

*Voices of Earth Jurisprudence*

**AN INTRODUCTION TO EARTH JURISPRUDENCE:  
GUIDING PRINCIPLES AND WILD LAW POSSIBILITIES**

**Center for Earth Jurisprudence<sup>1</sup>**

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<sup>1</sup> The Center for Earth Jurisprudence, [www.earthjuris.org](http://www.earthjuris.org), was founded in 2006 as a collaborative initiative of Barry and St. Thomas Universities, and is dedicated to advancing legal principles, laws, and governance that reflect a transformative Earth-centered perspective and support the well-being of all members of the Earth community. This publication has been edited by Judith E. Koons and Jane M. Goddard. The editors gratefully acknowledge the contributions of Erica Ashton, Danelle Campbell, Erin Cox, Jimmy Davis, Lisabeth Fryer, Brooks Gentry, Timothy Martin, Courtney McDougall, Julie Perry, and Will Ward. Excerpts have been reprinted with permission, as noted. Minor capitalization, punctuation, and typographical corrections have been made without notation. Differences in U.S. and international spellings have been maintained without notation.

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## ***I. Earth Jurisprudence and Wild Law***

**Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice*  
13-14, 25-32 (2d ed. 2011)<sup>2</sup>**

[M]ost of us have not consciously recognised that the jurisprudence of most of our societies is inadequate to meet the critical challenges that now face us.

Almost every day I notice signs that more and more people are longing for our species to cease its self-destructive war with Earth and with one another. \* \* \* Beneath the shiny surface of our super-, techno-, digitalised-, genetically engineered, globalised, wonder-societies, our planet and our humanity is decaying. Have you ever looked into the bright, clear eyes of a child and tried to explain why the whales are being killed and the forests burnt? Why playing naked in the sun is dangerous and some streams are poisonous? Why some frogs now have five legs and teenagers blow themselves up in the process of killing other children in the Middle East? Do you ever wonder why some of us work so furiously while others can't find work and why either way, a deep satisfaction and a sense of belonging is so elusive?

This book doesn't try to provide all the answers to these questions. However, it is an attempt to look one aspect of our 21st-century reality in the eye. The truth is that the dominant civilisations on the planet are behaving in a way that is leading our children and us into a bleak, unsustainable future that most of us do not want. It is a future that involves the casual destruction of ancient human cultures and biological communities, and the extinction of a shocking number of living beings that have co-evolved with us. Their passing involves not only the wanton destruction of millions of years of the Earth's experience and wisdom recorded in genetic structures and the complex webs of relationships within ecosystems; it also permanently diminishes the Earth Community and robs the survivors of the opportunity to co-evolve with them.

Recognising and acknowledging this is one thing. Creating a new future requires far more. We will need to galvanise our collective wills to act, engage empathically and use all our imaginative and other powers both to conceptualise the future that we want and to find ways of

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bringing it about. This book is about how we might begin to rethink how we constitute and regulate our societies so that we can regulate our species in a manner that reflects our responsibility for playing a mutually enhancing role within the wider community of life on this planet. This is a task that I believe is both critical and urgent. As Thomas Berry puts it in the final paragraph of *The Great Work*:

But even as we make our transition into this new century we must note that moments of grace are transient moments. The transformation must take place within a brief period. Otherwise it is gone forever. In the immense story of the universe, that so many of these dangerous moments have been navigated successfully is some indication that the universe is for us rather than against us. We need only summon these forces to our support in order to succeed. Although the human challenge to these purposes must never be underestimated, it is difficult to believe that the larger purposes of the universe or of the planet Earth will ultimately be thwarted.

Even if you disagree with much [of what I have written], I hope that it will, in some way, inspire you to transform the human communities of which you are a member. May we recognise ourselves once more as valuable members of the Earth Community to which we all belong. And may we have the wisdom, imagination and determination to learn how to govern ourselves accordingly.

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### *The Anthill*

It was a clear African morning, with the freshness of overnight rain. Glossy Hadeda ibises were preening themselves in the thorn trees and the earth was steaming softly in the warmth of the morning sun. As I walked back to my hotel in Lilongwe, Malawi, after a morning meeting, I noticed a small anthill next to the path. The rain had softened the protective outer dome and a passer-by had kicked off a cranium-sized section, exposing the cortex of cool, dark tunnels inside. The pale termites were working quickly and purposefully to repair the damage and to stop the rapidly warming sunlight streaming in. The workers moved back and forth, efficiently sealing the hole with spittle and earth. The soldier termites positioned themselves at strategic intervals so that they could protect the workers and prevent invaders gaining access to the nest.

I paused for a moment, struck by the organised efficiency with which they worked. Each termite knew exactly what it needed to do, and the actions of each tiny individual combined seamlessly to produce the outcome that the welfare of the community demanded. I remembered having been told that scientists were trying to puzzle out exactly how commands were relayed within the complex social structures of insects like ants and termites. Did the termite queen secrete special chemicals that were then passed on to each of the individuals, effectively giving them complex coded instructions as to what they were to do in any given circumstances? How

was it that termites everywhere could build such marvellously complex structures with underground gardens, sophisticated ventilation systems, and a staggering degree of social organisation?

As I watched the tiny creatures moving about, it seemed to me highly improbable that they were either simply implementing instructions from the queen or deciding for themselves what to do. Each one might simply be responding to the external stimuli on the basis of internal ‘programmes’ or instincts. However, would this really explain their choreographed efficiency? Just how detailed could such internal codes be before they became too inflexible to deal with the immensely varied circumstances of life? It appeared to me that what I was observing was more like the functioning of a single consciousness expressing itself through many creatures than many individuals co-ordinating their activities in some cunning way.

Then it occurred to me that each termite might be a tiny receiver, finely tuned to a narrow bandwidth of the great symphony of the universe that gave it the melody to which it should dance. Perhaps they did not need great brains or complex instructions, because when they felt the juddering of a boot against their home and light flooding in, each of them had the capacity to tap into a greater source of termite lore? A kind of psychic website from which they instinctively downloaded the knowledge of what they must do in order to maintain the integrity of their community, and ultimately of their species and of the ecosystem of which they are such an important part. In other words, their actions were determined by the interaction between an information source outside their bodies, and their own innate qualities, which allowed them both to tap into termite-specific information and then to act on it.

To this day I do not know what conclusions, if any, scientists have reached regarding the functioning of termite communities, and whether or not my musings were correct. Right or wrong, the image from that warm Malawi morning has stayed with me. I have suspected ever since that building complex communities that are well functioning, harmonious, and resilient is probably less about developing complex decision-making hierarchies and far more about fine tuning our ability to ‘hear’ the universe, and to act accordingly. My guess is that more complex animals like humans probably have the capacity to tune into a broader band of information than termites, and we certainly have a greater capacity to choose how to respond to what we ‘receive’. Of course, any such enhanced capacity will not help if we choose not to tune in, or respond to, our environment.

### *A Hypothesis Grows*

As I continued doing environmental law and policy work in various countries during the 1990s, I became more interested in what made laws more or less effective instruments for governing social behaviour. I became convinced that, in my field at least, if laws are to be effective they need to recognise the inherent nature of the subject matter with which they are concerned. This means that a governance system must to some extent reflect, or at least correspond with, the qualities of that which it is seeking to regulate. For example, if we observe that one of the qualities of the environment is that it is constantly changing, we need

environmental laws and governance structures that are flexible and adaptable. Equally, the pervasive nature of the environment requires that the environmental governance system must have a very broad scope.

I gradually formed a working hypothesis in my mind that the prospects of a governance system being successful could be increased by designing it in a way that took account of the attributes of what was being governed. Over time I began unconsciously to embroider this rudimentary hypothesis with scraps of ideas picked up from here and there.\* \* \*

While working on wildlife legislation in Namibia I was struck by how our unquestioning adoption of myopically human-centred laws often leads to results that are perverse and obstruct healthy relations between humans and other species. In Namibia (as in many countries) farmers who want to own wild game animals like rhinos, oryx and kudu on their land must fence them in with game-proof fences. In this way the law creates an incentive for farmers in this arid country to game-fence huge areas, which in turn prevents the natural migration of the herds in search of water and grazing. Worse still, there is no legal obligation on farmers to provide water or fodder, or to open the fences in times of drought. Some farmers simply keep all the water and fodder for their cattle and let the game die.

The same law encourages humans to slaughter innocent termite-eating aardvarks on sight by defining them as ‘problem animals’. The ‘problem’ that condemns the aardvark to rogue status is that resourceful jackals use aardvark burrows to get under jackal-proof fences and into sheep farms. These laws would be unthinkable if these native inhabitants were not defined as objects that could be destroyed at the whim of human landlords.

My basic hypothesis—that there should be a correlation between the regulatory system and what was being regulated—was further encouraged by conversations with a friend in London who is a retired professor. He liked theorising about the development of new forms of business organisations in the information economy. One day he mentioned to me that he was reading up on embryology (the study of how embryos develop) to gain inspiration and insight into how new forms of business organisation might grow. At first this approach seemed rather a long shot to me, but I was attracted by the idea of consciously drawing on the rich library of experience offered by nature. Although the basic idea of being inspired by nature recurs in human history in different forms, I was initially rather wary of applying this approach to governance systems. I was well aware that the diversity of nature and our limited knowledge of it allow ample scope for everyone from fascists to nihilists and beyond to claim that nature supports their theories. Like many people with a background in the humanities rather than the sciences, I thought that any suggestion that we should, for example, draw lessons for the regulation of human societies from termite colonies, was likely to be misinterpreted as a new and crankier form of social Darwinism. These theories often involve projecting our ideas onto nature, like Moses Rusden’s 1679 work *A Further Discovery of Bees*, which claimed that bees were organised into social hierarchies with a king, dukes and plebeians.

It was only much later, when I read *The Universe Story* by Brian Swimme and Thomas Berry, that I realised why studying nature's patterns and methods is likely to be productive. The reason, of course, is that we are part of nature and not separate from it. It therefore stands to reason that those patterns that have evolved and which have stood the tests of the millennia, are likely to have inherent qualities that are consistent with the basic principles of the Earth system. . . . [Because] we are part of nature, being conscious of the need to adapt human governance systems to human nature is likely to be helpful. Obviously there is a lot of room for error if we seek to cut patterns from one context and paste them down in another. Nonetheless, my guess is that if we consciously draw inspiration from the rich diversity of natural patterns, structures and processes, the probability of success will increase.

This is now increasingly recognised, and many different disciplines are engaged in consciously drawing inspiration from nature in designing anything from cities to industrial processes. For example, even the simple observation that in natural systems one organism's waste is another's food and that materials and energy are endlessly recycled, has profound implications for the redesign of our industrial processes. Almost all human processing systems are linear. They take in vast quantities of materials and energy at one end, transform it into something of transient use to humans and then return it all to Earth as (virtually) unusable waste.

As far as I know, public institutions in modern western cultures have not consciously drawn on nature when designing or reforming human regulatory systems. There are probably several reasons for this, including the fact that most lawyers and legislators do not know enough about natural regulatory systems, and in any case do not believe that they are relevant to humans.

However, my primary concern in this book is not with the redesign of legislation. One of the most important things that I learned from Thomas Berry was that reforming our governance systems will require us to entirely reconceptualise our *idea* of law from a biocentric or Earth-centred perspective. Reforming national legislation and entering into new international agreements will be insufficient unless these are done on the basis of a new understanding that the essential *purpose* of human governance systems should be to support people to play a mutually enhancing role within the community of life on Earth. This requires us first to recognise that at the moment the governance systems of most countries and of the international 'community' actually facilitate and legitimise the exploitation and destruction of Earth by humans. One of the implications of this, I believe, is that excellent initiatives such as the development of an 'Earth Charter', or the movement to popularise the groundbreaking 'World Charter for Nature' adopted by the General Assembly of the United Nations in 1982 [G.A. Res. 37/7], cannot succeed in isolation. Although these documents embody many of the values advocated in this book, they still exist within a governance context that is fundamentally opposed to prioritising these values.

In this book, I follow in the footsteps of Thomas Berry and argue that in order to change completely the purpose of our governance systems, we must develop coherent new theories or philosophies of governance ('Earth jurisprudence') to supplant the old. This Earth jurisprudence is needed to guide the realignment of human governance systems with the fundamental principles of how the universe functions (. . . the 'Great Jurisprudence'). Giving effect to Earth

jurisprudence and bringing about systemic changes in human governance systems will also require the conscious fostering of wild law.

### *Walking on the Wild Side*

I know that ‘wild law’ sounds like nonsense—a contradiction in terms. Law, after all, is intended to bind, constrain, regularise and civilise. Law’s rules, backed up by force, are designed to clip, prune and train the wilderness of human behavior into the manicured lawns and shrubbery of the civilised garden. ‘Wild’, on the other hand, is synonymous with unkempt, barbarous, unrefined, uncivilised, unrestrained, wayward, disorderly, irregular, out of control, unconventional, undisciplined, passionate, violent, uncultivated, and riotous. In fact, the ‘Wild West’ of North America was described as ‘wild’ specifically because of the general lawlessness that prevailed there.

It is precisely the rigidity of this false dichotomy between the ‘wild’ and ‘law’, between ‘nature’ and ‘civilisation’, that we need to overcome. Like the Chinese symbol for Yin and Yang, both are part of the whole, and it is the dynamic balance that is important, not the triumph of one over the other. We need to find the wild Yin spot in the heart of the Yang of law, and also to perceive the core of law within the wilderness of Yin. Governing in a manner that stamps out wildness and promotes the dull conformity of monoculture is not desirable. Much of what is best in us is contained within our wild hearts. Wildness is associated with creativity and passion, with that part of us that is most connected with nature. It can also be understood as a metaphor for the life force that flows through us all and drives the evolutionary process. In this sense it has an eternal, sacred quality that both defines us and connects us most intimately with this planet.

Wildness is a quality that can only be experienced by straying off the orthodox path of civilisation as we know it. As we know, it is to be found most obviously in the wilderness, those special places where wildness rules. However, we would do well to remember that in many cultures the wilderness is also strongly associated with wisdom. It is the place to which people go in times of transition or confusion, and it is the place from which new insights emerge.

As will become apparent, . . . wild time, wild places and what used to be called ‘wild people’ are all important for wild law. If all this sounds like gobbledegook, bear with me a while longer and I will try to give you a clearer idea of what I mean.

### *Wild Law*

Firstly, the term ‘wild law’ cannot easily be snared within the strictures of a conventional legal definition. It is perhaps better understood as an approach to human governance, rather than as a branch of law or a collection of laws. It is more about ways of being and doing than the right thing to do.

Wild law expresses Earth jurisprudence. It recognises and embodies the qualities of the Earth system within which it exists. As an approach it seeks both to foster passionate and

intimate connections between people and nature and to deepen our connection with the wild aspect of our own natures. It tends to focus more on relationships and on the processes by which they can be strengthened, than on end-points and ‘things’ like property. It protects wilderness and the freedom of communities of life to self-regulate. It aims to encourage creative diversity rather than to impose uniformity. Wild law opens spaces within which different and unconventional approaches can spring up, perhaps to flourish, perhaps to run their course and die.

Wild laws are laws that regulate humans in a manner that creates the freedom for all the members of the Earth Community to play a role in the continuing co-evolution of the planet. Where wild laws prevail, cultural and biological diversity, creativity and the freedom to play a creative role in the co-evolution of this planet will be found.

With a little practice you can start to recognise flashes of it even in our current legal and political systems. Wildness can be glimpsed in laws that reserve a certain amount of water to the river in order that it may flow healthily, and in international declarations that assert the inherent value of all living organisms and of biological diversity itself. It crops up in the recent amendment to the German constitution (paragraph 20(a)), which recognises that the state has a responsibility to protect animals as well as humans. Bills of rights that enshrine the right not to be unfairly discriminated against on the basis of ethnicity, nationality, gender, age or sexual preference also reflect elements of wild law in so far as they protect spaces within which human diversity can flourish.

Sometimes it is easier to identify what is not wild law. For example, laws that define seeds and genes as the property of someone and which prohibit farmers saving seeds to plant next season’s crop, deny wildness. . . . [T]he purpose behind these laws is incompatible with the purpose of wild law.

Another deeply disturbing account of judgements that reflect the antithesis of wild law is given in Brian Brown’s lucid and moving analysis of decisions of the United States courts concerning the relationship between native Americans and the lands they hold sacred.<sup>[3]</sup> Again and again the courts sanctioned the severance of ancient spiritual connections between peoples and the lands that gave birth to their cultures. The fundamentalist allegiance of the courts to the notion of land as property and their failure to come to terms with the diversity of human spiritual beliefs seems to have blinded them to the consequences of their judgements. Judges who sanction the building of dams and roads through wilderness areas sacred to indigenous peoples, while at the same time accepting that these actions would be enormously destructive to the ancient religious practices of these peoples, deny the soul and wildness of all humans. A worldview and jurisprudence that leads to judgements like those analysed by Brown, in whatever country, can only be described as deeply destructive.

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<sup>3</sup> [RELIGION, LAW, AND THE LAND: NATIVE AMERICANS AND THE JUDICIAL INTERPRETATION OF SACRED LAND (1999).]

Wildness is inherent in all people and organisms. It can even be understood as another name for the creative life force inherent in the universe. As such it is at the heart of existence and expressing it is fundamental to our role. Yet almost all of our laws and our social governance structures suppress and stifle expressions of wildness and promote uniformity and control. I hope that this book will give some ideas of how to find, recognise and develop wildness in law and society. I also hope that it will inspire you to imagine (if you dare) what our societies might be like if they celebrated and encouraged wildness rather than stamping it out!

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**DISCUSSION POINTS**

1. What is Cormac Cullinan’s hypothesis? How do you understand the story of the anthill?
2. Why does Cullinan turn away from an approach to simply reform law by legislation? Why does he propose that we need to reconceptualize our idea of law?
3. What does Cullinan advocate as the purpose of law and governance?
4. Why does Cullinan suggest that studying nature is likely to be productive in thinking about law and governance? Why was he wary about this approach? How could nature inspire law and governance systems?
5. What is Wild Law? What are some examples of laws that are not Wild Laws? Imagine a system of law and governance that honored wildness.

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## II. *Some Tenets of Earth Jurisprudence*

### **The Gaia Foundation & UK Environmental Law Association, *Wild Law: Is There Any Evidence of Earth Jurisprudence in Existing Law and Practice?* 2-3, 5-6 (2009)<sup>4</sup>**

#### *An Overview of the Wild Law Philosophy*

In *Should Trees Have Standing?*, the seminal work by Professor Christopher Stone [25th anniv. ed. 1996], serious consideration was given, perhaps for the first time, to whether, in the context of U.S. Supreme Court litigation, it might be wiser to give trees legal rights in the same way that minors or corporations are given artificial legal personalities. Astonishingly, the Supreme Court felt that there was some merit to his arguments [*Sierra Club v. Morton*, 405 U.S. 727, 741 (1972) (Douglas, J., dissenting)] (which may not be the case today, however).

In *The Great Work* [60-61 (1999)], Thomas Berry called for a new jurisprudence to re-define the relationship between the human community and the Earth community in which it lives. He wrote:

As regards *law*, the basic orientation of American jurisprudence is toward personal human rights and toward the natural world as existing for human possession and use. To the industrial-commercial world the natural world has no inherent rights to existence, habitat, or freedom to fulfill its role in the vast community of existence. Yet there can be no sustainable future, even for the modern industrial world, unless these inherent rights of the natural world are recognized as having legal status. The entire question of possession and use of the Earth, either by individuals or by establishments, needs to be considered in a more profound manner than Western society has ever done previously.

\* \* \*

To achieve a viable human-Earth situation a new jurisprudence must envisage its primary task as that of articulating the conditions for the integral functioning of the Earth process, with special reference to a mutually enhancing human-Earth relationship. Within this context the various components of the Earth—the land, the water, the air, and the complex of life systems—would each be a commons. Together they would constitute the integral expression of the Great Commons of the planet Earth to be shared in proportion to need among all members of the Earth community.

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<sup>4</sup> This report resulted from an international research project, with Professor Lynda Warren as Research Supervisor. Its main authors are Begonia Filgueira and Ian Mason.

Cormac Cullinan took up these ideas in his book and paid tribute to Christopher Stone. He sought to explain Earth Jurisprudence in formal legal terms and to explore whether we could integrate Earth Jurisprudence into our legal systems. Laws based on Earth Jurisprudence would be “Wild Laws”—wild not because they were irrational or out of control, but wild because they derived from the laws of nature.

The idea is that the universe itself is the primary reference and source of law because it is the great environment in which all activity takes place. In nature there is an intimate connection between every being and the universe, which determines time scales, life spans, seasons and temperature ranges and provides all of the elements on which all creatures, animate and inanimate, depend and from which they are formed. This being so, human laws, to have any real validity, should be designed to correspond with universal laws so as to produce a “mutually-enhancing” relationship.

Cormac argues that the study of the Earth takes two forms. More conventionally and derived from the modern Western mind is the objective, scientific approach of measurement, empirical observation and verifiable recording. The other form, more common outside the influence of Western philosophy and methodology, is the more intimate and sometimes intuitive experiential mode of connecting with the natural world and understanding it, as it were, from within. This mode of learning is much more common among indigenous peoples whose own life is much closer to the natural world and whose law appears more as lore and custom than as formulated regulations.

Earth Jurisprudence aims to draw on the best of both methods to forge a new understanding of law, constitutionality and lawfulness which is conducive to establishing and maintaining a naturally mutually-enhancing relationship between the human and all other species. Earth Jurisprudence therefore draws its principles primarily from experience of that relationship, adapting the methodology of formal constitutions and law making to comply with those principles.

All this assumes that somehow the natural relationship between the human presence and the natural environment has been disturbed. It is not the purpose of this paper to consider the evidence for that. Existing legal systems have been unable to prevent or mitigate loss of biodiversity; environmental pollution; de-forestation; climate change; and the whole related range of human degradation of the planet. The reality is that legal systems treat the Earth as a “resource” and value it only as such when in fact it is the organism which sustains all forms of life. Earth Jurisprudence examines the legal relationship between humans and the Earth in that light.

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## *Approach to the Research*

### *Indicators*

The research project reported in this paper set out to test the hypothesis that there was much existing legislation already consistent with Wild Law principles. For the purposes of this paper Wild Law is taken to mean the practical measures in formal law, constitutions and regulations that give effect to principles of Earth Jurisprudence. \* \* \*

There is, as yet, no definitive statement of these principles because the philosophy of Earth Jurisprudence is still in its infancy. Nevertheless, for the purpose of analysis, it was necessary to establish certain criteria, or indicators, of “wildness” in order to carry out a comparative exercise of degrees of wildness of individual laws.

The principal indicators identified and used [for this research by Carine Nadal of the Gaia Foundation and Peter Kellett of UKELA] are:

1. Earth Centred Governance;
2. Mutually Enhancing Relations to promote the well-being of the whole Earth Community;
3. Community Ecological Governance.

Our approach to the research was to break down each of these principal indicators into a number of sub-indicators which could be used to assess individual laws. We found in practice that there is a degree of overlap between these sub-indicators which is an inevitable consequence of the breadth of the three principal indicators and had to be taken into account in the analysis.

### *Earth Centred Governance*

The great difference between modern jurisprudence and Earth jurisprudence is the place where it is centred. Modern jurisprudence is anthropocentric, the assumption being that all laws are made entirely for the benefit of human beings. This attitude is exemplified by concepts such as human rights, public benefit and private ownership, which take no account of the ‘other-than-human’ world. Even environmental protection is frequently for the purpose of enabling some human scheme to continue and is not for the protection of nature for its own sake.

The first sub-indicator for Earth Centred Governance is respect for the intrinsic value of Earth and all its members/components. The essential point here is that the Earth is valued for what it already is, as provided by nature, and not for any particular human use or advantage.

The second sub-indicator of Earth-centredness is that the dominant rationale of a legal measure is environmental protection. Responsibility is thus placed on the human presence to act in a way that is consistent with maintaining the natural environment as far as possible in its natural state.

The third sub-indicator is that the measure, or the governance which flows from it, is informed by the laws of nature, that is, that laws are founded on ecological criteria including life cycles, diversity and ecological limits.

Lastly, to be truly Earth-centred, the measure would need to show respect for the three key Earth Rights of an Earth Community member. Thomas Berry suggests [in *Evening Thoughts* 149 (2006)] that these are: “the right to be, the right to habitat [or a place to be], and the right to fulfill its role in the ever-renewing processes of the Earth community.”

### *Mutually Enhancing Relations*

The idea behind this indicator is that the human presence is as much part of nature as is anything else and that humans have a proper role to play in the unfolding evolution of the Earth Community. Hence there are mutually enhancing relations to promote the well-being of the whole Earth Community. For Thomas Berry the ideal is that the human presence should enhance the evolutionary project and be enhanced by it. This involves restraints in the excesses of human activity and sympathetic engagement with natural processes so as to minimise the human imprint while allowing the fulfilment of human potential in the context of the continued well-being of the whole Earth Community.

Here six sub-indicators were identified, all of which can be brought to bear in analysing the “wildness” of particular laws. They are:

1. Recognition of the inter-connectedness between members/components of the Earth Community;
2. Reciprocity;
3. Conflict resolution mechanism/process for interests/rights of humans and those of non-human members (the “procedural indicator”);
4. Resolution of conflict for the whole Earth Community (the “substantive indicator”);
5. Restorative mechanism/process to (re)establish mutually enhancing relations for the well-being of the whole Earth Community;
6. Adaptive mechanism/process in light of evolving challenges to pursue mutually enhancing relations.

\* \* \*

*Community Ecological Governance*

Community Ecological Governance (CEG) is the practical expression of the intimate relationship between the human and natural worlds by which the human presence regulates its conduct so as not to cause irreparable damage to the environment and its ecosystems. Its essence is that the regulation of conduct comes from the communities most involved, i.e. the human communities living in the ecosystem affected by the law as well as the non-human Earth communities affected.

CEG involves learning to listen to nature and giving effect to nature's voice when formulating laws which affect natural processes. Indigenous peoples in many places are adept at this skill, but all too often, decisions affecting the environment are taken in government offices far from the locations in question and without any real consultation of the people who live in those locations or understanding of local realities. The idea behind CEG is that those are the people who should make the real decisions in consultation with the environment they inhabit.

There are three aspects of CEG which would be found in laws which fully respect this principle and which can be identified as sub-indicators:

1. Participation of all members of the Earth Community in ecological governance;
2. Legal recognition of the three key rights of public participation, namely
  - (a) Access to information;
  - (b) Public participation in decision making;
  - (c) Right of access to justice.
3. Respect for other key issues of CEG including traditional knowledge, cultural heritage, human rights, equitable access and benefit sharing, community land rights, co-management, self-determination and democracy.

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**Judith E. Koons, *What is Earth Jurisprudence?:  
Key Principles to Transform Law for the Health of the Planet*  
(2009)**<sup>5</sup>

But we have only begun  
to love the earth.

We have only begun  
to imagine the fulness of life.

How could we tire of hope?  
—so much is in bud.

— Denise Levertov<sup>6</sup>

## I. Introduction

Earth Jurisprudence is an emerging legal theory based on the premise that rethinking law and governance is necessary for the well-being of Earth and all of its inhabitants.<sup>7</sup> Earth Jurisprudence is an inclusive and systems-based theoretical perspective that supports robust environmental regulation and recognizes a kinship with the field of environmental ethics.<sup>8</sup> In addition, Earth Jurisprudence embraces the connection between Earth justice and social justice.<sup>9</sup>

Yet, Earth Jurisprudence brings an innovative jurisprudential dimension to the environmental movement.<sup>10</sup> At the heart of this dimension lies the premise of a necessary shift—

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<sup>5</sup> Professor of Law, Barry University School of Law, Orlando, Florida. This article is an adaptation of the unabridged version that was originally published in 18 PENN ST. ENVTL. L. REV. 47 (2009); the footnotes have been revised without notation. I am grateful for the philosophical groundwork of Thomas Berry and Cormac Cullinan, the spiritual leadership of Sr. Patricia Siemen, the insightful comments of CEJ members Mary Munson and Nicole Gerard, the painstaking editing of CEJ member Jane Goddard, and the helpful research assistance of Tim Martin, Erin Cox, Lisabeth Fryer, Erica Ashton, and Jimmy Davis. All errors are my own.

<sup>6</sup> Denise Levertov, *Beginners*, in JOAN CHITTISTER, *THE CRY OF THE PROPHET: A CALL TO FULLNESS OF LIFE* 55 (Mary Lou Kownacki ed., 2009).

<sup>7</sup> The term “Earth Jurisprudence” arose out of a meeting hosted by the Gaia Foundation with environmental thinker Thomas Berry in April of 2001 at the Airlie Center in Virginia. See CORMAC CULLINAN, *WILD LAW: A MANIFESTO FOR EARTH JUSTICE* 11 (2d ed. 2011).

<sup>8</sup> See CULLINAN, *supra* note 7, at 11-12; see also RODERICK FRAZIER NASH, *THE RIGHTS OF NATURE: A HISTORY OF ENVIRONMENTAL ETHICS* (1989).

<sup>9</sup> COMMISSION FOR RACIAL JUSTICE, UNITED CHURCH OF CHRIST, *TOXIC WASTES AND RACE IN THE UNITED STATES* xiv (1987); see also LUKE W. COLE & SHEILA R. FOSTER, *FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT* (2001).

<sup>10</sup> The environmental movement comprises a wide variety of groups and individuals who, for many decades, have campaigned to stop human activities destructive to other-than-human species and Earth systems. *E.g.*, KIRKPATRICK SALE, *THE GREEN REVOLUTION: THE AMERICAN ENVIRONMENTAL MOVEMENT, 1962-1992* (1993). The movement often uses legal means to protect Earth. Some of these campaigns have also questioned the prevailing anthropocentric paradigm of law. *E.g.*, *Nat'l Audubon Soc'y v. Superior Court.*, 658 P.2d 709 (Cal. 1983) (Mono Lake case). Earth Jurisprudence follows this philosophical thread of the environmental movement and takes the inquiry to a systemic level. While environmental legal approaches have advanced a number of changes in

proposed by ecological philosopher Thomas Berry and others—from a human-centered to an Earth-centered system of law and governance, recognizing humanity as part of the greater Earth community.<sup>11</sup> Without such a jurisprudential shift, Earth and humanity remain at peril.

The ecological predicament of Earth at the beginning of the 21st century is exemplified by global warming. A recent report of the Intergovernmental Panel on Climate Change advises: “Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.”<sup>12</sup> Moreover, a scientific consensus has formed that global warming is human-induced.<sup>13</sup>

According to Sir Nicholas Stern, a temperature increase of two degrees Celsius, which is expected to take place by mid-century, will produce significant impacts, including the onset of an “irreversible melting of the Greenland ice sheet.”<sup>14</sup> With anticipated global warming of two degrees, significant changes in ecological relationships will occur. Melting glaciers will increase the risk of flooding and then will reduce water supplies, placing one-sixth of the world’s population in jeopardy.<sup>15</sup> An increase in sea temperatures will prompt a projected five to ten percent increase in hurricane wind speed, which may double the annual costs of hurricanes in the United States.<sup>16</sup> By 2025, two-thirds of the world’s population will be water-stressed, with a devastating effect on human health.<sup>17</sup> Declining crop yields will threaten hundreds of millions of people with a greater risk of hunger, particularly in Africa.<sup>18</sup>

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law, they generally have not questioned the basic assumptions of humanity’s relationship to the natural world or the structure of the legal system that supports continued destruction of the environment. Earth Jurisprudence makes this deeper, and necessary, inquiry into the premises of our system of law and governance in which the environmental movement operates.

<sup>11</sup> THOMAS BERRY, *THE GREAT WORK: OUR WAY INTO THE FUTURE* 56-57, 80-81 (1999) [hereinafter BERRY, *GREAT WORK*].

<sup>12</sup> S. SOLOMON ET AL., *Summary for Policymakers, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS. CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 5* (2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf> [hereinafter IPCC Working Group I]; see also *Massachusetts v. EPA*, 549 U.S. 497, 504 (2007) (observing that the rise in global temperatures is “well-documented” and that “[r]espected scientists” believe that global warming is related to the increase in carbon dioxide in Earth’s atmosphere).

<sup>13</sup> IPCC Working Group I, *supra* note 12, at 2.

<sup>14</sup> NICHOLAS STERN, *Executive Summary, in STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE, EXECUTIVE SUMMARY* at v (2006), available at [http://www.hm-treasury.gov.uk/media/4/3/Executive\\_Summary.pdf](http://www.hm-treasury.gov.uk/media/4/3/Executive_Summary.pdf) [hereinafter STERN]; see also M.L. PARRY ET AL., *Summary for Policymakers, in CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY. CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 16* (2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf> [hereinafter IPCC Working Group II].

<sup>15</sup> STERN, *supra* note 14, at vi.

<sup>16</sup> *Id.* at viii.

<sup>17</sup> KOFI A. ANNAN, *MILLENNIUM REPORT OF THE SECRETARY GENERAL OF THE UNITED NATIONS, Sustaining Our Future, in “WE THE PEOPLES”: THE ROLE OF THE UNITED NATIONS IN THE 21ST CENTURY* 60 (2000).

<sup>18</sup> STERN, *supra* note 14, at v-vi.

At a two-degree level of warming, scientists anticipate that fifteen to forty percent of species may become extinct.<sup>19</sup> We are entering what has been described as the largest mass extinction of species since the end of the age of the dinosaurs, sixty-five million years ago.<sup>20</sup> During the 20th century, scientists estimate that ninety percent of large fish disappeared from the oceans.<sup>21</sup> In marked contrast with the historical background rate of extinctions at one species per five hundred to one thousand years, the current rate of extinction has been estimated by Harvard biologist E.O. Wilson at three species per hour, seventy per day, and twenty-seven thousand per year.<sup>22</sup>

Given the ecological crises of the 21st century, it is apparent that humanity cannot afford to take a “business as usual” approach to environmental law.<sup>23</sup> It is also apparent that dramatic ecological decline is taking place despite the widespread adoption of environmental regulations in the latter part of the 20th century.<sup>24</sup> Environmental groups have long articulated the need for greater legal protections for Nature.<sup>25</sup> However, a recent shift of consciousness has swept across the globe, recognizing the need for systemic changes in law, governance, and human behavior for the sake of the planet.

The purpose of this article is to contribute to the development of the field of Earth Jurisprudence by suggesting some key principles and their applications to law and governance.<sup>26</sup> Drawing from the functioning of the universe, this article will explore a vision of Earth Jurisprudence through three principles: the intrinsic value of Earth; the relational responsibility of humanity toward Earth; and the democratic governance of the Earth community. These jurisprudential principles will be illustrated through legal frameworks of rights, responsibilities, and duties and through representative legal doctrines such as standing, the public trust doctrine, and intergenerational equity. To begin the creative enterprise envisioned in this article, the next section will invite the re-design of our systems of law and governance.

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<sup>19</sup> *Id.* at vi; see also IPCC Working Group II, *supra* note 14, at 6.

<sup>20</sup> *E.g.*, CULLINAN, *supra* note 7, at 35.

<sup>21</sup> Ransom A. Myers & Boris Worm, *Extinction, Survival or Recovery of Large Predatory Fishes*, 360 PHIL. TRANSACTIONS OF ROYAL SOC’Y B: BIOLOGICAL SCIS. 13 (Jan. 29, 2005), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1636106/pdf/rstb20041573.pdf>.

<sup>22</sup> EDWARD O. WILSON, *THE DIVERSITY OF LIFE* 280 (1992). In 2010, the Red List of Threatened Species identified an estimated 1143 mammals (21% of the species described), 1223 species of birds (12%), and 1895 species of amphibians (29%) as threatened with extinction. The International Union for the Conservation of Nature and Natural Resources, *The IUCN Red List of Threatened Species, Summary Statistics*, [http://www.iucnredlist.org/documents/summarystatistics/2010\\_1RL\\_Stats\\_Table\\_1.pdf](http://www.iucnredlist.org/documents/summarystatistics/2010_1RL_Stats_Table_1.pdf).

<sup>23</sup> STERN, *supra* note 14, at iv.

<sup>24</sup> NASH, *supra* note 8, at 172-79.

<sup>25</sup> *E.g.*, PAUL HAWKEN, *BLESSED UNREST: HOW THE LARGEST SOCIAL MOVEMENT IN HISTORY IS RESTORING GRACE, JUSTICE, AND BEAUTY TO THE WORLD* 29-47 (2007).

<sup>26</sup> THE GAIA FOUNDATION & UK ENVIRONMENTAL LAW ASSOCIATION, *WILD LAW: IS THERE ANY EVIDENCE OF EARTH JURISPRUDENCE IN EXISTING LAW AND PRACTICE?* 5 (2009) (noting infancy of Earth Jurisprudence); see also Arne Naess & George Sessions, *Platform Principles of the Deep Ecology Movement*, in *THE DEEP ECOLOGY MOVEMENT: AN INTRODUCTORY ANTHOLOGY* 49 (Alan Drengson & Yuichi Inoue eds., 1995).

## II. As the World Turns: A New Vision of Jurisprudence<sup>27</sup>

Two things are needed to guide our judgment and sustain our psychic energies for the challenges ahead: a certain alarm at what is happening at present and a fascination with the future available to us if only we respond creatively to the urgencies of the present.

– Thomas Berry<sup>28</sup>

If citizens' commissions were convened to re-think our systems of law and governance for the 21st century, where might the members begin? They might start with current snapshots of what is happening in the world. One snapshot would depict global warming, with melting glaciers, rising oceans, cataclysmic weather events, and perishing species. Another snapshot would show humanity at war with itself over efforts to amass power and resources as well as over ethnic and religious differences. A third snapshot would illustrate the disparity in wealth across the world.<sup>29</sup> Although other snapshots would depict areas of peace and cooperation among people, the new visions of law and governance should be equipped to address overarching problems in the world while preserving its successes.

The environmental, social, and economic distress depicted in the snapshots would provide great impetus to consider ways to design human institutions to preserve ecological and human health. A first step might be to place Earth at the center of law and governance, shifting away from purely human-focused systems and refocusing on ways to support ecosystems and the complex interactions among animate and inanimate entities upon which all life depends.

Some citizens might recognize that Earth-centeredness, as a guiding philosophy, is not new. This theme has long animated environmental reformers, social justice activists, indigenous

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<sup>27</sup> I define jurisprudence as the study and evaluation of the structure, assumptions, premises, and values of law. Cf. Patricia Smith, *On Law and Jurisprudence: Feminism and Legal Theory*, in *FEMINIST JURISPRUDENCE* 485 (Patricia Smith ed., 1993) (defining jurisprudence as the “philosophical discipline that examines the fundamental nature or elements of law”); see also ROBERT L. HAYMAN ET AL., *JURISPRUDENCE: CLASSICAL AND CONTEMPORARY* ix (2d ed., 2002). Some scholars look to Natural Law as the basis for Earth Jurisprudence. E.g., CULLINAN, *supra* note 7, at 68-72. Detractors from Natural Law assert that since no external referent for the validation of natural law is necessary, the regressive edge of biological determinism is exposed, which has been oppressive to outsider groups. E.g., Mary Hawkesworth, *Confounding Gender*, 22 *SIGNS* 649, 680-81 (1997). Thomas Berry recognized Earth, itself, as the referent for human affairs. THOMAS BERRY, *EVENING THOUGHTS: REFLECTING ON EARTH AS SACRED COMMUNITY* 81, 84 (2006) [hereinafter BERRY, *EVENING*]. Ecofeminism offers another perspective, critiquing dualistic thinking and suggesting ways of healing the culture-nature split. Joan L. Griscom, *On Healing the Nature/History Split in Feminist Thought*, in *FEMINIST THEOLOGICAL ETHICS* 271-81 (Lois K. Daly ed., 1994); see also CAROLYN MERCHANT, *THE DEATH OF NATURE: WOMEN, ECOLOGY, AND THE SCIENTIFIC REVOLUTION* (1980).

<sup>28</sup> BERRY, *EVENING*, *supra* note 27, at 17.

<sup>29</sup> E.g., Mohsen Al Attar Ahmed, *Monocultures of the Law: Legal Sameness in the Restructuring of Global Agriculture*, 11 *DRAKE J. AGRIC. L.* 139, 149 (2006).

rights movements, and grassroots campaigns for sustainability.<sup>30</sup> Once independent of each other, these movements have been coalescing to effect a wider change in consciousness that is necessary to bring about peace, social justice, and environmental health.<sup>31</sup> Into this momentous niche of time and onto the foundation laid by a multitude of environmental groups and workers, Earth Jurisprudence is stepping forward to offer ways to formalize and systematize Earth-oriented concepts in the field of law.<sup>32</sup>

In considering a philosophical framework for Earth-centered systems of jurisprudence, the citizens might focus on principles that govern the workings of Earth and the universe.<sup>33</sup> With this focus, human systems of governance would reflect the attributes of the natural systems in which they are embedded.<sup>34</sup> According to Thomas Berry, the universe is organized according to three main themes—subjectivity, communion, and differentiation.<sup>35</sup> As precepts that arise out of scientific theory and philosophy, these themes could serve as a platform for re-thinking law and governance.<sup>36</sup>

The first theme is subjectivity. Through subjectivity (autopoiesis), Thomas Berry and Brian Swimme see the universe as self-organizing, with self-manifesting power.<sup>37</sup> Stars regulate hydrogen and helium to produce light and chemical elements.<sup>38</sup> Earth is a self-regulating system in which the balance of chemicals in the atmosphere, oceans, and soil is continually renewed and adjusted.<sup>39</sup> Every atom of the universe is a self-organizing system, “a storm of ordered activity.”<sup>40</sup>

The second theme is communion. Through communion (interdependence), Berry and Swimme see the universe as a “web of relationships” that forms a unity that is comprehensive.<sup>41</sup> From the first moment of existence, when the first particles exploded into being, each particle

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<sup>30</sup> *E.g.*, HAWKEN, *supra* note 25, at 5, 12, 110. The religious and philosophical roots of environmental justice may be seen in ancient writings. *E.g.*, Anonymous, *The Earth, Mother of All, Homeric Hymns XXX, in ESSENTIAL SACRED WRITINGS FROM AROUND THE WORLD 55* (Mircea Eliade ed., 1967) (circa 800 B.C.E.).

<sup>31</sup> See BERRY, GREAT WORK, *supra* note 11, at 200.

<sup>32</sup> *Id.* at 3, 7, 201; CULLINAN, *supra* note 7, at 15, 176-77.

<sup>33</sup> CULLINAN, *supra* note 7, at 26-28.

<sup>34</sup> *Id.*

<sup>35</sup> BERRY, GREAT WORK, *supra* note 11, at 162; THOMAS BERRY, THE DREAM OF THE EARTH 45 (1988) [hereinafter BERRY, DREAM]; see also Andrew C. Revkin, *Thomas Berry, Writer and Lecturer with a Mission for Mankind, Dies at 94*, N.Y. TIMES, June 4, 2009, at B12 (reporting the death of Berry on June 1, 2009).

<sup>36</sup> CULLINAN, *supra* note 7, at 79; BERRY, DREAM, *supra* note 35, at 44.

<sup>37</sup> BRIAN SWIMME & THOMAS BERRY, THE UNIVERSE STORY: FROM THE PRIMORDIAL FLARING FORTH TO THE ECOZOIC ERA 75 (1992).

<sup>38</sup> *Id.*

<sup>39</sup> ELISABET SAHTOURIS, EARTH DANCE: LIVING SYSTEMS IN EVOLUTION 5 (2000); see also STERN, *supra* note 14, at xi (noting Earth’s absorption capacity of five gigatonnes of carbon dioxide equivalent, which is “more than 80% below the absolute level of current annual emissions”).

<sup>40</sup> SWIMME & BERRY, *supra* note 37, at 75.

<sup>41</sup> *Id.* at 77; BERRY, DREAM, *supra* note 35, at 46.

has been related to every other particle in the universe.<sup>42</sup> Scientists, particularly in the 20th century, have noted the full extent of relatedness of the universe: Isaac Newton brought forth our understanding of gravitational attraction; Darwin offered evidence of genetic connections in the web of beings; Einstein and quantum theorists presented new understandings of relatedness in the universe at sub-atomic levels.<sup>43</sup> “To be,” according to the universe, “is to be related.”<sup>44</sup>

The third theme is differentiation. Through differentiation (complexity), Berry and Swimme see the universe as a reality of “unending diversity.”<sup>45</sup> The originating explosion expressed a creativity that formed galaxies “of highly individuated starry oceans of fire.”<sup>46</sup> That creativity is ongoing. Multiplicity governs the structures of galaxies, stars, and planets. On Earth, life is reflected in an abundance of diversity. We humans manifest ourselves in an astonishing array of modes of being. “[T]o be,” according to the universe, “is to be different.”<sup>47</sup> Throughout the universe, tiny particles and enormous spiraling nebulae are expressing, “I am fresh.”<sup>48</sup>

How could the philosophical and scientific themes of subjectivity, communion, and differentiation translate into principles for systems of jurisprudence . . . and into working legal standards? A jurisprudential reflection of subjectivity may lie in the principle that all beings, systems, and entities in Nature have intrinsic value, to be expressed in law and governance. The theme of communion may be translated into jurisprudence as the responsibility of humanity to appreciate our relationship with Earth as a sacred trust. Finally, differentiation may be reflected in the notion of an Earth democracy that supports, at all levels of governance, legal recognition of all components of our Earth community, both present and future.<sup>49</sup>

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<sup>42</sup> SWIMME & BERRY, *supra* note 37, at 77. The Universe Story is “the story of the evolutionary development of the universe” from the moment of the Big Bang to the present era. Herman F. Greene, *Where is the Universe in the Universe Story?*, THE ECOZOIC: REFLECTIONS ON LIFE IN AN ECOLOGICAL AGE, 2008, at 57. As an epic narrative and a scientific account, it blends meaning-making through story-telling and scientific theory. *Id.* For Earth Jurisprudence, the Universe Story provides a context for law and other human institutions. Traditional jurisprudence places humanity at the center of the universe and provides theoretical approaches to legal doctrine from this anthropocentric stance. However, the Universe Story reminds us that humanity is not the center of the universe, but instead is a part of a whole. Consequently, law should reflect the position of humankind as a member of the Earth community. The Universe Story sets the standard for humanity to act in ethical relations with the rest of the broader community of which we are a part.

<sup>43</sup> BERRY, DREAM, *supra* note 35, at 46.

<sup>44</sup> SWIMME & BERRY, *supra* note 37, at 77.

<sup>45</sup> *Id.* at 73.

<sup>46</sup> BERRY, DREAM, *supra* note 35, at 45.

<sup>47</sup> SWIMME & BERRY, *supra* note 37, at 74.

<sup>48</sup> *Id.* at 75.

<sup>49</sup> CULLINAN, *supra* note 7, at 163; BURNS H. WESTON & TRACY BACH, RECALIBRATING THE LAWS OF HUMANS WITH THE LAWS OF NATURE: CLIMATE CHANGE, HUMAN RIGHTS, AND INTERGENERATIONAL JUSTICE 17-27 (2009).

The next three sections of this article will elaborate on the jurisprudential principles of intrinsic worth, relational responsibility, and Earth democracy. To illustrate how these principles may be reflected in legal doctrine, this article will highlight standing, the public trust doctrine, and intergenerational equity.

### III. The Principle of Subjectivity: Intrinsic Value of Earth

[E]ach individual thing in the universe is ineffable.

– Brian Swimme and Thomas Berry<sup>50</sup>

In discussing subjectivity, Berry and Swimme affirm that all of existence—from atoms to galaxies and from colonies of ants to the sun—exhibits creative and self-organizing dynamics. Despite the often careless way we interact with Earth and the entities of Earth, Nature is a subject and not a collection of objects.<sup>51</sup>

Recognizing the subjectivity of nature has legal, philosophical, and moral significance. Western law, philosophy, and morality have long been structured around dualistic thinking.<sup>52</sup> For example, law focuses on plaintiff and defendant, judge and jury, law and facts, theory and practice. In philosophy, key polarities are reason and passion, mind and body, community and autonomy, culture and nature.<sup>53</sup> In morality, we think in terms of right and wrong, good and evil, freedom and determinism, liberty and constraint. Our everyday thinking is structured in terms of male and female, fast and slow, early and late, tall and short, loud and soft, thin and fat.<sup>54</sup>

One of the chief dualisms underlying Western thought is subject and object.<sup>55</sup> Subjects (those like me) are assigned value and everything unlike me is an “other.”<sup>56</sup> The consequences of this dualism include justifying mistreatment of others based on perceived differences and interacting with the world through privilege, but being unaware of it.<sup>57</sup> Some scholars propose that othering or objectification is the basis of violence because the belief is internalized that only beings identified as subjects are capable of suffering cognizable harm.<sup>58</sup>

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<sup>50</sup> SWIMME & BERRY, *supra* note 37, at 74.

<sup>51</sup> CULLINAN, *supra* note 7, at 103 (quoting THOMAS BERRY, *THE ORIGIN, DIFFERENTIATION AND ROLE OF RIGHTS* (2001)).

<sup>52</sup> MARY F. BELENKY ET AL., *A TRADITION THAT HAS NO NAME: NURTURING THE DEVELOPMENT OF PEOPLE, FAMILIES, AND COMMUNITIES* 19-22 (1997).

<sup>53</sup> GENEVIEVE LLOYD, *THE MAN OF REASON: “MALE” AND “FEMALE” IN WESTERN PHILOSOPHY* 5-6, 99 (2d ed. 1993).

<sup>54</sup> BELENKY ET AL., *supra* note 52, at 19.

<sup>55</sup> IRIS MARION YOUNG, *JUSTICE AND THE POLITICS OF DIFFERENCE* 99 (1990).

<sup>56</sup> *Id.* at 58-60, 96-99.

<sup>57</sup> *Id.* at 58-59; *see also* STEPHANIE M. WILDMAN, *PRIVILEGE REVEALED: HOW INVISIBLE PREFERENCE UNDERMINES AMERICA* 8-13 (1996).

<sup>58</sup> Fr. John Kavanaugh, *Challenging a Commodity Culture*, *COMMONWEAL*, Nov. 1984, at 606, 608.

For Berry and Swimme, the subjectivity of the universe is manifest everywhere. Within everything in the universe is an “inner principle of being” and a power to participate in the ongoing creation story.<sup>59</sup> In this cosmology, sentience and potential sentience pervade the world.

While the subjectivity of “higher life forms,” such as mammals, may be granted, some may balk at considering natural entities or “mere things” to possess subjectivity.<sup>60</sup> Consider one of the most challenging cases – the subjectivity of rock formations. Russian biologist Vladimir I. Vernadsky defines life in terms of dispersal of rock, or rock that is rearranging itself.<sup>61</sup> The crust of the Earth, to Vernadsky, has sufficient energy to transform the passive geological parts into living parts through metabolic action. In this way, living organisms may be understood as composed of inorganic minerals from the crust of Earth, which cycles living matter into inorganic minerals and then transforms those minerals back to living form. It was of some significance to Vernadsky that the same atoms alternate between animate and inanimate matter.

From the perspective of the Universe Story, Berry and Swimme imagine that Earth, once a fiery rock, now “fills its air with songs of birds.”<sup>62</sup> Consequently, from the dynamic activity of molten magma, the self-organizing power of the universe brought forth new shapes—“animals capable of being racked with terror or stunned by awe of the very universe out of which they emerged.”<sup>63</sup>

Subjectivity may be translated into Earth Jurisprudence as the principle of the intrinsic worth of Nature. This claim stands on the premise that beings, systems, and entities in Nature warrant *moral consideration*. In 1978, the notion of “moral considerableness” was first used in the environmental context by ethicist Kenneth Goodpaster.<sup>64</sup> To Goodpaster, moral considerableness means that “something falls within the sphere of moral concern, that it is morally relevant, that it can be taken into account when moral decisions are made.”<sup>65</sup> Having moral considerableness is broader than holding moral rights and is “like showing up on a moral radar screen—how strong the signal is or where it is located on the screen are separate questions.”<sup>66</sup>

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<sup>59</sup> SWIMME & BERRY, *supra* note 37, at 75.

<sup>60</sup> Judith E. Koons, *Earth Jurisprudence: The Moral Value of Nature*, 25 PACE ENVTL. L. REV. 263, 269, 295 (2008) [hereinafter Koons, *Moral Value of Nature*].

<sup>61</sup> The English translation of Vernadsky’s 1926 monograph proposed that “the Biosphere is not only the ‘face of the Earth,’ but is the global dynamic system transforming our planet since the beginning of biogeological time.” VLADIMIR I. VERNADSKY, *THE BIOSPHERE* 25 (Peter N. Nevraumont ed., David B. Langmuir trans., Copernicus/Springer-Verlag 1998) (1926); *see also* SAHTOURIS, *supra* note 39, at 117.

<sup>62</sup> SWIMME & BERRY, *supra* note 37, at 76.

<sup>63</sup> *Id.* at 77.

<sup>64</sup> Kenneth E. Goodpaster, *On Being Morally Considerable*, 75 J. PHIL. 308 (1978) (beginning with the formulation of G.J. WARNOCK, *THE OBJECT OF MORALITY* 148 (1971) that principles of morality apply from the standpoint “not of the agent, but of the ‘patient.’”); *see also* CLARE PALMER, *ENVIRONMENTAL ETHICS AND PROCESS THINKING* 63 (1998).

<sup>65</sup> PALMER, *supra* note 64, at 63; *see also* Goodpaster, *supra* note 64, at 309, 311.

<sup>66</sup> W. Murray Hunt, *Are Mere Things Morally Considerable?*, 2 ENVTL. ETHICS 59, 60 (1980).

The claim of the intrinsic value of Nature also stands on the premise that beings, systems, and entities in Nature warrant *legal consideration* and should be given legal recognition. Christopher Stone presented the argument of the legal considerateness of Nature in various writings beginning in 1972.<sup>67</sup> Stone argues that, like moral consideration, having legal consideration should not be confused with holding rights.<sup>68</sup> An entity that has legal recognition may or may not be a rights-bearing entity.<sup>69</sup> Legal recognition may be given in a number of different ways. A jural person may be granted rights, be given duties and responsibilities, be the recipient of immunities and privileges, or be held liable—all of which are intermediate, operative notions that flow from the broader principle of legal considerableness.<sup>70</sup> Having legal status means being enabled to participate in the legal system, although not necessarily as a rights-holder.

Legal doctrines routinely allow “persons” that are not human beings to participate in the legal system. Among the “persons” permitted to sue are ships, trusts, municipalities, estates, joint ventures, universities, railroads, churches, states . . . not to mention business corporations.<sup>71</sup> Lack of moral decision-making capacity does not undermine the recognition of moral and legal status, for example, of humans with mental disabilities.<sup>72</sup> Furthermore, guardians and trustees regularly appear in our legal system to give voice to people and entities who are unable to speak.<sup>73</sup> Federal and state agencies already serve as guardians and trustees of natural entities such as public lands, marine mammals, and “natural resources” that have suffered damage.<sup>74</sup> There are many ways of bringing natural entities into legal considerateness.

The legal status of natural entities may be understood in terms of a floor of commonalities as well as a ceiling of limitations. For commonalities, we all share this ground, this air, this water, and this history of Earth and the universe. To give effect to these commonalities, Berry asserts that each component of Earth embodies three rights: “the right to

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<sup>67</sup> E.g., Christopher D. Stone, *Should Trees Have Standing? Toward Legal Rights for Natural Objects*, 45 S. CAL. L. REV. 450 (1972); Christopher D. Stone, *Should Trees Have Standing? Revisited: How Far Will Law and Morals Reach? A Pluralist Perspective*, 59 S. CAL. L. REV. 1 (1985) [hereinafter Stone 1985]; CHRISTOPHER D. STONE, *EARTH AND OTHER ETHICS: THE CASE FOR MORAL PLURALISM* (1987); CHRISTOPHER D. STONE, *SHOULD TREES HAVE STANDING? AND OTHER ESSAYS ON LAW, MORALS, AND THE ENVIRONMENT* (25th anniv. ed. 1996) [hereinafter STONE 1996].

<sup>68</sup> Stone 1985, *supra* note 67, at 46. This article encourages a broader view of Earth Jurisprudence than simply granting rights to Nature. Rights-based approaches can be seen as reductive and deflecting attention away from deeper structural inequities in law. E.g., HAYMAN, *supra* note 27, at 403-04. Rights are better understood as part of a legal framework that includes a number of instrumental notions—such as duties, responsibilities, liabilities, and immunities—that are recognized for those with legal status. Stone 1985, *supra* note 67, at 23-25, 64-66.

<sup>69</sup> Stone 1985, *supra* note 67, at 65.

<sup>70</sup> *Id.* at 23-25, 64-66; see also STONE 1996, *supra* note 67, at 67, 136 (discussing responsibilities, “which are typically viewed to run wider, and be less inflexible and imperative, than rights and duties”).

<sup>71</sup> *Sierra Club v. Morton*, 405 U.S. 727, 742 (1972) (Douglas, J., dissenting); STONE 1996, *supra* note 67, at 3, 13; see also Note, *What We Talk About When We Talk About Persons: The Language of Legal Fiction*, 114 HARV. L. REV. 1745 (2001).

<sup>72</sup> Stone 1985, *supra* note 67, at 45.

<sup>73</sup> Laura G. Kniaz, *Animal Liberation and the Law: Animals Board the Underground Railroad*, 43 BUFFALO L. REV. 765, 833 (1995).

<sup>74</sup> STONE 1996, *supra* note 67, at 18, 165.

be, the right to habitat or a place to be, and the right to fulfill its role in the ever-renewing processes of the Earth community.”<sup>75</sup> For limitations, Stone reasons that a natural entity’s legal status must be “intelligible.”<sup>76</sup> If, for example, a tree were to be granted rights, it would not be to sit on a jury, but perhaps to be given voice through a guardian to be saved from a chain saw.<sup>77</sup> In similar fashion, Berry understands rights to be role- and species-specific: “Difference in rights is qualitative, not quantitative. The rights of an insect would be of no value to a tree or a fish.”<sup>78</sup> Rights may vary for different rights-holders, but also allow for participation in the legal system.

How the legal status of jural natural entities is to be recognized—via rights, duties, or responsibilities, for example—and how that legal status is to be considered when in conflict with the rights, duties, and responsibilities of other jural persons and entities are matters for complex weighing.<sup>79</sup> However, the imagined difficulties of adjudicating and legislating Earth’s legal status do not alter the principle that Nature, having intrinsic value, is worthy of legal consideration.<sup>80</sup> Courts and legislators sort through weighty conflicts in complex cases, including those raising negligence in mass disasters, competing rights and duties of terminally ill patients and caregivers, criminal liability of corporations, patentability of life forms, and responsibilities of nations for war crimes.<sup>81</sup> In similar fashion, our legal system must be able to consider rights and obligations of other-than-human animals and ecological entities.

One way the principle of intrinsic value of Earth could be given legal expression is through the doctrine of standing. A number of scholars have called for rethinking the doctrine of standing, which at present denies other-than-humans and natural entities the right to sue in their own status.<sup>82</sup> Instead, in efforts to protect other-than-human species and natural entities, human plaintiffs must allege injury to their own associational, recreational, aesthetic, scientific, and educational interests.<sup>83</sup> The result is often strained, if not tortured and sad.<sup>84</sup>

A prototypical allegation to support standing appears in *Lujan v. Defenders of Wildlife*.<sup>85</sup> The affiant, a member of an environmental organization, alleged that she had traveled to Sri Lanka and “observed the habitat” of the endangered Asian elephant and the leopard. Although the affiant was not able to see the endangered species, she was harmed because she “intend[s] to return to Sri Lanka in the future and hope[s] to be more fortunate in spotting at least the

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<sup>75</sup> BERRY, EVENING, *supra* note 27, at 149.

<sup>76</sup> Stone 1985, *supra* note 67, at 37; STONE 1996, *supra* note 67, at 170.

<sup>77</sup> Stone 1985, *supra* note 67, at 37-38.

<sup>78</sup> BERRY, EVENING, *supra* note 27, at 150.

<sup>79</sup> Stone 1985, *supra* note 67, at 150-51.

<sup>80</sup> *Id.* at 23-39, 154; see also Koons, *Moral Value of Nature*, *supra* note 60, *passim*.

<sup>81</sup> Stone 1985, *supra* note 67, at 33.

<sup>82</sup> See *Valley Forge Christian Coll. v. Ams. United for Separation of Church and State, Inc.*, 454 U.S. 464, 472 (1982); *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992); *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 169 (2000) (“The relevant showing for Article III standing is not injury to the environment but injury to the plaintiff.”); David N. Cassuto, *The Law of Words: Standing, Environment, and Other Contested Terms*, 28 HARV. ENVTL. L. REV. 79, 94, 102 (2004).

<sup>83</sup> *Laidlaw*, 528 U.S. at 183; STONE 1996, *supra* note 67, at 166.

<sup>84</sup> Cassuto, *supra* note 82, at 102; STONE 1996, *supra* note 67, at 175.

<sup>85</sup> 504 U.S. at 563.

endangered elephant and leopard.” Allegations such as these miss the appropriate focal point for judicial inquiry, which should be on the threatened injury to endangered species, not on fictionalized human injury to gain access to court.<sup>86</sup> That the doctrinal requirements for entry into our legal system find their expression in sworn statements that are superficial and off-focus serves not only to diminish the dignity of human beings and our legal system, but also to ignore and jeopardize Nature. Focusing on real harm to valued participants in our legal system would bring nurturing depth and meaning to law and governance.

#### IV. The Principle of Communion: Relational Responsibility

The global environment with its finite resources is a common concern of all peoples. The protection of Earth’s vitality, diversity, and beauty is a sacred trust.

– *Earth Charter*<sup>87</sup>

The prior section discussed the notion of dualistic thinking, which sets up subject-object relationships that operate as a hierarchy. Linguists are careful to note that each binary is marked by a favored pole, generally expressed first, followed by a disfavored pole (for example, judge-jury, male-female, reason-passion, theory-practice).<sup>88</sup> This type of thinking, embedded in law and language, has been cited as the basis for the subject-object relationships that structure gender, race, and class injustice.<sup>89</sup> Binary thinking also supports the exploitation and degradation of Nature, viewed as a “resource” to be used by humans without compunction and as a wilderness to be tamed, as in Humanity versus Nature.<sup>90</sup> The consequences of a world view based on dualistic thinking are tragically apparent in the separation of humanity from Earth and the grotesque overuse of the goods of Earth to support consumptive lifestyles.<sup>91</sup> Dualistic thinking creates and reinforces humanity’s disassociation from Nature.

However, the functioning of the universe is not reflected in hierarchy or separation, but in a circling dance of spheres, orbits, and rotations.<sup>92</sup> Life on Earth may be seen as a circle, with the cycle of seasons, the rhythm of birth and death, and the movement of water from clouds to rain to transpiration in plants and back again.<sup>93</sup> Cullinan advises, “Western physicists confirm that the same atoms and sub-atomic particles may be part of the soil on Monday, a plant on

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<sup>86</sup> *Sierra Club v. Morton*, 405 U.S. 727, 741 (1972) (Douglas, J., dissenting); *Cetacean Cmty. v. Bush*, 386 F.3d 1169, 1176 (9th Cir. 2004) (observing that there is nothing in the Constitution that would prevent Congress from allowing suit in the name of other-than-human species); STONE 1996, *supra* note 67, at 174.

<sup>87</sup> Earth Charter Steering Committee and International Secretariat, *The Earth Charter*, pmb. (2000), available at <http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html>.

<sup>88</sup> BELENKY ET AL., *supra* note 52, at 21.

<sup>89</sup> Judith E. Koons, *Gunsmoke and Legal Mirrors: Women Surviving Intimate Battery and Deadly Legal Doctrines*, 14 J.L. & POL’Y 617, 683-85 (2006).

<sup>90</sup> Griscom, *supra* note 27, at 271-81.

<sup>91</sup> E.g., RICHARD LOUV, *LAST CHILD IN THE WOODS: SAVING OUR CHILDREN FROM NATURE-DEFICIT DISORDER* (2008); E.F. SCHUMACHER, *SMALL IS BEAUTIFUL: ECONOMICS AS IF PEOPLE MATTERED* (25th anniv. ed., Hartley & Marks Publishers 1999) (1973).

<sup>92</sup> SAHTOURIS, *supra* note 39, at 16-26.

<sup>93</sup> THICH NHAT HANH, *BEING PEACE* 45-46 (Arnold Kotler ed., Parallax Press 1996) (1987).

Tuesday and us on Wednesday.”<sup>94</sup> Even the predator and prey relationship bespeaks of a circle of intimacy.<sup>95</sup> Beings on Earth serve as food for others.<sup>96</sup>

Berry refers to this tendency of the universe as communion.<sup>97</sup> In the circle of interdependence, humankind is part of the whole.<sup>98</sup> Our proper relationship with Earth is not one of separation and exploitation, but one of membership in the Earth community.<sup>99</sup> Healthy natural systems function according to “whole-maintaining” characteristics so that each part of a system acts in a way that supports the well-being of the entire system.<sup>100</sup> Any aspect of the system that functions to undermine the whole will eventually stop operating, along with the full system.

To take a lesson from natural systems on Earth, humanity must begin to function as a component of a larger natural community.<sup>101</sup> Much of humankind has been behaving in ways that are at odds with being “part of a whole.”<sup>102</sup> Failing to orient toward our relationship to the whole, the bulk of humanity has been acting as a whole within itself, as the center of the universe.<sup>103</sup> The current environmental distress serves as a witness to humanity’s inattention to or rejection of our interdependence with Nature.

The theme of communion in the universe may be translated into jurisprudence as a principle of relational responsibility. Berry reminds us that humanity is endowed with special capacities of thought and consciousness that are a means for the universe to reflect on itself, with gratitude and wonder.<sup>104</sup> Nurtured by Earth, humanity has developed abilities to establish systems of law and governance that should reflect our role as guardians of the Earth that birthed, clothed, and fed us.<sup>105</sup> Because we have the capacity to understand and appreciate Earth, as well as our place within the whole, we bear a unique responsibility for developing and using that knowledge to preserve the Earth community.<sup>106</sup>

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<sup>94</sup> CULLINAN, *supra* note 7, at 126; *see also* Koons, *Moral Value of Nature*, *supra* note 60, at 290.

<sup>95</sup> BERRY, EVENING, *supra* note 27, at 150.

<sup>96</sup> *Id.*; CULLINAN, *supra* note 7, at 28.

<sup>97</sup> BERRY, GREAT WORK, *supra* note 11, at 16.

<sup>98</sup> Koons, *Moral Value of Nature*, *supra* note 60, at 292.

<sup>99</sup> ALDO LEOPOLD, A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE 204 (spec. commem. ed. 1989) (1949).

<sup>100</sup> CULLINAN, *supra* note 7, at 81 (quoting EDWARD GOLDSMITH, THE WAY: AN ECOLOGICAL WORLD VIEW (Green Books 1996) (1992)).

<sup>101</sup> Oliver A. Houck, *Are Humans Part of Ecosystems?*, 28 ENVTL. L. 1, 11 (1998).

<sup>102</sup> CULLINAN, *supra* note 7, at 100.

<sup>103</sup> *Id.*; *see also* Koons, *Moral Value of Nature*, *supra* note 60, at 292 (“In quantum physics, *the whole determines the behavior of the parts.*”).

<sup>104</sup> BERRY, EVENING, *supra* note 27, at 71.

<sup>105</sup> Koons, *Moral Value of Nature*, *supra* note 60, at 329-31.

<sup>106</sup> BERRY, GREAT WORK, *supra* note 11, at 173 (“[O]ur responsibility to the Earth is not simply to preserve it, it is to be present to the Earth in its next sequence of transformations.”); *see also* Sr. Patricia Siemen, *Weaving an Ethic of Right Relationships for the Earth Community*, in 3 WOMEN MOVING FORWARD 63, 78 (Judith Barr Bachay & Raúl Fernández-Calienes eds., 2008) (proposing that humans “must now consciously involve ourselves in efforts of immense spiritual and ethical maturation so as to insure the integral functioning and well being of the planet into the future”).

In a more concrete way, humanity's relationship to Earth may be best expressed as a trust and our responsibility as a trustee.<sup>107</sup> The public trust doctrine gives legal effectiveness to the notions of communion and relational responsibility. With roots in the Magna Carta and Roman law, the ideas and values of the public trust doctrine have been traced by Professor Charles F. Wilkinson to ancient societies in Europe, Africa, and East Asia, as well as to Native American and Muslim cultures.<sup>108</sup>

As traditionally expressed, the public trust doctrine applied trust principles to watercourses, shorelines, and underwater lands as the inherent property of the public at large or as subject to inherent easements for certain public purposes.<sup>109</sup> Wilkinson asserts that this tradition reflected a widespread appreciation for the public value of water and a deep reluctance to allow our waterways to be subject to extensive private acquisition.

In the United States, courts began using trust language to describe the relationship between states and waterways in 1842.<sup>110</sup> However, the case that established the viability of the public trust doctrine in the United States was decided fifty years later, in 1892.<sup>111</sup> In *Illinois Central Railroad v. Illinois*, the United States Supreme Court recognized that the state could revoke an absolute grant of more than one thousand acres of waterfront and submerged lands in Chicago on Lake Michigan.<sup>112</sup> According to the court, the state had received title to the harbor at statehood, but the title was impressed with a trust to maintain the waterways for public use.<sup>113</sup>

A milestone in the evolution of the public trust doctrine in the United States took place in 1970 with the publication of *The Public Trust Doctrine in Natural Resources Law* by Professor Joseph L. Sax.<sup>114</sup> Acknowledging the conventional boundaries of the public trust doctrine, Sax also “unhooked it from its traditional moorings on or around water bodies and applied it to dry land as well.”<sup>115</sup> In widening the concept of the public trust, Sax was instrumental in shifting the focus of the doctrine to environmental protection.<sup>116</sup> As a reflection of changing public values toward Earth, the public trust doctrine has addressed “conservation, scenic resources, open space, generation of energy, and preservation of ecosystems and historical sites.”<sup>117</sup>

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<sup>107</sup> Carol M. Rose, *Joseph Sax and the Idea of the Public Trust*, 25 *ECOLOGY L.Q.* 351, 351 (1998).

<sup>108</sup> Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 *ENVTL. L.* 425, 429-30 (1989).

<sup>109</sup> *Id.* at 427; see also Rose, *supra* note 107, at 351; Patricia E. Salkin, *The Use of the Public Trust Doctrine as a Management Tool over Public and Private Lands*, 4 *ALB. L.J. SCI. & TECH.* 1, 2 (1994).

<sup>110</sup> *Martin v. Waddell*, 41 U.S. 367 (1842).

<sup>111</sup> *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387 (1892).

<sup>112</sup> *Id.* at 453-55; see also Wilkinson, *supra* note 108, at 452.

<sup>113</sup> *Illinois Cent. R.R.*, 146 U.S. at 452-59.

<sup>114</sup> 68 *MICH. L. REV.* 471 (1969-70); see also Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 *U.C. DAVIS L. REV.* 185 (1980-81); Rose, *supra* note 107, at 352.

<sup>115</sup> Rose, *supra* note 107, at 352.

<sup>116</sup> Salkin, *supra* note 109, at 2.

<sup>117</sup> *Id.* at 3. See also M. Casey Jarman, *The Use of the Public Trust Doctrine for Resource-Based Area-Wide Management: What Lessons Can We Learn from the Navigable Waters Trust?*, 4 *ALB. L.J. SCI. & TECH.* 7, 8 (1994) (“While not perfect, the public trust doctrine has the potential for protecting the integrity of ecosystems in a way that legislative and other common law remedies alone do not.”); see also Mary Christina Wood, *Protecting the Wildlife Trust: A Reinterpretation of Section 7 of the Endangered Species Act*, 34 *ENVTL. L.* 605 (2004).

As applied to water, Wilkinson refers to the public trust doctrine as a “set of modest beliefs,” including a belief in the propriety of short-term private interests accommodating broader public values, an understanding of the necessity of property rights yielding to responsible regulation, a recognition that polluting rivers is wrong, as well as “a belief that our rivers and canyons are more than commodities, that they have a trace of the sacred.”<sup>118</sup> As applied to other aspects of Nature, Mary Christina Wood affirms the potential of the public trust doctrine to catalyze us into the next phase of our relationship with Earth, a phase in which human law and governance express our responsibility to safeguard the well-being of Earth as a trust.<sup>119</sup> With this catalyst, what is changed is not only the law, but also human hearts and minds. Without a change in human consciousness to embrace our responsibilities as members of the Earth community, no set of legal doctrines will resolve the environmental crises of the 21st century.

## V. The Principle of Differentiation: Earth Democracy

Nature abhors uniformity.

– Thomas Berry<sup>120</sup>

To Berry and Swimme, creativity is at the heart of the workings of the universe.<sup>121</sup> With ever-expanding complexity, the universe expresses an “outrageous bias for the novel, for the unfurling of surprise in prodigious dimensions throughout the vast range of existence.”<sup>122</sup> On Earth, Nature produces an unending demonstration of diversity, from species and structures to individuals and dynamics: “No two days are the same, no two snowflakes, no two flowers, trees, or any other of the infinite number of life-forms.”<sup>123</sup>

In considering systems of governance inspired by patterns of Nature, Cullinan proposes that the diversity of Earth’s regulatory systems may be expressed through Earth Democracy.<sup>124</sup> At present, constitutional democracies articulate the purpose of governance to be “of the people, by the people, and for the people.”<sup>125</sup> In our present circumstances, we may ask how well governance “for the people” has worked. A short-term focus on human economic gains has placed Earth’s biosphere, species, and ecosystems in jeopardy. Instead, as Cullinan understands it, diversified systems of Earth governance would be of the people and by the people, but *for* the whole Earth community.<sup>126</sup>

<sup>118</sup> Wilkinson, *supra* note 108, at 471-72.

<sup>119</sup> Mary Christina Wood, *Nature’s Trust: Reclaiming an Environmental Discourse*, 25 VA. ENVTL. L.J. 243, 431, 462 (2007); BERRY, GREAT WORK, *supra* note 11, at 201.

<sup>120</sup> BERRY, GREAT WORK, *supra* note 11, at 149.

<sup>121</sup> SWIMME & BERRY, *supra* note 37, at 72.

<sup>122</sup> *Id.* at 74.

<sup>123</sup> BERRY, GREAT WORK, *supra* note 11, at 149.

<sup>124</sup> CULLINAN, *supra* note 7, at 83.

<sup>125</sup> A. Lincoln, Gettysburg Address (Nov. 19, 1863); CULLINAN, *supra* note 7, at 116-17.

<sup>126</sup> CULLINAN, *supra* note 7, at 116-17.

Through an approach to governance called Earth Democracy, humanity's role is recontextualized within the Earth family and girded with a purpose that safeguards the wider Earth community.<sup>127</sup> With roots in ancient societies, Earth Democracy is an emerging political movement that is gathering under banners of peace, justice, and sustainability.<sup>128</sup> According to physicist and environmental activist Vandana Shiva, "Earth Democracy connects the particular to the universal, the diverse to the common, and the local to the global."<sup>129</sup>

To respect the particular, Earth Democracy emphasizes local governance.<sup>130</sup> Shiva describes it as a "living democracy," a type of governance that "grows like a tree, from the bottom up."<sup>131</sup> People who are grounded in a place, who know the plants and animals, seasons and signs, ecosystems and processes of that place on Earth are in the best position to speak and care for the lands, waters, and beings of that community.<sup>132</sup> Shiva believes that localization may pose "an antidote to globalization," which has led to the loss of biological and cultural diversity through global economics, transnational corporations, and industrial agribusiness.<sup>133</sup>

Earth Democracy proposes that decisions should be made at the most appropriate level. Not every decision is made at the local level, according to Shiva.<sup>134</sup> Instead, Earth Democracy is guided by the principle of subsidiarity, calling for decisions to be made at the lowest appropriate level of governance.<sup>135</sup> Through subsidiarity, local control would be denominated for urban air pollution, regional control would be appropriate for transboundary air pollution, and global control would be recognized for global atmospheric pollution.<sup>136</sup>

An example of Earth Democracy at the local level may be found in the Democracy Schools that have arisen from the efforts of Pennsylvania townships to keep corporate factory hog farms out of their communities.<sup>137</sup> With assistance from Thomas Linzey and the Community Environmental Legal Defense Fund, local groups drafted ordinances banning corporate actors from bringing such business into their communities, and then broadened home rule powers to grant constitutional rights to ecosystems while stripping corporations of constitutional rights.

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<sup>127</sup> VANDANA SHIVA, *EARTH DEMOCRACY* 1, 9-11, 88-89 (2005).

<sup>128</sup> *Id.* at 1.

<sup>129</sup> *Id.*

<sup>130</sup> *Id.* at 10, 64.

<sup>131</sup> *Id.* at 10.

<sup>132</sup> *Id.* at 82-84; *see also* ERIC T. FREYFOGLE, *BOUNDED PEOPLE, BOUNDLESS LANDS: ENVISIONING A NEW LAND ETHIC* 158 (1998).

<sup>133</sup> SHIVA, *supra* note 127, at 88-91; BERRY, *GREAT WORK*, *supra* note 11, at 149 (asserting that industrial agriculture violates the universe covenant and the Earth covenant).

<sup>134</sup> SHIVA, *supra* note 127, at 64.

<sup>135</sup> *Id.*

<sup>136</sup> Armin Rosencranz, *Enforcing Environmental Norms Under International Law: The Origin and Emergence of International Environmental Norms*, 26 *HASTINGS INT'L & COMP. L. REV.* 309, 310 (2003).

<sup>137</sup> Thomas Linzey, *Of Corporations, Law, and Democracy: Claiming the Rights of Communities and Nature*, Twenty-Fifth Annual E.F. Schumacher Lectures (Oct. 2005) (transcript available at [http://www.schumachersociety.org/publications/linzey\\_06.html](http://www.schumachersociety.org/publications/linzey_06.html)).

At the bioregional level, Earth Democracy supports efforts to institute forms of governance based on ecosystems.<sup>138</sup> Bradley Karkkainen's proposal for "collaborative ecosystem governance" articulates the need for decision-making at the ecosystem level and gives examples such as the "watershed approach" to protection of aquatic ecosystems that is taking place in the Chesapeake Bay and Great Lakes Programs.<sup>139</sup> Because ecosystems such as the Chesapeake Bay do not fit within conventional governmental boundary lines, one important feature of this model is horizontal and vertical coordination across governments at the same level as well as across multiple tiers of government.<sup>140</sup>

At the global and nation-state level, Earth Democracy can be expressed in ways that recognize our duty to future generations.<sup>141</sup> The current evidence on global warming clearly demonstrates that actions taken now will have an impact on the systems and inhabitants of the world in the middle to latter half of the 21st century, as Nicholas Stern has pointed out.<sup>142</sup> The severity and irreversibility of anticipated impacts of global warming mandate a response from the present generation.<sup>143</sup> That response should match the scientific data that has been presented, requiring greenhouse gases to be reduced to the level that accords with the natural capacity of Earth to remove them from the atmosphere.<sup>144</sup> Moreover, the looming extinction rates of other species put significant pressure on the existing moral and legal framework to expand consideration not only to future generations of human beings, but also to remote species and Earth systems.<sup>145</sup> Reconstructing law and governance along the lines of Earth Democracy has the potential to keep humanity from creating a "garbage heap" for the diversity of life that will follow us.<sup>146</sup>

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<sup>138</sup> Bradley C. Karkkainen, *Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism*, 21 VA. ENVTL. L.J. 189, 207-08 (2001/2002).

<sup>139</sup> *Id.* at 191. An "ecosystem approach" to federal oceans and land use decision-making may be seen on a wide scale, spurred by the growth of the field of ecosystem science. *E.g.*, Robert B. Keiter, *Ecological Concepts, Legal Standards, and Public Land Law: An Analysis and Assessment*, 44 NAT. RESOURCES J. 943 (2004); Alfred R. Light, *The Waiter at the Party: A Parable of Ecosystem Management in the Everglades*, 36 ENVTL. L. REP. 10771 (2006); Howard S. Schiffman, *Moving from Single-Species Management to Ecosystem Management in Regional Fisheries Management Organizations*, 13 ILSA J. INT'L & COMP. L. 387 (2007).

<sup>140</sup> Karkkainen, *supra* note 138, at 207, 212, 217-18, 239, 242 (also discussing the potential of an ecosystem focus for renewing democracy).

<sup>141</sup> Convention on Biological Diversity pmbl., art. 2, June 5, 1992, 31 I.L.M. 818, available at <http://www.cbd.int/convention/convention.shtml>; see also SHIVA, *supra* note 127, at 1.

<sup>142</sup> STERN, *supra* note 14, at i.

<sup>143</sup> WESTON & BACH, *supra* note 49, at 14; Bryan G. Norton, *Future Generations, Obligations to*, in 2 ENCY. OF BIOETHICS 892, 895 (Warren T. Reich ed., 1995) (defining sustainability in moral terms as meaning that "[e]ach generation is obligated to use the earth, and especially the processes that sustain its productivity, so that future generations face options and possibilities as rich as the preceding generation had").

<sup>144</sup> STERN, *supra* note 14, at iv, xi (relaying information about the absorption capacity of the Earth, five gigatonnes of carbon dioxide equivalent (5 GtCO<sub>2</sub>e), which is being greatly exceeded by current annual emissions, estimated at 42 GtCO<sub>2</sub>e in 2000).

<sup>145</sup> Stone 1985, *supra* note 67, at 13.

<sup>146</sup> Joel Feinberg, *The Rights of Animals and Unborn Generations*, in PHILOSOPHY AND ENVIRONMENTAL CRISIS 64-65 (W. Blackstone ed., 1980).

In these ways, Earth Democracy is not only an environmental philosophy, it is also a political philosophy. In assuming our duties to Earth, humanity also creates diverse democratic approaches to governance. Consequently, the preservation of the Earth community is linked with the reinvention of local, regional, and global governance.

VI. Conclusion

How can desire fail?  
—we have only begun  
  
to imagine justice and mercy,  
only begun to envision  
  
how it might be  
to live as siblings with beast and flower,  
not as oppressors.

— Denise Levertov<sup>147</sup>

Earth Jurisprudence seeks to shift the focus of jurisprudence from a narrow, anthropocentric perspective focused on the welfare of humanity to an eco-centered perspective that recognizes humankind as a part of the broader Earth community. To make that shift, this article has proposed that we need a depth of vision that appreciates the intrinsic value of Earth and all beings, systems, and entities in Nature, a clarity of vision to embrace our relationship with Earth as a trust, and a breadth of vision to support Earth Democracy in all forms of governance.

We have entered a pivotal time in the history of Earth, with the likelihood that global warming of at least two degrees Celsius will result in the compromise of all major ecosystems of Earth and the extinction of thousands of species.<sup>148</sup> As the moral agents on this planet, humankind has the responsibility to recreate human institutions to meet this challenge. It is not too late for a renewal of systems of law and governance. The time is right for humanity to envision new systems of jurisprudence for the well-being of the entire Earth community. Earth Jurisprudence is in bud.<sup>149</sup>

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<sup>147</sup> Levertov, *supra* note 6, at 55.

<sup>148</sup> STERN, *supra* note 14, at iii, v.

<sup>149</sup> Levertov, *supra* note 6, at 55 (“So much is unfolding that must complete its gesture . . .”).

**DISCUSSION POINTS**

1. Judith Koons defines jurisprudence as “the study and evaluation of the structure, assumptions, premises, and values of law.” Give some examples of aspects of environmental law that raise issues of the defining structure, underlying assumptions, guiding premises, or illuminating values of law.
2. What arguments do the authors make to suggest that our laws and present systems of jurisprudence are inadequate? Do any ecological events point to the necessity of changes in our systems of law and governance?
3. What principles of Earth Jurisprudence are articulated by the Gaia/UKELA report? What are the three Earth rights articulated by Thomas Berry?
4. How does the Gaia/UKELA report explain “mutually-enhancing relations” between humanity and other members of the Earth community?
5. What is the relationship between the environmental movement and Earth Jurisprudence?
6. What arguments support preserving Earth for future generations? Should this approach include not only humans, but also other species and Earth systems?
7. How does Koons relate the principles that guide the functioning of the universe to principles of jurisprudence and to legal doctrines? How do you understand the notion that beings, systems, and entities in nature warrant moral consideration? Legal consideration?
8. The faculty of Barry University School of Law adopted the following definition of Earth Jurisprudence:

Earth Jurisprudence seeks Earth-centered approaches to law and governance. As an integral part of the broader Earth community, humanity has responsibility to act for the well-being of the planet and future generations. Earth Jurisprudence draws forth Earth-centered comprehensive solutions from within as well as beyond existing law.

Is there any other principle that you would add?

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### III. *Declaring Interdependence and Thinking Like a Mountain*

#### Ecology Action et al., *The Unanimous Declaration of Interdependence* (1969)<sup>150</sup>

\* \* \*

We hold these truths to be self-evident: that all species have evolved with equal and unalienable rights, that among these are Life, Liberty and the pursuit of Happiness; that to insure these rights, nature has instituted certain principles for the sustenance of all species, deriving these principles from the capabilities of the planet's life-support system; that whenever any behavior by members of one species becomes destructive to these principles, it is the function of other members of that species to alter or abolish such behavior and to reestablish the theme of interdependence with all life, in such a form and in accordance with those natural principles that will effect their safety and happiness. Prudence, indeed, will dictate that cultural values long established should not be altered for light and transient causes, that [hu]mankind is more disposed to suffer from asserting a vain notion of independence than to right itself by abolishing that culture to which it is now accustomed. But when a long train of abuses and usurpations of these principles of interdependence evinces a subtle design to reduce them, through absolute despoliation of the planet's fertility, to a state of ill will, bad health, and great anxiety, it is their right, it is their duty to throw off such notions of independence from other species and from the life support system, and to provide new guards for the re-establishment of the security and maintenance of these principles. Such has been the quiet and patient [sufferance] of all species, and such is now the necessity which constrains the species of Homo sapiens to reassert the principles of interdependence. The history of the present notion of independence is a history of repeated injuries and usurpations all having in direct effect the establishment of an absolute tyranny over life. To prove this let facts be submitted to a candid world.

1. People have refused to recognize the roles of other species and the importance of natural principles for growth of the food they require.
2. People have refused to recognize that they are interacting with other species in an evolutionary process.
3. People have fouled the waters that all life partakes of.
4. People have transformed the face of the earth to enhance their notion of independence from it and in so doing have interrupted many natural process that they are dependent upon.
5. People have contaminated the common household with substances that are foreign to the life processes and which cause many organisms great difficulties.

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<sup>150</sup> Originally published in the *Whole Earth Catalogue Supplement* (1969); also published in *Sources* (Theodore Roszak ed., 1972). Online versions are available at <http://rexweyler.com/greenpeace/greenpeace-history/declaration-of-interdependence> and <http://www.motherearthnews.com/Nature-Community/1970-03-01/The-Unanimous-Declaration-of-Interdependence-from-the-Whole-Earth-Catalog-S.aspx>.

6. People have massacred and extincted fellow species for their feathers and furs, for their skins and tusks.
7. People have persecuted most persistently those known as coyote, lion, wolf, and fox because of their dramatic role in the expression of interdependence.
8. People have warred upon one another which has brought great sorrow to themselves and vast destruction to the homes and food supplies of many living things.
9. People are proliferating in such an irresponsible manner as to threaten the survival of all species.
10. People have denied others the right to live to completion their interdependencies to the full extent of their capabilities.

WE therefore, among the mortal representatives of the eternal process of life and evolutionary principles, in mutual humbleness, explicitly stated, appealing to the ecological consciousness of the world for the rectitude of our intentions, do solemnly publish and declare that all species are interdependent; that they are all free to realize these relationships to the full extent of their capabilities; that each species is subservient to the requirements of the natural processes that sustain life. And for the support of this declaration with a firm reliance on all other members of our species who understand their consciousness as a capability, to assist all of us and our [siblings] to interact in order to realize a life process that manifests its maximum potential of diversity, vitality and planetary fertility to ensure the continuity of life on earth.

Signed ECOLOGY ACTION and 50 other signatures of concerned Homo sapiens.

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**Aldo Leopold, *A Sand County Almanac*  
129-33, 203-07, 210-14, 223-25 (spec. commem. ed. 1989) (1949)<sup>151</sup>**

*Thinking Like a Mountain*

A deep chesty bawl echoes from rimrock to rimrock, rolls down the mountain, and fades into the far blackness of the night. It is an outburst of wild defiant sorrow, and of contempt for all the adversities of the world.

Every living thing (and perhaps many a dead one as well) pays heed to that call. To the deer it is a reminder of the way of all flesh, to the pine a forecast of midnight scuffles and of blood upon the snow, to the coyote a promise of gleanings to come, to the cowman a threat of red ink at the bank, to the hunter a challenge of fang against bullet. Yet behind these obvious and immediate hopes and fears there lies a deeper meaning, known only to the mountain itself. Only the mountain has lived long enough to listen objectively to the howl of a wolf.

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<sup>151</sup> Reprinted by permission of Oxford University Press, Inc. from *A Sand County Almanac and Sketches Here and There*, by Aldo Leopold, © 1949, 1977. Aldo Leopold was one of the founders of the environmental movement in the United States and is considered the progenitor of wildlife ecology.

Those unable to decipher the hidden meaning know nevertheless that it is there, for it is felt in all wolf country, and distinguishes that country from all other land. It tingles in the spine of all who hear wolves by night, or who scan their tracks by day. Even without sight or sound of wolf, it is implicit in a hundred small events: the midnight whinny of a pack horse, the rattle of rolling rocks, the bound of a fleeing deer, the way shadows lie under the spruces. Only the ineducable tyro can fail to sense the presence or absence of wolves, or the fact that mountains have a secret opinion about them.

My own conviction on this score dates from the day I saw a wolf die. We were eating lunch on a high rimrock, at the foot of which a turbulent river elbowed its way. We saw what we thought was a doe fording the torrent, her breast awash in white water. When she climbed the bank toward us and shook out her tail, we realized our error: it was a wolf. A half-dozen others, evidently grown pups, sprang from the willows and all joined in a welcoming mêlée of wagging tails and playful maulings. What was literally a pile of wolves writhed and tumbled in the center of an open flat at the foot of our rimrock.

In those days we had never heard of passing up a chance to kill a wolf. In a second we were pumping lead into the pack, but with more excitement than accuracy: how to aim a steep downhill shot is always confusing. When our rifles were empty, the old wolf was down, and a pup was dragging a leg into impassable slide-rocks.

We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.

~ ~ ~

Since then I have lived to see state after state extirpate its wolves. I have watched the face of many a newly wolfless mountain, and seen the south-facing slopes wrinkle with a maze of new deer trails. I have seen every edible bush and seedling browsed, first to anaemic desuetude, and then to death. I have seen every edible tree defoliated to the height of a saddlehorn. Such a mountain looks as if someone had given God a new pruning shears, and forbidden Him all other exercise. In the end the starved bones of the hoped-for deer herd, dead of its own too-much, bleach with the bones of the dead sage, or molder under the high-lined junipers.

I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer. And perhaps with better cause, for while a buck pulled down by wolves can be replaced in two or three years, a range pulled down by too many deer may fail of replacement in as many decades.

So also with cows. The cowman who cleans his range of wolves does not realize that he is taking over the wolf's job of trimming the herd to fit the range. He has not learned to think like a mountain. Hence we have dustbowls, and rivers washing the future into the sea.

~ ~ ~

We all strive for safety, prosperity, comfort, long life, and dullness. The deer strives with his supple legs, the cowman with trap and poison, the statesman with pen, the most of us with machines, votes, and dollars, but it all comes to the same thing: peace in our time. A measure of success in this is all well enough, but perhaps is a requisite to objective thinking, but too much safety seems to yield only danger in the long run. Perhaps this is behind Thoreau's dictum: In wildness is the salvation of the world. Perhaps this is the hidden meaning in the howl of the wolf, long known among mountains, but seldom perceived among [humans].

\* \* \*

### *The Community Concept*

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The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.

This sounds simple: do we not already sing our love for and obligation to the land of the free and the home of the brave? Yes, but just what and whom do we love? Certainly not the soil, which we are sending helter-skelter downriver. Certainly not the waters, which we assume have no function except to turn turbines, float barges, and carry off sewage. Certainly not the plants, of which we exterminate whole communities without batting an eye. Certainly not the animals, of which we have already extirpated many of the largest and most beautiful species. A land ethic of course cannot prevent the alteration, management, and use of these 'resources,' but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state.

In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

In human history, we have learned (I hope) that the conqueror role is eventually self-defeating. Why? Because it is implicit in such a role that the conqueror knows, *ex cathedra*, just what makes the community clock tick, and just what and who is valuable, and what and who is worthless, in community life. It always turns out that he knows [none of these things], and this is why his conquests eventually defeat themselves.

In the biotic community, a parallel situation exists. Abraham knew exactly what the land was for: it was to drip milk and honey into Abraham's mouth. At the present moment, the assurance with which we regard this assumption is inverse to the degree of our education.

The ordinary citizen today assumes that science knows what makes the community clock tick; the scientist is equally sure that he does not. He knows that the biotic mechanism is so complex that its workings may never be fully understood.

That [humanity] is, in fact, only a member of a biotic team is shown by an ecological interpretation of history. Many historical events, hitherto explained solely in terms of human enterprise, were actually biotic interactions between people and land. The characteristics of the land determined the facts quite as potently as the characteristics of the [people] who lived on it.

Consider, for example, the settlement of the Mississippi valley. In the years following the Revolution, three groups were contending for its control: the native Indian, the French and English traders, and the American settlers. Historians wonder what would have happened if the English at Detroit had thrown a little more weight into the Indian side of those tipsy scales which decided the outcome of the colonial migration into the cane-lands of Kentucky. It is time now to ponder the fact that the cane-lands, when subjected to the particular mixture of forces represented by the cow, plow, fire, and axe of the pioneer, became bluegrass.<sup>[152]</sup> What if the plant succession inherent in this dark and bloody ground had, under the impact of these forces, given us some worthless sedge, shrub, or weed? . . . Would there have been any overflow into Ohio, Indiana, Illinois, and Missouri? Any Louisiana Purchase? Any transcontinental union of new states? Any Civil War?

Kentucky was one sentence in the drama of history. We are commonly told what the human actors in this drama tried to do, but we are seldom told that their success, or the lack of it, hung in large degree on the reaction of particular soils to the impact of the particular forces exerted by their occupancy. In the case of Kentucky, we do not even know where the bluegrass came from—whether it is a native species, or a stowaway from Europe.

\* \* \*

In short, the plant succession steered the course of history; the pioneer simply demonstrated, for good or ill, what successions inhered in the land. Is history taught in this spirit? It will be, once the concept of land as a community really penetrates our intellectual life.

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<sup>152</sup> Eds. Note: The bluegrass and the calcium-rich limestone beneath it can be credited with some of central Kentucky's most distinguishing attributes: the Civil War, Mammoth Cave, Bourbon whiskey, and the multi-billion dollar Thoroughbred horseracing industry, with their concomitant social and cultural heritage. Essentially, in Kentucky's case, "geology was destiny." JOHN JEREMIAH SULLIVAN, *BLOOD HORSES: NOTES OF A SPORTWRITER'S SON* 33-34 (2004).

*Substitutes for a Land Ethic*

\* \* \*

One basic weakness in a conservation system based wholly on economic motives is that most members of the land community have no economic value. Wildflowers and songbirds are examples. Of the 22,000 higher plants and animals native to Wisconsin, it is doubtful whether more than 5 per cent can be sold, fed, eaten, or otherwise put to economic use. Yet these creatures are members of the biotic community, and if (as I believe) its stability depends on its integrity, they are entitled to continuance.

When one of these non-economic categories is threatened, and if we happen to love it, we invent subterfuges to give it economic importance. At the beginning of the century songbirds were supposed to be disappearing. Ornithologists jumped to the rescue with some distinctly shaky evidence to the effect that insects would eat us up if birds failed to control them. The evidence had to be economic in order to be valid.

It is painful to read these circumlocutions today. We have no land ethic yet, but we have at least drawn nearer the point of admitting that birds should continue as a matter of biotic right, regardless of the presence or absence of economic advantage to us.

A parallel situation exists in respect of predatory mammals, raptorial birds, and fish-eating birds. Time was when biologists somewhat overworked the evidence that these creatures preserve the health of game by killing weaklings, or that they control rodents for the farmer, or that they prey only on 'worthless' species. Here again, the evidence had to be economic in order to be valid. It is only in recent years that we hear the more honest argument that predators are members of the community, and that no special interest has the right to exterminate them for the sake of a benefit, real or fancied, to itself. \* \* \*

Some species of trees have been 'read out of the party' by economics-minded foresters because they grow too slowly, or have too low a sale value to pay as timber crops: white cedar, tamarack, cypress, beech, and hemlock are examples. In Europe, where forestry is ecologically more advanced, the non-commercial tree species are recognized as members of the native forest community, to be preserved as such, within reason. Moreover some (like beech) have been found to have a valuable function in building up soil fertility. The interdependence of the forest and its constituent tree species, ground flora, and fauna is taken for granted.

\* \* \*

To sum up: a system of conservation based solely on economic self-interest is hopelessly lopsided. It tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are (as far as we know) essential to its healthy functioning. It assumes, falsely, I think, that the economic parts of the biotic clock will function without the uneconomic parts. It tends to relegate to government many functions eventually too large, too complex, or too widely dispersed to be performed by government.

An ethical obligation on the part of the private owner is the only visible remedy for these situations.

\* \* \*

### *The Outlook*

It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense.

\* \* \*

The ‘key-log’ which must be moved to release the evolutionary process for an ethic is simply this: quit thinking about decent land-use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

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### **DISCUSSION POINTS**

1. What grievances are asserted based on humanity’s “independence” from the rest of the planet? How does interdependence relate to principles governing the functioning of the universe? If interdependence were a societal norm, what changes would take place in law and governance? Give examples.
2. What does Aldo Leopold mean when he says that “[o]nly the mountain has lived long enough to listen objectively to the howl of a wolf”? What is the mountain’s “secret opinion” about wolves?
3. What would it mean for lawyers to “think like a mountain”?
4. What is the community concept of Leopold’s land ethic? What is humanity’s role in that land ethic?
5. What historic events have been driven by nature, or by the interaction between humanity and nature? What events in your home state have depended on the ecosystems there?
6. According to Leopold, what is wrong with a system of conservation based solely on economics? What does Leopold propose?

7. How does Leopold sum up the “right” and “wrong” of a land ethic? Does Leopold’s land ethic provide us necessary guidance in the early twenty-first century?
8. How do Leopold’s land ethic and the Declaration of Interdependence relate to Thomas Berry’s three Earth rights?

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#### ***IV. Earth Jurisprudence as a Path to the Future***

**Judith E. Koons, *Earth Jurisprudence: The Future of Law and the Planet*  
(2008)<sup>153</sup>**

A notable shift of consciousness is underway in the United States that is calling citizens to integrate ecologically responsible actions into their daily lives. Living lightly on the land means making Earth-conscious choices, such as avoiding the use of water bottles that litter landfills, eating locally, planting trees and water-conserving xeriscapes, using biodegradable and energy-efficient household products (e.g., compact fluorescent light bulbs), and reducing, reusing, and recycling.

Simply adjusting human lifestyles to minimize our impact on the Earth, however, does not address the underpinnings of the law, which allow nature to be subordinated to profit. The effects of our system of jurisprudence are reflected in a paradigm of relentless development by which nature has been exploited to a sometimes irreversible degree. We have entered the largest mass extinction since the age of the dinosaurs 65 million years ago. [Thousands of] species of plants and animals are facing a high risk of extinction. And respected scientists are warning that global warming is reaching a tipping point that, if not reversed, will change the physical geography of the world.

What roles do laws and lawyers play in looming questions about the health and future of the planet?

An emerging field of law called "Earth Jurisprudence" is based on respect for nature and is drawing together lawyers, law professors, students, theologians, scientists, economists, philosophers, and members of indigenous communities to engage in a fundamental rethinking of law for the health of the comprehensive Earth community. Earth Jurisprudence recognizes the perils facing Earth and her inhabitants and the need to make a marked shift in the way we think about law, governance, and lawyering.

Key principles of Earth Jurisprudence, as authored by Thomas Berry and Cormac Cullinan, among others, include:

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<sup>153</sup> Originally published in YOUNG LAWYER (A.B.A. Young Lawyers Div., Chicago, Ill.), July 2008, at 2.

- Widening the moral community from centuries of failed anthropocentricity to include species, ecosystems, and entities in nature.
- Giving life, meaning, and application to an Earth ethic that recognizes humanity as a part of a larger whole and that presupposes that a thing is right to the extent that it preserves the health of the wider Earth community.
- Recognizing that beings, entities, and systems in nature have rights to fulfill their roles within the Earth community: a being has a right to be, a species has a right to habitat, a river has a right to flow without being canalized. Human rights should not be understood to cancel out the rights of species, entities, and systems to exist in nature.
- Considering ways to reframe the law of property to reflect the health of the land.
- Infusing into Western law the landed wisdom of indigenous communities.
- Shifting into ecosystem-based governance approaches that support particularized knowledge, collaboration of interests, counting of ecosystem services, and adaptive management practices to reflect interconnections among ecosystems, people, and governance.

How can . . . lawyers help advance these principles? The call to participate in Earth Jurisprudence may be vocational or personal. Some practical legal applications of Earth Jurisprudence are:

- Revitalizing the ancient public trust doctrine to safeguard nature.
- Reformulating the notion of community land trusts to recognize that collective ownership imparts usufructory rights – rights to use, not destroy the land.
- Broadening the principles of standing to acknowledge the justiciability of the interests of beings, entities, and systems in nature.
- Expanding guardian ad litem concepts to support human representation of threatened species and ecosystems.
- Adopting the precautionary principle (the standard that requires precautionary measures to be taken when an activity raises a threat of harm to the environment, even if the scientific understanding of the cause is incomplete) as the basis for local, state, regional, national, and international environmental policy.

- Imbuing international law with protection for biodiversity through such measures as the Biodiversity Protocol.
- Safeguarding biodiversity and food security on the national level, e.g., revising food and drug regulations to require the labeling of products containing genetically modified organisms.
- Revising corporate codes to recognize the goal of conducting business in a manner that is environmentally responsible.
- "Greening" law offices, court systems, government offices, law schools, work places, transportation systems, building standards and operations, and corporate practices.

We live not in a time of despair but in an epoch-shifting era of opportunity. The early twenty-first century is a season of rapid transition from environmental destruction to ecological consciousness. Consider the differences that would arise out of moving from a human-centered to an Earth-centered jurisprudence. The great work of this generation of . . . lawyers includes guiding the changes in law to support mutually enhancing relations among all parts of the comprehensive Earth community.

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**Cormac Cullinan, *Wild Law: A Manifesto for Earth Justice*  
169, 176-77 (2d ed. 2011)**

*Returning to the Mountains*

In [this book] I likened the Great Jurisprudence to the mountains of the Cape Peninsula that I can see from my window. The mountains have been my constant companion during the winding turns of this story. Constant, but ever changing. Dark and still in the grey of morning. Now, in the first slanting light of a mid-winter's morning, the ridges cast dramatic profiles across the steep face, the ravines still deep in shadow. In an imperceptible moment the sun breathes browns, ochres and greens into the landscape. The Hadedas appear flying high, pairs of white-winged Egyptian geese hiss past on their way to the feeding grounds and the calm quickens into life. The sun climbs and the dark patches on the cliffs begin to retreat into the ledges and overhangs, and to soak into the patches of forest.

Yesterday the mountains were lost in mists, but today they are still and clear and calm. Beauty reaches across the space between us to touch my heart and to call my imagination out from between the books. Hard-ridged, but weathered by the millennia into slopes up which the forests and fynbos shrubs creep like quiet supplicants. Advancing respectfully with crowns bowed to be nearer, but not presuming to cover the mountains' craggy visage. The mountains do not do things, they simply are. Yet through their being and the slow geological changes of their becoming, they give much to the biological communities that throng the slopes. Satisfying their thirst with amber waters drawn from the clouds rolling over the summit. Replenishing also those

like me who raise their eyes to contemplate the grandeur of the ancient granite and sandstone faces.

I hope that we will remember once more that, like the forests, we live on Earth's flanks, that we will understand again the necessity—and beyond that, the great purpose—for adapting ourselves to the mountains: for adapting our civilisations to its form, and rooting ourselves deeply in its soil until no-one can say where one ends and the other begins. Nature, human nature and culture will then be recognised once more as an indivisible continuum.

\* \* \*

### *The Path*

Earth jurisprudence is . . . a path. I draw confidence from its existence, not only because I can see it flowing from under my feet into the future, but also because I imagine it as a mountain path. It is a path that connects the busy city lowlands with the quiet wisdom of the peaks, a wild path that leads toward life and away from the destruction of the Community of Earth.

\* \* \*

Imagine what might happen if we consciously set out to play a constructive part in co-creating the future of Earth and applied these abilities for the benefit of the whole Community.

Practical-minded readers may by now be frustrated with the absence of a set of prescriptions and next steps to 'solve' the governance crises that I have referred to. Although I have alluded to some specific things that could be done, I have tried to avoid being too specific or prescriptive in the belief that at this stage the most important task was to convey my sense of what Earth governance, Earth jurisprudence and wild law is about. Nevertheless, it is appropriate to end by giving some sense of what some of the next steps down this path might be.

The main imperative is to widen the discussion of these ideas so that more people, each with different insights and perspectives, can begin to contribute to the development of these approaches. We will also need to deepen our enquiries. \* \* \*

There is vast potential for humanity if we consciously begin governing ourselves and our societies for Earth; if we participate willingly as good Earth citizens in the co-evolution of our planet, and use our abilities for the benefit of the Community. We also need to act: the critical condition of so many ecological communities on Earth and of some of Earth's life supporting systems demand it. The perspectives offered by Earth jurisprudence, even in its present rudimentary form, can be of great practical value to social and environmental activists, particularly those who work in communities. This approach can facilitate the development of a common framework that links many different social and environmental campaigns. In many cases the different issues are simply different symptoms of the same deficiencies in governance. However, Earth jurisprudence is not only a useful basis for critiquing current systems, it also

provides guidance on how to develop alternatives. I hope that the ideas discussed in this book will help those involved in the mainstream of law to understand that ‘the environment’ cannot be adequately dealt with simply by creating a new category of environmental law. Ultimately, all law must be based upon and reflect Earth jurisprudence, as must all the institutional structures of our societies. For all of us it represents a challenge to look deep into ourselves and to discover or invent Earth-centred practices that we can use to deepen our connection to Earth and to grow Earth governance from the inside outwards. \* \* \*

When we feel confused or become lost in complex abstractions, it is important not to forget to go back to the beginning and connect once more with our common ground. To walk wet-footed in the cold grass of dawn, to breathe clean air, and turn the rough surfaces of a stone in our hands, until we remember who we are and why this is important. May we all find our paths home to the intimacy of the Earth Community.

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**DISCUSSION POINTS**

1. Why do we need to think about the structure, assumptions, premises, or values of law? Why can't we resolve the environmental crises simply by being more responsible and ecologically conscious?
2. What role does law play in the health of the planet? What roles can lawyers play to preserve Earth?
3. Can nature be safeguarded by creating another category of environmental law?
4. Cormac Cullinan is replenished by the mountain outside his window. What parts of nature replenish you?
5. What are some of the key principles of Earth Jurisprudence? What are some of the practical applications of Earth Jurisprudence? Which principles and applications do you think hold the most promise as we chart a path to the future?

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