

Methane Dispensers and Bio-Dynamic Beings: Cattle as Polysemous Symbols in Environmental Religious Discourse.¹

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Abstract



This paper approaches thinking animals via the animal humanities, focusing on the conflicting meanings ascribed to domesticated cattle: are they destroyers of the environment, or saviors of the planet? By investigating narrative tropes, especially those grounded within the at times competing and overlapping worldviews of religious environmentalism, biodynamic agriculture, and sustainable agriculture, this paper explores the iterative interaction between how cows are conceived, and thus managed, in relation to human-nature interactions. Management questions may include: Who can kill a cow, when, why, and for what purpose? How should cows be raised and treated? Do cows have their own form of intelligence, and even spiritual intelligence? Are cows a leading cause of climate destabilization and deforestation, or can they help avert runaway climate change? Should cows be the entry point into animal abolitionism? Investigating the competing answers to these and other such questions is important, for if humans are to have any form of functional habitat that enables the flourishing of human and non-human lifeforms in the coming decades, then how humans conceive of, manage, and interact with other lifeforms, especially in the context of religion and agriculture, matters. Emerging metrics suggests that the narrative, ethical, religious, and biological understandings of non-human evolutionary kin in the dawning Anthropocene will be fluid and contested. Therefore, scholars must be prepared to interpret and analyze emergent meanings that will be ascribed to other lifeforms on a climate changed planet. Investigating cows—their labor, their environmental impacts, their role in shaping human societies and providing calories, the art of interacting with them on agricultural fields—presents a chance to rethink the human in a world of limits.

Keywords: cows, religious environmentalism, religion, climate change, authentic religion, animal studies.

Resumen

Este trabajo analiza los animales pensantes a través de las humanidades animales, centrándose en los significados conflictivos atribuidos al ganado domesticado: ¿son destructores del medio ambiente, o salvadores del planeta? Al investigar los tropos narrativos, especialmente aquellos basados en las visiones del mundo, a veces rivales y superpuestas, del ecologismo religioso, la agricultura biodinámica y la agricultura sostenible, se explora la interacción iterativa entre cómo las vacas son concebidas y gestionadas en relación con las interacciones entre el ser humano y la naturaleza. Las preguntas de gestión pueden incluir: ¿Quién puede matar a una vaca, cuándo, por qué, y con qué propósito? ¿Cómo deben ser criadas y tratadas las vacas? ¿Tienen las vacas su propia forma de inteligencia, e incluso de inteligencia espiritual? ¿Son las vacas la principal causa de la desestabilización del clima y la deforestación, o pueden ayudar a evitar el cambio climático? ¿Deberían ser las vacas ser el punto de entrada en el abolicionismo animal? La investigación de las respuestas conflictivas a estas y otras preguntas es importante, ya que si los seres humanos han de tener algún tipo de hábitat funcional que permita el florecimiento de las

¹ The author wishes to express deep gratitude to the reviewers who offered insightful and helpful feedback on an original submission. Their comments led to a much stronger paper. Fault for remaining deficiencies of course resides with the author.

formas de vida humanas y no humanas en las próximas décadas, es importante cómo los seres humanos conciben, gestionan e interactúan con otras formas de vida, especialmente en el contexto de la religión y la agricultura. Métricas emergentes sugieren que la narrativa, los entendimientos éticos, religiosos, familiares y biológicos de la evolución no humana en el Antropoceno naciente será fluida y controvertida. Por lo tanto, los especialistas deben estar preparados para interpretar significados emergentes que se pueden atribuir a otras formas de vida en un planeta frente al cambio climático. La investigación de las vacas—su trabajo, sus impactos ambientales, su papel en la conformación de las sociedades humanas y la disponibilidad de calorías, el arte de interactuar con ellos en los campos agrícolas—presenta la oportunidad de reconsiderar al ser humano en un mundo de límites.

Palabras clave: vacas, ecologismo religioso, religión, cambio climático, religión auténtica.

This paper investigates the multiple meanings ascribed to one domesticated animal, the cow, and does so through combining the lenses of animal humanities with religious studies.² I choose the cow for the following three interrelated reasons. First, because of the sheer numbers of cows raised by humans globally. Second, because of how central cows have been and continue to be in Agricultural and post-Agricultural Revolution lifestyles; this is especially true in terms of providing calories and labor, and the cumulative impact on soil nutrients. Lastly, emerging metrics suggest our narrative, ethical, religious, and biological understandings of non-human evolutionary kin in the dawning Anthropocene will be economically, ethically, legally, and cosmologically contested. The latter suggests that scholars must be prepared to interpret and analyze emergent meanings that will be ascribed to other lifeforms in a climate changed planet. Investigating cows—their labor, their environmental impacts, their role in shaping human societies and providing calories, the art of interacting with them on agricultural fields—presents a chance to rethink the human in a world of limits. This rethinking is triggered by a recognition of human/other-animal relations and a consideration of what these relations will require of humans as they adapt to a changing planet. By combining insights from religious studies and animal

² I ask readers to recognize that, for this paper, I am using the mass noun, “cattle,” and also “cows,” for ease of presentation. Thus, with both cattle and/or cow, I am referring to male and female animals, and covering the multiple species and breeds of cattle that have existed, past and present. Furthermore, the title of this paper is a play on words. It utilizes a line from Bruce Cockburn’s poignant song, “If a Tree Falls.” When describing the clear cutting of the Amazon, with much of this denuded habitat being turned into pasture for cows, Cockburn calls bovines “methane dispensers” (<http://brucecockburn.com/music/big-circumstance> Accessed May 20, 2015). This signals a growing recognition, going back to the formation of CAFOs (concentrated animal feedlot operations) in the 1980s onward, and the correlated steady increase in the consumption of cow products in affluent diets, that there is an emergent view of cows as despoilers of the environment (Pollan; Foer; Lappé). For two quick examples that support such charges, in 2011, there existed 1.4 billion cows globally (<http://www.economist.com/blogs/dailychart/2011/07/global-livestock-counts> Accessed May 20, 2015), and in 2015, global beef exports topped 10 million tons (<http://www.cattlenetwork.com/news/industry/global-beef-exports-projected-set-record-2015> Accessed May 20, 2015).

humanities, a space opens where humans can reflect on their own policed species barriers, where this policing occurs while they manage and use cattle for various purposes. Such reflection constitutes at its core a chance to reconceive the role of the human animal, and its relation with other animals, in the Anthropocene. Crucial here is that such a reflective space also opens possibilities for rethinking “religion’s profile against the backdrop of species” (Schaefer 35).

Environmental realities in terms of ecosystem, planetary, and animal (human and cattle) health have generated a sustained critique of cattle farming and production.³ Such critiques emerge within religious subcircles, and are in part based on the recognition that the amount of grain, energy, water, and fossil fuels needed to raise these amounts of beef and/or dairy cattle, especially in a CAFO or feedlot setting, is inimical to these three domains of health. This religious view of cattle’s environmentally destructive role can loosely be called a religious environmentalist view (Tomalin). Such a view is based in the ongoing Ecological Reformation that recognizes we are irreparably damaging a “sacred” planet, where cows are increasingly seen to be hazardous to our planetary health.⁴ Such views are generating criticism with regards to the often hidden (linguistically [Stibbe], visibly [Pachirat]) and externalized (in terms of true cost accounting [Daly]) role played by cows in precipitating environmental damage at local and global levels. This is especially true in relation to their role in contemporary industrial agriculture. While this paper will present and elucidate such views, my research suggests that in contrast to these familiar criticisms of cattle, another view of cows is possible. Cattle in contemporary forms of agriculture can in fact also be seen as essential to ecosystem health. One view in particular, originally espoused by Rudolf Steiner and now known as biodynamics, sees cows as spiritually pure and powerful beings, able to tap into etheric and other forms of cosmic energy; forms of energy that help overall farm health. In this, and other similar views expressed by those in religious agrarian (LeVasseur “Religious Agrarianism”) and environmental agrarian (K. Smith) settings, cows are seen as central to halting human-induced climate change, and as being an integral part of healthy, holistic farming.

How can the same animal, collectively known as *Bos primigenius*, prompt such competing views in this century?⁵ This paper does not necessarily attempt to answer this question, for that is quite impossible—indeed, religious symbols are

³ These health considerations are based on various metrics such as, for example, those provided in note 2.

⁴ “Ecological Reformation” has become one way of understanding and framing how world religions are responding to, via various strategies of reform, the last approximately 40 years of ecological insights about how human actions are damaging various planetary systems. The flavor of this term is comparable to the Protestant Reformation, which radically changed the political and cosmological systems of Europe, and this new reformation based on ecology might have similar impacts on human biosocial systems.

⁵ This name accounts for the many subspecies of the larger subfamily *bovinae* that have been bred over the approximately last 10,000 years.

polysemous, lacking any form of “ideal-type” authenticity (Martin, especially chapter 7). Rather, what I aim to do here is to use cattle as a focal point for exploring larger ramifications in the biosocial production of religion, helping us better understand the confluence of animal humanities and religious studies. If humans are to build interspecies relationships that enable the flourishing of human and non-human lifeforms in the coming decades, then how they conceive of, manage, and interact with other lifeforms matters. Climate predictions suggest that religious understandings and conceptions of non-human evolutionary kin will be contested and in flux in the coming decades (LeVasseur, “Earth is *sui generis*”). This biophysical reality suggests that scholars must be prepared to interpret emergent meanings that will be ascribed to other lifeforms on a climate changed planet.⁶

Animal Humanities and Religious Studies

In her deft summary of the “animal turn” in the academy, Kari Weil suggests that animal studies

stretches to the limit questions of language, epistemology, and ethics that have been raised in various ways by women’s studies and postcolonial studies: how to understand and give voice to others or to experiences that seem impervious to our means of understanding; how to attend to difference without appropriating or distorting it; how to hear and acknowledge what it may not be possible to say. (6-7)

While these are indeed important and probing questions, there is evidence that human animals have attempted, via the biosocially produced vehicle of “religion,” to grapple with some of these issues, in at times articulate and systematic ways and over many centuries (Waldau and Patton). Though it is true that species borders have been erected and policed, what this resembles varies by culture, ecosystem, and species (DeMello, especially chapter 2) despite the European scientific hegemony of the last few hundred years (Pratt).⁷ It also varies in terms of religion, which, in this paper, is understood following religion and nature scholar Bron Taylor, who defines religion as “that dimension of human experience engaged with sacred norms, which are related to transformative forces and powers and which people consider to be dangerous and/or beneficent and/or meaningful in some ultimate way” (“Introduction” x). One reason Taylor uses such a definition in crafting the *Encyclopedia of Religion and Nature* in which it appears is that it opens up the theoretical and analytical possibilities of religion-nature related phenomena, which can then be analyzed by religious studies scholars. Though the views of cows addressed in this paper may not appear to be strictly “religious,”

⁶ For the most recent, consensus science on climate change predictions, see <http://ipcc.ch/index.htm> (Accessed May 20, 2015).

⁷ See especially Pratt’s analysis of Linnaeus, and how “The Linnean system epitomized the continental, transnational aspirations of European science” (25).

when we embrace Taylor's definition, they become so. Moreover such an unrestricted definition opens up a scholarly space for analyzing human/animal-other interactions that for practitioners may be self-reported as "spiritual." This discursive space of meaning for religion and/or spirituality allows for the views of other-animal agencies explored below to be taken as seriously as more traditionally-informed religious views of animals, as found for example in Hinduism, Buddhism, or Judaism (as problematic as it is to reify such nouns as if they represent stable, singular traditions).

There are a variety of approaches to understanding the voice and experience of cows. These can range from caring for them as spiritual beings (see below), to seeing them as divine (some aspects of Hinduism, broadly speaking [see Korom]), to working for their liberation and recognizing their needs to graze, get fresh air, and nurture their young (see Baur). For example, organic farmer, rancher, and philosopher Fred Kirschenmann writes that, "On the farm, I know things best by immersing myself in the things I wish to know. [...] Thus, contemplating a host of ethical and values issues while castrating a calf is the only way to 'know' about it; it is a way of 'dwelling' in the fullness of the act" (16). For many involved in contemporary forms of sustainable agriculture, attending to differences between species and taking seriously the interests of animal-others is increasingly becoming part and parcel of their stewardship and farming practices. And, as we see with Kirschenmann, it may even be part of theological reflections.

What is suggested by Kirschenmann and by others referenced in this paper gives credence to Lisa Kemmerer's position that, "Reading sacred literature, examining spiritual teachings, and pondering the lives of great religious adepts can remind people of time-honored spiritual principles and provide insights into the human being's proper place in the universe" (4). This is on one level true, and many academic anthologies and papers attest to this. However, such a position also underlies advocacy work, and many leading scholars in the study of religion and animals do at times enter into animal advocacy. However, we must be cautious in attributing contemporary concerns about animal rights and welfare, as well as insights drawn from ethology and contemporary environmental concerns, to religious humans, in the present and especially in the past. For example, as ethically profound as the concept of *ahimsa* (non-violence/non-harming) may be in both Buddhism and Jainism, when it comes to guiding human animal interactions with non-human animals, the historical context is one of anthropocentrism, as concern is centered most directly on achieving human rebirths on the path to enlightenment. This means that acting nonviolently towards other animals is not based on intrinsically valuing non-human others and their own agency. Furthermore, in some aspects of religious systems in Hinduism, Jainism, and Buddhism, where we may find evidence of insights regarding the human being's proper place, we see that it is the human animal that is able to receive revelation or act on the dharma, broadly speaking, and not nonhuman animals. This generates

an important insight: scholars must be cautious when studying animals via religion. Specifically, scholars have to navigate (possible) activist work and scholarship, recognizing the very real and deep seated anthropocentrism present in a variety of religious systems that historically led to the exploitation of animal others and continue to lead to such exploitation (see Nelson; Harris; and Chapple). As Paul Waldau suggests,

recognizing that asking whether a tradition as a whole is open or closed, friendly or unfriendly to nonhuman animals is different than asking whether religious believers in daily life hold accurate, detailed information about other animals' actual lives. [...] even a religious tradition that promotes an overlapping dismissal of the environment and subordination of all other-than-human animals may include individuals or entire subtraditions that put into practice altogether more positive responses to other animals, the environment, or both. (173)

Caution aside, it is important to recognize, as does leading theologian and religious studies professor Aaron Gross, that, "Animals [...] have always been at the center of the modern and contemporary study of religion, albeit in a camouflaged and forgotten manner. I do not wish to make animals more central, but rather to make their centrality more conscious, more just, and more interpretively productive" (61). I agree with this passage, and in this paper, hope to consciously re-center religion around cows in a way that is productive to helping us better understand their meaning and role in agriculture, especially as we move further into a planet undergoing anthropogenic global warming.

Domesticated Cattle

This section provides a broader context so that we might better understand cows, beginning by backing up about 10,000 years. Archaeological and anthropological records suggest that dogs and humans co-domesticated one another well before this time. The other plants and animals that form the basis of most human calories today were domesticated later, beginning about 10,000 years ago with the onset of the Agricultural Revolution. For cattle, the record suggests that domestication first occurred in Turkey, with just a small number of what became cows constituting the foundation of modern breeds. And what is needed to domesticate an animal? According to Kirkpatrick Sale, the following conditions must be met: the animal in question must live in herds with follow-the-leader hierarchical systems; be amenable to fencing; have a placid disposition; be able to eat foods humans provide; have short growth and birthing periods; and be able to breed in captivity (94-99).⁸

As Sale points out, the urge to dominate other species via technologies and cultural worldviews most likely emerged at this point in time. Importantly, this time significantly predates our current world religions. So while cows without

⁸ What is fascinating is that only fourteen species fit these criteria, meaning that 134 of 148 large mammalian species have never been domesticated by the human animal (Sale 98).

blemish were sacrificed to Yahweh and cattle are still worshipped in India and signify personal wealth in parts of sub-Saharan Africa, these various understandings of and symbolic meanings of cattle are a product of biosocial systems where cows are a key domesticated animal and are viewed anthropocentrically. In the context of domestication of both animals and plants (and by default, the planet), and factoring in issues of justice and rights for all species involved, it is thus important to investigate how various worldviews dictate at least in part how human animals interact with the material environment. If human worldviews from the onset of the Agricultural Revolution contain a seed of human superiority over the natural world and over the plants and animals that humans have strategically domesticated, then it is important to look at human views of cows and how these views are shaped by various worldviews. This is especially important within the context of shifting environmental metrics of the Anthropocene, where these metrics may require humans to rethink their varied relations with this majestic animal.

Cows today form the basis of multiple meals, from fast food burgers to frozen lasagna. From an ethological perspective, they are not horribly mistreated as they are brought to slaughter after spending their last few weeks in CAFOs. As ruminants, they have four stomachs and burp out a lot of methane. In addition to these facts, humans now know with ever increasing surety that the planet is rapidly crossing tipping points: the ocean is becoming an acidic body of water that will most likely not support a functional food chain; and in the coming years there will be an increase in massive droughts, floods, and other terrestrial-based system shifts related to anthropogenic climate change. These larger planetary realities signal a theoretical recognition that changes in the natural world can and do trigger shifts in worldviews. This phenomenon can be encapsulated in the terms “biosocial evolution” and/or “biocultural evolution,” which recognize the iterative interaction between constructed systems of human meaning and the environments within which this ongoing construction takes place, in a relationship where both mutually shape one another. Biosocial evolution can be observed at work today when reflecting on how some humans are beginning to reconceive their relation with and understanding of the natural world, where the natural world is seen to be sacred and worthy of morally-grounded religious concern (Taylor, *Dark Green*). This reconception ranges from the “greening” of mainstream religions (Tucker and Grim), to the development of Dark Green Religiosities (Taylor, *Dark Green*), and collectively signals the onset of the Ecological Reformation of religions, both old and new. Moreover, important insights from ecological and environmental sciences feed into and shape this greening of religion. For the purposes of this paper, it is important to recognize that much of this science brings us back to certain key human activities that are drivers of climate change, including especially the human domestication of cattle.

Cattle are a key driver of climate change because in the U.S. alone there are 31 million cattle raised each year for slaughter. Fully one third of the United States landbase is used to grow corn, with much of this going to feed the millions of cattle alive in the U.S. at any one time. Thirty-five percent of the farms in the U.S. are involved in some process of beef production, so that altogether, the raising of cattle has a huge impact on environmental health and the terrestrial landscape.⁹ Global numbers confirm an equally profound impact. Seventy percent of global agricultural land is dedicated to livestock production, and livestock account for 18% of total greenhouse gas emissions because of enteric fermentation—the internal microbes in the four stomachs of a cow and other ruminants generate methane as they turn fibrous grasses into protein. This accounts for one third of all methane being released, and methane is 20 times more potent than carbon dioxide in terms of immediately heating the planet’s atmosphere. Another methane bump results from the literally millions of tons of excrement created by cows in feedlots, as methane is released when this fecal matter is anaerobically broken down. The impact of this massive quantity of cow shit is compounded because much of it ends up poisoning groundwater by leaking ammonia, phosphorous, antibiotics, and various pathogens into surrounding waterways. Lastly there is the loss of habitat and biodiversity, as land is turned into grazing pastures for cattle, especially in the Amazon.¹⁰ The impact of cows on the planet is summed up by James Lovelock, the originator of the Gaia hypothesis who blames environmental degradation on what he calls “The 3 Cs,” namely, cars, chainsaws, and cows. The cars need oil and release CO₂; chainsaws clear forests; and cows not only require the clearing of forest but also burp and fart copious amounts of methane.¹¹

Religious and Religious Environmentalist Discourses about Cows

The above metrics help to create a view of cattle where they are seen as despoilers of a sacred planet. This point of view, which can be called a religious

⁹ See here the documentary *Food, Inc.* (2008, dir. Robert Kenner; <http://www.takepart.com/foodinc>), as well as: Lyman, *Mad Cowboy: Plain Truth from the Cattle Rancher Who Won't Eat Meat* (2001), Jackson, *Consulting the Genius of the Place: An Ecological Approach to a New Agriculture* (2010), Patel, *Stuffed and Starved: The Hidden Battle for the World Food System* (2012), and Hayes and Hayes, *Cowed: The Hidden Impact of 93 Million Cows on America's Health, Economy, Politics, Culture, and Environment* (2015). Industrial cattle farming also has impacts on human health, from dietary to medical; on the latter, see for example the rise in drug-resistance bacteria caused by the huge amounts of antibiotics given to cattle and other feedlot/CAFO animals: <http://www.takepart.com/article/2015/01/23/antibiotic-resistance-downwind-feedlots> (Accessed May 27, 2015).

¹⁰ For the preceding figures and claims, see <http://www.worldwatch.org/agriculture-and-livestock-remain-major-sources-greenhouse-gas-emissions-0> (Accessed May 25, 2015), <https://woods.stanford.edu/environmental-venture-projects/consequences-increased-global-meat-consumption-global-environment> (Accessed May 25, 2015), and especially FAO’s “Livestock’s Long Shadow” 2006 report <http://www.fao.org/docrep/010/a0701e/a0701e00.HTM> (Accessed May 25, 2015).

¹¹ This insight was shared with me by Stephan Harding, Schumacher College’s resident ecologist, during a short course at Schumacher in 2001. Harding and Lovelock are close friends.

environmentalist view that sees nature as sacred, recognizes that humans are precipitating the sixth largest extinction crisis on the planet and severely altering the planet's climactic systems. Within these larger ecological realities, created chiefly by human managerial decisions and lifestyles, cows become a symbol of destruction, of wasteful consumption, of gluttony, and of short-sightedness as the true impacts (social, environmental, ethical, and medical) of cows and their products are externalized. According to some religious practitioners who have embraced the religious environmentalist turn, the raising and slaughtering of millions of cows is a desecrating act, one that needs to be offset by a vegetarian or vegan diet and a move away from the ills of animal agriculture, away from the mooing cacophony of Angus burgers and Jersey milkshakes.

Despite the aggregate impact of cattle on ecosystems and biogeochemical cycles, and the dawning human understanding of the true gravity of this impact, it is hard for many humans to turn their backs on one of their oldest domesticated partners. In contrast to the widespread condemnation of industrial cattle farming, many authors, farmers, and religious authorities offer a competing understanding of cattle. Indeed, individuals who both care about the environment and who advocate the strategic use of cows argue that, if managed properly, a free range, pasture based system of raising cattle actually helps the planetary environment (Philips and Sorensen; J. Steiner, et al., "Knowledge and Tools"). Moreover, it is felt that, in a sustainably-managed pasture regime, it is possible to honor the intrinsic dignity of our bovine kin. Journalist Judith Schwartz elaborates such a worldview in *Cows Save the Planet* (2013). Here Schwartz argues that intensive, rotational grazing by herbivores, especially cows, helps aerate, nourish, and regenerate grassland ecosystems which in turn stores atmospheric carbon.¹² Furthermore, and echoing perhaps Kari Weil's aforementioned insight about giving voice to others, one of America's leading suppliers of grass fed, certified organic cow's milk, Organic Valley, even prints farmer biographies on their milk cartons. Together with these biographies they offer quotes, which include the words of some farmers who claim that to them cows are cared-for members of the family, a position that suggests that the voice and perspective of each cow factors into how the farmer treats them!¹³

This same line of argument, namely, that proper cattle farming can contribute to sustainability via best-management practices, is vociferously advocated for by Joel Salatin, owner of Polyface Farm in Virginia and self-proclaimed "Christian libertarian environmentalist capitalist lunatic," who argues that farming "is inseparable from ethics, politics, faith, or ecology."¹⁴ Salatin's

¹² Similar arguments are made in Niman, *Defending Beef: The Case for Sustainable Meat Production* (2014), Webster, *Animal Husbandry Regained: The Place of Farm Animals in Sustainable Agriculture* (2013), and White, *Grass, Soil, Hope: A Journey through Carbon Country* (2014).

¹³ <http://www.organicvalley.coop/products/milk/why-choose-ov-milk/> (Accessed May 25, 2015).

¹⁴ All Salatin quotes come from <http://www.yesmagazine.org/issues/can-animals-save-us/joel-salatin-how-to-eat-meat-and-respect-it-too> (Accessed May 15, 2015).

interviews, included in various sustainable food documentaries such as *Food, Inc.*, have made him a popular and authoritative voice in alternative agriculture milieus. Significant here is his claim that the religious environmentalist argument that “cows are evil and cause climate change” is a canard, as it focuses on feedlot cattle. However, if cows are strategically managed via rotational grazing and are kept within the regenerative carrying capacity of the larger farm ecosystem,¹⁵ this acknowledges, according to Salatin, that cows “mow forage. [...] We feed cows grass, and that honors and respects the cow-ness of the cow.” And “mob-stocking” cows, or allowing a critical mass of cows to intensively graze a fenced area of pasture for just two or three days and then moving this “mob” to another pasture, actually generates grass growth and stores carbon—thus, adding to a discourse that we can call, along with Schwartz, “Cows Save the Planet.” Lastly, by honoring the cow-ness of the cow and having an open-door policy allowing the public to see how Salatin treats his cows, Polyface Farm can, as Salatin puts it, “create a thankful, gracious, honoring experience when we come to eat” the actual cow.

This view of cows and the deep symbiotic relationship of their domestication and human physiology is mirrored in the work of radical feminist Lierre Keith, both in her sole-authored book *The Vegetarian Myth* (2009) and her subsequent collaborative publication *Deep Green Resistance* (2011). Having been a vegan for 20 years, Keith now argues the opposite, “we have Paleolithic bodies, we need Paleolithic food” (*Deep Green* 157). This nature mystic and radical environmentalist, who writes that humans *need* a sense of spiritual belonging with “the multitude of members of this tribe called carbon” (*Deep Green* 167), argues, like Salatin and Schwartz, that the rotational grazing of cows (and bison) provides a needed element of sustainable, ethical living on this planet.

These pro-cattle farming views are by no means a product of 21st century environmentalism. For example, there is no more developed view of the inherent sacredness of the cow than in the biodynamic model that evolved in early 1900s Germany out of the teachings of the anthroposophist Rudolf Steiner, known for his work on Camphill Villages, Eurythmy, Waldorf Education, and biodynamics, all of which derive from anthroposophy, or spiritual science. Steiner’s spiritual science is predicated on the belief that each person is on an evolutionary trajectory, occurring by multiple incarnations, towards self-realization/God-realization. By practicing and cultivating the spiritual insights taught by Steiner, individuals can advance along this evolutionary path and enjoy visionary, gnosis-filled experiences. Steiner’s cosmology borrows heavily from Theosophy, Germanic idealism, and advaita Vedanta Vedic philosophy, which speaks of an eternal divine spark within each being on a path towards liberation via reunion with the Divine/God. Steiner taught that as a soul progresses through physical incarnations,

¹⁵ This concept refers to the amount of cattle that can sustainably pasture in a field before soil nutrients are depleted and the larger pasture ecosystem becomes brittle and loses nutrients and biodiversity.

so does humanity and the world. Steiner's view is that the human contains a four-part body. The first is a physical body, based in the mineral world; the second is a life or etheric body, which, associated with the plant world, causes the body to grow and vitalizes it; the third is an astral body, which, connected to the animal world, serves as the seat of consciousness and sentience; and the fourth body is the ego, or self-awareness. Steiner's cosmology posits an interconnected, holistic cosmos, where etheric and astral forces emanate from the cosmos and influence the development of all life on earth. This includes the evolutionary growth and development of animal life, plant life, and human spiritual and physical life. It is within this larger cosmology that biodynamics functions (for the content of this entire paragraph, see LeVasseur, "Biodynamic Agriculture").

From June 7 to 16, 1924, Steiner gave eight lectures in German to a group of farmers at Koberwitz, Silesia on the "Spiritual foundations for the renewal of agriculture."¹⁶ These farmers had expressed concern about noticed losses in yields and soil health, so Steiner was invited to provide insights into potential remedies. Key insights from Steiner's lectures became the basis for biodynamics as almost every biodynamic farmer builds his or her own practice of farming upon these teachings. These include the view that a farm is a self-contained microcosm that mirrors the macrocosm. Thus, a farm should be managed as a holistic entity, while recognizing that astral and etheric forces from the cosmos influence plant, animal, soil, and human health. It is especially this teaching that shaped particular biodynamic farming practices, the most important of which is the creation and casting of biodynamic preparations or "preps." In essence, biodynamic preps (BD preps) are a kind of homeopathy for the soil, bringing etheric and astral forces into the soil within which plants grow and upon which animals graze. The preps are intended to help the farmer create a microcosm of the macrocosm, to amplify astral and etheric forces on the farm, resulting in healthier and purer products. As these spiritually pure products are consumed, the human becomes more spiritually pure, and their personal evolutionary process in this lifetime is sped up. Another insight offered by Steiner, and one of particular relevance to this paper, is the significance of cows. Steiner saw cows, especially those with their horns intact, as being in tune with astral and etheric forces. Cows with horns became a kind of cosmic antenna, and their dung is the basis for spreading cosmic health throughout the farm ecosystem, and ultimately to the ecosystem of human bodies sustained by biodynamically produced products. In this agricultural aspect of Steiner's larger spiritual science, cows literally form the basis of biodynamic farming and, at least in part, the basis of spiritual health.

¹⁶ A selection of Steiner's writing and thinking can be found in Steiner, *Agriculture: An Introductory Reader* (2003).

A Cacophony of Ruminations

The future that awaits both humans and cattle is uncertain. By 2100 earth will be warmer by anywhere from 2 degrees Celsius to 6 degrees Celsius. This planetary reality brings with it serious choices that humans will have to make in regards to how they manage, and equally, conceive of their landscapes. Currently, cows play a determinant role in how multiple human communities manage landscapes from local to global levels. Should humans condemn the “3 Cs” and ostracize their domesticated kin? Should they see the inherent sacredness of cattle and their “cow-ness” and use them to generate healthy grass-based farms that store carbon? In *Ritual and Religion in the Making of Humanity* (1999), anthropologist Roy Rappaport convincingly explains how human beliefs, rituals, and ethics play a pivotal role in how humans manage ecosystems. Biocultural evolution and Traditional Ecological Knowledge both explain how, for millennia, humans have shaped and been shaped by their varied ecosystems (Posey; LeVasseur and Johnston). Given the amount of planetary biomass devoted to cattle farming, cows are central players in this mutual shaping or domestication, and this has been the case for these past 10,000 years.

But maybe domestication means something else on “eearth,” as Bill McKibben calls it in *Eaarth: Making a Life on a Tough New Planet* (2011). McKibben’s creative spelling recognizes that while it is technically the same planet it is, as a result of human action, climatically changed with respect to the entirety of its prior history. The human species is entering new territory, so the relations humans have built and the lifestyles humans have become accustomed to over 10,000 years are at this point possibly maladaptive. This may hold equally true for many current socially constructed religious views, ethics, practices, rituals, and material dimensions. Do humans need to rethink their view of calories, of animals and plants broadly, and given the focus of this paper, cows specifically? Might more and more humans generate a “cosmic holism according to which we are bound in an essential kinship relation with all beings that suffer and struggle to realize their natural potential” (G. Steiner 195), a holism that might include human-cattle relations? For those motivated by religious convictions, teachings, rituals, and practices, especially at the interface of environmental and agricultural concerns, such natural potential of full species flourishing is viewed differently. As illustrated in this article, some view cows and their species potential as being met by removing them from the basis of the current industrial food system. Other views maintain that their species potential is realized by allowing them to roam free range and even making them the spiritual basis of holistic farming.

Given climate change models, I am confident that humanity will have to make tough decisions moving forward. Decisions will range from how to get calories, to managing resources, to conceiving of and talking about non-human evolutionary kin (on discourses about animals, see Stibbe). These decisions bring

up very real issues of authenticity. As indicated earlier, Craig Martin points out that, with religion, “There are no essences to be found, only authenticity claims in process” (162). So while there is clearly a biological essence to cattle, how various human communities imagine them and interact with them reflect authenticity claims. Cattle also reflect contested uses of science; if science is helping humans to better understand the ecocrisis and is thus influencing the Ecological Reformation, then authenticity claims about the role of cattle—either damaging or ameliorating—will equally factor into religious environmentalist production in regards to how humans conceive of ruminant cousins, especially on a warmer planet. Regardless, the reality of domesticating cattle is that on one level humans have also domesticated the planet and its atmosphere, and have equally been domesticated by cattle, where this “relationship is mutual, though not egalitarian” (Peterson 90). How humans navigate this mutual relationship, and how this navigation is steered in part by religious production, where in biosocial systems, “conflicting feelings about human-animal relations [will produce] strategies of resolution” (Perlo 1), can offer continued insights into both animal studies and religious studies.

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