



BRILL

JOURNAL OF REFORMED
THEOLOGY 19 (2025) 79–104

JOURNAL
OF REFORMED
THEOLOGY

brill.com/jrt

Permaculture as Theo-drama in the Multispecies Commons

Holmgren's Permaculture as Performance for Deane-Drummond's Ecotheology

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Received 21 August 2023 | Accepted 10 April 2025 |

Published online 12 May 2025

Abstract

This article limits itself to a selection of key ideas on animal ethics from Celia Deane-Drummond's ecotheology. She has been generally cautious about venturing into ethical implications of her ecotheology. The result is that her robust theological reflection remains rather open-ended for practicing growth in virtue. I juxtapose some of her key ideas with David Holmgren's permaculture approach to animals to investigate how far permaculture can guide the performance of Deane-Drummond's normative concerns. Permaculture is a design science for applying insights from ecology as an applied environmental ethic. I argue that Holmgren's permaculture can guide a virtuous practice of Deane-Drummond's animal ethics and lends itself as a context for ecotheological reflection. How can permaculture develop our ability to risk identifying and taking ethical environmental actions with relation to animals? What fruit might be borne for our own growth in virtue through the practice of permaculture's approach to animals?

Keywords

Holmgren – Deane-Drummond – theo-drama – permaculture – multispecies commons

1 Introduction: Environmental Practice for Ecotheology

While some ecotheologians consider the implications of their arguments, there is a general absence of holistic ethical approaches,¹ often with the focus remaining safely within the precincts of philosophical and theological reflection.² Such approaches are valid in their own right but remain lacking environmentally insofar as their normative concerns do not meet up with taking the risk of related ethical activity. Permaculture provides a promising avenue for bridging this gap by offering a well-developed framework for sustainable living and addressing ethical considerations within a multispecies context. Permaculture can be described as an applied ecology with a focus on food production and other human needs. Permaculture is one of the most articulated and applied approaches to designing and living a comprehensive ecological and environmental lifestyle. As such, it holds promise for contributions to ecotheology both in presenting itself as an environmental lifestyle and through the questions that arise from within a reflective practice. By integrating permaculture principles into ecotheological discourse, a more robust praxis can be pursued, fostering a more comprehensive and practical approach to ecological ethics.

To that end, I propose bringing a holistic environmental practitioner to the ecotheological table. As such, I explore two important voices in an interdisciplinary fashion, one from ecotheology and the other from an environmental practitioner. I aim to demonstrate that integrating these two disciplines will

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- 1 By 'holistic' I refer to approaches that seek to account for systems that consider human, animal, fungal, and plant activities as necessarily interrelated elements in ethical response as opposed to, for example, a limited ethical focus on policy or ad hoc ethical suggestions.
 - 2 For example, the focus may be on: arguing to what extent the Benedictine tradition may be ecologically informed—Samuel Torvend, *Monastic Ecological Wisdom* (Collegeville, MN: Liturgical Press, 2023); on reframing a very broad Christian narrative in which the church is situated for moral perspective on ecological issues—Ernst M. Conradie and Pan-Chiu Lai, *Taking a Deep Breath for the Story to Begin* (Eugene: Pickwick Publications, 2022); on exploring ecological themes in Anabaptist perspectives—Calvin Redekop, ed., *Creation and the Environment: An Anabaptist Perspective on a Sustainable World* (Baltimore: John Hopkins University Press, 2000); or questions such as to what extent perceptions of human wonder, value, sense of purpose, and so forth are traceable to God's relationship to nature—Robin Attfield, *Wonder, Value, and God* (New York: Routledge, 2017); on categorizing various environmental strategies and relating them to approaches within ecotheology—Willis Jenkins, *Ecologies of Grace: Environmental Ethics and Christian Theology* (New York: Oxford University Press, 2008); or on a quest for religious symbol that can guide environmental attitudes—Richard Bauckham, *Living with Other Creatures: Green Exegesis and Theology* (Waco: Baylor University Press, 2011).

yield fruitful outcomes for ecotheology. This article focuses on David Holmgren's permaculture to take up the ethical question of justice with a focus on animal ethics in Celia Deane-Drummond's ecotheology. A virtue approach to ecological issues has been a chief emphasis in her ecotheology³ as is her appreciation for drawing on scientific studies.⁴ My intention in bringing these two voices together is not to focus on critical readings of their work, except in minor ways pertaining to the argument of this article. Rather, I intend to focus on the fruits of bringing these two together, especially pertaining to the value of embodying environmental virtue, that is, following up deliberation with action.

If ecotheological virtue ethics emphasizes the importance of agency (self-determination and capacity to act on choices), it would benefit from a guided praxis, or applied ethic, such as permaculture. Holmgren defines permaculture as "a design system for resilient living in land use based on universal ethics and ecological design principles."⁵ In other words, permaculture aims to apply ecology and grounds it in basic ethics. It designs homestead and community systems to mimic forest ecosystems and natural cycles (biomimicry). I argue here that Holmgren's permaculture, as an effort toward restoring relationships in the multispecies commons in the Anthropocene,⁶ is an effective performance in the theo-drama.

For this article, animal use in permaculture is the focus as a resource for dialogue in order to maintain a closer connection with Deane-Drummond's writings on animal ethics. I first review Deane-Drummond's hermeneutic perspective of theo-drama, then analyze how Holmgren's permaculture complements this perspective. The foundation of her hermeneutic perspective sets the stage for subsequently considering particular elements of her animal ethic. I then investigate the element of human distinctiveness in Deane-Drummond's perspective of image-bearing, which in turn sets the stage for consideration of specific virtues.

3 Others have also argued for a virtues approach in ecotheology: for example, *Earthkeeping and Character: Exploring a Christian Ecological Virtue Ethic* (Grand Rapids: Baker Academic, 2020); Kiara A. Jorgenson and Alan G. Padgett, *Ecotheology: A Christian Perspective* (Grand Rapids: Eerdmans, 2020), 119–160; Steven Bouma-Prediger and Nathan Carson, eds., *Ecoflourishing and Virtue*, Routledge New Critical Thinking in Religion, Theology and Biblical Studies, 1st ed. (New York: Routledge, 2024).

4 Although the focus of this article is not on systematic theology, Reformed readers in systematics will appreciate Deane-Drummond's reflections for their own articulations of image-bearing, among other categories.

5 David Holmgren, *RetroSuburbia: The Downshifter's Guide to a Resilient Future* (Hepburn: Meliodora Publishing, 2018), 562.

6 Understood as the age when every place on earth is affected by human activities.

1.1 *Why Animal Ethics?*

Animal ethics is a central issue of environmentally mindful activity. To what extent should we try to protect endangered species? How do we balance the needs of humans against the needs of animal species? Contemporary interest in eating (or not eating) meat and other animal products has become an increasingly ubiquitous phenomenon. Animals are of interest for ecotheology as well as systematic theology, such as questions that Deane-Drummond considers, like the consideration of human uniqueness in the animal world or defining image-bearing as distinct from animals. Finally, in a variety of ways, animals play essential roles in permaculture. Permaculture is holistic and animals are not the focus as such; rather they are necessary elements of a total system that includes human, animal, fungal, and plant activities. However, the focus here is limited mainly to animals in permaculture as a way into the conversation. For these reasons, Deane-Drummond's animal ethics provide a suitable starting point for investigating how permaculture as an ethical practice can meet up with the normative concerns in Deane-Drummond's animal ethic.⁷

1.2 *Why Permaculture?*

Although it is difficult to isolate ethical implications that follow directly from ethical deliberation,⁸ I assume that ethical deliberation falls short insofar as it remains mired in deliberation and reframing arguments without any clear promise of taking action. As such, I assume that any path toward action must at least hold promise as a *holistic* attempt at environmentally intentional living, and it must foster virtue in the context of environmentally conscious choices. Insofar as an approach is not holistic and only focuses on one area (for example, agriculture, policy, or green tech), solving one environmental problem inevitably, even if unwittingly, leads to exacerbating others. As for virtue, any approach to environmental living must foster virtue in the context of the freedom to make significant choices with an environmental conscience as opposed to merely following top-down moral mandates.⁹ As a lifestyle, permaculture can meet both of these criteria. Critiquing permaculture or responding to vari-

7 This article uses Deane-Drummond's animal ethic(s) as a shorthand for her environmental virtue ethic with relation to animals.

8 This is obvious from the reticence within ecotheology to explicate connections between principles and applications, and it is a danger acknowledged by Holmgren as well while he sets out to find ways of acting on ethical principles; David Holmgren, *Permaculture: Principles and Pathways Beyond Sustainability* (Hepburn: Holmgren Design Services, 2011), xxv.

9 Not to suggest that every environmental choice can be made by individuals or that policy, for example, has no role. Rather, environmental virtue is only possible for an individual if the individual has opportunity for significant investment in their own choices and actions, with-

ous critiques is not the focus in this article. Rather, taking Holmgren's approach as a practice alongside Deane-Drummond's ethical deliberations is my intention. Although I am not aware of any other approach as holistic as permaculture, any other approach that can meet the criteria of both virtue and holism could also be a contender for this investigation.

1.3 *Overview of Deane-Drummond's Position on Animal Ethics*

Deane-Drummond's writing on animal ethics is fairly extensive. This article limits itself to a selection of her key ideas considered along with animal concerns in Holmgren's permaculture. My question is how far permaculture can guide the sort of ethical norms that Deane-Drummond promotes, specifically related to animals. How might the practice of permaculture bear fruit for animal justice? What fruit might be borne for our own virtue and character development through close encounters with animals in permaculture? In what ways and to what extent will embodying Deane-Drummond's animal ethic through Holmgren's permaculture develop our ability to risk taking ethical environmental action as agents?

In pursuing these questions, I highlight two main contours of Deane-Drummond's animal ethic and then consider how far permaculture can guide environmentally mindful and virtuous relationships with animals. First, her hermeneutical lens for doing theology in light of evolution is referred to as *theo-drama*; the goal of *theo-drama* is *shalom* (universal peace and justice) in a multispecies commons, even if such a *shalom* is prefigurative in the present age. From Deane-Drummond's perspective, *theo-drama* is the biological and environmental entanglement of humans with other creatures. Permaculture unlocks a path for the praxis of a minor multispecies commons, aimed at harmony that gives due weight to both individual agency and community dynamics. Admittedly, I am pressing Deane-Drummond's depiction of a multispecies commons beyond where she has taken it so far, given her apparent hesitancy to enlarge upon flourishing in practice.¹⁰ Yet, permaculture seems a worthwhile focus for exploring just such an expansion.

out which their character cannot be considered environmentally praiseworthy even if their actions contribute to broader environmental flourishing.

- 10 Her main intention in *Multispecies Lens* is not that of producing casuistic rules or principles for an animal ethic. Her focus is on the preconditions for morality, such as ethological observations of animals helping one another in ways that appear altruistic. Discussed below under *Personhood, Agency, and Virtues*. See also Celia Deane-Drummond, *The Wisdom of the Liminal: Evolution and Other Animals in Human Becoming* (Grand Rapids: Eerdmans, 2014), 268.

Second, Deane-Drummond emphasizes that humans are not different in an absolute sense from other animals but are distinct in degree. She also argues that through nonhuman animal encounters, we become more human. Holmgren's permaculture offers the context in which both the similarities and distinctions between humans and animals will be encountered daily, and often in tension of mutually conflicted interests when virtue is at stake. Such interactions offer opportunities to appreciate animals as agents in their own right and to reflect on character growth as humans in such situations.

2 The Contours of Deane-Drummond's Animal Ethic and Holmgren's Permaculture as an Applied Ethic

2.1 *Deane-Drummond's Theo-drama: Evolution, Agency, and Shalom*

Deane-Drummond's preferred hermeneutical lens for doing theology, and therefore the context for her environmental and animal ethic, is theo-drama. Building on Hans Urs von Balthasar, Deane-Drummond takes theo-drama to be "a theological way of reading history"¹¹ that is not reductionistic to narrative accounts, which tend toward an epic view of history as "an inevitable marching of events."¹² It attempts to hold in tension the ultimate trajectory of God's eschatological goodness with creaturely agency. She sees theo-drama within the context of evolution as being capable of doing justice to the dynamic of God's eschatological providence that moves creation toward the purpose of *shalom*. Theo-drama has the advantage of implying an "improvised script,"¹³ which "points to the significance of individual human acts and decisions ... Those individual acts cannot be separated from the multispecies communities in which they take place."¹⁴ *Shalom* is the goal of the theo-drama; the virtues inform an improvised script for right relationships with other creatures in "a world that shows traces or hints of *shalom*, or right relationships with God and with every other creature."¹⁵

Building on Deane-Drummond, I suggest that agency can be framed theologically as a quest for wisdom and virtue, the end of which is fellowship with

11 Deane-Drummond, *Wisdom*, 309.

12 Celia Deane-Drummond, *Christ and Evolution: Wonder and Wisdom* (Minneapolis: Fortress Press, 2009), 221.

13 Celia Deane-Drummond, *Christ*, 282–283. That is, a theological and metaphorical advantage over models of theological determinism.

14 Deane-Drummond, *Wisdom*, 236, 309.

15 Celia Deane-Drummond, *Theological Ethics Through a Multispecies Lens: The Evolution of Wisdom*, vol. 1 (Oxford: Oxford University Press, 2019), 316–317.

God. *Shalom* is the fulfillment of justice, when all will be subsumed under God's eschatological goodness into a fully restored relationship with him. Agency, then, should be directed toward the goal of *shalom*, unhindered fellowship with God. Theo-drama together with agency includes such processes as the evolutionary partitioning of niche development, which allows different species to interact and coexist.¹⁶ That is to say, the niches developed by humans and some other species are never fully separated from each other during evolutionary processes. As such, animal agency contributes to the process of human evolution. In turn, humans, through creating and shaping environments and habitats, impact the evolution of animal species.¹⁷ In an evolutionarily entangled world, we cannot expect to map out into the future how our actions will result in evolutionary outcomes since "the complexity [of such an undertaking] will dwarf any sense of our own intelligence."¹⁸

Nevertheless, agency implies actions that have outcomes or consequences. Thus, agency should be responsive to the obvious, such as when animals are clearly not being treated in accordance with the goal of *shalom*. It is naïve to suppose we can usher *shalom* into the current epoch; however, the biblical and eschatological vision of *shalom* includes transformed relationships with animals,¹⁹ and agency requires that we promote that vision of *shalom* even within a world where it can never be completely realized.²⁰

2.2 *Multispecies Commons and Shalom in Theo-drama*

In *Theological Ethics Through a Multispecies Lens*, Deane-Drummond used the concept of a multispecies commons, which can serve as a symbol for the eschatological vision of *shalom*. She draws on the ethological work of Marcus Baynes-Rock, who defines the multispecies commons as "the kind of place in which human-animal entanglements are made most explicit. It is where social, biological and historical processes are so inextricably entwined with wider ecological processes as to be inseparable."²¹ Deane-Drummond uses the concept to explore possible evolutionary origins of morality (such as justice, love, and wisdom). She argues that humans and nonhumans become who they are in the context of dependent relationships with other creatures throughout evolution-

16 Deane-Drummond, *Ethics*, 309, and Deane-Drummond, *Christ*, 183.

17 More so for humans in recent evolutionary history.

18 Deane-Drummond, *Wisdom*, 315.

19 Isaiah 11:6.

20 Deane-Drummond, *Ethics*, 317.

21 Marcus Baynes-Rock, "Life and Death in the Multispecies Commons," *Social Science Information* 52, no. 2 (2013): 210.

ary history. Not only are physical niches constructed in community, but so, too, are agency, morality, and virtue.

For example, wisdom is described by Deane-Drummond as a relational term, and she focuses on investigating possible “preconditions for ethical responsibility toward other creatures” in the multispecies context.²² These preconditions include the development of mutual dependency; knowing how to interpret others within complex social relationships; Alasdair Macintyre’s concept of “generous practice as part of a ‘network of giving and receiving’”; sets of “social factors that form a complex cultural system”;²³ and coevolution (close contact between phylogenetic lineages). Baynes-Rock’s study of the Aboker hyenas and humans exemplifies the concept of co-evolution, with humans and hyenas having a long-shared history that includes common understandings beyond language. This and other examples imply that theological understanding must include a shared creaturely existence—one that understands a role for animals as agents, along with humans, in the theo-drama.

Framing life in the multispecies commons includes “second order reflection on experience [for example, considering the above preconditions for ethical responsibility] while immersing oneself in that experience as participant observers.”²⁴ Such reflection indicates that “organisms and their environments emerge together, rather than one being primary.”²⁵ Other questions arise in turn, with personhood being seen as both nature and nurture, biological and cultural. Since personhood requires relational nurturing along with biological nature, relationships are also the requisite context for virtue. In this sense, we might describe personhood as “the process of becoming conscious and it is the *nexus of social relationships*, rather than some underlying informational essence, that constitutes both the becoming of an organism and personhood.”²⁶

Considering this multispecies relational nexus, real consequences for understanding and seeking the virtues also emerge. Acting in the social world and immersing ourselves “... in the lives of those others [including animals] is part and parcel of becoming selves, a movement of unfolding and enfolding in relationships with others.”²⁷ Thus, Deane-Drummond argues that these relationships are “an important setting for expression of virtues of justice, compassion,

22 Deane-Drummond, *Theological Ethics*, 119–120.

23 Deane-Drummond, *Theological Ethics*, 122, 123, 126, 127.

24 Deane-Drummond, *Theological Ethics*, 134.

25 Deane-Drummond, *Theological Ethics*, 137.

26 Deane-Drummond, *Theological Ethics*, 137, 138. Emphasis added.

27 Deane-Drummond, *Theological Ethics*, 141.

and wisdom.”²⁸ The virtue of justice, for example, is less about one’s relationship to oneself than it is about one’s relationship to others. In this sense, a context with others, and a multispecies one—such as permaculture—is required for expressing virtuous relationships in our world, which is multispecies by nature.

2.3 *Personhood, Agency, and Virtues in the Multispecies Commons*

Since relationships are a normative context for expressing virtue, one of Deane-Drummond’s intentions in *Multispecies Lens* is to explore “what human/animal community relationships signify for the moral life.”²⁹ She suggests that “the interactions with other agents [including nonhumans] also allow growth in competency as moral agents in that world.”³⁰ How does this moral growth occur? Deane-Drummond does not expand upon how human agents may grow through particular interactions and encounters, nor does she say anything about how they might position themselves for such growth or be aware of barriers to it.

However, Deane-Drummond’s main intention in *Multispecies Lens* is not that of producing casuistic rules or principles for an animal ethic. Her focus is on the preconditions for morality, such as apparently altruistic behaviors observable in nonhuman animals—what appears to be forms of morality in animal worlds. Nonetheless she intends to set the trajectory for a multispecies ethic as finding ‘ways to accommodate both areas of unity and difference’ between species.³¹ She argues that in a multispecies ethic, the moral life calls for navigating the nexus of unity and difference in multispecies social relationships, which is at the heart of becoming a person, or personhood. One area of guidance she suggests is some of the basic tenets of biblical wisdom literature, such as “close observation of the natural world and paying attention to detail, along with discerning what might lead to a creature’s particular form of flourishing.”³² A looming challenge for embodied moral growth in a multispecies commons, then, is discerning what to do when “two or more forms of flourishing seem to clash” with the potential to compromise *shalom*.³³ The following passage lays out Deane-Drummond’s intention, which opens the possibility for understanding multispecies flourishing as *shalom*:

28 Deane-Drummond, *Theological Ethics*, 168.

29 Deane-Drummond, *Theological Ethics*, 141.

30 Deane-Drummond, *Theological Ethics*, 142.

31 Deane-Drummond, *Theological Ethics*, 5.

32 Deane-Drummond, *Theological Ethics*, 5.

33 Deane-Drummond, *Theological Ethics*, 5.

A multispecies approach to practice attempts to look at the complexity of interrelationships *between* things and take that into account in the discernment process. So, this is not so much *the way* of an individual creature ... but the *way of the collective*, that is, the way of one creature in relation to the way of another or a collection of others. Theological ethics that takes this into account will therefore not be content just to confine attention to that of individuals, but will try to adjudicate how individual and community flourishing *might be considered together*, rather than separately. Flourishing here means that which is considered good for that community.³⁴

Therefore, in light of Deane-Drummond's consideration of agency directed toward the personhood of individuals, I suggest that a flourishing multispecies commons can be considered theologically as a signpost for *shalom*. As such, it can serve symbolically as a context for growth in virtue. It is symbolic in the sense that *shalom* has not yet been achieved, but it is also a real context promoted by (or resisted by) agents. Of interest is how Deane-Drummond effectively uses these concepts to emphasize agency as meaningful performance in the drama of our lives and flourishing as a multispecies—not just a human—concern. I connect these with her multispecies commons to symbolize the theological concept of *shalom* as an eschatological promise and goal to strive for in the present epoch related to environmental concerns and virtue for animal ethics. I now argue that permaculture assists environmental virtue, in particular because our virtue is at stake in the context of relationships in a broken world where agencies collide in pursuit of good goals and sustenance. My intention is not to argue that permaculture is the only way such ethical ideals can be pursued. Rather, I seek to demonstrate the robust quality that permaculture offers for guiding ethical goals through the inimical conundrums and trade-offs required for a holistically environmental approach to ethical action.

3 Holmgren's Permaculture as a Script in the Theo-drama

3.1 *What Is Permaculture?*

The permaculture idea began with David Holmgren and the late Bill Mollison.³⁵ Holmgren roomed with Mollison during an informal mentorship from

34 Deane-Drummond, *Theological Ethics*, 5. Emphasis original.

35 David Holmgren, "David Holmgren's Journey with Permaculture Design Process—Part

1974 to 1976. Mollison suggested that Holmgren combine his research interests in agriculture, landscape architecture, and ecology toward the idea of a forest agriculture. This suggestion and their initial work together led to the publication of *Permaculture One* in 1978, where they defined permaculture as “an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man.”³⁶ Although not vastly different, over time the two developed their own nuances and directions for permaculture practice, teaching, and writing.

Either Mollison or Holmgren (or others) may be good choices for bridging a conversation between permaculture and ecotheology. This article does not have space for discussing at length my preference for Holmgren, but such considerations as the following informed it: 1) After more than four decades, Holmgren still practices and remains highly influential among permaculturists. 2) Although Mollison’s articulation for permaculture (which includes Holmgren in their first publication) was and remains inspiring and broad-sweeping in its endless theoretical iterations of his ideas for homesteads, Holmgren’s rhetoric and practice seems more realistic for what has actually worked, and he has adjusted his practice and promotion accordingly. 3) Holmgren has become open to a spiritual dynamic through the process of permaculture, however undefined it may be; thus, his perspectives imply a greater openness to a connection with ecotheology than Mollison, who insisted on a limited materialistic approach to permaculture. 4) Although Mollison and Holmgren each had similar philosophical perspectives related to their approach to permaculture (neither has written extensive philosophical undergirding for their systems), Holmgren’s philosophy is somewhat more developed and seems more broadly inclusive of the dynamics and limitations that impact real-world possibilities, whether age, economic and political forces, health, family, regulatory limitations, technology, personal preference, education, and so forth.

Thus, Holmgren later defined permaculture more holistically as:

Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs. People, their buildings and the ways they organise themselves are central to permaculture. *Thus the perma-*

One: Interview with Dan Palmer, “*Making Permaculture Stronger*” (October 6, 2020), <https://makingpermaculturestronger.net/david-holmgren-permaculture-design-process-journey-part-one-e53>.

36 Bill Mollison and David Holmgren, *Permaculture One: A Perennial Agriculture for Human Settlements* (London: Corgi, 1978), 1.

culture vision of permanent (sustainable) agriculture has evolved to one of permanent (sustainable) culture. (emphasis added)

And

I see permaculture as the use of systems thinking and design principles that provide the organizing framework for implementing the above vision. It draws together the diverse ideas, skills and ways of living which need to be re-discovered and developed in order to empower us to move from being dependent consumers to becoming responsible and productive citizens. (emphasis original)³⁷

Holmgren's permaculture is as broad as life, but he sees the three ethics³⁸ and his twelve design principles based on energetics as a manageable place to enter permaculture thinking and practice. The complexities are integrated through time and experience. Permaculture ethics are typically summarized under the values of earth care, people care, and fair share. Earth care is foundational, as nothing else is ultimately possible without it. Earth care includes taking care of soil, water, biodiversity, and so on. People care refers to taking responsibility for one's own needs and one's community's needs for food and other consumables. Fair share is more global in consideration and refers to limiting one's own consumption for the sake of others and redistributing excess production to those in need.

This third ethic is perhaps most difficult to get consistently ethically correct. Holmgren notes that it requires ongoing reflection: "the apparently contradictory messages of abundance and limits encourage us to repeatedly ponder the meaning and expression of these two aspects of nature as a paradox which should continuously reshape our ethical response to life's opportunities and problems."³⁹ Furthermore, how to redistribute surplus is an ongoing challenge because "in both the social and the natural domain, how to give in ways that show true altruism has always been problematic, but in the modern world it is an ethical question of great magnitude and complexity."⁴⁰ The normative principle implied is to recognize nature's limits and seek to live within them while enjoying and sharing nature's abundance.

³⁷ Holmgren, *Permaculture*, xix.

³⁸ The ethics are not Holmgren's uniquely, but are a shared articulation by Mollison, Holmgren, and other permaculturists.

³⁹ Holmgren, *Permaculture*, 8.

⁴⁰ Holmgren, *Permaculture*, 11.

These three ethics are broadly summative of Holmgren's normative concerns. His guiding principles can be seen as having a normative element to them in that he sees them as guiding designs in ways that account for energy flows through natural systems. He finds the concept of Emergy complicated but useful for considering the environmental impacts of our choices. Emergy is the total embodied energy required in the process of procuring another energy resource, such as a good (firewood, for example) or service (such as waste removal). Emergy accounting then, is a way of calculating (or at least considering what ought to be accounted for in) the overall environmental impact of an action or product as opposed to truncated approaches that do not account for crucial energy inputs such as production, transportation, failure, and disposal, as is often the case with technologies promoted as 'green.' Space does not allow for enumerating each of his twelve design principles, but I will draw from them throughout the following sections. Here it is sufficient to recognize that each of his principles follows from his understanding of energetic possibilities and limitations. He sees their role as assisting the ethical life:

In attempting to lead an ethical life we need conceptual tools that will allow us to find what is appropriate, is practical for the situation and context, and yet will have some enduring value in chaotically changing times. Permaculture, and especially permaculture design principles, are conceptual tools which many people are finding useful in this journey.⁴¹

In what follows, I focus on his perspective of using animals in his design concepts. I consider to what extent Holmgren's permaculture approach to animals correlates with Deane-Drummond's treatment of *shalom* and agency as a pretext to the subsequent broader consideration of a multispecies commons. In so doing, I will argue that Holmgren's permaculture, as a minor multispecies commons (albeit with broader regional and earth-wide concern), can provide a performance of Deane-Drummond's theo-drama in which agency and virtue work toward the goal of *shalom*. Subsequently, we can investigate Deane-Drummond's perspective on image-bearing to frame human belonging and agency in the multispecies community of our world, and how far permaculture may guide considerations of image-bearing. Since Holmgren has not set out a systematic treatment of animals, I have selected from his design principles in ways that illustrate how he views human-animal relationships.

⁴¹ Holmgren, *Permaculture*, 10.

3.2 *Agency and Permaculture: Responsible Action*

As with Deane-Drummond's emphasis on agency, permaculture also emphasizes human agency within evolutionary history. By building on Balthasar, Deane-Drummond sets forward elements for an ethical script that is "improvised and responsive to a sense of reciprocity between God and human agents."⁴² What sort of performance may fit this script? After all, her ethic is, in a sense, a script without a performance (such as, permaculture). Aspects that assist the human actors in the drama toward its ethical actions and implications must complement second-order reflections and ethical deliberations. Theologically, this performance requires embracing agency as a quest for wisdom and virtue in relationship with God and others. Our performance becomes an opportunity to embody ethical activities toward the goal of *shalom*, at least in a prefigured sense.

I see Holmgren's emphasis on personal responsibility and harmonious possibilities in permaculture as analogous and complementary concepts for performing Deane-Drummond's focus on agency and *shalom* in the unfolding theo-drama. Perhaps the heart of normative ethics in permaculture, especially in Holmgren's articulation, is the imperative for action itself; that is, taking the risk of doing something in response to declining energy (and pollution, and so on), being willing to make ethical and practical mistakes, and correcting oneself along the way toward the goal of ethical activity. Such action implies a level of personal responsibility, of individual and relatively independent opportunities for ethical action. Rather than being hindered from taking ethical action by the abundance of second-order questions or deliberations⁴³ regarding the right courses of action to be implemented for communities and society, the individual has a responsibility to do something, to be a part of the design response. Permaculture is not against philosophy or ethical deliberation but insists that these disciplines must be met with the risk of actually taking action—the possibility of acting wrongly (and willingness to change and grow) is better than not acting in the face of ethical uncertainty. Permaculture "is about what we want to do and can do, rather than what we oppose and want others to change."⁴⁴

42 Deane-Drummond, *Wisdom*, 236.

43 Such questions may arise in environmental ethics (or ecotheology), or they may arise within permaculture practice itself, such as the previously noted reflection about nature's messages of both abundance and limits.

44 Holmgren, *Permaculture*, xv.

3.3 *Harmonious Possibilities as Shalom*

Deane-Drummond describes *shalom* as “right relationships with God and with every other creature” (notwithstanding the eschatologically lacking elements).⁴⁵ Does this idea of right relationships fit with permaculture’s overall approach? Although Holmgren does not use the theological concept of *shalom*, nor to my knowledge does he ever use the phrase ‘right relationships,’ his permaculture aims to promote ecologically harmonious interactions and relationships, akin to a flourishing multispecies commons. He writes:

Permaculture design makes best use of non-consuming natural services to minimise our consumptive demands on resources and emphasise the *harmonious possibilities* of interaction between humans and nature. There is no more important example in the history of human prosperity derived from non-consuming use of nature’s services than our domestication and use of the horse for transport, soil cultivation and general power for a myriad of uses. Intimate relationships to domestic animals such as the horse also provide an empathetic context for the *extension of human ethical concerns* to include nature.⁴⁶

Holmgren does not systematize how animals and humans can have such interactions, but the relevant points can be gleaned from his writings, such as at least the following: humans should seek mutualistic and symbiotic relationships with animals; as such, animals can work beneficially in human systems in the context of empathetic relationships and mutual dependency; animal needs and particular environments must be respected and promoted insofar as possible and taken into account when selecting domesticated animals for particular systems that are locally and environmentally appropriate; nevertheless, levels of competition remain between humans and animals that must be dealt with in trade-offs (for example, fences, reasonable culling, eating meat, and so forth).

Holmgren’s ecological and ethical relationships include direct interactions with animals akin to Deane-Drummond’s entangled relationships and shared creaturely existence.⁴⁷ Consider the inevitable trade-offs when making choices due to decreasing energy resources that conflict with idealized concepts of harmony: “Permaculture can be seen as part of a long tradition of concepts that emphasise mutualistic and symbiotic relationships over competitive and predatory ones. Declining energy availability will shift the general perception

45 Deane-Drummond, *Wisdom*, 316.

46 Holmgren, *Permaculture*, 93. Emphasis added.

47 See also Deane-Drummond, *Theological Ethics*, 66.

of these [relationships] from romantic idealism to practical necessity.⁴⁸ For example, wild birds eating a human food source of fruit in the garden is not a dynamic we must unthinkingly eliminate (overemphasis on ecological competition), nor can we simply ignore it as *nature* (overemphasis on symbiosis). Rather, it requires finding acceptable and mutualistic trade-offs, which at times may include modest culling of wild birds for food.⁴⁹ Some environmentalists would reject Holmgren's approach as a violation of individual animal rights because it involves killing for human purposes. However, from his permaculture point of view, other approaches (such as industrial agriculture's approach to food production) may be exceedingly more problematic for a species than culling a few. Likewise, from Holmgren's perspective, the domestic horse will not be merely a romantic hobby animal, but will have jobs such as transportation and tilling, yet within the context of empathetic relationships in the community. These are real-world design solutions for a multispecies commons that enable two or more species to interact and flourish in the Anthropocene. Holmgren's practical necessity combined with empathetic relationships complements Deane-Drummond's emphasis on encounters and interactions for growth in moral competency.

Seeking symbiotic relationships with animals, notwithstanding elements of competition and using animals for work, illustrates how permaculture systems are designed to draw together elements rather than segregate them. Encounter and interaction with animals and all of nature is integral to design in permaculture systems. In every aspect of nature, Holmgren notes: "... from the internal workings of organisms to whole ecosystems, we find the connections between things [such as animals and humans] are as important as the things themselves ... the purpose of a functional and self-regulating design is to place elements in such a way that each serves the needs and accepts the products of other elements."⁵⁰

Permaculture emphasizes that by observing animals in natural settings, we can determine the types of relationships that complement them. Holmgren's permaculture pursues harmonious possibilities by integrating a diversity of relationships through observation and interaction. Emphasis is placed on managing the complexity between diversity and productivity in ways that are instructive for humans. Deane-Drummond also argues that flourishing must

48 Holmgren, *Permaculture*, 156.

49 In certain areas/for some species such culling would be illegal. The point here is Holmgren's ethical argument for handling problematic species at times with *modest* culling.

50 Holmgren, *Permaculture*, 155.

be carefully observed for learning to occur.⁵¹ For Holmgren, actually living and working with animals in mutually dependent ways is fundamental for practicing ethical relations with them. Only in multispecies spaces will our needs and those of other animals coalesce and contest each other in respect of mutual flourishing. He notes that our “ability to directly care for the diversity of life-forms is as limited as our ability to care for the whole planet. Permaculture principles and strategies provide ways to meet our needs while allowing other species to meet theirs.”⁵²

Seeking *harmonious* relationships means appreciating what kinds of animals will thrive on the particular land we live on and incorporating those animals for mutual benefit in human systems. An example of permaculture’s seeking harmonious relationships in human systems includes processing greywater from the house: Worms benefit from the nutrients (assuming no caustic chemicals) and produce compost for the garden, which in turn benefits soil biota and water purification, as well as helping generate food for the table.⁵³ Holmgren references the Australian practice of keeping yabbies (crayfish) in a rain collection dam; they benefit from the constant inflow of nutrients, yet unless some are harvested, they all tend to remain small. We can view Holmgren’s approach to environmental harmony and fitting-in from a theological perspective as a form of multispecies *shalom*-seeking. Holmgren’s permaculture thus guides Deane-Drummond’s ethic with pragmatic and human approaches to seeking mutual needs within community. With respect to Deane-Drummond’s animal ethic, these approaches can become means of expressing wisdom and virtue.

On account of Holmgren’s energetic principle ‘integrate rather than segregate,’ numerous examples of harmonious relationships can be given from permaculture. Perhaps one of the most important in today’s global food system is the need to relocalize food production. As Wendell Berry writes, “The industrial eater is, in fact, one who does not know that eating is an agricultural act, who no longer knows or imagines the connections between eating and the land.”⁵⁴ Permaculture seeks to address this disconnect, says Holmgren, by “contributing to the world-wide movement to re-localize food production and consumption.”⁵⁵ As Deane-Drummond also notes, “We are living in a new era, the era of the Anthropocene, understood as the permeation of *Homo sapiens* into virtually

51 Deane-Drummond, *Theological Ethics*, 5.

52 Holmgren, *Permaculture*, 5–6.

53 Holmgren, *RetroSuburbia*, 253.

54 Gretel Van Wieren, *Food, Farming and Religion* (New York: Routledge, 2018), 10.

55 Holmgren, *RetroSuburbia*, 452.

every aspect of the earth's systems."⁵⁶ If 'Anthropocene' implies that no place on earth is unaffected by human activities, the reality of human design impacting animal systems is already in view, and the importance of rethinking design within the quest for positive impacts of human activities comes into sharper focus. By relocalizing our activities through permaculture, we can lessen our global impacts and better deal with the consequences of our actions, a responsibility that is necessary for growth in virtue.

Holmgren's permaculture necessitates actions that promote environmentally harmonious possibilities, which we can think of theologically as what Deane-Drummond refers to as *shalom* or right relationships. Holmgren's permaculture enlivens Deane-Drummond's ethic with principles, experiences, and examples of living in a multispecies community. Holmgren's permaculture assumes that real physical interactions between humans and nonhuman animals with mutual dependency and cooperation are necessary for animal ethics because both sustenance and mutual flourishing are at stake, and the earth no longer has space for segregating humans from other species. Within this shared space is the opportunity for character growth, or virtue. Having considered Holmgren's permaculture related to Deane-Drummond's 'script' for *shalom* and agency, we turn to her considerations of image-bearing and how these can play out in permaculture.

4 Image-bearing and Permaculture

4.1 *Deane-Drummond Distinguishes Humans from Nonhuman Animals in the Theo-drama*

Holmgren's permaculture is an exemplary method for pursuing right relationships within the theo-drama toward the goal of *shalom*. We can now investigate more specifically how the contours of Deane-Drummond's animal ethic may be applied in permaculture for growth in virtue. A logical beginning for this discussion is the framing of humans within the multispecies complex of creation, addressing human distinctiveness, which is a key element of Deane-Drummond's perspective on image-bearing. I will then consider to what extent Holmgren's permaculture serves as a performance of image-bearing and human distinctiveness in a minor multispecies commons.

Deane-Drummond's conceptualization of human distinctiveness within shared evolutionary ancestry frames her understanding of human beings in

⁵⁶ Deane-Drummond, *Wisdom*, 12.

connection with the rest of God's creatures.⁵⁷ In this context, it also lays the foundation for additional investigations, such as infusing animal ethics with justice and other virtues, and serves as a reference point for investigating to what extent permaculture may provide a lived context for human distinctiveness.

4.2 *Human Distinctiveness in the Theo-drama*

For Deane-Drummond, human distinctiveness maintains that humans bear God's image in a way that animals do not. Yet she also argues that humans and animals are distinct in degree, rather than essentially different. For her, humans have a different role to play in the theo-drama; they are kingdom builders, seeking to do God's will on earth. However, animals maintain a moral status within the multispecies community. As such, clarifying her perspective of human distinctiveness is necessary for further discussion of working out justice and other virtues in the multispecies community.

Deane-Drummond draws on Aquinas in *The Ethics of Nature* for her discussion of animal ethics. Critics argue that Aquinas's views "support ... abuse of animals."⁵⁸ However, Deane-Drummond sees this critique as premature. She agrees that he views animals as having little intrinsic value and that sense of his animal ethic ought to be rejected. However, "strands of Aquinas's [theology]" are still relevant to animal ethics, namely, his overall "*ontology and focus on virtues* encourage appropriate ethical action toward animals."⁵⁹ His ontology, though hierarchical, follows previous philosophers in arguing that "plants, animals and humans are closely connected through a great Chain of Being."⁶⁰ Thus, humanity is not isolated from nature but interrelated within it. For this reason, Aquinas believed that we could learn about ourselves through close study of the natural world, especially nonhuman animals. Deane-Drummond concludes that including animals within the realm of moral concern is "the choice of humans to welcome those unlike as well as like ourselves as those *to whom* we have specific responsibilities and *with whom* we share a common life."⁶¹

The similarities between animals and humans have become more finely tuned in both Darwinian evolutionary biology and more recent studies in

57 Eva van Urk-Coster, "Created in the Image of God: Both Human and Nonhuman Animals?," *Theology and Science* 19, no. 4 (2021), 343–362.

58 Deane-Drummond, *Ethics*, 67.

59 Deane-Drummond, *Ethics*, 68. Emphasis added.

60 Deane-Drummond, *Ethics*, 68.

61 Deane-Drummond, *Ethics*, 73.

ethology. Following Aquinas, Deane-Drummond agrees that the difference and distinction between humans and other creatures is not absolute, but a matter of degree.⁶² She avoids concluding that humans are more important than other animals. Yet she maintains that humans are image-bearers and distinct, for “there is also a sense in which the biblical account implies that God shows preferential love for humans compared with other creatures, even if God cares for all creatures.”⁶³ However, in her view, humans are not unique. She argues that “the difference between humans and other animal kinds is one of degree. Reason, freedom, morality, and language—all have their counterparts in those animals who have relevant cognitive and social capacities.”⁶⁴ She believes that humans remain distinct in terms of ontology, function, and activity as kingdom builders.

4.3 *Distinctive Ontology, Function, and Activity: Humans as Kingdom Builders in the Theo-drama*

For Deane-Drummond, ontology is perhaps misleading concerning understanding what it means to bear God’s image. Ontologically, humans share “what used to be thought of as ... uniquely human” characteristics (reason, etcetera), which “all have their counterparts in those animals who have relevant cognitive and social capacities.”⁶⁵ Rather, humans are distinct from other animals in terms of functions and activities, and “therefore, in considering what it means to be made in the image of God, ontological characteristics need to be married with, rather than separated from, the particular vocation of human beings and directed toward that end.”⁶⁶ A distinctive ethic arises from our similarities to and differences from nonhuman animals. Similarities require that we incorporate animals into our understanding of their role in the theo-drama. Thus, we accept them as capable of revealing elements of God’s purposes and character within the community of justice and love. At the same time, differences require particular freedoms;⁶⁷ human freedom is meaningless unless it leads to functions and activities that build up God’s kingdom. Our reason must be directed to “humans’ particular capacity to show love and affection”; love and the virtues

62 Deane-Drummond, *Ethics*, 17–18, 32–34, 70.

63 Deane-Drummond, *Wisdom*, 295.

64 Deane-Drummond, *Ethics*, 302.

65 Deane-Drummond, *Wisdom*, 302.

66 Deane-Drummond, *Wisdom*, 31, 89, 303.

67 E.g., the freedom to recognize our particular roles in the theo-drama and to use our minds for imaginative empathy for other creatures, or “to adapt to new possible futures” in the theo-drama. Deane-Drummond, *Wisdom*, 307.

(the goals and activities of *shalom*) must shape our moral life, “working in concert for a good end.”⁶⁸

Distinctive image-bearing, then, is about the *performance* in the drama, which for Deane-Drummond refers to how we respond ethically to God’s grace to build up the kingdom. Nevertheless, she argues that other animals are bound up with us in the theo-drama and that they share traces of God’s likeness as reflecting the Trinity. She concludes that the “likeness of the Trinity is in the manner of an *image* in human persons, but it is to be distinguished from the likeness as a *trace* found in all creatures.”⁶⁹ It may be questionable theologically to use *likeness* language with relation to animals;⁷⁰ nevertheless, following Aquinas, Deane-Drummond means that all creatures disclose their ultimate cause in God. Humans, however, have an awareness of being in the drama and can adapt to new possible futures related to God as children, such that “once we allow ourselves to be exposed to the possibility of human encounter with *other creatures*, then this [clarifies] the more specific role of human beings in the overall theo-drama; in other words, in encountering other animals we become more human.”⁷¹

How do humans become more human through nonhuman encounters? Through performance of virtue, which Deane-Drummond implies includes being like Christ in consideration of others; being able to recognize wider impacts of activities; being less narcissistic through restraint from gain and pleasure at the cost of other species; delighting in other creatures and their welfare; and thus, exercising the virtues toward *shalom* and peaceable relationships.⁷² For God makes his presence known through the “dynamic interaction of the players of the drama,”⁷³ especially as humans live out their role as kingdom builders and pursuers of the common good through love and wisdom, toward the goal of mutual flourishing and *shalom*.⁷⁴ Pursuing these goals, however, may be difficult without a specific context such as permaculture in which real needs and joys are sought actively alongside, and sometimes in competition with, other creatures, especially individual creatures (for example, a woodchuck in the garden).

68 Deane-Drummond, *Wisdom*, 303.

69 Deane-Drummond, *Theological Ethics*, 240.

70 However, she means ‘likeness’ for the general sense that God’s creation reflects the Trinity, whereas ‘image bearing’ is reserved for humans and their relationship to God. Deane-Drummond, *Wisdom*, 307.

71 Deane-Drummond, *Wisdom*, 307–308. Emphasis original.

72 Deane-Drummond, *Ethics*, 315–317.

73 Deane-Drummond, *Ethics*, 310.

74 Deane-Drummond, *Ethics*, 313–315.

4.4 *Human Distinctiveness Clarifies Performance: Kingdom Building in the Theo-drama*

Deane-Drummond's consideration of human distinctiveness is helpful for recognizing elements of divine image-bearing that require appreciating similarities and differences in ontology, function, and activities. She recognizes the development of advantages for humans throughout history and argues that functions and activities related to this advantage should be expressly geared to kingdom building, by which she seems to mean pursuing *shalom*, seeking justice, and doing God's will. As such, engaging her considerations of distinctiveness and uniqueness leads to fruitful theological and moral perspectives for framing humans within the multispecies context. Theologically, we accept that on the one hand, animals must be appreciated in their own right before God as revealing traces of God's likeness and having their own roles in the theo-drama, which are, in many ways, independent from humans. Yet, distinctive image-bearing remains, and with it the requirement of protecting animal needs and careful consideration of their needs when competition emerges. Thus, any attempt to guide moral practice related to animals must account for both human priority and also animal well-being, without allowing one to overshadow the other. Permaculture, as a minor multispecies commons, always has both in view.

5 **Holmgren's Permaculture and Human Distinctiveness: Performance of the Script**

5.1 *Does Human Distinctiveness Imply Design Where Function and Activity Are Both in Play?*

As humans, we have a level of responsibility for the design we produce (or passively adopt) for our environment. From a Christian ecotheological perspective, this means embracing activities and functions that promote virtue and *shalom*. This section pursues the question, then, of how far and to what extent Holmgren's permaculture can follow after Deane-Drummond's animal ethic related to human distinctiveness. How might permaculture help us become more human through multispecies encounters geared toward virtue and *shalom*?

Like Deane-Drummond, Holmgren also sees humans as being distinct from animals. For him, permaculture is "an unashamedly human-centred environmental philosophy which places human needs and aspirations as our central concern because we have power and intelligence to affect our own situation."⁷⁵

75 Holmgren, *Permaculture*, 6.

Through the implementation of design patterns onto the lived environment, permaculture exemplifies the fact that humans (unlike other animals) can change their environments. The purpose is not to dominate, but to foster mutually beneficial relationships between humans and the land, water, air, and animals.

Although Holmgren's permaculture is conscious of human proclivities toward domination, he believes that distinctive human intelligence must attempt design work for what Deane-Drummond refers to as a multispecies commons, one that accepts the Anthropocene as a contingency for human response. Holmgren, therefore, is not afraid to risk taking ethical action based on human observations of animal needs in ways that are mutually beneficial with humans. Therefore, permaculture design work must attempt to build beneficial links between elements including animals, and humans must recognize themselves as existing in a broader context that includes other creatures.⁷⁶ Permaculture designs for conscious restraint from human use of all resources and spaces for themselves.

Design might be expressed in a multispecies commons of permaculture, for example, by placing fowl in the system for multifunctionality, needs, and services, which rewards both humans and fowl, while simultaneously promoting land health and navigating environmental trade-offs.⁷⁷ For Holmgren and other permaculturists, working with animals and producing food close to home is almost always the greatest way to reduce waste, pollution, and so forth, and to maintain global biodiversity. Working directly with species helps us find functional improvements that benefit the animals and the system.⁷⁸

5.2 *Pets as a Special Challenge*

How does Holmgren relate the concept of human distinctiveness to the phenomena of keeping pets? He does not deny a role for pets, since "humans are animals, and an intimate and empathetic connection to other animals is a pathway to breaking down the human/nature divide, which is at the root of the environmental crisis."⁷⁹ Rather, pets that do not provide other system services require feed from remote resources (contributing to concentrated animal feeding operations and industrial demands), whereas *functional* pets can provide many of the same joys along with local services while simultaneously reducing industrial demands on the environment. In other words, the pet industry places

76 Holmgren, *Permaculture*, 159, 176.

77 Holmgren, *Permaculture*, 160.

78 Holmgren, *Permaculture*, 161, 165.

79 Holmgren, *RetroSuburbia*, 322.

a large demand on resources and compromises local systems, whereas permaculture seeks to bridge the needs of animal services and empathetic encounters with animals, complementarily.

Holmgren acknowledges the psychological benefit of pets. However, he vies for keeping animals as functional contributors to the system rather than as separate entities cared for in separate ways. In connection with Deane-Drummond's emphasis on virtue, prudence may require humans to grapple with the concern of *fetishised pampering* that demands billions of dollars and massive industrial resources for pets that are essentially animals that exist in isolation from holistic natural systems. Pets tend to be "separate" in that they demand resources from elsewhere and contribute to methane gas in landfills through millions of tons of poop each year and 20 to 30 percent of *E. coli* in some urban watersheds. Dogs and cats in the U.S. "consume about a third of the animal-derived food produced ... and, through their diet, constitute about 25–30 percent of the environmental impacts from farm animal production in terms of land, water, fossil fuel, phosphate, and toxic agro-chemicals."⁸⁰ Furthermore, on a worldwide basis, "pets are responsible for 5% of all greenhouse gas emissions each year."⁸¹

Ecotheology might take up the question from Holmgren's practice of whether our attachment to pets is a kind of subconscious *last stand* against relinquishing ourselves to a completely technologized existence in the modern world. Perhaps our love for pets betrays our etiological hunger for more than merely human community despite our urbanizing propensity to design for separating human from animal environments. For as Deane-Drummond notes, God's presence is revealed through our multispecies interactions. To the extent that we can recognize a pull to re-encounter a multispecies commons, our attachment to pets may encourage a more authentic and meaningful involvement with animals. Holmgren's permaculture provokes this type of reconciliation with animals and the natural environment through an integration (not mere addition) of pets into our landscapes and livelihoods.

5.3 *Animals and Human Character/Virtue in Permaculture: Performing Virtue*

Holmgren's permaculture places heavy emphasis on human involvement with animals because of permaculture's dependency on healthy land, which is never disconnected from animals. One could view the inclusion of animals in per-

80 Albert Bates, "The Downside of Dogs," *Permaculture Design Magazine* 119 (2021): 30.

81 Bates, "Downside of Dogs," 30.

maculture designs as merely utilitarian; however, Holmgren's position opens up the possibility of character growth. According to Holmgren, the experience of wildlife in the plant system is inevitable. Therefore, the incorporation of animals into a plant system is an opportunity for human character and virtue development. Of course, in many cases it is not legal to harvest nature's abundance (such as deer in city gardens) in the ways that Holmgren suggests.

At issue in Holmgren's point is a cultural perspective. An abundance of animals in the garden can be seen as a potential source of ethical nutrition. However, this concept is further tested when the needs of local animals and humans are in global tension. Take the example of the snow leopard in remote Dolpa, Nepal. Outsiders see the snow leopard as an endangered species that needs special protection. Many Dolpali people, however, perceive these animals as a threat to their yaks and, therefore, to their livelihood. Therefore, Dolpali people sometimes kill snow leopards. As Deane-Drummond notes: "A multispecies approach will try to resolve such conflicts by taking account of the needs of the local indigenous communities as well as those of the various threatened species in the *health of a whole system*, rather than pitching one against the other."⁸²

Virtue and character are tested at the point of tension when animals' good and creaturely pursuits and purposes conflict with those of humans. Working with animals and compromising our goals with theirs exercises virtue and shows us something of who God is and his purposes in creation for nonhumans. As humans allow their habitats to overlap with those of wrens, bison, fungi, and bacteria, we encounter God's purposes and something of Godself through these other creatures. Such richly meaningful interactions are possible because God delights in all God has made. Caring for and engaging the goodness of the Trinity's creation begins to align our understanding with God's purposes by thinking God's thoughts after and along with God.

Permaculture promotes a context that enables close encounters with animals in which right relationships with them can be at least partially restored to *shalom*. It also promotes the integration of *wild* nature with human design, which can therefore promote human becoming and virtue. Permaculture provides a context in which humans can grow in virtue through the process of recognizing God's purposes in creation and seeking interactions and relationships with God's creation.

82 Deane-Drummond, *Theological Ethics*, 255.

6 Conclusion

In this article, I explored the connection between some key elements of Deane-Drummond's animal ethic and Holmgren's permaculture as a guide for performing the script of her ecotheology. I sought to show that permaculture is a fruitful approach to the sort of justice for which Deane-Drummond contends, namely, that which accounts for a multispecies context in which environmentally-minded believers can seek prefigurative forms of *shalom*. Attempts at such justice acknowledge the remaining tensions until the eschaton: sometimes human needs and the needs of other creatures compete. Such competition cannot be denied, nor does it need to be absolute (that is, human domination without consideration for animal needs).

Rather, permaculture can guide the process of designing for human needs while seeking mutual benefit with other creatures in our world. Such designing of human systems accounts for animal agency and their distinct needs and purposes before God in the theo-drama; close encounters with animals, especially those in domestic use and empathetic relationship and mutualistic benefit, but also consideration for the needs of wild animals; recognizing something of God's likeness (God's creativity, wisdom, and purposes) in animal worlds without collapsing distinctions of human image-bearing; and finally, providing practical guidelines for trade-offs when animal activities and needs compete with human needs. As such, permaculture can be a fruitful performance of virtue in the theo-drama, and by implication, it serves as a fertile context for reflection on ecotheological deliberations such as questions about what level of importance agency plays in both ethical action and virtue related to such questions as using animals for work, ethical culling, the role of pets in the human-nature relationship, holistic systems and environmental lifestyles, and consideration not only of nature's limitations but also of abundance. Further investigations following from Deane-Drummond's writing might include more in-depth considerations of her understanding of expanded natural law that includes animal justice, and how far permaculture can guide performing such justice in the theo-drama.