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Bounding Paganism: Who and What is In and Out, and What does this Reveal about Contemporary Kinship-Entangled Nature Spiritualities?

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Abstract

Paganism is a construction that religionists and scholars alike define according to their understandings and purposes. Herein I seek to explode common understandings of Paganism, which assume it always involves beliefs and practices about putatively divine natural entities, beings, or forces, and to consider such phenomena more broadly, as a sensory and affective sensibility – and a perception that is often entirely naturalistic (e.g., scientific and agnostic if not avowedly atheistic) – about the proper place of humans in, and obligations to, nature. When understood in this way one can discern that a host of cultural creatives, including those orchestrating pageants and ritual-resembling ceremonies, artists of all sorts, curators of science museums, and even some developers of theme parks, have affinity with Pagan worldviews and values. By expanding the boundary of what many confine as Paganism it becomes possible to consider whether Paganism is more widespread, and growing more rapidly, than many perceive.

Keywords

Paganism, kinship spirituality, religion definitions, environmental values, dark green religion

'Religion' is not a native term; it is a term created by scholars for their intellectual purposes and therefore it is theirs to define. It is a second-order, generic concept that plays the same role in establishing a disciplinary horizon… There can be no disciplined study of religion without such a horizon. ~ Johnathan Z. Smith 1998: 281–82

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Bounding Paganism – An Introduction[1]

I commence 'Bounding Paganism' with an epigraph from religion historian Jonathan Z. Smith, who argued that scholars can define and deploy the word religion as a heuristic device to illuminate the world, because the same thing is true about the word 'Paganism'. Inevitably, religion scholars must wrestle with such terms as a way to focus attention. Without some operational definition and thus some boundary setting, the vast array of extant, observable social phenomena would overwhelm any observer and analytic effort. If the boundaries are set too narrowly, however, a different problem may arise, namely, tunnel vision, which can limit valuable comparisons and prevent insightful observations.

Of course, we should also be cognizant of the historical origins of religion-related terminology and the ways in which these can classify people in negative ways (Chidester 1996; 2004). Nevertheless, with that recognition in mind, when it comes to terms like 'religion' and 'Paganism', we should be wary about setting the boundaries too narrowly and rigidly. While as Smith suggested we should be at liberty to define terms that set our analytic horizon it is best to remain flexible and not make a fetish about where lie the boundaries of religion, let alone Paganism.[2]

Here I am expressing affinity with the 'family resemblances' approach to religion-resembling social phenomena (Saler 1993; 2008; Taylor 2007). With this approach scholars deploy analytical tools typically used to examine religious phenomena while refraining from an effort to enforce rigid boundaries based on some essentialist definition. Scores of such definitions about religion have been advanced and, in any case, no consensus has been forthcoming, which suggests that the quest for some religious essence is futile. One reason there is no consensus is that religionists themselves have exceptionally diverse understandings as to what counts as religion, and, often, they even disagree about what counts as an *authentic form* of a religious tradition.

Scholars who study contemporary Paganism have noted, for example, that contemporary, self-identifying pagans differ over whether

1. Passages from Taylor (2021) are reprinted herein with permission from the Center for Humans and Nature Press. The earlier essay appeared in the kinship-focused book series discussed in this article.

2. Similarly, and in part because scholars differ about when to capitalize words for traditions and their devotees, they are at liberty to decide such matters: I have chosen to capitalize Paganism when referring broadly to the entire spectrum of such religious forms but not to capitalize the word pagan when referring to devotees or when using the word as an adjective or adverb.

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their traditions are newly invented or represent revitalized folk or ancient traditions (Hutton 2000; Harvey and Hardman 1996). They also disagree over whether the natural entities pagans venerate should be understood as spiritual beings or as symbols of a sacred material world that is worthy of veneration and reverent care.

Margot Adler and Starhawk exemplify such differing approaches. Their famous books on contemporary paganism, *Drawing Down the Moon* (Adler 1979) and *The Spiral Dance* (Starhawk 1979), were published on the same day in 1979. Both authors said that they intended their books to spur what they considered to be the natural if nascent affinity for environmentalism that Paganism ought to have. During several conversations with Adler during the years before her death from cancer in 2014, I learned that she viewed the Goddess and pagan deities not literally but metaphorically, as symbols of earthly life that she considered sacred, while Starhawk, who recognized that some pagans are metaphysically agnostic or atheistic, had a more deity-infused worldview.[3] In recent years I have observed debates among those expressing pagan identities over whether one can be a pagan and not believe in the actual existence of one or more pagan deities.[4]

In 1993 I had a long interview with Gary Snyder, the 'beat' poet and essayist who in 1975 had been awarded a Pulitzer Prize for Poetry for his book, *Turtle Island* (1969). Through this and subsequent path-breaking works (Snyder 1980; 1996; 2004), Snyder had become one of the most influential figures in America's religious countercultures (and eventually globally), drawing on Native American traditions, Zen Buddhism, and anarchist thinkers, while advancing 'Bioregionalism'.[5] I drew on this interview when drafting an article titled, 'Resacralizing Earth: Pagan Environmentalism and the Restoration of Turtle Island'

3. Adler's final book, which reflected her fascination with Vampires, also revealed her affinity with the naturalistic pole of what I call dark green religion, which she discussed directly (Adler 2014).

4. In his book on Paganism, Michael York cited a definition that refers to Paganism as 'an affirmation of interactive and polymorphic sacred relationship by the individual or community with the tangible, sentient and/or nonempirical'. This definition, he commented, 'allows not only humanism and naturism/naturalism [and also] traditional polytheisms' (York 2003: 157). This shows that York recognized that, for some, Paganism does not include beliefs in non-material beings or forces.

5. Bioregionalism is a social philosophy that draws on diverse nature spiritualities as an affective basis for the construction of post-nation-state societies in harmony with nature, wherein the sense of citizenship is rooted in the watersheds and ecotones people inhabit. Like deep ecology, bioregionalism places a high value on all life forms and ecosystem types. For the history and analysis of such social philosophy see Taylor 2000a; 2000b.

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(Taylor 1995). I sent Snyder the draft for any comments or corrections he might have. I was grateful when he responded and gratified that he found the article interesting and persuasive. But he did not like that in it I had referred to the bioregional and radical environmental movements, which he had helped inspire, as 'Pagan environmentalism'. He urged me to change the title to something like 'Deep Ecology environmentalism' because, he thought, using the term Paganism might be politically counterproductive given the long antipathy Abrahamic religions, and their echoes in Western cultures generally, have harbored toward such spirituality.

Despite my respect for Snyder, I demurred from his suggestion and published the article with the original title because I thought Paganism was an apt term to characterize the groups I was exploring. Moreover, I did not want to pander to anti-pagan prejudice, however deeply grounded this might be in Western culture. I also knew that many in these movements considered themselves, and the indigenous peoples whom they respected and with whom they felt affinity, to be pagan. Indeed, Paganism was for many of them a self-referential trope, even though for reasons similar to Snyder's, some in the movement did not want to be associated with such spirituality.

These anecdotes illustrate a typical dynamic when it comes to terms like religion or those that represent specific religious traditions, namely, that religionists spend considerable energy demarcating a tradition's boundaries, attempting to establish who is in and who is not. Scholars also wrestle with such boundary issues. Sometimes explicitly, other times implicitly, they take sides in such debates. Others refrain from taking sides and focus on the rhetorical contention itself.

I value such reticence and think it has natural affinity with the aforementioned 'family resemblances' approach. Nevertheless, I agree with Smith that scholars must provide at least provisional, operational definitions, to demarcate their analytic horizons. The danger here is that the exclusionary function of definitions can narrow one's field of view and thus hinder valuable comparative analysis.

Defining Paganism narrowly, for example, as a form of polytheism, wherein people perceive natural entities or nature as a whole to be divine in some way, would exclude from comparative analysis those who are not theists but nevertheless consider themselves to be pagan. This is why I prefer this, more capacious, operational definition:

> Paganism involves perceptions and practices in which one or more aspects of 'nature' (e.g., non-human organisms, entities, forces, and environmental systems) take center-stage in the quest for and construction of meaning

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> and of one's ultimate concerns.[6] With Paganism, 'nature' (however understood) is typically sacralized in some way and considered to be worthy of respect, reverence, veneration, or even worship. *If* divine and powerful beings are involved in some way, devotees may also beseech them for favors, protections, or beneficent environmental conditions.[7]

To this I would add that I typically refrain from speaking about the religious dimensions of some social phenomena unless it involves practices or terminology that are associated with religion, such as rituals designed to evoke or awaken proper spiritual understandings, or understandings of sacrality and its opposite (defilement, desecration, or some understanding of the profane, or mundane).

Like the family resemblances approach to religion, this capacious, operational definition of Paganism provides a broad analytic horizon that can lead to illuminating comparative analysis. Specifically, I contend that by exploding what some consider the boundaries of Paganism, we might well conclude that Paganism, or at least Paganism-resembling, nature-reverencing spiritualities, have far greater cultural traction and political potential than is commonly recognized.

I will advance this argument by focusing on cultural creatives who promote feelings of kinship with species other than our own. Such creatives tend to integrate kinship feelings with a worldview that includes a cosmogony (an understanding of how the world came to be), perceptions of belonging to nature, humility about the human place in the world, convictions that all living things have intrinsic value, and love and loyalty to the Earth and its living systems. These are some of the central characteristics of what I have come to call *Dark Green Religion* (Taylor 2010; 2020a; 2020b).

There are many specific experiences and insights through which people find their way to kinship sentiments and dark green meaning systems; three of the main paths are through (1) direct, visceral, sensory experience in nature; (2) the arts; and (3) the sciences. These paths are not mutually exclusive, however. They weave back and forth in reciprocally influential ways through the lives of diverse individuals and groups.

6. My use of the notion of religion as involving one's ultimate concerns is indebted to the theologian Paul Tillich (1951). He used this notion to label religious all human quests for meaning, including seemingly secular worldviews and political ideologies.

7. Note the subjunctive tense in the final sentence of my provisional definition, which leaves open the possibility of non-theistic Paganism, which does not involve efforts to please or appease any deity; such dynamics have been especially well illuminated by Frazer (1995 [1926]) and Sullivan (1987).

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1) Kinship Through the Senses

Direct, visceral, sensory experiences in nature, including experiences of awe and wonder at the beauties, mysteries, and sometimes terror of nature, and especially through personal encounters with non-human organisms, are a common – perhaps the most common – path to kinship sentiments and ethics.

The Scottish-American naturalist John Muir provides a classic example when, exulting in the beauty and power of nature and enraptured with various plants and animals, he wrote that through such experiences, 'we feel ourselves part of wild Nature, kin to everything' (Muir 1997: 296–97).

Another experience that often leads to kinship sentiments transpires when someone looks into the eyes of another organism.

The famous primatologist Jane Goodall, for example, experienced a profound connection when she looked into the eyes of a dominant male chimpanzee whom she named David Greybeard. His eyes, she thought, seemed to provide a gateway to his gentle personality (Goodall 1999: 79–81). Further illustrating how the eyes convey agency, intelligence, and value, Goodall has often related the story of a man who witnessed a chimpanzee in a zoo who, while fleeing an attack by other chimpanzees, fell into a water-filled moat, and began to drown. Looking into the distressed chimpanzee's eyes the man perceived an appeal for help and risked his own life to save the chimp (Goodall and Bekoff 2003: 169–71; Goodall 1999: 246).

The ethologist Marc Bekoff, with whom Goodall has often collaborated, had a similar revelation when ordered to kill a cat as part of a laboratory experiment. As he gazed into its eyes, however, Bekoff perceived that the cat knew what was coming and was plaintively asking him, 'Why me?' Based on this experience, Bekoff concluded, 'there is no more direct animal-to-animal communication than staring deeply into another's eyes … it is the eyes that most evocatively convey sentience' (Bekoff 2007: 50). This experience and his subsequent studies of animal emotions led him to promote 'compassionate conservation', which seeks to fuse concern for individual animals with the wellbeing of ecosystems.

In *Dark Green Religion*, I provided many examples of such experiences and called them 'eye-to-eye epiphanies', in part, because they often awaken concern for animals as well as the ecosystems upon which they depend (Taylor 2010). Indeed, many environmental creatives have found apt the 'eye-to-eye epiphany' phrase because it reflects their own experiences. Indeed, the phrase and my analysis of it provided one of the inspirations for two culturally influential creative productions. The first was the book series titled *Kinship: Belonging in a*

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World of Relations (Van Horn et al. 2021), which was an effort supported by Chicago's Center for Humans and Nature and a number of environmental grant-making foundations.

The second, which was produced in concert with this book series, was a public radio and podcast series titled 'Eye-to-Eye Animal Encounters' that was produced and aired by 'To the Best of Our Knowledge'.[8] As did the books, it drew specifically on the 'eye-to-eye epiphany' notion (Strainchamps 2020; Paulson and Strainchamps 2020). The podcast also featured Jane Goodall's previously-mentioned eye-to-eye experience and provided many other examples, including one reported by the radical marine environmentalist Paul Watson, who founded the Sea Shepard Conservation Society, and became famous through Whale Wars, a popular reality-based documentary series that aired on the cable television network Animal Planet between 2008 and 2015.

Watson has written about several eye-to-eye encounters he has had that involved communication with non-human animals, including most famously, one involving a dying whale whom he had tried to save. Watson felt that the whale, when it looked directly into his eyes during its dying moments, acknowledged his futile effort (Watson 1982). This experience was transformative for Watson, precipitating his career of risk-taking in defense of marine life. Watson explicitly acknowledged a spiritual dimension to his activism when in 2005 he issued 'A Call for Biocentric Religion' (Watson 2005).

In 2022 the kinship book series won two awards from Nautilus, an organization that gives awards for books promoting a better world. It recognized the series with a gold medal in its 'Environment and Ecology' book category as well as with a 'Special Honor' for best anthology. The podcast series has also been enthusiastically received, quickly becoming one of the most popular ones ever produced by To the Best of Our Knowledge.[9] Clearly, many people have resonated with the kinds of kinship spiritualities expressed in these productions.[10]

2) Kinship Through the Arts (and the Senses)

Artists often seek to evoke or reinforce kinship with non-human organisms and environmental systems, not uncommonly, by expressing

8. To the Best of Our Knowledge is produced by Wisconsin Public Radio and distributed by National Public Radio in the United States and Public Radio International; see https://www.ttbook.org.

9. Personal communication with Steve Paulson, 25 May 2022.

10. For more examples of sensory paths to the kind of kinship sentiments that could be considered important characteristics of pagan sensibilities, see Taylor 1995; 2001a; 2001b.

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kinship feelings they first experienced through sensory encounters with other species.

The aforementioned kinship series, for an initial example, established an online art exhibition titled 'Making Kin'. Its curator took inspiration from Donna Haraway's well-known book about making kin (Haraway 2016), explaining that the artists in this exhibition are engaged in making kin between humans and other species. He then quoted the Buddhist Pema Chödrön, who wrote that compassion emerges in 'realizing our kinship with all beings', and asserted that the artistic kin-making he was sharing ought to yield compassion toward all life and activism in defense of biological diversity (Yang 2020). The artistic methods used to express such spirituality, in addition to the paintings depicted in this online exhibition, included photography, documentaries, motion pictures, sculpture, novels, and poetry.

Another particularly apt example of kinship spirituality is Frans Lanting's *Eye to Eye: Intimate Encounters with the Animal World* (1997). This coffee table sized book is replete with stunning photographs of animal eyes. In it, Lanting explained how his path to photographic conservation began with a book he read as a child, *The Wonderful Adventures of Nils*, which was written by the Nobel Prize winning Swedish author Selma Lagerlöf (1947 [1907]). First published in 1907, the story is about a boy named Nils who magically shrinks to the size of an elf and lived for a year with a family of geese. When Nils returned to the human world, he became an advocate for his avian family. Lanting explained that this story kindled his ability 'to see the world through other eyes' and 'to celebrate the kinship of all life' (Lanting 1997: 15).[11]

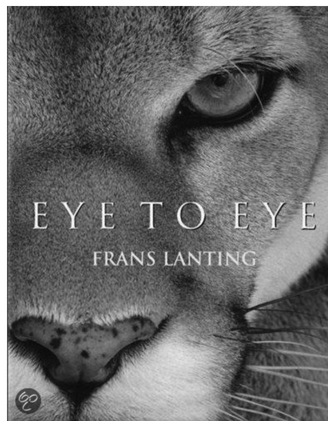

Figure 1: Eye to Eye book cover, courtesy of Frans Lanting

11. For more of Lanting's eye-to-eye revelations see Taylor 2010: 119.

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I experienced another example of such epiphanies during a conference sponsored by Partners in Flight, an organization of ornithologists and conservationists concerned about declining bird populations in the Americas. Both the conference's theme, 'Tundra to Tropics: Connecting Birds, Habitats and People', and my keynote presentation, 'Science & Spirituality: Making the Connection in the Cause of Conservation', reflected the spiritual sentiments of the organizers and their felt connections to winged life. So did an evening plenary, 'Using the Power of Birds to Awaken Consciousness'. The event fused bird-focused poetry and myths, and evocative music blending human and bird song, with stunning photographs of bird eyes. The poems urged the assembly to cultivate alertness to bird-sounds and even the breath of the forest. The entire event promoted inter-species kinship and sought to 'awaken the connections between humans and the universe'.[12]

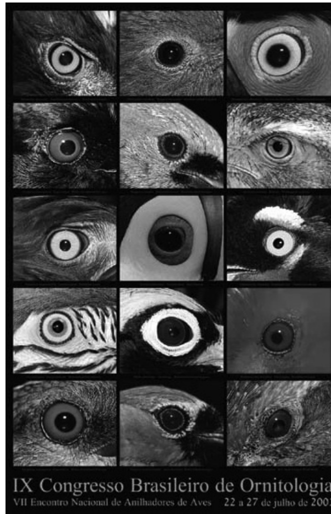

Figure 2: A collage of photographs by the Brazilian photographer Carlos Renato Fernandes, which organizers used to promote a meeting of Brazilian Ornithologists in 2001.

Seaphony

In May 2022 I attended 'Seaphony', an exhibition held at Berlin's Alte Münze Museum. It provides another fascinating example of the way artists and curators promote animistic nature spiritualities. Upon entering the museum's foyer, the first interpretive panel confronting

12. This quote is from the February 2008 conference program, which described the session.

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visitors stressed, with large letters, that 'Planet Earth is Blue'. The text that followed explained that Earth is this color because 70% of its surface is water. It then noted that oceans are 'indispensable for life'.

Figure 3: Seaphony brochure; photograph by Bron Taylor.

On the wall adjacent to the entry door of the theatre, visitors read that Seaphony provides a unique opportunity to listen to oceanic sounds from Antarctica to the Arctic, which the recording artist Chris Watson had collected and orchestrated.[13] A large map illustrated where Watson had made his recordings. In a way that reflects the notion of 'naturalistic animism' that I developed in Dark Green Religion, this text listed as 'The Cast' the sea creatures whom Watson recorded, as well as the sources of sound pollution that disturb and even threaten marine life.

By listing the voices of sea creatures as Seaphony's cast, Watson and his collaborators sought to underscore the agency and value of sea life. In the exhibition's brochure Watson was explicit about this when he explained that with Seaphony he sought 'to let nature speak for itself'.

13. Watson is a pioneering and accomplished wildlife-sounds recording artist. For more information see https://chriswatson.net/.

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After reading about the experience that they were about to have, the exhibition's visitors entered a large space with a mirrored floor; I surmise it was designed to evoke a feeling of being on ice. Then, after finding a beanbag cushion to relax into, for nearly an hour, the audience listened. At one point it seemed that Watson had blended some of the creature's sounds into what resembled a religious choir. Meanwhile, ethereal blue lights floated around the room in a way that seemed designed to evoke a mystical feeling of immersion in the ocean at various depths and during varying conditions.

As one of the interpretive panels in the foyer had explained, Seaphony's creatives sought to artistically weave together sound and light in order to 'capture the magic of the ocean' and provide 'sensual experiences in the hope of motivating people to protect the largest habitat on earth'. After Seaphony concluded, doors opened to a room with panels created by the Friends of the Earth (Germany); the displays exemplified this intention by stressing the importance of the ocean and the threats to it while urging action to protect it.

After moving through that room there was another especially interesting aspect to the exhibition. It was an eighteen-minute experience titled 'The Bone', during which two people sat in a small boat with virtual reality headsets, enabling them to have an experience of flowing through ocean currents and kelp beds, and eventually, into a huge salmon skeleton. From inside the skeleton, they listened to voices purportedly from two salmon. These voices followed an innovative and arguably animistic script.[14]

The first of these voices spoke for salmon displaced from their native Norwegian habitat to salmon farms in Chile where they did

14. The Bone is part of 'Transpose', an ambitious four-part project weaving together art, poetry, and science, conceived of, and orchestrated by, the artist Michelle-Marie Letelier. In a document she sent to me in June 2022, she explained that her project is 'animistic', inspired in part by the sacred relationship many indigenous people have with salmon, and that it intended to help people imagine the consciousness of both wild and farmed salmon and to empathetically bond with them. Letelier further explained that the idea for The Bone was especially inspired by a book written by Martin Lee Mueller (2017), who also wrote the script for The Bone and provided the voice for both the German and English versions of it. Another part of Transpose was a collaborative 'animistic poetry' project involving indigenous peoples in Chile as well as in Northern Europe. Taken together, Transpose and the Bone exemplify a kind of naturalistic animism as the creatives imagine their way into salmon consciousness and hope their audiences will too. A museum in Bergen, Norway, provided the skeleton that the artists incorporated into The Bone; it was, little doubt, gathered after this salmon's journey to the spawning grounds where it died. The ambitious project has enjoyed support from several Sami parliaments and a number of institutions in Chile and Northern Europe.

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not evolve and previously had never lived. Through this voice, these salmon expressed confusion, dismay, pain, and anger at having had their genes violently altered, and at losing their freedom as humans incarcerate them in nets, where they become sick and riven with psychic and physical pain.[15] This voice was in sharp contrast to the voice of its wild salmon relatives in Arctic waters. It explained that there, salmon were in proper relationship with their watery habitats as well as with the Sami, the indigenous Arctic people, whose salmon-themed songs provided another part of this evocative, sensory, experience.

Seaphony's creatives designed the exhibition to give voice to and evoke empathy for marine life and foster an understanding of the intimate and respectful relationships humans can and should have with their oceanic relations. The creators of The Bone, which is part of a four-part project blending the sciences and arts, sought to do that for salmon, while also honoring indigenous people whom they consider to have respectful relations and feelings of kinship with salmon. Afterward, I wondered whether the artists of both Seaphony and The Bone were planning to make these experiences, or some future versions of them, more widely available, by partnering with companies that are commercializing virtual reality experiences for wider publics.[16]

Worlds of Networks

I had similar wonderings when, in April 2022, I attended an exhibition at the Pompidou Center in Paris titled 'Réseaux-mondes' or 'Worlds of Networks'. Drawing on the work of dozens of artists, historians, and social critics, the exhibition examined technical and biological networks and the history of human insights about them. Part of the exhibition took an approach similar to Seaphony and The Bone as it sought to imaginatively communicate a perspective of 'Quercus', which is the name of a large genus of nearly 500 trees (and a few shrubs).

The exhibition began, however, by mentioning some early understandings about networks in biology (e.g., such as having to do with blood circulation) before turning to Norbert Wiener's cybernetics, and Marshall McLuhan's and Stewart Brand's views about globalization

15. Farmed salmon often have their genes altered by scientists who insert genes from one species of salmon into the genes of another species in a process commonly called genetic engineering. Even without such intervention, both farmed and hatchery fish experience genetic changes, through natural selection, to survive in their dramatically changed environments.

16. The producers of the Bone, at least, have put online a shorter, non-AI video version of the experience; an eight-minute English version is available at https://vimeo.com/510877564 (password: coexistence); a Spanish version is available at https://vimeo.com/500970010 (password: coexistencia).

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and global networks. This was followed by information about the internet and subsequent online social networks. Oddly, there was nothing about ecological systems thinking until the exhibition mentioned Suzanne Simard's research that revealed how mycorrhizal fungi create communicative 'underground networks' among trees that, she claims, facilitate their sharing of resources (Simard 2021; see also Simard 2018).

The most striking part of the exhibition, it seemed to me, was an audio-visual presentation that fused a beautifully choreographed, breeze-influenced image of a tree from this genus, with an imaginatively scripted arboreal voice.[17] Among other things it said:

> To you, I am Quercus. I am a deciduous tree…
>
> You probably are surprised to hear me speaking. You've always imagined us as incapable of intelligence, language, empathy. You can think of me only as a raw material to build your world. But I am alive …
>
> You have spent the last years and decades trying to acknowledge the rights of animals … Now we are claiming those rights….

Quercus then described the practical contributions to the human world they make as well as their profound connections with human beings. More pointedly, however, Quercus observed that they have virtues that humans do not possess, such as longevity, an ability to grow throughout their lifetimes, and the means to convert solar energy into the oxygen, and thus to support all life on Earth:

> I am the chair on which you sit, the table you use to write, your wardrobe, your sideboard, but also your most ordinary and extraordinary tools.
>
> We are in you as much as outside you. You just have to breathe: the oxygen that is contained in the air you inhale at any time is only a by-product of our metabolism, and yet it is only through this detritus of our existence that you are alive. To breathe means immersing yourself in our life and being penetrated by our aerial selves. Every breath is an intimate communion with us.

17. The driving force behind this part of the exhibition were the creatives of Formafantasma, an Italian design studio that, according to its website, was founded in 2009 'to facilitate a deeper understanding of both our natural and built environments' and to promote positive 'material, technical, social, and discursive possibilities'. It was, however, the Italian philosopher Emanuele Coccia who wrote the text that gave voice to Quercus. For this Coccia drew on ideas expressed in his writings about the life and metaphysics of plants (2016; 2019). Formafantasma has produced many award-winning works for diverse clients, which include many museums. In May 2022 the video that I saw at the exhibition was available at https://vimeo.com/394196768. Formafantasma created the Quercus video in 2020 and the company website is https://formafantasma.com/. I transcribed the video's words, provided presently, from the video.

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> Our whole body is built on the energy coming from outside of the closed system you call Earth. We get our food from the sun. For us, to build a body means to capture energy from the stars. Every tree or plant is therefore an agent of assimilation of extra-terrestrial matter into Gaia's mineral body. It is only through our act of cosmic digestion that you can assimilate nutrients.
>
> I hope it is clear, at this point: we fabricated the very conditions for your existence.

Concluding forcefully, Quercus asserted that humans ought to listen carefully because we trees provide,

> above all, a historical archive of the earth's climate. This is why we are not extraneous to your culture: we are archives of the climate, that record every slight variation in the environment, we are taking notes of what you do. You just have to pay more attention to our language, the way we communicate, the way we are.

The remarkable video not only stressed our deep relationships with trees but that we are absolutely dependent upon them. This reminded me of what the liberal German theologian Friedrich Schleiermacher contended is the *sine qua non* of religion, a feeling of absolute dependence on a being or force greater than oneself. Our own species, quite obviously, is utterly dependent on Quercus and other oxygenating organisms.

I have long wondered, when experiencing museum exhibitions, permanent and special, whether we should consider pilgrimages to experiences, which are designed to deepen empathy and felt connections to species other than our own, to be new forms of nature-venerating rituals; perhaps even pagan rituals. This may be worth pondering when focusing on kinship as expressed directly through the sciences.

3) Kinship Through the Sciences

The sciences, especially those illuminating the evolution of life on Earth, provide powerful testimony to the kinship of life. Charles Darwin alluded to such kinship with these seldom-quoted words:

> If we choose to let conjecture run wild, then animals, our fellow brethren in pain, diseases, death, suffering and famine – our slaves in the most laborious works, our companions in our amusements – they may partake [of] our origin in one common ancestor – we may be all netted together. (In Worster 1994 [1977]: 180)[18]

Darwin's suggestion that we empathize with other animals was rooted in an understanding of ecological interdependence and biological

18. Worster found this passage in one of Darwin's unpublished notebooks.

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kinship; later he would conclude that sympathy is a strong and adaptive human instinct.[19] Others would draw out the ethical implications of such understandings more explicitly than Darwin himself.

During the 1920s, for example, the humanitarian and physician Albert Schweitzer first advanced his 'ethics of reverence for life', for which in 1952 he was awarded a Nobel Peace Prize. Schweitzer rooted his ethics in a Darwinian recognition of, and empathy for, all living things who struggle for existence and who share, as he put it, a 'will-to-live'. For Schweitzer, therefore, morality simply involves 'the saving or helping of life'.[20]

It was the ecologist Aldo Leopold, however, who in his now-famous 1949 book, *A Sand County Almanac,* specifically argued that an understanding of evolution should lead to felt kinship with other organisms and a broad environmental ethics:

> It is a century now since Darwin gave us the first glimpse of the origin of species. We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us … a sense of kinship with fellow-creatures; a wish to live and let live; a sense of wonder over … the biotic enterprise. (Leopold 2013: 97)[21]

According to Leopold, such an understanding is the product of social evolution, which is an 'intellectual as well as emotional process'. Leopold believed that this ought to lead to an understanding of the self as a 'plain member and citizen' of the biotic community and even to 'love, respect, and admiration' for entire ecosystems (Leopold 2013: 173, 187).

Not incidentally, Leopold was basing his ethics on more than science; it was kindled during another example of transformative eye-to-eye encounters. With evocative prose he related how, as a young forester taking a break from evaluating timber resources, he went hunting with a friend, when they spotted a wolf and her pups. With the typical view that fewer wolves would mean better hunting for people, he and his comrade released a hail of bullets that brought down the adult female. After scrambling down a hillside Leopold reached the wolf 'in time

19. Darwin's views on the evolution of sympathy appear in Darwin 1871, as emphasized in Keltner 2009.

20. For an accessible source, see Schweitzer 1936. For an extended treatment see Schweitzer 1929. Although Schweitzer did not use the word kinship, the term fits well with his perspective. Like Darwin, Schweitzer often used the word 'sympathy' when discussing what in common parlance today is usually termed 'empathy'.

21. All the Leopold quotes herein are from *A Sand County Almanac*, which was first published posthumously in 1949. For an outstanding copy of the *Almanac* that includes Leopold's other seminal writings, see Leopold 2013.

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to watch the green fire dying in her eyes' (Leopold 2013: 115). The experience, he much later explained, was as a turning point toward appreciating the value of predators and of ecosystems. Leopold's evocatively-told account has become one of the most celebrated stories in environmental letters. On a number of occasions, I have heard conservationists refer to this story as a sacred text.[22]

Many others have deduced kinship ethics from scientific understandings.

In 1979, for example, the biologist E. O. Wilson coined the term 'biophilia' for this theory that human beings have an evolution-derived 'innate tendency to focus on life and lifelike processes' (Wilson 1984: 1).[23] According to Wilson and his progeny, biophilia often involves profound appreciation for nature and it tends to promote proenvironmental behaviors and thus healthy and resilient socioecological systems. Critical among these understandings is a recognition that 'we are literally kin to other organisms' and our differences 'are only a matter of degree' (Wilson 1984: 130).[24]

22. For another example of how Leopold's writings represent a kind of sacred text see the special issue and contributions by Van Horn (2011a; 2011b).

23. Wilson first used the term and briefly spoke about its evolutionary roots and adaptive functions in a short column published in the New York Review of Books, writing:

'Our deepest needs stem from ancient and still poorly understood biological adaptations. Among them is biophilia: the rich, natural pleasure that comes from being surrounded by living organisms, not just other human beings but a diversity of plants and animals that live in gardens and woodlots, in zoos, around the home, and in the wilderness.

Other creatures not only satisfy innate emotional needs, but also present unending intellectual challenge. More complexity exists in a single butterfly than in all the machines on earth, and even more in its ecosystem. The only truly irreparable damage we can inflict on ourselves is eliminating a large fraction of the earth's species, through careless destruction of the natural environment.

Our biophilic descendants will regard species extermination as the greatest sin of the 20th century' (Wilson 1979: 43).

24. As Wilson acknowledged (Burghardt and Herzog 1980), Leopold had influenced him on this score. With Stephen Kellert, Wilson produced a volume explicating the hypothesis (Kellert and Wilson 1993). This volume drew out the adaptive functions played by biophilia and suggested that, along with the advance of scientific understandings, these adaptive functions could evolve further. As Kellert put it, 'The hypothesis suggests that the widest valuational affiliation with life and lifelike processes … has conferred distinctive advantages in the human evolutionary struggle to adapt, persist, and thrive as individuals and as a species' (Kellert and Wilson 1993: 42). From such theorizing new fields have emerged that have enhanced the plausibility of the biophilia hypothesis, including evolutionary psychology, environmental anthropology, and group selection theory, as well as the study of

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The field of conservation biology, which also emerged during the late 1970s, exemplifies how experiences of kinship with non-human organisms, and feelings of belonging to nature, motivates many environmental scientists.[25] Michael Soulé, for example, who was one of the founders of the discipline, wrote: 'There is now no question that all life on earth evolved from a common ancestor… every living kind of plant and animal owes its existence to a single-celled ancestor that evolved some three and a half billion years ago. All species are *kin*' (Soulé 1995: 141–42). Baird Callicott, who played a leading role founding the field of environmental philosophy while promoting and refining Leopold's land ethic, argued similarly: 'human beings are … kin – literally … to all other kinds of life' (Callicott 1996: 362).

Many others have come to similar views without using the word kinship, including Rachel Carson, who in 1954 had presaged the biophilia hypothesis when she suggested that there is an evolutionary root for the love of nature: 'This affinity of the human spirit for the earth and its beauties is deeply and logically rooted' because 'as human beings, we are part of the whole stream of life' (Carson 1998: 160). She continued with words showing that her feelings of connection and kinship with all life had evolutionary roots:

> Life itself … that mysterious entity that moves and is aware of itself and its surroundings … has developed, struggled, adapted itself to its surroundings, evolved an infinite number of forms. But its living protoplasm is built of the same elements as air, water, and rock. To these the mysterious spark of life was added. Our origins are of the earth. And so there is in us a deeply seated response to the natural universe, which is part of our humanity. (Carson 1998: 160)

Not incidentally, given her Paganism-resembling reverence for Earthly life, she dedicated her most famous book to Albert Schweitzer (Carson 1994 [1962]).

Kinship Through the Senses, Sciences, and Arts

Such understandings of our connections to nature, including biological kinship with species other than our own, are expressed and promoted in a host of ways, including via science museums, aquariums, documentary films, art exhibitions, festivals and civic ceremonies, and even theme parks. Close observation of such phenomena further demonstrates that, when it comes to the perception of inter-species kinship,

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the knowledge systems of indigenous peoples. For introductions, see Dunbar and Barrett 2007; Berkes 2017 [1999]; Nelson and Shilling 2018; Wilson 2002.

25. See Takacs 1996; Taylor 2005; 2020c; Meine et al. 2006.

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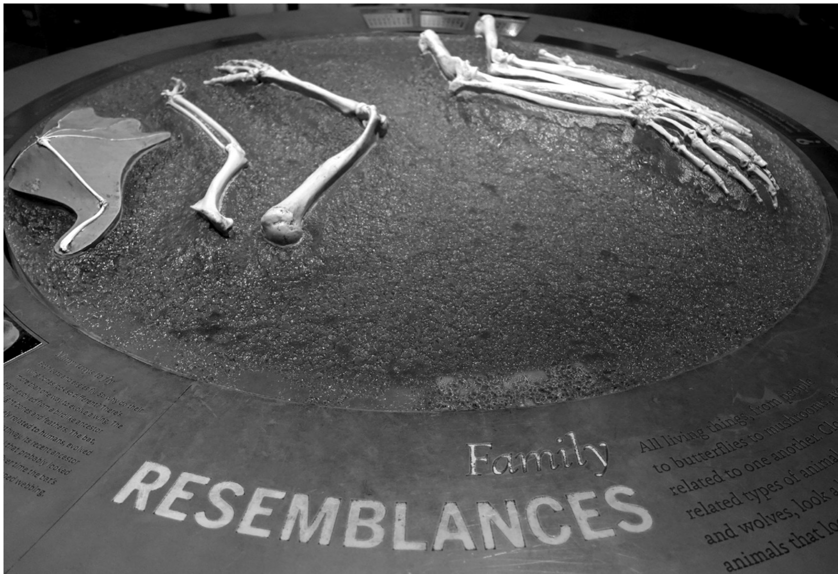
there is a permeable boundary between the senses, the arts, and the sciences. Indeed, the sciences and arts begin with the senses and all three seek to understand the world; the sciences also seek to explain it.

E. O. Wilson had a complementary insight when he described artists as 'expert observers' and art itself 'as a device for exploration and discovery' that, among other functions, is able 'to instruct by pleasing' (1984: 74).[26]

The Hall of Human Origins at New York City's American Museum of Natural History provides examples wherein the curators fuse science and the arts in ways that they clearly designed to teach biological kinship. In one display, for example, sculptures and adjacent interpretive panels explain the 'family resemblances' between humans, chimpanzees, and goliath frogs, by showing the similarities between their appendages. The adjacent text states 'All living things, from people to butterflies to mushrooms are related to one another…. Both humans and birds have eyes, for example. This is a homology – a feature that two different living things inherit from a common ancestor'.



Figures 4: Family Resemblances display of homologies at the Museum of Natural History in New York City, photograph by Bron Taylor.

26. Wilson attributed and paraphrased the notion of 'instruction by pleasing' from the English literary icon Samuel Johnson, but he did not provide a citation.

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The adjacent Hall of Biodiversity has aesthetically beautiful displays of a host of organisms. One needs little time there to realize that for many visitors the displays evoke awe and wonder. This venue includes evocative, nature-reverencing aphorisms, and calls for conservation, penned by many of the world's most famous scientists, artists, and environmental advocates.

Figure 5: The Hall of Biodiversity at the Natural History Museum in New York seeks to evoke a science-inspired sense of awe and wonder for the wild diversity of life on Earth; photograph by Bron Taylor.

Several venues in or near Johannesburg, South Africa – one of which UNESCO dubbed The Cradle of Humanity and designated as a World Heritage site, as well as the nearby Maropeng Theme Park, which interprets this site, and the Origins Museum at Witt's University in Johannesburg – trace the evolutionary story from its beginnings, to the emergence of *homo sapiens* in Africa, to the present. Although each venue stressed that all human beings are one species (at the Maropeng Theme Park in huge letters), no doubt in part as an effort to promote inter-human kinship and subvert the country's racist, colonial history, the sites also made clear that all living things share a common ancestry and are biologically related. In a way similar to museums elsewhere, the curators used aphorisms penned by well-known figures, in this case, prominent African leaders who in their own ways have expressed science-grounded understandings of biological kinship and interdependence.

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The Two Oceans Aquarium in Cape Town South Africa presents similar messages. It does so with an even more overtly spiritual tone, greeting visitors immediately in its foyer with an artistic display proclaiming that the ocean is sacred. Adjacent photographs of whales and banners declare that 'Whales are central to the re-awakening of our spiritually connected place within the living universe'. As with other aquariums around the world, the curators mixed scientific understandings with calls for conservation and evocative words stressing that we all belong to nature. Astute observers, meanwhile, will recognize that the curators designed the displays to evoke awe, wonder, and even a love for marine life and the biosphere as a whole.

Figures 6–7: Two Oceans Aquarium, Cape Town, South Africa; two photographs by Bron Taylor.

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Many theatrical and documentary films further exemplify the ways the arts blend kinship feelings with scientific understandings and conservation messages. Walt Disney produced some of the earliest examples with his animated film *Bambi* (1942) and his academy award-winning documentary series, *True Life Adventures* (1948). Many of the Disney corporation's animated films have blurred the line between human and other species and urged respect for their habitats, which is another way to promote kinship feelings.[27] Disney's tradition of documentary filmmaking intensified in 2008 when it launched DisneyNature. Disney's then CEO explained that they created this new division to foster 'greater understanding and appreciation of the beauty and fragility of our natural world'. Another executive went further, asserting that at DisneyNature, they strive to teach 'the intrinsic value of nature' (Taylor 2019b: 435).

Moreover, since the 1990s, Disney movies have sought to portray indigenous cultures in a positive light, including understandings that indigenous societies have kinship feelings toward non-human organisms and corresponding values.[28] Similarly, James Cameron in the motion picture Avatar (2009) metaphorically contended that indigenous peoples have intimate relationships and ethical responsibilities toward all forms of life (Taylor 2013). And although Disney did not produce this film, in 2017, through a collaboration with Cameron, Disney added Pandora – The World of Avatar, to its Animal Kingdom theme park. At this venue and throughout the Animal Kingdom, in a variety of artistic ways, kinship and conservation take center stage (Taylor 2019b).

Indeed, rising to the height of 44 meters, at the very center of the Animal Kingdom is a sculpture modeled after the African Baobab Tree, which is sometimes referred to as the African Tree of Life. Into its trunk and branches sculptors shaped 325 animals and entangled their limbs, wings, and other body parts in a way that also seemed designed to teach interconnection and kinship.[29] Jane Goodall, whom the Kingdom's designers had invited to tour the Kingdom the day before the Park's opening, was moved by the symbolism. When she could find no chimpanzee in the tree, the species with which she felt

27. Examples include *Snow White and the Seven Dwarfs* (1937), *The Jungle Book* (1967), *The Little Mermaid* (1989), *Tarzan* (1999), and *The Lion King* (1994, remade in 2019), *Finding Nemo* (2003), and *Finding Dory* (2016); for more analysis see Taylor 2019b: 432–35.

28. As, for example, *Pocahontas* (1995) and *Brother Bear* (2003). Other films have as well.

29. For this and other photographs, and analysis, of nature spirituality produced by Disney creatives, see Taylor 2019b.

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special kinship, the artists took note and quickly added her favorite Chimp, just in time for the Park's opening.[30]

As problematic as some of the artistic representations may be – for they have had their critics – it is clear that their producers have sought to express and promote kinship sentiments and ethics. There is, moreover, evidence that in at least some cases, such productions have done just that (Mitman 2009 [1999]; Ivakhiv 2013; Taylor 2013; 2019b: 435).

Gaia and Mother Earth Spiritualities

I have provided many examples of how diverse actors are promoting science-based kinship sentiments, suggesting that such phenomena can be considered a kind of naturalistic animism. Many contemporary Pagans, of course, consider themselves to be animists or believe that their spiritualities have affinity with animism, as do many indigenous peoples (Abram 1996; Bird-David 1999; Harvey 2006; 2013; Hornborg 2006; Littlebird 2001; Quinn 2005; Taylor 2019a; Whyte 2021). Indeed, animistic perceptions are one of the most common characteristics of contemporary nature spiritualities, which certainly includes those who consider themselves to be Pagan.

Another scientific understanding that has affinity with the spiritual sensibilities of many Pagans is the Gaia Hypothesis. James Lovelock, the theory's most prominent proponent, named the theory after the Greek goddess of the Earth (Lovelock 1995 [1979]). Lovelock and evolutionary biologist Lynn Margulis, whose research contributed to the theory (Lovelock and Margulis 1974; Margulis 1970; 1981), argued that the biosphere functions like a living, self-regulating organism that maintains the conditions necessary for the lives of the organisms that constitute it.

When Lovelock expressed surprise at the ways many drew on the theory for their own nature-based spiritualities he also said that he sympathized with the impulse (Lovelock 2005). He stressed, however, that he was a scientist speaking metaphorically and did not consider the Earth as 'alive in a sentient way' (Lovelock 2006: 16, cf. 148). Nevertheless, although he was always clear that he did not mean that the biosphere is literally a goddess, he did describe his understandings about Earth's living systems with religion-resembling terms. For example, on one occasion when he was comparing Earth's 'cloud-speckled ocean-blue sphere' with the lifeless Mars and Venus, he

30. Interview with Jane Goodall, 11 April 2003, Black Mountain, North Carolina.

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recalled, 'Suddenly, as a revelation, I saw the Earth as a living planet' (Lovelock 2000: 241).

Lovelock also fondly recalled his father's deeply felt 'kinship with all living things'. Then he commented that his father shared the kind of naturalistic Paganism that is common among country people (Lovelock 1995 [1979]: 133). Lovelock even acknowledged, when expressing his own affinity with such feelings, that this kind of spirituality was in longstanding conflict with monotheistic religions as well as with humanism and Marxism. After making this assertion he added in a way that seems confessional, that nevertheless, 'Wordsworth's Pagan, "suckled in a creed outworn", is still alive within us' (Lovelock 1995 [1979]: 136).

One need not label Lovelock pagan to recognize that, with his father and in his own sentiments and his explicit expressions of belonging to and trusting in nature, Lovelock recognized his own affinity with at least some pagan sensibilities.[31] Indeed, if as I was told in 1980 by a professor at an Evangelical Christian seminary that idolatry is 'trusting in and relying upon anything other than God,' then Lovelock can be considered an idolator (Taylor 2011). It is for these sorts of reasons that I think it can make sense to consider Lovelock to be a promoter of a naturalistic 'Gaian religion of nature' (Taylor 2010: 38).[32]

With more space I could multiply examples of Gaian or 'Mother Earth' spiritualities that do not link such perceptions to any kind of theism, pagan or otherwise. Here two examples from 2002 must suffice.

The first occurred during the Welcome Ceremony to the United Nations World Summit on Sustainable Development in Johannesburg, South Africa. It featured a mythic story of the emergence and flourishing of life on earth, depicting a time when people lived in a kind of Edenic harmony. A time of greed, environmental degradation, and anthropogenic extinction followed. But in this pageant, the story ended happily, as humans came to recognize their kinship with all life, reestablishing harmony with nature, as children marched in under a huge, iconic, and at least implicitly sacred Earth.[33]

31. For a more detailed discussion see Taylor 2010: 35–40, 205–206.

32. For more on the entanglement of spiritual sentiments with the Gaia hypothesis, see Ruse 2013.

33. The ceremony is available in two parts (part one): https://youtu.be/wFuKYVG1lmc and (part two): https://youtu.be/RBzUWqkNips.

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Figure 8: Advertisement from the Federation of Electric Power Companies of Japan, August 20, 2002. The inside of the four-page insert touted nuclear power as part of the solution to anthropogenic climate change; photograph by Bron Taylor.

Figure 9: This image I initially noticed when it was published as an advertisement in a German edition of *Time* magazine. Perhaps because of the profound skepticism about the claims of climate scientists in the United States, this advertisement did not appear in the same issue of *Time* when it appeared in the U.S.A. Screenshot from Sanyo's website by Bron Taylor.

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Also, during that year the opening ceremony of the Winter Olympics in Salt Lake City, Utah celebrated Native American reverence for Mother Earth. The event included Native American elders from the region welcoming the athletes and various expressions of Mother Earth spirituality, including skaters in Native American costumes ice-dancing to songs and drumming by Native artists to the 'heartbeat of Mother Earth'. It thereby implicitly called for others to share such respect before a global television audience estimated at three billion souls.[34] These examples show how performances that express kinship and reverence for the Earth sometimes reach global audiences.

Paganism Unbound?

In *Conceptualizing Religion,* Benson Saler (1993) recommended an approach to religion-resembling phenomena in which analysts refrain from efforts to establish where religion ends and that which is not religion begins. He reasoned, 'if our ultimate purpose as scholars is to say interesting things about human beings rather than about religions and religion, appreciation of the pervasiveness of religious elements in human life is far more important than any contrivance for bounding religion' (Saler 1993: 226). The same thing, I think, can be said about Paganism.

When considering the kinds of experiences, perceptions, values, and practices that are commonly associated with contemporary Paganism, if we set aside preconceived ideas about where the borders of Paganism end, we can discern that a host of cultural creatives, including artists of all sorts, curators of science museums, those orchestrating pageants and ritual-resembling ceremonies, and even some developers of theme parks, are paganesque in their worldviews and values. And by comparing the variety of nature spiritualities around the world with the traits that often typify contemporary pagans, it becomes possible to recognize that Paganism – or at least nature spiritualities that resemble Paganism – have more cultural traction globally than is commonly recognized.

References

Abram, David. 1996. *Spell of the Sensuous: Perception and Language in a More-Than-Human World* (New York: Pantheon).

Adler, Margot. 1979. *Drawing Down the Moon: Witches, Druids, Goddess-Worshippers, and Other Pagans in America Today* (New York: Viking Press).

34. For this ceremony see https://youtu.be/t1MWQVKK3N8 (accessed in June 2020).

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———. 2014. *Vampires Are Us: Understanding Our Love Affair with the Immortal Dark Side* (San Francisco and Newburyport: Weiser Books).
Bekoff, Marc. 2007. *The Emotional Lives of Animals* (Novato: New World Library).
Berkes, Fikret. 2017 [1999]. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*, 4th edition (New York: Routledge; Original edition, Philadelphia: Taylor & Francis).
Bird-David, Nurit. 1999. '"Animism" Revisited: Personhood, Environment, and Relational Epistemology', *Current Anthropology* 40: 567–91.
Burghardt, Gordon M., and Harold A. Herzog, Jr. 1980. 'Beyond Conspecifics: Is Brer Rabbit Our Brother?', *BioScience* 30.11: 763–68. https://doi.org/10.2307/1308337
Callicott, J. Baird. 1996. 'Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethic?', *Environmental Ethics* 18.4: 353–72.
Carson, Rachel. 1994 [1962]. *Silent Spring*, Atlantic edition (New York: Houghton Mifflin).
———. 1998. *Lost Woods: The Discovered Writings of Rachel Carson*, edited by Linda Lear (Boston: Beacon Press).
Chidester, David. 1996. *Savage Systems: Colonialism and Comparative Religion in Southern Africa* (Charlottesville: University Press of Virginia).
———. 2004. 'Classify and Conquer: Friedrich Max Muller, Indigenous Religious Traditions, and Imperial Comparative Religion', in Jacob Olupona (ed.), *Beyond Primitivism* (New York: Routledge): 71–88.
Coccia, Emanuele. 2016. *La Vie Des Plantes: Une MéTaphysique Du MéLange, BibliothèQue Rivages* (Paris: Éditions Payot & Rivages).
———. 2019. *The Life of Plants: A Metaphysics of Mixture*, English edition (Medford: Polity).
Darwin, Charles. 1871. *The Descent of Man, and Selection in Relation to Sex* (London: J. Murray).
Dunbar, R. I. M., and Louise Barrett. 2007. *Oxford Handbook of Evolutionary Psychology* (Oxford and New York: Oxford University Press).
Frazer, Sir James George. 1995 [1926]. *The Worship of Nature* (Whitefish: Kessinger; Original edition, London: MacMillian).
Goodall, Jane. 1999. *Reason for Hope: A Spiritual Journey* (New York: Time Warner Books).
Goodall, Jane, and Marc Bekoff. 2003. *The Ten Trusts: What We Must Do to Care for the Animals We Love* (San Francisco: Harper San Francisco).
Haraway, Donna J. 2016. *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press).
Harvey, Graham. 2006. *Animism: Respecting the Living World* (New York: Columbia University Press).
——— (ed.). 2013. *The Handbook of Contemporary Animism* (Durham and Bristol: Acumen).
Harvey, Graham, and Charlotte Hardman (eds.). 1996. *Paganism Today* (New York: Thorsons/Harper Collins).
Hornborg, Alf. 2006. 'Knowledge of Persons, Knowledge of Things: Animism, Fetishism, and Objectivism as Strategies of Knowing (or Not Knowing) the World', *Ethnos* 71.1: 1–12.
Hutton, Ronald. 2000. *The Triumph of the Moon: A History of Modern Pagan Witchcraft* (Cambridge: Oxford University Press).
Ivakhiv, Adrian J. 2013. *Ecologies of the Moving Image: Cinema, Affect, Nature* (Waterloo: Wilfrid Laurier University Press).

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Kellert, Stephen R., and Edward O. Wilson (eds.). 1993. *The Biophilia Hypothesis* (Washington, D.C.: Island Press).
Keltner, Dacher. 2009. *Born to Be Good: The Science of a Meaningful Life*, 1st edition (New York: W.W. Norton).
Lagerlöf, Selma. 1947 [1907]. *The Wonderful Adventures of Nils* (New York: Pantheon; Original edition, Doubleday & Page).
Lanting, Frans. 1997. *Eye to Eye: Intimate Encounters with the Animal World* (Köln: Taschen).
Leopold, Aldo. 2013 [1949]. *A Sand County Almanac & Other Writings on Ecology and Conservation*, edited by Curt Meine (New York: Library of America).
Littlebird, Larry. 2001. *Hunting Sacred, Everything Listens: A Pueblo Indian Man's Oral Tradition Legacy* (Santa Fe: Western Edge Press).
Lovelock, James. 1995 [1979]. *Gaia: A New Look at Life on Earth*, revised edition (Oxford and New York: Oxford University Press).
——. 2000. *Homage to Gaia: The Life of an Independent Scientist* (New York: Oxford University Press).
——. 2005. 'Gaian Pilgrimage', in Bron Taylor (ed.), *Encyclopedia of Religion and Nature* (London and New York: Bloomsbury Academic; originally Continuum International): 683–85.
——. 2006. *The Revenge of Gaia: Earth's Climate Crisis and the Fate of Humanity* (New York: Basic Books).
Lovelock, James, and Lynn Margulis. 1974. 'Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis', *Tellus* [Series A (Stockholm: International Meteorological Institute)] 26.1–2: 2–10.
Margulis, Lynn. 1970. *Origin of Eukaryotic Cells; Evidence and Research Implications for a Theory of the Origin and Evolution of Microbial, Plant, and Animal Cells on the Precambrian Earth* (New Haven: Yale University Press).
——. 1981. *Symbiosis in Cell Evolution: Life and Its Environment on the Early Earth* (San Francisco: W. H. Freeman).
Meine, Curt, Michael Soulé, and Reed Noss. 2006. 'A Mission-Driven Discipline: The Growth of Conservation Biology', *Conservation Biology* 20: 631–51.
Mitman, Gregg. 2009 [1999]. *Reel Nature: America's Romance with Wildlife on Film* (Seattle: University of Washington Press; Original edition, Harvard University Press).
Mueller, Martin Lee. 2017. *Being Salmon, Being Human: Encountering the Wild in Us and Us in the Wild* (White River Junction: Chelsea Green).
Muir, John. 1997. *Muir: Nature Writings*, edited by William Cronon (New York: Library of America).
Nelson, Melissa K., and Dan Shilling (eds.). 2018. *Traditional Ecological Knowledge* (Cambridge: Cambridge University Press).
Paulson, Steve, and Anne Strainchamps. 2020. 'Eye-to-Eye Animal Encounters', *To the Best of Our Knowledge*. https://Www.Ttbook.Org/Show/Eye-Eye-Animal-Encounters
Quinn, Daniel. 2005. 'Animism – Humanity's Original Religious Worldview', in Bron Taylor (ed.), *Encyclopedia of Religion and Nature* (London and New York: Continuum International): 83–91.
Ruse, Michael. 2013. *The Gaia Hypothesis: Science on a Pagan Planet* (Chicago: University of Chicago Press).
Saler, Benson. 1993. *Conceptualizing Religion: Immanent Anthropologists, Transcendent Natives, and Unbounded Categories* (Leiden: Brill).
——. 2008. 'Conceptualizing Religion: Some Recent Reflections', *Religion* 38: 219–25.

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Schweitzer, Albert. 1929. *Civilization and Ethics, Vol. 2*, translated by Charles Thomas Campion (London: A. and C. Black).
———. 1936. 'The Ethics of Reverence for Life', *Christendom* 1: 225–39. http://www1.chapman.edu/schweitzer/sch.reading4.html
Simard, Suzanne. 2018. 'Mycorrhizal Networks Facilitate Tree Communication, Learning and Memory', in F. Baluska, M. Gagliano, and G. Witzany (eds.), *Memory and Learning in Plants* (Berlin and New York: Springer): 191–213.
———. 2021. *Finding the Mother Tree: Discovering the Wisdom of the Forest* (New York: Alfred A. Knopf).
Smith, Jonathan Z. 1998. 'Religion, Religions, Religious', in Mark C. Taylor (ed.), *Critical Terms for Religious Studies* (Chicago: University of Chicago Press): 269–84.
Snyder, Gary. 1969. *Turtle Island* (New York: New Directions).
———. 1980 [1969]. *The Real Work: Interviews and Talks 1964–1976* (New York: New Directions; Original edition).
———. 1996. *Mountains and Rivers without End* (Washington: Counterpoint).
———. 2004. *The Practice of the Wild: Essays*, 1st edition (Washington, DC: Shoemaker & Hoard).
Soulé, Michael. 1995. 'The Social Siege of Nature', in Michael Soulé and Gary Lease (eds.), *Reinventing Nature? Responses to Postmodern Deconstruction* (San Francisco: Island Press): 137–70.
Starhawk. 1979. *The Spiral Dance: A Rebirth of the Ancient Religion of the Great Goddess*, 1st edition (San Francisco: Harper & Row).
Strainchamps, Anne. 2020. 'Sharing Eye-to-Eye Epiphanies with the Animal World', *To the Best of Our Knowledge*. https://www.ttbook.org/node/13356
Sullivan, Lawrence. 1987. Worship of Nature, in Mircea Eliade (ed.) *Encyclopedia of Religion*, vol. 10 (New York: Macmillan): 324–28.
Takacs, David. 1996. *The Idea of Biodiversity: Philosophies of Paradise* (Baltimore: John Hopkins University Press).
Taylor, Bron. 1995. 'Resacralizing Earth: Pagan Environmentalism and the Restoration of Turtle Island', in David Chidester and Edward T. Linenthal (eds.), *American Sacred Space* (Bloomington: Indiana University Press): 97–151.
———. 2000a. 'Bioregionalism: An Ethics of Loyalty to Place', *Landscape Journal* 19.1–2: 50–72.
———. 2000b. 'Deep Ecology and Its Social Philosophy: A Critique', in Eric Katz, Andrew Light and David Rothenberg (eds.), *Beneath the Surface: Critical Essays on Deep Ecology* (Cambridge: MIT Press): 269–99.
———. 2001a. 'Earth and Nature-Based Spirituality (Part One): From Deep Ecology to Radical Environmentalism', *Religion* 31.2: 175–93.
———. 2001b. 'Earth and Nature-Based Spirituality (Part Two): From Deep Ecology and Bioregionalism to Scientific Paganism and the New Age', *Religion* 31.3: 225–45.
———. 2005. 'Ecology and Nature Religions', in Lindsay Jones (ed.) *Encyclopedia of Religion* (New York: MacMillian).
———. 2007. 'Exploring Religion, Nature and Culture: Introducing the Journal for the Study of Religion, Nature and Culture', *Journal for the Study of Religion, Nature and Culture* 1.1: 5–24.
———. 2010. *Dark Green Religion: Nature Spirituality and the Planetary Future* (Berkeley and Los Angeles: University of California Press).
———. 2011. 'Idolatry, Paganism, and Trust in Nature', *The Pomegranate* 12.1: 103–108. https://doi.org/10.1558/pome.v12i1.103

© Equinox Publishing Ltd 2023.

——(ed.). 2013. *Avatar and Nature Spirituality* (Waterloo: Wilfrid Laurier University Press).
——. 2019a. 'Animism, Tree-Consciousness, and the Religion of Life: Reflections on Richard Powers' *The Overstory*', *Minding Nature* 12.1: 42–47. https://humansandnature.org/animism-tree-consciousness-and-the-religion-of-life-reflections-on-richard-powers-the-overstory/
——. 2019b. 'Rebels against the Anthropocene? Ideology, Spirituality, Popular Culture, and Human Domination of the World within the Disney Empire', *Journal for the Study of Religion, Nature and Culture* 13.4: 414–54. https://doi.org/10.1558/jsrnc.39044
——. 2020a. 'Dark Green Religion: A Decade Later', *Journal for the Study of Religion, Nature, and Culture* 14.4: 496–510. http://doi.org/10.1558/jsrnc.34630
——. 2020b. *Dunkelgrüne Religion* (Leiden: Wilhelm Fink/Brill).
——. 2020c. 'Michael Soulé (1936–2020) on Spirituality, Ethics, and Conservation Biology', *Conservation Biology* 34.6: 1426–32. https://doi.org/10.1111/cobi.13634
——. 2021. 'Kinship through the Senses, Arts, and Sciences', in Gavin Van Horn, Robin Wall Kimmerer, and John Hausdoerffer (eds.), *Kinship: Belonging in a World of Relations (Volume 1)* (Libertyville: Center for Humans and Nature Press): 30–47.
Tillich, Paul. 1951. *Sytematic Theology, 3 Volumes* (Chicago: University of Chicago Press).
Van Horn, Gavin. 2011a. 'Fire on the Mountain: Ecology Gets Its Narrative Totem', *Journal for the Study of Religion, Nature and Culture* 5.4: 437–64. https://doi.org/10.1558/jsrnc.v5i4.437
——. 2011b. 'The (Religious) Naturalist's Eye: An Introduction to [the Special Issue], "Aldo Leopold: Ethical and Spiritual Dimensions"', *Journal for the Study of Religion, Nature and Culture* 5.4: 397–409. https://doi.org/10.1558/jsrnc.v5i4.397
Van Horn, Gavin, Robin Wall Kimmerer, and John Hausdoerffer (eds.). 2021. *Kinship: Belonging in a World of Relations (5 Volumes)* (Libertyville: Center for Humans and Nature Press).
Watson, Paul. 1982. *Sea Shepherd: My Fight for Whales and Seals* (New York: Norton).
——. 2005. 'Biocentric Religion, a Call For', in Bron Taylor (ed.) *Encyclopedia of Religion and Nature* (London and New York: Bloomsbury Academic): 176–79.
Whyte, Kyle Powys. 2021. 'An Ethic of Kinship', in Gavin Van Horn, Robin Wall Kimmerer, and John Hausdoerffer (eds.), *Kinship: Belonging in a World of Relations (Volume 5)* (Libertyville: Center for Humans and Nature Press): 30–38.
Wilson, David Sloan. 2002. *Darwin's Cathedral: Evolution, Religion, and the Nature of Society* (Chicago and London: Chicago University Press).
Wilson, Edward O. 1979. 'Biophilia'. *New York Times Book Review*, January 14, 43.
——. 1984. *Biophilia* (Cambridge: Harvard University Press).
Worster, Donald. 1994 [1977]. *Nature's Economy: A History of Ecological Ideas*, 2nd edition (Cambridge: Cambridge University Press).
Yang, Andrew S. 2020. 'Making Kin', *Center for Humans and Nature*. https://humansandnatureart.com/making-kin/
York, Michael. 2003. *Pagan Theology: Paganism as a World Religion* (New York: New York University Press).

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