan Family has made substantial progress in its justice and peace work, both in terms of consciencizing our communities and engaging with broader efforts to promote humanistic values.³ Our work for social justice is founded, in part, on Francis meeting the leper, for this encounter stimulated his own conversion, and his efforts to promote compassion and radical inclusion in his preaching and ministry. Our work for peace is firmly rooted in Francis' peacemaking, within the Italian *communes*, between them, and between Christians and Muslims. Our work on behalf of Creation? This is definitely the weakest of these three components. Justice and peace are strongly related to each other, but concern for creation seems to straddle several dimensions of Franciscan life: our socio-political advocacy, our contemplative practice, and our tenuous tradition of studying the natural sciences. From what I can tell, there have been a few writings on the unraveling of our biosphere, and a very few individual members of our movement who have undertaken environmental advocacy initiatives, but when compared to the other two components of our project, care for Creation doesn't rank.⁴ Why is this? This deficiency is especially surprising given that our Pope named Francis the patron saint of ecology. I have reflected at length on our shortcomings in this area since becoming a friar, and I welcome this opportunity to continue this reflection with you.

² The strategic plan wisely articulated the FIT project with the Franciscan educational needs of the developing world, and this is very good.

³ Several Franciscans with advanced academic training have made critical and substantive contributions to JPIC work. Examples include: Louie Vitale OFM and his work promoting Nonviolence with the Pace e Bene Center; David Couturier OFM Cap and his work with Franciscans International: David B. Couturier, OFM Cap, *Franciscans International and a Cry of the Poor in an Age of Terrorism* (New York: An Address to the North American Capuchin Conference, 2002).; Michael Crosby's work on economics: Michael Crosby, *Spirituality of the Beatitudes : Matthew's Challenge for First World Christians* (Maryknoll, N.Y.: Orbis Books, 1981); Michael Crosby, *House of Disciples : Church, Economics, and Justice in Matthew* (Maryknoll, N.Y.: Orbis Books, 1988).

⁴ Margaret Pirkl OSF's work, *One Earth, One World, One Heart* is one of the few contributions in this area. Gabriele Uhlein OSF has also contributed to this area: Gabriele Uhlein, OSF, *Meditations with Hildegard of Bingen* (Santa Fe: Bear & Co., 1984); Gabriele Uhlein, OSF, "Creation: A Franciscan Conversion Conversation," *In Solitude and Dialogue: Contemporary Franciscans Theologize*, ed. Anthony Carrozzo, OFM (St. Bonaventure: The Franciscan Institute, 2000). Should we be surprised that this is an area where Franciscan women are making a greater contribution than men? Dawn Nothwehr, OSF's recent contribution: *Franciscan Theology of the Environment: An Introductory Reader*. Quincy: Franciscan Press, 2003, is a very helpful theological contribution, but Franciscans have to spell out a more practical vision of our vision of nature-society relations.

I suggest the reasons for the Franciscan Family's paucity of interest in creation are complex, subtle, interconnected, and largely assumed. But as Franciscan academics, this is just the kind of problem we like to take on, right? Simple problems aren't very interesting. Our global environmental crises spring from problematic assumptions about and systematic disregard for nature. Confused ideas about nature afflict our Franciscan brothers and sisters just as they do most people in the advanced capitalist societies. We have skills and resources that can help our brothers and sisters perceive and understand relationships presently not well recognized. I believe that we as a family are seriously hampered by a restricted understanding of nature, and a lack of imagination in the spiritual and scientific realm.

I commend Sr. Ilia Delio OSF for organizing the third FIT symposium on this particular topic. Anthropogenic disturbance of global climatic system and collapsing global biological diversity pose fundamental challenges to the very future of human society, along with global patterns of violence and economic inequity. These planetary ecological meta-trends threaten the life support system of our planet: soils, water, air, nutrients, energy flows are all being disrupted.⁵ This erosion of our planetary life support systems may be irreversible, yet before full "scientific proof" can be amassed, it will be too late to prevent a series of humanitarian and ecological catastrophes. The risks they pose are most definitely not arrayed equitably; they imperil the life of the poor disproportionately. In a world where 40% of the people live on \$2 per day, and social development is stalling or backsliding, environmental disruption looms ominously.

This is a very appropriate time for us to reflect on the nature-oriented theological resources in our tradition, the problematic qualities of nature-society dualisms that we have unconsciously acquired, what kinds of scientific communities we might be able to engage as allies, and on formulating action plans for carrying out a Franciscan socio-political project that can enhance the protection of our natural world. So, as a crude response to the question posed in the conference title, I suggest our responsibility is to:

1. pray with nature
2. learn from nature
3. act on behalf of nature.

But those activities pre-suppose that we take nature seriously – take it seriously as an agent of religious conversion, and as an object of our interest and compassion.⁶ I hope

⁵ Peter M. Vitousek, Harold A. Mooney, Jane Lubchenco and Jerry M. Melillo, "Human Domination of Earth's Ecosystems," *Science* 277 (1997).

⁶ The very word "nature" is, however, one of the most complex in the English language, as Raymond Williams has observed Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (London: Flamingo, 1983). He distinguishes three specific but closely related meanings of the word:

- a. The ontologically essential or necessary quality of something.
- b. The inherent force which directs either the world or human beings or both. In so far as these natural laws, in the sense of (b), determine the quality and nature, in the sense of (a), of something, there is some overlap between nature (a) and (b).
- c. The external, material world itself (e.g., the material world).

that my contribution here will help us strengthen and configure our intellectual resources to develop and articulate a way for us to take nature seriously: especially its material, dynamic and relational qualities. For this paper I will reflect on nature's agency in the Franciscan vocation, report from critical social science disciplines on revolutions in thinking about nature-society relations that could be of great assistance to our work, identify some public interest ecological scientists whose work we could articulate with our Franciscan Intellectual Tradition, and suggest some action items to further our socio-political project to take nature and her needs seriously.

How nature prompted my Franciscan vocation, and why that is awkward

Not being raised Catholic, I first learned about Francis of Assisi through Franco Zeffirelli's "Brother Sun, Sister Moon" when I was 18 years old. In the late 1970s, many social values were being renegotiated, at least in California, and this film provoked me to much reflection. Francis' approach to discipleship captivated me, so I attended it three times in one weekend. Six months later, I left the University of California--Davis and joined an ecumenical lay community of about 40 men and women that moved to rural Oregon to establish a discipleship training program. Manual labor in orchards and forests were an integral part of this program. Every fall we would send out teams to harvest apples and pears in the Pacific Northwest, and winter and spring would find us in the mountains reforesting clear cuts. Apple picking and tree planting are wonderfully sensate experiences of nature. We lived very simply and worked very hard, and this strengthened our community and our spiritual lives. We lived in common, shared all our income, and lived very close to nature. I do not mean to romanticize these experiences, however, because it was very demanding physically, and we lived on the brink of material want.

In September and October our crews lived in migrant worker housing adjacent to the orchards. We would walk out the door and into the agricultural work environment. We felt good about work in a somewhat natural setting that was providing food for people. Fruit harvesting is a joyfully simple and social task, even though it was hard work. Our work planting trees was quite a bit more physically demanding because of the conditions. We would typically work in the rain and slush on hillsides that were steeper than I had thought possible, and carry 30+ pounds of seedlings strapped to our hips through all manner of brush, logs, brambles and rockslides. Tree planting is considered one of the most demanding forms of manual labor, equal to oil derrick work. When we began this reforestation work, it too seemed like right livelihood. We were putting baby trees back in the forest - what could be more virtuous?

A little bit of ecological learning can be subversive, however. After several years in the woods, I began to investigate the impacts of the kinds of clear cutting that our reforestation crew was following. Large transnational corporations were systematically

In this essay I am limiting my discussion of nature to meaning (c). I am indebted to David Demeritt for his analysis of this term in David Demeritt, "Being Constructive About Nature," *Social Nature: Theory, Practice, and Politics*, eds. Noel Castree and Bruce Braun (London: Routledge, 2001).

removing biologically diverse forest ecosystems and replacing them with monoculture tree farms. And we were participants in that system. The information about the environmental impacts of industrial forestry was beginning to make its way into the media. Whatever virtues we were practicing by our tree planting, this was a part of a bigger system that was seriously harming the health of these forests.

At the same time, I began to realize what a tremendous gift it was to have spent that much time intimately engaged with the forest. I loved the diversity, relief, beauty and vitality of the Pacific Northwest forests. When an injury forced me out of the woods and into urban employment, I came to appreciate just how deeply my five seasons in the wilderness had impacted me. I had spent days upon days under the open sky repeatedly plunging my hands deep into mother Earth. I had spent weeks at a time scrambling around the cliff-like Oregon hillsides in the ever-present winter rain. Springtime we would ascend with the snowline to the high Cascades, and onto the Rockies where we could plant into the summer. I was witness to the full cycle of seasons in the Pacific West, and this changed me as a person. At a corporeal level I began to realize prayer was not a recitation of words or intention but a “living in relationship with.” Spending most work days in wilderness silence re-oriented my prayer away from a recitation of my desires and toward a stance of affection. I was one creature among a whole watershed of others, many of which we humans were not treating well. I learned about relationships of mutual support and assistance both within my community and between humans and nature, and convictions about the ethics of care took root in my life. The landscapes of such beauty worked their way into my soul. God’s love found expression in the beauty of those landscapes. Prayer in nature became an integral part of my life. Nature was no longer the abstraction I had studied in school, but rather material and dynamic, and I felt related to it ways that I could not fully explain.

I relate this story to two ends. First, nature has been an agent of my conversion. I would not have seriously considered a Franciscan religious vocation had I not had such a season of initiation into contemplation. I probably would have been a Francis-inspired advocate for justice and environmental protection, but that is only one dimension of Franciscan religious life. Second, my relationship with Creation was made concrete by this period of manual work in nature. Environmental problems are not abstract to me. I still have a relationship with Western forests and orchards. Environmental threats to their viability are very real to me because those places have been important to my life and spiritual development. When I read our Franciscan sources about people-nature interactions, I bring the lenses of my own experiences.

Three years after my tree planting career ended, as the lay community I had been a part of was coming to a close, and after having engaged in the corporal works of mercy with Franciscan men and women for two years, I decided the Franciscan Friars were probably the best place for me to continue to pursue my social and spiritual dreams. I had done a little bit of social justice advocacy, and I was impressed by the JPIC work of John Quigley in St. John the Baptist Province. I returned home to California to pursue my Franciscan dream. I was interested in environmental education

and advocacy, but I didn't really know how that would be possible. I worked with a most remarkable vocation director with an MS in horticulture and who had just finished an MA thesis on a Liberation Theology critique of Amazon forest destruction.⁷ Naturally, he was very encouraging of my interests, but he was not in a position to promise anything. I completed a BA in Geography and Environmental Studies prior to application, and during my candidacy year I interned at an environmental organization.

In my initial years of formation, I received various reactions to my desire to integrate spiritual and environmental concerns. A few were dismissive, some were uninterested. A lot responded with curious looks.⁸ Some acknowledged the value of such an integration, and a few actively supported and encouraged me. One wise senior friar who had lived and served in the Pacific Northwest for virtually all of his religious life suggested that I might really be able to help the Franciscans with this kind of work. I was dubious, but heartened by his words. Seven years into religious life my provincial encouraged me to pursue advanced studies, and four years ago I began a doctoral program in Environmental Studies with an emphasis on agroecology.

Looking back, based on what I know now about the orientation, formation, and propagation of religious life in the US over the past century, I should not have been so taken aback by the scant support I received for this "novel" professional interest. Maybe I shouldn't have been scandalized. But from my reading of Franciscan books, I knew that Francis was a nature lover. It disturbed and discouraged me that I found so little "loving of nature" in the fraternity I was joining. This was all the more striking given the social context of the Pacific West. I have related my interest in this integration of nature and spirit to countless lay Catholic peers and the responses have been: "that's great!", "a natural fit for Franciscans and environmentalism", "are there more like you?", which can be translated: "are you a normal Franciscan?" Regardless of how one feels about Lynn White's influential essay, *The Historic Roots of our Environmental Crisis*,⁹

⁷ James T. Lockman, "Reflections on the Exploitation of the Amazon in Light of Liberation Theology," *Covenant for a New Creation: Ethics, Religion, and Public Policy*, eds. Carol S. Robb and Carl J. Casebolt (Maryknoll NY: Orbis Press, 1991).

James T. Lockman, *The Exploitation of the Amazon in Light of Liberation Theology* (Berkeley: GTU Dissertation, 1988).

⁸ A few friars have expressed to me their discomfort with Matthew Fox's approach to Creation Spirituality, which they have perceived to be an excessive critique of mainstream Catholic theology. This discomfort appears to be much more prevalent among Franciscan religious men than women due to the form of their theological training. The work of Matthew Fox and Brian Swimme has been extremely helpful for calling Christian theology to emphasize the creation-centered elements in our tradition, however their approach does not appear to have much traction with many who have undergone graduate theological training for ministry. For a critique of Creation Spirituality and how Franciscans need to emphasize an alternative, incarnational approach, see: Keith Warner, OFM, "Out of the Birdbath: Following the Patron Saint of Ecology," *The Cord* 48.2 (1998).

⁹ I am hesitant to refer to the work of Lynn White, "The Historical Roots of Our Ecological Crisis," *Science* 155.March 10 (1967). It is so filled with errors, he wove facts and prejudices together so seamlessly, and his arguments have become so hackneyed. It set off a flurry of theological counter-arguments which is good, but in our efforts to engage the Franciscan Family with the issues of nature and the environment, we would do better to start elsewhere. See: J. Baird Callicott, "Genesis and John Muir," *Covenant for a New*

we as Franciscan Family need to acknowledge a significant popular expectation that we as Franciscans would devote a portion of our attention and resources to address our environmental crises. In the American West this is an expectation of us held by Catholic, Protestant and secular people alike. Perhaps this is a regional phenomenon. Perhaps I am a strange creature from Ecotopia.¹⁰ If this were some “West Coast cultural thing” we could ignore it. But this isn’t, and we can’t. These issues are not going away, they are getting worse and increasingly intractable. Environmental values may be regionally variable, but we ignore this expectation to our peril. We are witnessing a broad scale cultural shift. Are we going to participate in it?

A few years ago Franklin Fong OFM and I did a series of presentations around the Pacific states about over-consumption and Francis’ love of nature. I was surprised and very pleased at the enthusiasm people brought to these workshops and the depth of their understanding of environmental problems. We spent some time talking about Francis’ nature mysticism and participants responded enthusiastically. People responded particularly passionately to the opportunity to integrate their love of nature with their Christian faith. I sensed that we offered a rare space in which they could do that integrative work. This feedback provoked me to re-dedicate myself to this kind of work, and explains part of the reason why I returned to graduate studies. I realized I was participating in one expression of American cultural evolution, but to contribute substantively I was going to have to do more work of integration in my person. That’s fine for me, but I don’t want my professional work to be just about me, but rather about us as a Franciscan movement.

There is a split between popular expectations about Franciscans valuing nature and my lived reality in Franciscan religious life. What is our responsibility to listen to these expectations? Even if we don’t want to be environmentalists? Especially if we don’t? What are the potential consequences of ignoring this to the integrity of our Franciscan mission in the world? Or, to be blunt, why do other groups seem to be more excited about Francis as the patron saint of ecology than the Franciscans?

On Francis as a nature mystic, and why that term might not matter

Before I began academic studies in theology, I had always assumed that Francis was a nature mystic. He loved nature, and encountered God in nature, and that was good enough for me. I soon discovered that mysticism is a specific type of spirituality, and surrounded by a good bit of academic controversy. Nature mysticism in particular is very difficult to define satisfactorily. Scholars differ in their fundamental assumptions about individuals and the kind of interior psychological and spiritual experience they undergo, their perception of nature, and their understanding of the relationship between nature and God. With these kinds of academic disagreements, it may not be possible to assert that Francis was a nature mystic, but I think this question is important

Creation: Ethics, Religion and Social Policy, eds. Carol S. Robb and Carl J. Casebolt (Maryknoll, NY: Orbis Press, 1991).

¹⁰ Ernest Callenbach, *Ecotopia Emerging* (Berkeley: Banyan Tree Books, 1981).

for us as Franciscan academics to investigate, keeping these divergent assumptions in mind.

The first problem we confront is that Francis never claimed for himself any kind of mystical experience in nature. The *Canticle of the Creatures* is the only notable text attributed to Francis himself that speaks about nature, and even though one can easily imagine it as the fruit of many days in prayer in nature, he makes no claims about any special experiences. Another problem is sorting out the differences between animals and elements in Francis' experience. The *Canticle* gives more emphasis to elements, but his hagiographers wrote in more detail about animal encounters.

When we turn to the secondary sources and the animal stories,¹¹ we face a number of problems in their interpretation. Roger Sorrell in *St. Francis of Assisi and Nature*¹² is still the best work on this subject. He offers a provocative re-interpretation of Francis preaching to the birds. He asserts that the import of this encounter is the effect it had on the saint, basing this on Thomas of Celano's theological reflection at the end of the story.

...After the birds had listened so reverently to the word of God, he began to accuse himself of negligence because he had not preached to them before. From that day on, he carefully exhorted all birds, all animals, all reptiles, and also insensible creatures, to love the Creator, because daily, invoking the name of the Savior, he observed their obedience in his own experience (1C 58).¹³

Sorrell argues that this experience served to integrate Francis' views of nature with his understanding of himself as preacher, and that it resulted in a "new outlook" on creation. The most important implication of the story is not that he preached to birds but the impact that birds had on him. This is a form of "reverse mission," in which the preacher is in fact the person most evangelized. Does Sorrell's argument stand up to scrutiny? What other evidence do we have that inter-species encounters impacted Francis?

Bill Short¹⁴ offers us guidelines for studying hagiographic method in saints' animal stories. This work investigated the long tradition of authors deploying animal stories to communicate the holiness of the saint in question. By the eighth century, a series of conventions had coalesced around the interactions of saints and animals, drawn from various Scriptural and spiritual traditions. Animals recognized and

¹¹ Space limitations require me to limit my analysis of secondary sources to Thomas of Celano's first two works, but other important texts include LMj 8:6-10, and 2MP 113 and 118.

¹² Roger D. Sorrell, *St. Francis of Assisi and Nature* (New York: Oxford University Press, 1988).

¹³ All sources are taken from Regis J. Armstrong, Wayne Hellman and William J. Short, eds., *Francis of Assisi: Early Documents, Volumes 1-3* (Hyde Park, NY: New City Press, 1999-2001).

¹⁴ William J. Short, "Hagiographic Method in Reading Franciscan Sources: Stories of Francis and Creatures in Thomas of Celano's *First Life* (58-61)," *Greyfriars Review* 4.3 (1990).

William J. Short, *Saints in the World of Nature : The Animal Story as Spiritual Parable in Medieval Hagiography (900-1200)* (Rome: Pontificia Universitas Gregoriana, Facultas Theologiae, Institutum Spiritualitatis, 1983).

responded to the presence of Christ in the saints; they revere the saints; paradise is restored in the presence of the saints; the obedience of the saint to God evokes the obedience of animals to the saint; peace between animals and humans is renewed; in short, cosmic order is restored¹⁵. These were the standard motifs deployed by hagiographers to communicate their message: the saint is powerful and holy.

The majority of the elements of animal stories in Thomas of Celano's writings are in fact drawn from this tradition. That Thomas used stories of interactions with animals to make his point is much less important to my interests than examining any novel dimensions. How does Thomas describe the impact of these interactions on Francis?

Table 1. Francis' encounters with animals from 1C and 2C that describe an impact on him.

| Animal | Encounter |
|---------------|--|
| Birds | 1C 58: Francis preaches to birds, but "realized" his responsibility to preach to all creatures 1C 59: Francis' preaching cannot be heard so silences the swallows, and he addresses them "sister" 2C 47: Francis rejoices over feeding robins and their brood, and curses their one greedy offspring 2C 167: Francis holds bird, lifts up eyes, remains in prayer, and returns to himself 2C 168: Francis is grateful to falcon for not waking him for early vigils when he is ill 2C 170: Francis tests a pheasant's devotion to him |
| Rabbit | 1C 60: Francis is moved to tenderness by trapped rabbit, asking the rabbit why it was caught |
| Fish | 1C 61: Francis generally throws back caught fish, and when one fish was given to him to hold, he blesses it, and calls it "brother" |
| Worms | 1C 80: Francis has a "warm love" for them and picks them up from road |
| Bees | 1C 80: extols them, fed them wine |
| Cricket | 2C 171: Francis sends obedient cricket away so as to avoid any boasting on his part |
| Lamb and sow | 2C 111: Francis is moved to compassion by death of innocent lamb, and curses merciless sow who killed it |

Table 1 lists only the animal stories in Thomas' *Life of St. Francis* and *The remembrance of the desire of a soul* that describe an impact on Francis. Several themes not common to hagiographic conventions emerge. Francis relates to animals as brother and sister (1C 59 and 61). Francis learns or practices humility as a result of interacting with animals (1C 58 and 2C 171). Francis reaches out to "feed" animals, with food or the word of God (1C 58, 59 and 80). Francis experiences love and compassion as a result of interactions (1C 60 and 80; 2C 47, 167, and 111). Notably absent from stories about this saint's interactions with animals are demonstrations of power or commands to creatures to act obediently (other than asking the birds to listen to his sermon).

¹⁵ Short, "Hagiographic Method in Reading Franciscan Sources: Stories of Francis and Creatures in Thomas of Celano's *First Life* (58-61)".

That Francis' heart was moved by animals is perhaps the most interesting theme because it is common in Thomas' corpus and novel to the hagiographic literature. 2C 167 is of particular import because it relates a particularly power encounter.

...A fisherman offered him a little water-bird so he might rejoice in the Lord over it. The blessed Father received it gladly, and with open hands, gently invited it to fly away freely. But the bird did not want to leave: instead it settled down in his hands as in a nest, and the saint, his eyes lifted up, remained in prayer. Returning to himself, as if after a long stay in another place, he sweetly told the little bird to return to its original freedom...(1C 167)

This story is unlike others related by Thomas for the kind and degree of impact the animal has on Francis. It describes Francis going to "another place" in prayer while having direct, sensate contact with an animal. Thomas offers no conclusion about the theological import of this story. The way this story is related by Thomas suggests it was not fully comprehensible to him. It may be one of the "dangerous memories" of his early companions that Thomas related in *The remembrance of the desire of a soul* that did not sit comfortably with him. The unusual nature of this story argues for its authenticity.

These stories related how animal encounters moved Francis in his heart, gave him an experience of warm love, provoked him to compassion, and led him to take some action to protect their well being. Taken as a whole, these appear to support Sorrell's assertion of the novelty of Francis' relationship with nature: that he related to nature in a spiritual way was not new, but the impact that these interactions had on him does appear to be novel. Adopting a conservative scholarly approach to nature mysticism precludes an affirmation of Francis being a nature mystic because we do not have evidence from Francis himself about such an experience. If one uses popular criteria for being a nature mystic, such as an experience of God in nature, he certainly qualifies. If the term "nature mystic" troubles some scholars, we can set it aside for academic reasons. The spiritual experiences of Francis in nature – in these animal stories, his encounters with the elements of sun, fire and water, and the amount of time he spent in wilderness hermitages -- do communicate the importance of this dimension of his religious life. Nature was alive in Francis' life. It had agency.

Francis' encounters with nature were not the only elements of his life that were novel to Christian spirituality. Ewert Cousins¹⁶ asserts that Francis' spiritual experiences were novel in their devotional, Christocentric character. He describes this approach as "mysticism of the historic event" in which one "recalls a significant event in the past, enters into its drama and draws from it spiritual energy, eventually moving beyond the event towards union with God" (p 166). Is it too much to claim that elements of nature played a role analogous to historical events in Francis' prayer life?

¹⁶ Ewert Cousins, "Francis of Assisi: Christian Mysticism at the Crossroads," *Mysticism and Religious Traditions*, ed. Steven T. Katz (New York: Oxford, 1983).

And should we consider this innovative? A brief review of the religious imagination of the twelfth century may offer some helpful context.

The Medieval European people perceived and made sense of reality in ways that are quite foreign to contemporary American culture.¹⁷ Compared to the Medieval world, “objective reality” as we understand it is much more restricted due to the Enlightenment, rationalism, and scientific and psychological revolutions. From a popular perspective, theirs was an enchanted world, one that they implicitly understood to be much more variegated than what one could apprehend through sense perception. They were much more comfortable with the ordinary somehow correlating with the spiritual and superstitious than are we. They understood visions, dreams, encounters with spirits, religious experiences at shrines, talismans, and unusual events as reinforcing their beliefs in a spiritual world that could not be fully perceived with senses. Among the learned clerics, Augustinian Platonism had been the dominant theological understanding of the material world, with its distinction between the perfect, infinite, ultimate reality and the sense-perceptible world that can be seen and observed.

As Chenu has demonstrated so admirably, the Twelfth century was a time of increasing intellectual sophistication.¹⁸ Scholasticism was forming, and at the same time, scholars were confronting nature in a new way. A poetic or exclusively symbolic understanding of nature was giving way to proto-scientific investigations and writing. Scholarly interests expanded from what the Scriptures and the ancients said about nature to observation of the biology of living organisms. Nature began to be described as a system, as a whole, with an ordered unity. Chenu links this “re-discovery of nature” with the widespread use of the term *universitas*. Interest in the natural world moved beyond bestiaries to the systematic observation of nature investigating the causes of things. The primacy of miraculous causes gave ground to scholarly preference for natural explanations. Medieval society was waking up to nature’s material reality, its utility for the emerging market economy, and theological dimensions of nature were a part of this interest.

I believe Francis’ relationship with nature can best be understood in this context: nature is an “enchanted” world full of living creatures, interacting in a family-like system.¹⁹ In this world nature definitely has agency, and played an active role in Francis’ process of conversion. His relationships with nature and with lepers were equally material and dynamic, and his process of religious conversion was profoundly relational: he was moved to compassion (*pietas*) by contact with both. To me, someone without formal philosophical training, the Neoplatonic view of nature seems very far

¹⁷ Carolly Erickson, *The Medieval Vision* (New York: Oxford, 1976).

¹⁸ Marie Dominique Chenu, *Man, Nature, and Society in the Twelfth Century* (Chicago: University of Chicago Press, 1968).

¹⁹ For Francis, nature was “Creation,” but for ourselves, we cannot escape the influence the sciences have had on our societies and their worldviews. I have intentionally avoided the use of the term “Creation” in this essay in part because I want to focus the attention of the Franciscan movement more onto the material qualities of nature, and reframe our theological understanding of nature in that light.

from Francis' approach. Neoplatonism tends to abstract nature away from concrete reality and toward universal essence. The divergence between these views only heighten my unease with our contemporary discussions about cosmologies because in my understanding of Francis' imagination is that he did not think in terms of abstractions. Nature was not a philosophical theological concern for him. Nature consisted of a living community that he experienced through his senses, and he relished these experiences, encountering God in nature just as he did in lepers. It is no surprise that the notion of *haecceitas* springs forth from a spiritual tradition initiated by a founder who relished encounter and relationship with "the other," human or otherwise. Nature is experienced here by the whole person – it is not an idea.

Yet I hear and read Neoplatonic assumptions about nature repeatedly when Franciscans and other speak about Francis. Organisms and elements in nature are not things, not specific entities unto themselves. In this approach, they are not *haec*, they are symbols indicating a "more real" reality in some other abstract place. Nature is a storehouse of theological symbols, in this view. These assumptions imply we somehow need to look through or beyond nature to encounter an abstract God. I would argue that these Neoplatonic assumptions about nature set the stage for a devolution to sentimentalism and romanticism which now dominate the views of nature held by some members of the Franciscan family, and many others in the faith community. I would also suggest that that these assumptions when fused to the Cartesian revolution reinforce utilitarian views of nature and, when fueled by capitalism, underlie views of nature that facilitate the unraveling of the biosphere. Neoplatonic assumptions blind us to perceiving nature as material, dynamic, and relational.

Revolutionary thinking about nature-society relations

Within and across multiple social science disciplines and the humanities, scholars are undertaking a vigorous re-examination of the relationship between society and nature.²⁰ This has been stimulated by increasing concern over the depth and breadth of environmental crises, and has been focused on this question: what epistemological assumptions have fostered and are now accelerating the ecologically destructive behavior of human society? These scholars argue that social theory has for too long ignored the materiality and agency of nature, and in the few examples of acknowledging nature's agency, it has been conceived of within a binary framework, which again reproduces a flat, passive understanding of nature. In this section I hope to bring in a "report from the fields" of other disciplines, especially environmental history, geography and science and technology studies, in the hopes that it can stimulate some new thinking about our Franciscan tradition and "the matter of nature."²¹

Historians have analyzed earlier work by their colleagues and now recognize that their earlier colleagues had assumed nature to be dead, passive, or simply a

²⁰ Noel Castree and Bruce Braun, *Social Nature: Theory, Practice, and Politics* (London: Routledge, 2001).
Bruce Braun and Noel Castree., *Remaking Reality : Nature at the Millenium* (Routledge: London, 1998).

²¹ Margaret FitzSimmons, "The Matter of Nature," *Antipode* 21.2 (1989).

backdrop for “real” history, which consisted only of human activities. Prior to the 1970s, history had frequently been written as if human beings were not really a part of a living planet, or that the human experience was without natural constraints, or that climate, disease, soil quality, biogeographic variation, and the invasion of species was without impact on human society.²² In other words, environmental historians discovered nature to be material, relational, and dynamic. This recognition gave rise to the field of environmental history, which brings an ecological perspective to the study of human societies through time.²³

It should be no surprise that it was a study of the most dramatic collapse of an ecosystem in US history that marks the emergence of this approach, Donald Worster’s *Dust Bowl: The Southern Plains in the 1930s*.²⁴ Two other early works examined New England, William Cronon’s *Changes in the Land*, and Carolyn Merchant’s *Ecological Revolutions*.²⁵ Both of these works are significant for they broaden the historian’s perspective beyond an exclusive interest in political and intellectual history to include nature’s role in human affairs. Nature is no longer conceptualized as empty wilderness but rather a peopled landscape; nature is no longer primordial but rather present and shaping the development of human society.²⁶

This research thrust has required historians to deploy additional methodological tools, and become versed in the ecological sciences. As a result they have become more reflexive and critical about nature-society relations.

Ecological thinking constructs nature as an active partner. The “nature” that science claims to represent is active, unstable, and constantly changing. As parts of the whole, humans have the power to alter the networks in which they are embedded. Nature as active partner acquiesces to human interventions through resilience and adaptation or “resists” human actions through mutation or evolution. Nonhuman nature is an actor; human and nonhuman interactions constitute the drama. Viewed as a social construction, nature as it was conceptualized in each social epoch (Indian, colonial, and capitalist) is not some ultimate truth that was gradually discovered through the scientific processes of observation, experiment and mathematics. Rather, it was a relative subtle shift in the structure human representations of “reality.” Ecological revolutions, I argue,

²² Donald Worster, “Transformations of the Earth: Toward an Agroecological Perspective in History,” *The Journal of American History* 76 (1990). This is one of several important contributions to this issue on environmental history in this special issue. Also see Donald Worster, *The Ends of the Earth : Perspectives on Modern Environmental History* (New York: Cambridge University, 1988).

²³ This group of environmental historians also discovered that they needed new methods to engage these questions, and I suggest that in the same way we Franciscans do too.

²⁴ Donald Worster, *Dust Bowl: The Southern Plains in the 1930s* (New York: Oxford University Press, 1979).

²⁵ William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983).; Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill: The University of North Carolina Press, 1989).

²⁶ Margaret FitzSimmons and David Goodman, “Incorporating Nature: Environmental Narratives and the Reproduction of Food,” *Remaking Reality: Nature at the Millenium*, eds. Bruce Braun and Noel Castree (New York: Routledge, 1998).

are processes through which different societies change their relationship with nature.²⁷

In *The Death of Nature* Merchant²⁸ investigated the process by which European society shifted its views of nature from the “enchanted world”²⁹ to nature as mechanical, utilitarian, and dead. Environmental problems are not new, she argues, but their scale, degree, and risk have grown tremendously. Merchant casts light on the problematic assumptions of the mechanical revolution and the Enlightenment, and leads her fellow historians in critical self-reflection on their field, its purpose, and prospects. Environmental historians are now fleshing out the neglected side of the nature-society dualism. This ecological approach to history explicitly assumes that societies arise within nature, that nature offers multiple trajectories for the development of societies, and that nature expresses agency by intervening in human affairs in varied ways. It explicitly rejects assumptions that nature is a passive object to be acted upon.³⁰ As FitzSimmons and Goodman suggest, nature should be understood as both internal *and* autonomous, as causal *and* contextual, and always consequential.³¹ Similar critical self-analysis has taken place throughout the social sciences, but especially in environmental sociology, feminist anthropology, and geography.³²

Among these scholars a deep discontent with dualisms has arisen. Geographers such as Jacque Emel and Jennifer Wolch argue that dualistic thinking hobbles our ability to perceive agency outside the human realm.³³ I follow Val Plumwood’s definition of dualism: “the construction of a devalued and sharply demarcated sphere of otherness.”³⁴ Feminist scholarship in particular has shed light on the way dualistic thinking relies on exclusions, denials of interdependency, arguments for instrumentalism, objectification, and stereotyping. Dualisms are useful at an elementary level of learning; comparisons can be a helpful pedagogical tool. But dualistic thinking about nature-society relations reproduces the simplistic and flawed thinking that fetters our relationship with nature. Dualisms create false compartmentalization, inherently privilege one party at the expense of the other, re-enforce man (sic) as unitary subject, and chain us to the juggernaut of instrumentalism.³⁵ Dualistic thinking underlies the anthropocentric thinking that has emerged since the Enlightenment. Dualisms relegate

²⁷ Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England*.

²⁸ Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution* (San Francisco: Harper Collins, 1980).

²⁹ Erickson, *The Medieval Vision*.

³⁰ Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution*.

³¹ FitzSimmons and Goodman, "Incorporating Nature: Environmental Narratives and the Reproduction of Food,".

³² For an excellent and accessible introduction, see John Barry, *Environment and Social Theory* (New York: Routledge, 1999).

³³ Jacque Emel and Jennifer Wolch, *Animal Geographies: Place, Politics and Identity in the Nature-Culture Borderlands* (London: Verso, 1998).

³⁴ Val Plumwood, *Feminism and the Mastery of Nature* (New York: Routledge, 1993).

³⁵ Emel and Wolch, *Animal Geographies: Place, Politics and Identity in the Nature-Culture Borderlands*.

nature to a passive landscape to be acted upon. They are pernicious precisely because they are largely unconscious.³⁶

The divide between society and nature, between people and animals, has been artificially constructed, but is now showing signs of fraying. In contemporary society dualistic thinking pre-disposes people to mental categories of “jobs versus the environment,” as though an economy were possible without a healthy ecosystem. Agriculture³⁷ and businesses³⁸ are looking to model their practices on ecological process. Even the ontological separation of humans and animals is showing signs of strain. “Critiques of post-Enlightenment science, greater understanding of animal thinking and capabilities, and studies of human biology and behavior emphasizing human-animal similarities have all rendered claims about human uniqueness deeply suspect.”³⁹

Geography has long held an interest in studying the relationships between people and nature.⁴⁰ In recent years, critical human geography has pursued investigations into the social, economic, and scientific institutions that shape nature/society relations.⁴¹ In this analysis, these institutions largely shape “the rules” about what humans do with nature, and implicitly, our assumptions about nature, especially in the primary sectors of the economy such as agriculture, forestry, and fishing. This scholarly community has investigated nature’s agency also, exploring specifically the role that science and its disciplines have played in shaping our understanding and assumptions. One early and brilliant example is David Harvey’s “Population, Resources and the Ideology of Science.”⁴² Harvey raises critical questions about the ethical neutrality of science and “the” scientific method advanced by some scientists, especially in the population/resources debates. He argues that when positivism and logical empiricism define one’s assumptions about resource shortages, Neo-Malthusianism is the result. He asserts that Western thinking about “overpopulation” is shaped more in assumed political ideologies than “scientific truths.”

More recent work in human geography has been influenced by Science and Technology Studies (STS). Early work in this field was based on anthropological studies of scientists in laboratories and the social conditions of the production of scientific

³⁶ Val Plumwood, *Environmental Culture : The Ecological Crisis of Reason* (New York: Routledge, 2002).

³⁷ Stephen R. Gliessman, *Agroecology: Ecological Processes in Sustainable Agriculture* (Chelsea, MI: Ann Arbor Press, 1998).

³⁸ Paul Hawken, Amory Lovins and L. Hunter Lovins, *Natural Capitalism : Creating the Next Industrial Revolution* (Boston: Little, Brown and Co., 1999).

³⁹ Emel and Wolch, *Animal Geographies: Place, Politics and Identity in the Nature-Culture Boderlands*.

⁴⁰ Clarence J. Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (Berkeley: University of California Press, 1967).

John Leighley, *Land and Life; a Selection from the Writings of Carl Ortwin Sauer* (Berkeley: University of California Press, 1963).

⁴¹ Margaret FitzSimmons, "Geographies: Engaging Ecologies," *Envisioning Human Geographies*, eds. Paul Cloke, Philip Crang and Mark Goodwin (London: Edward Arnold, 2003).

⁴² David Harvey, "Population, Resources, and the Ideology of Science," *Economic Geography* 50.3 (1974).

knowledge.⁴³ In contrast with earlier works in the philosophy of science that tended to revere individual scientists, STS focuses on the credibility, authority, and social roles of scientists and scientific knowledge.⁴⁴ Michel Callon did pioneering work on the relations between marine ecologists, fishermen, and scallops that drew attention to the different ways that these actors express agency within a socio-ecological network.⁴⁵ Geographers and other social scientists interested in nature and ecological questions have used STS and Actor-Network Theory (ANT) with considerable success to break down some of the assumptions about nature's passivity, and the "ignorance" of farmers, fishermen and peasants who lack "scientific" understanding.⁴⁶ Still others have used these methodologies to unmask the assumed social and epistemological stances implied by scientists and their modeling of global climate change, and raise important questions about how uncertainties and assumptions about international economic justice tend to become obscured in these debates.⁴⁷ Collectively, these research efforts are re-invigorating human geography, raising critical questions about the role science, scientists and technology play in society, and breaking open new ways of imagining nature/society relations.

I conclude this section with some propositions for how I think we use these developments in other disciplines to shape a more complete Franciscan theology of nature. Dualistic thinking, like Neoplatonic assumptions, blinds us to

⁴³ Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Thousand Oaks: Sage, 1979).

⁴⁴ Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, Massachusetts: Harvard University Press, 1987).

Sheila Jasanoff, Gerald E. Markle, James C. Petersen and Trevor Pinch, eds., *Handbook of Science and Technology Studies* (Thousand Oaks: Sage Publications, 1995).

⁴⁵ Michel Callon and John Law, "On the Construction of Socio-Scientific Networks: Content and Context Revisited," *Knowledge and Society: Studies in the Sociology of Science Past and Present*, eds. Lowell Hargens, Robert Alun Jones and Andrew Pickering, vol. 8 (London: JAI Press, 1989). Michel Callon, "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Breiuc Bay," *Power, Action and Belief: A New Sociology of Knowledge?*, ed. John Law (London: Routledge & Kegan Paul, 1986).

⁴⁶ Actor-network theory (ANT) as developed by Latour, Callon and Law overcomes the analytical dualism of nature versus culture by rejecting a priori agency for humans alone Sarah Whatmore, "Hybrid Geographies: Rethinking the "Human" in Human Geography," *Human Geography Today*, eds. Doreen Massey, John Allen and Philip Sarre (Cambridge: Polity Press, 1999). They suggest three principles that underpin ANT: (1) following actors through their activities as they move through their network; (2) the natural and the social must be explained together; (3) actors can join together across a number of conceptual divisions such as local/global or social/technical Judy Clark and Jonathan Murdoch, "Local Knowledge and the Precarious Extension of Scientific Networks: A Reflection on Three Case Studies," *Sociologia Ruralis* 37.1 (1997). Jacquelin Burgess, Judy Clark and Carolyn Harrison, "Knowledges in Action: An Actor Network Analysis of a Wetland Agri-Environment Scheme," *Ecological Economics* 35 (2000). ANT has been very influential in nature/society studies, but it is not without critics. See Noel Castree and Tom MacMillan, "Dissolving Dualisms: Actor-Networks and the Re-Imagination of Nature," *Social Nature: Theory, Practice and Politics*, eds. Noel Castree and Bruce Braun (London: Routledge, 2001).

⁴⁷ David Demeritt, "The Construction of Global Warming and the Politics of Science," *Annals of the Association of American Geographers* 91.2 (2001); Stephen H. Schneider, "A Constructive Deconstruction of Deconstructionists: A Response to Demeritt," *Annals of the Association of American Geographers* 91.2 (2001).

conceptualizations of nature as a flat and passive backdrop, as something less than alive. Taking nature seriously should spur us to understand how the material, dynamic, and relational qualities shape nature's relation to society.

First, all humans are all a part of nature, and nature includes us humans. Too much emphasis has been placed on making nature the "other," and this has confused our understanding of the inter-relationship between humans and nature. Human society is fully enmeshed in the natural world. Noel Castree recommends the term "socio-nature" to clarify his approach to this relationship.⁴⁸ Assumptions that nature is "out there" and not "in here" are inherently flawed.⁴⁹

Second, there is no such thing as "pure" nature, in wilderness or anywhere else. There is no part of the globe that has not been directly or indirectly impacted by human civilization. The few "biological islands" remaining, whether legally designated wilderness or not, are indeed crucial for biodiversity protection, but all landscapes host life, in various forms of complexity and degrees of "naturalness." Wilderness areas are rare and important, and deserving of full protection, but we should not ignore nature's various forms in all landscapes. American beliefs about the "purity" of wilderness obscure more than they enlighten.⁵⁰ Assumptions that nature is "less present" in mixed-use landscapes than in the Brazilian Amazon or in the Arctic National Wildlife Refuge are highly problematic, for they reproduce dualistic thinking yet again.

Third, all humans participate in socio-ecological systems. Life is not possible without ecological relationships. We all depend on food, air, energy and water provided by nature. Some human lifestyles may obscure this dependency, but they are nevertheless present.⁵¹

Fourth, agriculture is the most extensive hybrid socio-ecological activity on the face of the earth. It is the primary metabolic relationship between human society and nature.⁵² Even in the most thoroughly disturbed agricultural systems, nature is present too.⁵³ Some refer to this as "second nature," referring to the human-guided ecological succession processes that take place in agroecosystems.⁵⁴

⁴⁸ Castree and Braun, *Social Nature: Theory, Practice, and Politics*.

⁴⁹ FitzSimmons and Goodman, "Incorporating Nature: Environmental Narratives and the Reproduction of Food,".

⁵⁰ William Cronon, editor., *Uncommon Ground : Toward Reinventing Nature* (New York: W.W. Norton & Co, 1995).

⁵¹ Sarah Whatmore, *Hybrid Geographies* (London: Sage, 2002).

Whatmore, "Hybrid Geographies: Rethinking the "Human" in Human Geography,".

⁵² Margaret FitzSimmons, "The Social and Environmental Relations of U.S. Agricultural Regions," *Technological Change and the Rural Environment*, ed. P Lowe, T. Watson, and S. Whatmore (London: David Fulton, 1990).

⁵³ A confrere reported on a conversation he had with an African missionary at an international Franciscan educators meeting about my interest in environmental studies. The missionary opined that the environment was only of concern to privileged people in rich societies, until my confrere explained to him that I was studying the relationship between environmental health and agricultural sustainability. Nature should not be seen as exclusively instrumental, but it definitely can be.

⁵⁴ William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: WW Norton & Co., 1991).

Fifth, human societies have always deployed technologies that have impacted nature and the ecosystems upon which we depend for life.⁵⁵ Environmental problems are not new, but their scope and severity are. American society in particular seems to be loath to re-consider the so-called “progress narratives” which insist that the human-technology relationship we currently have is the best, most rational and most enlightened that a society could possibly have – and this is inevitable too for other cultures. Our society steadfastly refuses to question the social and ecological costs of our obsession with technology. North Americans in particular seem unable to accept the idea that previous societies enjoyed a good quality of life. Through our assumptions, our culture actively re-produces a false dualism between ours and past societies.

Sixth, science and the scientific method do not exist independent of society, nor the social relations of scientists to that society.⁵⁶ For all their genius, generosity, and manifold contributions to societal well being, scientists do not appear any more or less capable of escaping the prejudices of their cultures. This appears to be particularly true when science is deployed in the service of capitalism, as they participate in what Bruno Latour calls “techno-science,” or the production of scientific knowledge to create and market technology.⁵⁷

Attending to the Children of Rachel

Bill Short OFM once opined that nature is too important to be left only to the care of scientists, and I could not agree more.⁵⁸ Other commentators suggest that the recent converging of interests between religion and science is one of the most important trends of the past century. Many books have been authored in this area, and they generally end with a plea to continue the dialogue.⁵⁹ But if one wants to engage this conversation, one is immediately confronted with the questions: dialogue with whom? About what? And, why would any scientist care? Science is a very big house with many portals, and inside one finds many different kinds of social actors engaged in many different kinds of activities with wildly divergent ends. Cold calling on the academy can be frustrating.

Most of these science-theology conversations have addressed the important questions of the origins of the universe, theology and evolution, and the ethics of genetic interventions.⁶⁰ This is important work; I encourage anyone so inclined to enter into them. But I would like to suggest a particular community of scientists with a

⁵⁵ Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution*.

⁵⁶ Bruno Latour, *We Have Never Been Modern* (New York: Harvester Wheatsheaf, 1993). Bruno Latour, *Pandora's Hope* (Boston: Harvard University Press, 1999).

⁵⁷ Sheldon Rampton and John Stauber, *Trust Us, We're Experts!* (New York: Penguin Putnam, 2001).

⁵⁸ Bill Short, personal communication.

⁵⁹ I should know, for I have issued just such an appeal: John E Carroll and Keith Warner, *Ecology and Religion: Scientists Speak* (Quincy Illinois: Franciscan Press, 1998).

⁶⁰ This literature is vast. For recent works, see: John Haught, *God after Darwin: A Theology of Evolution* (Boulder: Westview Press, 2000). Ted Peters, *Playing God? Genetic Determinism and Human Freedom* (New York: Routledge, 1997). Ted Peters, *Science, Theology and Ethics* (London: Ashgate, 2003). Ted Peters and Gaymon Bennett, *Bridging Science and Religion* (London: SCM, 2002).

particular set of interests to the broader Franciscan Movement. Because nature played such an important role in Francis' religious life, because of the grave threats to our global environment, and because our founder has been named the patron saint of ecology, I would recommend that we engage specifically with what Margaret FitzSimmons terms public interest ecologists.

Ecology as a discipline has some characteristics that distinguish it from other scientific pursuits. More than any other discipline, it attends to the negative environmental impacts of anthropogenic technological introductions. Ecology generates scientific knowledge that pertains to the common good, because ultimately, environmental crises affect the global commons. Ecologists are among the least likely to generate proprietary knowledge, which is sadly, now a dominant tendency within US universities.⁶¹ Ecology frequently concerns itself with studies of the troubling history of deploying technology and the unintended consequences of disrupting ecosystems. This discipline suggests the value of a precautionary approach. The precautionary principle suggests a "look before you leap" criterion.⁶²

Those who direct society's attention to the negative environmental consequences of technology are usually persecuted, like prophets, as the controversy surrounding DDT and *Silent Spring* illustrated.⁶³ And yet courageous men and women continue to research and write about these kinds of problems. I would recommend two works that carry on in the tradition of Rachel Carson. Colborn, Domanowski, and Myers⁶⁴ investigated the impact of invisible and previously not well-understood impacts of endocrine disruptors, which disrupt the development of reproductive organs, and threaten the future of both animal and human life. Joe Thornton researched the continued impact of artificial, industrial toxins as they are bioaccumulated in the top predators of ecosystems, behaving similarly to DDT.⁶⁵ Their work identifies problems in critical, applied social ethics. They document how trans-national corporate interests profit by releasing toxic substances, at the expense of other cultures, future human societies, and other organisms today. These ecologists have been the object of withering criticism by monied interests who resent information being made available to the public exposing the negative environmental impacts of industrial products.⁶⁶

Their work is only one manifestation of the public interest scholarship being done by ecologists. The Ecological Society of America (ESA) is the leading US professional scientific organization of ecologists. Over the past ten years it has sought to marshal its collective intellectual resources to educate key social and political leaders

⁶¹Eyal Press and Jennifer Washburn, "The Kept University," *The Atlantic Monthly* March. <http://www.theatlantic.com/issues/2000/03/press.htm> (2000).

⁶²Lawrence Busch, "The Homiletics of Risk," *Journal of Agricultural and Environmental Ethics* 15 (2002).

⁶³Rachel Carson, *Silent Spring* (New York: Houghton Mifflin Co, 1962). Paul Mueller – who invented DDT -- received the Nobel prize; Rachel Carson did not.

⁶⁴Theo Colborn, Dianne Dumanoski and John Peterson Myers, *Our Stolen Future : Are We Threatening Our Fertility, Intelligence, and Survival? : A Scientific Detective Story* (New York: Dutton, 1996).

⁶⁵Joe Thornton, *Pandora's Poison* (Cambridge: MIT Press, 2000). He did this research while staff scientist for Greenpeace.

⁶⁶Rampton and Stauber, *Trust Us, We're Experts!*

about the impact of human behavior on the environment. In 1991, it issued a report "The Sustainable Biosphere Initiative" which spelled out a research agenda for this disciplinary community. This outreach effort has three priorities:

1. Global Change;
2. Biological Diversity;
3. Sustainable Ecological Systems, including the interface between ecological processes and human social systems

ESA research and education around these programmatic areas is conducted at all levels, from the most technical and theoretically sophisticated down to fact sheets accessible to high school students, and everything in between. These are all made available free on the world wide web, and I strongly urge each of you to read them.⁶⁷ Unlike most scientific disciplines, the ESA has created a structure to communicate with the broader public about public interest issues in which they have expertise.⁶⁸ They have engaged in a variety of other initiatives aimed at strengthening their ability to make their professional resources available to the public and presenting their agenda of what actions society should take to address environmental problems. FitzSimmons studied the ESA's Sustainable Biosphere Initiative and has noted that it emerges from a coordinated effort on the part of ESA leadership to imagine how they as an institution could contribute to addressing socio-ecological problems.⁶⁹ This involved articulating their organization's academic resources with their potential allies in society at large and in NGOs, identifying research priorities, and articulating their collective understanding to several audiences outside their immediate disciplinary community.

Both the Sustainable Biosphere Initiative and the Franciscan Intellectual Tradition project are examples of research planning. I find remarkable the parallels between these two. The "Strategic Plan with Recommendations to the ESC-OFM" should be seen as a breakthrough for the development of our Franciscan academic community. I commend the efforts to strengthen the institutional cooperation of our various study centers, to articulate a Franciscan vision of the world, and to promote the valorization of scholarship that is not exclusively theological in its orientation.

⁶⁷ The main webpage for the "Issues in Ecology" series is: http://www.esa.org/sbi/sbi_issues/. I recommend in particular Issue #4, "Biodiversity and Ecosystem Functioning: Maintaining Natural Life Support Processes." The ESA education office also offers shorter fact sheets on these topics, such as global climate change, at <http://www.esa.org/education/resources/factsheets.php>.

⁶⁸For example: "The goal of the ESA/Union of Concerned Scientists Ecosystem Services Communication Project is to use the concept of ecosystem services - especially those that provide tangible benefits to humans - to mobilize the scientific community in raising the public's awareness of the importance of our biological resources. The specific objectives are: (1) to develop a set of outreach tools on specific ecosystem services designed for use by scientists and other professionals to inform the public and policymakers about the importance of maintaining healthy ecosystems and protecting biodiversity; (2) to develop strategies and put into action an outreach and distribution plan for disseminating this information." R.H. Kranz, "Crossing the Moat: Using Ecosystem Services to Communicate Ecological Ideas Beyond the Ivory Tower," *Bulletin of the Ecological Society of America* 81.1 (2000). Many other scientific ventures are tightly related to trans-national corporations.

⁶⁹ I am indebted to Margaret FitzSimmons for this analysis. FitzSimmons, "Geographies: Engaging Ecologies".

I am most grateful for our tradition being recognized as “intellectual” rather than “theological,” for of course, it is not exclusively theology. We have scientists in our family, both past and present, and they have made important contributions, but they are not well known. Two of particular note are Robert Grosseteste (d.1253) and Roger Bacon. Grosseteste never actually joined the friars because he was appointed Bishop of Lincoln, but he and the early English Franciscans mutually influenced each other extensively.⁷⁰ He studied and wrote about poetry, music, architecture, mathematics, astronomy, optics, and physics. One of his students, Roger Bacon (d. 1292), was an educational reformer and a major medieval proponent of experimental science. He studied astronomy, alchemy and languages. He proposed vigorous educational reforms. He described the process for making gunpowder, and proposed flying machines and motorized vessels. He wrote on the tides and proposed a reform of the calendar.⁷¹ He joined the Franciscan Friars in 1252. He proposed that Asia could be reached by sailing west, and developed a system of coordinates for terrestrial geographic use, which laid the foundation for later map projections.⁷² Roger Bacon learned from careful observation of nature, describing its properties and behavior, and articulating this knowledge with theology, education and ethics. He was what would today term an interdisciplinary scholar. I propose he be named the patron saint of Franciscan geographers.⁷³

Now more than ever we need Franciscans like Roger Bacon. His approach to education and nature can help guide the urgent work that the world – including nature! -- needs from us. How can we act on behalf of nature? First, we all need education: more education, but a different kind of it as well. Human societies are going to have to learn their way out of our crisis. Second, we would do well to partner with other people who share our values, and I believe public interest ecologists would like to partner with us. We actually do have resources that would be of interest to them. As Franciscans, we have a certain kind of moral legacy, as Franciscans International has discovered. This can be used for good. We have skills in helping promote reflexivity that are of interest to scientists; this is a theme that comes up with some consistency in the science religion dialogue literature, and it could be of service to the public interest ecologist community. Third, we are leaders in extant audiences that are favorably disposed toward moral discourses, and public interest ecologists are interested in reaching out to “communities of ethical concern” like them. This could be a kind of mutual education project,

⁷⁰ McEvoy, *Robert Grosseteste* (New York: Oxford University Press, 2000).

⁷¹ Anonymous, "Roger Bacon," *Science, Optics and You*.

<http://micro.magnet.fsu.edu/optics/timeline/people/bacon.html> (2003).

⁷² David Woodward, "Roger Bacon's Terrestrial Coordinate System," *Annals of the Association of American Geographers* 80.1 (1990).

⁷³ Roger Bacon's work was embraced by his Franciscan leadership with ambivalence. A contribution of his was condemned by the minister general for "suspect novelties" and he was imprisoned. Those who articulate relationships between the sacred and secular do risk resistance from certain kinds of religious authority.

Franciscans and public interest ecologists, and could bear much fruit for advocacy on behalf of nature.⁷⁴ It would be an excellent approach to acting on behalf of nature.

I have described here three scholarly communities and their engagements with nature and the environment. Many social scientists “discovered” nature and have made substantial progress including it in their analyses. Some natural scientists understand their contribution to include engaging institutions and individuals concerned about the ecological health of their society. And for us Franciscan academics? In Francis we have a patron who took nature seriously in his religious journey, and this conference is a sign of renewed contemporary interest. How will the Franciscan Intellectual Tradition project take nature seriously?

What is ours to do?

As Franciscan scholars we can serve our Franciscan Family by putting our intellectual resources at their service: to give people hope, speak to their fears, and present a coherent intellectual pathway which strengthens faith and encourages just action for our neighbors.⁷⁵ We can best achieve this by recovering the historical elements of our tradition, but also using our skills honed by this history to engage the contemporary social and ecological issues of our time. At this time I believe we are in greater need of a shared understanding of nature and the threats it faces than more writings on a theology of creation. I believe genuine developments in theologies of Creation cannot come without a greater shared understanding of nature and the threats it faces.

Recovering the FIT is holy work, and to be truly successful we will have to work with a new level of cooperation, both among ourselves and with other scholarly communities. In this final section I would like to itemize how I hope to express that mission through my professional contribution, and I would invite any and all with similar interests to join in this venture. These activities can only be successful as part of a common project.

With Franciscan academics:

1. We have much more work to do elaborating the practical implications of our Franciscan view of Creation. Ilia Delio has written a helpful synthesis of its philosophical characteristics,⁷⁶ but the Franciscan movement needs a more complete articulation of how our tradition can engage the socio-ecological needs of the world today. We can help the Franciscan movement free itself of the problematic assumptions in broader US society: Neoplatonic abstractions, dualisms, utilitarian thinking, and the romanticism and sentimentalism which

⁷⁴ The Biodiversity Project has excellent resources to assist with this kind of ethical communication. See <http://www.biodiversityproject.org/publications.htm>, especially: Biodiversity Project. *Ethics for a Small Planet*. Madison: Biodiversity Project (2002), and Lowry, Suellen, and Rabbi Daniel Swartz. *Building Partnerships with the Faith Community: A Resource for Environmental Groups*. Madison: Biodiversity Project, (2001).

⁷⁵ESC-OFM, *The Franciscan Intellectual Tradition Project*.

⁷⁶Ilia Delio, "A Franciscan View of Creation," *CFIT*. (2003).

cloud our relationship with nature. These all serve as major obstacles to constructive engagement with the forces driving our environmental problems. We Franciscan scholars need a revolution in thinking about nature similar to that undertaken by environmental historians and geographers. This work can forge shared understanding of the problem and the need to bring our resources to environmental education and advocacy. This can help articulate our theologies of creation with the material, dynamic and relational qualities of nature.

2. How can we better put our academic skills at the service of our brothers and sisters on the forefront of our collective socio-political JPIC project? Concern for creation is but one of this tripartite project. Franciscan intellectuals could have a profound impact if they were to put some of their skills at the service of FI and JPIC work. I recommend the FIT project co-sponsor a meeting with Franciscans International or the JPIC offices, to serve as another stage in our FIT research planning. We could also explore how we could better contribute to the work of the National Religious Partnership for the Environment.⁷⁷
3. We can encourage interdisciplinary scholarship. The credibility of our Franciscan witness in the world is enhanced when we make our members available to receive advanced training in the natural or social sciences, especially when it is done in preparation for public intellectual work. In our individual education ministries and our formation work, we could encourage other Franciscans to undertake this work.
4. I would like to encourage every Franciscan with any intellectual interest to familiarize him or herself with basic ecological principles, beginning with the accessible ESA works identified above.
5. As Franciscans we must contribute to thinking critically about the role of technology in our societies. Some forms of technology enhance human dignity, but many have negative environmental impacts, which harm nature today and future human generations. We should undertake initiatives to study and educate our Franciscan movement about using technology more judiciously, and the socio-political choices societies have about the direction of technological research.

With Franciscan study centers and institutions:

6. How can we better promote courses at our educational institutions devoted to concerns for justice, peacemaking, and environmental protection? All Franciscan study centers should at a minimum teach a class on "Environmental literacy for religious leadership." They could also weave concern for the environment into other courses.

With Franciscan provincial leadership:

7. Provincials and other leaders in the Franciscan movement are in a key position to encourage their members to take nature seriously. They can encourage individuals to pursue studies in this area, especially in the sciences. They could

⁷⁷ See: <http://www.nrpe.org/>.

designate a “creation animator” in local communities to promote resource stewardship and awareness of environmental issues. They could propose the development of hermitages. These would allow those living in them consistently to intensify their relationship with nature as did our father St. Francis, but also facilitate prayer in nature for those seeking to pray in more secluded natural settings. The renewal of the contemplative dimension of our vocation is integrally related to taking nature seriously. I know mine is not the only Franciscan story of being evangelized by nature!

8. Franciscan leadership could promote the development of educational and advocacy initiatives about nature, both within our provinces, but also as a form of social outreach. Many corners of society are waiting for Franciscans to make a substantive contribution to advocacy on behalf of the environment, and there are younger men and women attracted to the Franciscan movement who want to contribute to this work. How can we create appropriate, cooperative ministry structures to facilitate this outreach?
9. Franciscan leadership could encourage our Franciscan institutions to initiate stewardship initiatives, using resources more judiciously, allowing a greater role for nature and natural beauty to be enhanced. Environmental audits help identify areas of concern, opportunities for ministry, and resource conservation possibilities.

With local Franciscan communities:

10. Taking nature seriously at the local level could take several different expressions. It could be the focus of contemplative days of recollection. It could be the object of study in terms of environmental problems. Actions on behalf of nature could include environmental clean up days and efforts to landscape. All of these activities allow nature to have agency in our lives, and to facilitate our on-going conversion. Spending time in nature has great potential for being re-creative.
11. Given the radical poverty of our founder, I would suggest that we Franciscans would do well to be known for preaching simplicity of life. This theme in our outreach would be true to our tradition and very timely given the social and ecological problems our world faces.

With scientists of good will:

12. We can be of service to public interest ecologists. With even a modicum of study of ecological issues, we could undertake a fruitful inter-institutional dialogue. But first we would need to read, and to listen. Several scientific communities are interested in promoting greater reflexivity among their members, and our religious training could be of help here. Striving for humility and the practice of contemplative prayer would be of interest to them. In addition, we could partner with public interest ecologists to help them reach a broader segment of society, and in so doing lend additional legitimacy to their efforts to advocate a more sustainable world.

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