

The Human Role Revisited on a Rapidly Changing Planet

Revisitar o papel dos humanos, num planeta em rápida mudança

Le rôle humain revisité sur une planète en changement rapide

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Abstract

The human roles in relation to the rest of the created world has long been debated in Christian circles. Now, the pressing immanence of climate change throws those roles, based on the assumption of a stable climate, into jeopardy. This article begins to articulate how the usual anthropological models used in ecotheology, including stewardship, priesthood, and more, begin to shift in the shadow of climate change. Woven through this argument is reflection on how the science of restoration ecology, one of the primary sciences of ecological care, is related to these different visions of humanity's role.

Keywords: Ecotheology; Stewardship; Climate change; Anthropology; Creation.

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Resumo

O papel dos humanos em relação ao resto do mundo criado há muito é debatido nos círculos cristãos. Agora, a premente imanência da mudança climática coloca esses papéis, baseados na suposição de um clima estável, em perigo. Este artigo começa por abordar o modo como os modelos antropológicos habitualmente usados em ecoteologia, incluindo os do cuidado, do sacerdócio e outros, começam a alterar-se à sombra das mudanças climáticas. Construída com base nesse argumento, apresenta-se uma reflexão sobre como a ciência da ecologia restaurativa, uma das ciências fundamentais do cuidado ecológico, está relacionada com essas diferentes visões do papel da humanidade.

Palavras-chave: Ecoteologia; Gestão; Mudança climática; Antropologia; Criação.

Resumé

Le rôle humain par rapport au reste du monde créé a longtemps été débattu dans les cercles chrétiens. Maintenant, l'immanence pressante du changement climatique met en péril ces rôles, fondés sur l'hypothèse d'un climat stable. Cet article commence à explorer comment les modèles anthropologiques habituels utilisés en écothéologie, y compris l'intendance, la prêtrise, etc., commencent à évoluer dessous l'ombre du changement climatique. Cet argument central s'articule autour d'une réflexion sur la manière dont la science de l'écologie de la restauration, l'une des sciences primaires des soins écologiques, est liée à ces différentes visions du rôle de l'humanité.

Mots-clés : Écothéologie ; Intendance ; Changement climatique ; Anthropologie ; Création.

Introduction

The world is changing. As it does, the human relationship to the world will also necessarily change. A great deal of scholarship in Christian theology has debated what the human role is in relation to the wider world. Are we stewards? Earth keepers? Those who subdue and have

dominion over the world? Simply a part of creation? How should these frameworks affect our ethical decision making?¹

We have exerted dominion over the world, and in doing so we have changed it dramatically. The atmosphere has more carbon dioxide in it than it has done for millions of years. We have wrapped an extra atmospheric blanket around the planet, and it is warming as a result. The earth has already warmed 1.1°C since average levels in 1850-1900 and it looks set to continue to rise.² While there still might be time to turn around the warming trends, scientists are not very positive about the chances of that happening. The 2015 Paris Climate accords have largely failed to be met by signatory countries according to a new synthesis report from the UN.³

The majority of ecotheology that has focussed on what the human responsibility and role is toward the non-human world has assumed the relatively static climate of the Holocene (the last 11,000 years since the last Ice Age). If ecotheologians acknowledge change, they tend to focus on how to get the climate back to a stable place. This article asks instead how our theological approaches might change if we assume that change is now practically inevitable. If climate is on the move towards a warmer world, how does that affect the human role?

The primary theological foundation of the human role rests in the fact that humans are, first and foremost, *created*. This means at least two things. First, it means that there is purpose and meaning in what we do, because we are not here by accident. Without endorsing the Intelligent

¹ See Douglas John Hall, *Imaging God: Dominion as Stewardship* (Grand Rapids, MI: Eerdmans, 1986); Loren Wilkinson, ed., *Earth Keeping in the 90's: Stewardship of Creation* (Grand Rapids, MI: Eerdmans, 1991); Jacobus Wentzel van Huyssteen, *Alone in the World? Human Uniqueness in Science and Theology* (Grand Rapids, MI: Eerdmans, 2006); Peter Manley Scott, "The Re-homing of the Human? A Theological Enquiry into whether Human Beings Are at Home on Earth," in *Christian Faith and the Earth: Current Paths and Emerging Horizons in Ecotheology* (London: Bloomsbury T&T Clark, 2014), 115–136.

² IPCC, "Climate change widespread, rapid, and intensifying—IPCC," 9 August 2021, accessed 23 Oct 2021, <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>.

³ UNFCCC, "Full NDC Synthesis Report: Some progress, but Still a Big Concern," 17 Sep 2021, accessed 12 Oct 2021, <https://unfccc.int/news/full-ndc-synthesis-report-some-progress-but-still-a-big-concern.000>.

Design Theory or Young Earth Creationism, and fully accepting the contingency of evolutionary theory, being created affirms that our existence is inherently purposeful.⁴ That purposefulness lends a certain direction to our bioethics. If humans were simply the blind products of chance, then utilitarian ethics would likely prevail: do whatever serves the most in the best way possible. “Most”, in an ethical standard without theological input, does not necessarily distinguish between human and non-human life and would not necessarily value human life above non-human life.⁵ Indeed, Aldo Leopold’s land ethic is along these lines: «A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community; it is wrong when it does otherwise.»⁶ The community takes precedence over the flourishing of any one group or species. Taken to an extreme a straightforward utilitarian ethic of this sort might mean some forms of ecoterrorism – like killing people to control their impact on countless other species – are ethically justified. But, if we are created, our goals must try to align with the values and purposes of the Creator. There is a deontological ethical standard, a grain of the universe, that it behoves us to follow. Or, following Stephen Bouma-Prediger’s lead, there are divinely-gifted virtues that must be cultivated which lead to the disposition to carry out the deontological duties and pursue the utilitarian goods.⁷ We cannot calculate the utilitarian goods apart from the values that are embedded in the way the universe was created. Knowing where and how humans are situated in that created order then becomes an important task in trying to understand how we should act.

The second thing being created means is that we are not God. While much ecotheological work emphasises being made in God’s image

⁴ See Wilkinson, *Earth Keeping in the 90's*, 9-16.

⁵ Peter Singer is the classic example of a bioethicist who challenges the assumed priority of human value over non-human value. His “preference utilitarianism” uses a straightforward utilitarian approach that gives equal value to all creatures who have a preference between one type of treatment and another: Peter Singer, *Animal Liberation* (London: The Bodley Head, 2015).

⁶ Aldo Leopold, *A Sand County Almanac: and Sketches Here and There* (Oxford: Oxford University Press, 1949), 224.

⁷ Stephen Bouma-Prediger, *Earthkeeping and Character: Exploring a Christian Ecological Virtue Ethic* (Grand Rapids, MI: Baker Academic, 2020).

as primary, I argue that our created nature is primary and our image-bearing secondary. This means that we are not the ultimate saviours or redeemers of this world.⁸ We are created beings who are marked by finitude and limits and death. In the great dualism of existence, there is God and there are created things. We are on the side of the created things with all the zebras and squid and Venus flytraps and bacteria. We are not omnipotent nor omnipresent. Our power on the planet is one of intermediate power. If God is like the sun, human image-bearing is like the “light” of the moon – an inconstant reflection of what is, ultimately, God’s own work. We can change the composition of the atmosphere by perceptible amounts. We can hunt and pollute some species to extinction. But the full range of our power is still dwarfed by the terrestrial powers around us: major tectonic shifts, super-volcanoes, and the sheer mass of other life remind us just how small and powerless we are. In the past non-human forces have dramatically altered the climate and will do so again.⁹ On a more local level, floods continue to easily overwhelm our best defences, even our most sophisticated attempts, as Hurricane Ida (3 Sep 2021) and the deadly flooding across Germany (July 2021) have once again demonstrated. As humans, we have some influence, but we do not possess control over the circumstances and life on this planet. We humans and our livestock together make up just 0.036% of life on earth.¹⁰ (There are 35 times more bacteria, by carbon weight, than all animals put together.) Much of our success as a species has been due to circumstances that were not under our control: from the stable climate of the Holocene to the lack of super volcanoes erupting or sizable meteorites hitting the Earth over that short time, to the orbit of the Earth being favourable for a warmer climate. Now, we have nudged the climate

⁸ See Ernst Conradie, “What is the place of the Earth in God’s economy? Doing justice to creation, salvation and consummation,” in *Christian Faith and the Earth*, eds. Ernest Conradie, Sigurd Bergmann, Celia Deane-Drummond, and Denis Edwards (London: Bloomsbury, T&T Clark, 2014), 78-79.

⁹ Christopher Scotese *et al.*, “Phanerozoic paleotemperatures: The earth’s changing climate during the last 540 million years,” *Earth-Science Reviews* 215 (April 2021): 10353.

¹⁰ Yinon M. Bar-On, Rob Philips, and Ron Milo, “The biomass distribution on Earth,” *PNAS* 115:25 (19 June 2018): 6506-6511.

out of its short stable Holocene epoch and warming effects threaten to run away into a much warmer world. As created beings, we stand in a liminal space between power and powerlessness.¹¹ Our efforts to restore the Earth from the changes we have wrought continue to be an important part of our response, and yet the way we pursue restoration is deeply tied up with our vision of anthropology. Our status as “*created*” forms the foundation of any ethical starting point. The next steps are to examine the tools we have for our action and then to decide what kind of role we should inhabit with those tools. One of the main scientific tools we have at our disposal for restoring the Earth is the science of restoration ecology, and it is to explore its remit that we now turn.

1. Restoration Ecology

Restoration ecology has been one of the main scientific tools to understanding the damaging changes that humans have caused to their environments and the discipline has been developed in large part to reverse those impacts. The science of restoration gained momentum in the second half of the 20th century, and the main professional society, the Society for Ecological Restoration (SER), was established in 1988. When SER began to define the field, they described their action as the attempt «to return an ecosystem to its historic trajectory.»¹² In short, find out what an ecosystem would have done if humans had not interfered, and try to return it to that state.

That seems initially like a clear vision, but it becomes increasingly difficult as it is explored with more nuance in real-life situations. In Western Canada, where I am from, highly invasive and damaging human activity has only been around for about 200 years.¹³ Restoration means

¹¹ Richard Bauckham, *Bible and Ecology: Rediscovering the Community of Creation* (London: Darton, Longman & Todd, 2010), 3-4.

¹² Society for Ecological Restoration (International Science & Policy Working Group), *The SER International Primer on Ecological Restoration* (Washington, DC: Society for Ecological Restoration, 2004), quoted in Eric Higgs *et al.*, “The changing role of history in restoration ecology,” *Frontiers in Ecology and the Environment*, 12: 9 (November 2014): 499-506; 499.

¹³ This is only partly true, as the indigenous peoples who first settled North America caused mass

removing Scotch broom plants that were brought from Europe with the intention of hedging, but which quickly grew out of control. Restoration means removing deer from the small pacific islands where they were introduced by people. Culling deer allows the recovery of native plant species like ocean spray, which are eaten back to nothing by the ungulate populations. In parts of Western Canada, scientists know roughly what the “historical trajectory” was, and the goals of restoration ecology are reasonably clear.

However, what does the ‘historical trajectory’ mean in a place like England? Every part of the English landscape is so deeply affected by the presence of humans that there is no way to remove the human effect or to know what the land would have looked like without the last forty thousand years of intense human activity. In fact, some archaeological evidence suggests hominins have been in Britain for up to a million years, as *Homo antecessor*.¹⁴ They used fire and tools in ways that would have shaped the landscape in major ways. How does one find a benchmark of restoration in places where the entire ecology has co-evolved with human activity? What is the aim of restoration ecology in these situations? What are the standards of success when there is no historical referent?

The SER has set out various standards of restoration that ecologists can use to evaluate the success of their efforts. Standards include physical conditions, species composition, ecosystem function, structural diversity, external exchanges, and absence of threats.¹⁵ In each of these major categories, three sub-categories specify particular goals. Species composition, for example, breaks down into “desirable plants,” “desirable animals” and “no undesirable species” with a scale of 1-5 to measure success for each category. In practice, an ecologist might head into damaged

extinctions of their own and changed the landscape dramatically through their own use. However, they had come to a relative place of stability by the time the first European explorers arrived just over 200 years ago in British Columbia.

¹⁴ Nick Ashton, *et al.* “Hominin Footprints from Early Pleistocene Deposits at Happisburgh, UK,” *Plos One* (7 Feb 2014): <https://doi.org/10.1371/journal.pone.0088329>.

¹⁵ Tein McDonald *et al.*, “Internal Standards for the Practice of Ecological Restoration—including principles and key concepts,” *Society for Ecological Restoration* (Washington DR: SER, 2016), 20.

land, root up and burn all the invasive plant species they can find, and then re-plant the native species that have been pushed out by the invasive species. This would improve scores for two of the three sub-categories in species composition. A practitioner could work through each of the categories, improving the scores on each sub-category, and call the project a success. This sort of approach can be highly interventionist and require a great deal of human labour. There is also less flexibility in this “standard-based” approach for the kind of changes that climate change might bring.¹⁶

In areas where no one knows what the native ecosystem looked like or where they cannot be revived because of species extinction, practitioners make informed decisions with a dose of creativity. They use principles of restoration instead of rigid standards. They might even begin to actively create novel ecosystems that are intended to echo historical circumstances, while acknowledging that restoring the original state is impossible. A good example of this kind of creative fiction is found on the Knepp Estate farm in West Sussex. In 2001 the owners decided to “rewild” 3500 acres of intensely farmed land. The story is told in Isabella Tree’s book *Wilding*.¹⁷ On Knepp farm they sought to reduce the amount of human intervention needed in trying to restore the landscape. Instead, they introduced wildlife that would create many of the changes for them and then took a very hands-off approach.

Long-horned English cattle were introduced to simulate the effect of the extinct Auroch, or wild ox of Europe. Since it is not legal to release wild boar in England, the managers of the Knepp Estate introduced the hardy English Tamworth pig; their rooting around creating a natural form of soil overturn similar to what boar might have done. Dartmoor ponies and three species of deer complete the grazing contingent. By their very lifestyle, these animals changed the landscape around them. Where the farm was once a series of highly eroded fields of clay, the

¹⁶ Eric Higgs *et al.*, “On principles and standards in ecological restoration,” *Restoration Ecology* 26:3 (2018): 399-403.

¹⁷ Isabella Tree, *Wilding: The return of nature to a British farm* (London: Picador, 2018).

grazing, droppings, and food preferences of these species have begun to shape this homogenous landscape into varied patches of meadow, brushland, lightly wooded forest, and water meadows. Since none of the animals are fed, they have to forage, meaning that during different months of the year their focus prunes different parts of the plant life.

There is still some control: since the landowners cannot re-introduce the natural predators – wolves or bears – they have to cull the herds of grazers in order to not denude the landscape by over-grazing or end up with large herds of mostly starving animals. Even in this largely hands-off environment, the human input is central to maintaining a balance that can be deemed “humane”.

The ecosystem they are creating at Knepp is a creative human fiction: it is designed, implemented, and managed, creating an ecosystem of species that never naturally overlapped. Yet its hands-off approach and acceptance of the fictional aspects of the novel ecosystem created might allow for a more flexible concept of restoration in light of a changing climate. As the world changes, humans may need to create interventions that help maintain ecosystem processes while sacrificing the historic species composition so that the ecosystem will continue to function.

How does Christian anthropology enter this discussion? I will explore five models in relation to ecological action and the warming world: the idea that we are stewards, that we are created co-creators (or co-redemers), that we are priests of creation, that we are simply part of the community of creation, and finally that we are suffering servants of creation.

2. Stewards of Creation

The idea that we are stewards of the Earth is still the predominant Christian understanding of the human role in creation. Theologians point to verses like Leviticus 25:23, «The land shall not be sold in perpetuity, for the land is mine; with me you are but aliens and tenants.» Verses like this one speak explicitly of humans as tenants, but only in terms of the defined land of Israel which was mostly agricultural land.

These types of verses are less useful in speaking of stewardship of the whole Earth, both habitable and uninhabitable. A wider commission is found in Genesis 1:28, «God blessed them, and God said to them, ‘Be fruitful and multiply, and fill the Earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.’» The image of God in humans, articulated in v. 26-27, is linked to the commandment “have dominion”. This is taken to mean that humans should care for the Earth just as God cares for humans – with compassion, long-suffering, and faithfulness.

The oft-rosy view of biblical stewardship is not as simple as it first appears. Genesis 1 is set in Ancient Near Eastern kingship motifs – and any time spent honestly looking at how Ancient Near Eastern monarchs operated (even laudable kings like David) does not lead to a conclusion that care was gentle and kind. Might was usually shown by violent brutality. And that is reflected in the word choices here: “have dominion” and “subdue” are not benevolent verbs. “Subdue”, or *kabash* in the Hebrew is translated in Strong’s as: “bring into bondage, make subservient, force, violate, and tread down.” The verb is used elsewhere to talk about the subjection of nations turned into vassal states by being defeated in war. In Esther 7:8 the verb is used to refer to rape. The only possible redeeming use of it is in Micah 7:19 where God promises to subdue iniquities, to tread down sins under foot. It doesn’t paint a positive, benevolent view of how people ought to treat the Earth.

Dominion, in Hebrew “*radah*”, is no better. Once again, it means to dominate, to tread down, even to scrape out. In other instances in the Pentateuch, it is used to describe how the Israelites are *not* allowed to treat their fellow Israelites. Don’t have dominion over your fellow Israelites, don’t rule over them in this harsh way. (Lev 25:43; 25:46) Possibly more redemptively, the word is used to describe the great rulership of God’s anointed, like Psalm 72:8 “He shall have dominion from sea to sea and from the river unto the ends of the earth” but this is closely followed by his enemies having to lick the dust at his feet, a picture of utter humiliation and domination. Whatever model of interaction Christian

theology might want to build, Genesis 1:27 is not very easy to use. It is violent, forceful, and strongly interventionist.

Does Genesis 2 provide a better foundation for stewardship? The human is set in the garden in order to “till and keep” it, or to work and guard it. *Avad* and *shamar* are easier verbs to translated into modern ecological purposes than subdue and dominion. *Avad* means to serve, to work for another’s sake. *Shamar* is often translated to “keep” or to “guard”—it is used of city guards on the walls who watch over the well-being of the city. People *keep* covenants and *keep* commands and they *observe* feast days.

Avad and *shamar* share the implications of a shepherd keeping sheep – they contain all the implications of tender care and service that contemporary ecotheologians require. What, then, are the problems with grounding restorative theology in Genesis 2? As Peet J. van Dyk points out, the garden the human is supposed to till is just that: a garden – a highly developed, managed and domesticated plot of ground. van Dyk writes:

The purpose of this command was clearly to ensure that Eden would look something like our well-tended parks and would not become a chaotic wilderness.

Eden is therefore... NOT an appropriate metaphor for nature conservation, because Eden is neither described as natural wilderness, but as a cultivated park, nor was the task of the first humans to preserve its wilderness character, but rather to farm and cultivate it by “taming the wilderness.”¹⁸

A highly managed ecosystem is not equivalent to a natural environment; it is simply a bigger zoo. As opposed to the “rewilding” of Knepp, the work in Genesis 2 is far more intensively managerial. Also,

¹⁸ Peet J. van Dyk, “‘Responsible stewardship’ - The root of all evil in eco-theology?” *Old testam. essays* Vol. 28:2 Pretoria (2015): accessed online 1 Nov 2019 at: <http://dx.doi.org/10.17159/2312-3621/2015/V28N2A16>

the stewardship model can, in its emphasis of “humans left in charge” emphasise the absence of God. Rather than working with God, humans work in place of God. It ultimately tends towards a deistic rather than theistic view of God.

When it comes to grounding restoration efforts in a stewardship model, especially for wilderness areas, neither Genesis 1 nor 2 offers very much help. The first, because its language is absolutely invasive and dominating. The second, because it only applies to heavily-managed agricultural land. The same is true of many of the oft-cited eco-theological passages in the Hebrew Bible – most references to the land or the ground are referring to agricultural fields – land that is land heavily inhabited and used by humans.

In a world that is changing rapidly due to anthropogenic climate change, stewardship (especially if it is based on the opening chapters of Genesis) will likely struggle to provide the necessary flexibility for engaging with dynamic ecosystems moving into new global climactic systems. Stewardship holds an intrinsic emphasis on passing forward what was received. It is, largely, a vision that prevents negative exploitation and neglect, and like restoration ecology in general, it looks to the past to set the benchmarks of success. This will become increasingly difficult as climate changes.

3. Created co-creators

The idea of humans as co-creators or even co-redeemers has been advanced in particular by Philip Hefner.¹⁹ The emphasis of humans as a created co-creator is on the impossibility of not making a difference. That is, it accepts that humans will always change the places we are involved in and seeks to embrace that and participate in it. God created one thing, but we innovate on that creativity, like jazz players riffing off each other. One starts a melody, and others adjust, add, and enrich it.

¹⁹ Philip Hefner, “Biocultural Evolution and the Created Co-Creator,” in *Science & Theology: The New Consonance*, ed. Ted Peters (Westview Press, 1998/Abingdon: Routledge 2018): 174-188.

When it comes to human involvement in restoration, it means that “natural” fictions like the Knepp farm are not a problem but are precisely part of the human vocation. It is a managed environment, but it is a merging of the natural way of life of the animals and of human actions where both give room for the other. The landscape is formed like a painter who is both expressing his or her own vision through the mediums of paint and canvas, but equally is constrained by the nature of those materials.

With climate change bearing down on the world, this type of model may become increasingly important. In many places, the work of restoring native species to damaged land is futile, because the conditions have changed enough that they are no longer viable. For example, on the West coast of Canada, the longer and drier summers mean several native plant species that are conditioned for rainforest conditions are going to go extinct in that area. Restoration ecologists are left with a dilemma. They could bring similar but drought-resistant species up from California to fill the niche in the ecosystem, but that would contravene traditional conservation values by intentionally introducing a non-native species. The other option is to simply let the natural processes of the ecosystem vacuum something else into that position, even though that could mean the ecosystem function might collapse. Co-creation of the land makes the first choice more attractive. Still, there are numerous “cautionary tales” where successive attempts to influence ecosystems have ended in disaster. The introduction of cane toads to Australia to control a native beetle has become one of the foremost examples in this regard. Instead of succeeding as a pest control method, they have become a new pest, endangering other native species and slowly proliferating throughout the land. A few studies have shown that affected species are adapting to its presence, but there is no denying the damage they have done.²⁰ Too cavalier a view of the redemptive and creative prowess of humans would not

²⁰ See Richard Shine and John J. Wiens, “The Ecological Impact of Invasive Cane Toads (*Bufo marinus*) in Australia,” *The Quarterly Review of Biology* 85:3 (Sep 2010): <https://doi.org/10.1086/655116>.

result in a new paradise, but could only usher in additionally destructive outcomes for other species. While the concept of created co-creator offers a positive, forward-looking model for how human involvement can be constructive in light of climate change, it comes with many hazards of its own.

4. Priests of creation

The third model is that of humans as priests of creation. This is particularly held by Eastern Orthodox theologians, like John Zizioulas and John Chryssavgis.²¹ Thomas F. Torrance and Christopher Southgate have also made use of this imagery, that as priests, humans are in a unique place to be the servants of divine love.²² Priest of creation imagery is also present in Roman Catholic thought, in thinkers like Teilhard de Chardin who, rather famously, ran out of bread and wine and so conducted a mass where he offered the creation itself to God.²³ That is the central image of this model – of treating the creation itself as a sacred sacrament rather than as a resource. The natural world is something we use to some extent to give us life, just as the bread and wine we eat and drink nourishes our body, but it is treated with special reverence, being careful about what is done both in the procurement of nourishment as well as in the disposal of the elements. Priesthood is also an image of the service that humans ought to offer to the rest of creation. Every moment is a sacrament as humans engage with all life around them, and it opens a view of nature as profoundly infused by the grace and presence of God. As Chryssavgis writes, “This is precisely why the Orthodox Church does not limit the sacraments to seven, preferring instead to speak of every

²¹ John Chrissavgis and Nikolaos Asproulis, *Priests of Creation: John Zizioulas on Discerning an Ecological Ethos* (London: T&T Clark, 2021); John Chryssavgis, *Creation as Sacrament: Reflections on ecology and spirituality* (London: T&T Clark, 2019).

²² Thomas F. Torrance, *The Ground of Theology* (Edinburgh: T&T Clark, 2001), 1-14; Christopher Southgate, *The Groaning of Creation* (Eugene, OR: Westminster John Knox Press, 2008), 110-113.

²³ Teilhard de Chardin, “Mass on the World,” in *Hymn of the Universe* (New York: Harper & Row, 1961), chapter 2.

moment and aspect of life – from birth through death – as profoundly and profusely sacramental.”²⁴

The priesthood model, in short, is a way to envision a sacred relationship with the Earth from within the Christian tradition rather than drawing on ever-more popular New Age or neo-Pagan narratives of the Earth. This model also preserves the sense of service: the priest is in some senses a leader, but in more senses is the servant and the one who is called upon to sacrifice for the good of the community. They offer the blessing of God to the community through their work. It holds the element of care that was difficult to find in the stewardship model, and it emphasises service rather than hierarchy. In the idea of being priests of creation, the emphasis is on a mediation of praise, or provision of blessing. Zizioulas writes: “The priest is one who freely and – himself an organic part of creation – takes the world in his hands in order to refer it to God, in return bringing God’s blessing on the world.”²⁵

One aspect that might limit the usefulness of this model would be for people from Protestant or charismatic traditions. On one hand, nonconformist views tend to emphasise the priesthood of all believers – meaning that everyone quite naturally is involved in taking up of this sacred work. There is no one who is not already a priest, and thus this work is required of everyone. In particular, it is only in the Protestant traditions that women are included in the active priesthood, and thus the inclusion of the whole of humanity in this imagery is appropriate. On the other hand, many Protestant denominations (like my own community of Pentecostals) commonly lack nearly all sense of sacramentality in their theology. It would not fit easily into their practice or theology.

Another potentially problematic aspect is that there is an assumption of the need for human mediation between God and other species. Did creation lack contact with God through all the long ages of evolutionary development? Are the solitary deep-sea squid even now awaiting human

²⁴ Chryssavgis, *Creation as Sacrament*, 92.

²⁵ Chryssavgis, *Priests of Creation*, 149.

discovery of underwater living so that humans can draw them into this mystic mediation? It seems doubtful that they are sitting on the edge of their deep-sea seats waiting for us. Apart from leaving them alone and cleaning up anthropogenic mess, there is not much place for the role of priests for species that have radically different lifestyles from us, however appropriate it might be as an agricultural model.

In light of climate change, the priestly model might have a particularly poignant role. In their work, priests preside over important moments of transition: the baptism shortly following birth, the union of two people in marriage, and as death approaches in the sacrament of unction and after death in the service of the funeral. In ecotheological writers who envision humanity as priests of creation, this last service of blessing the departure of a soul is often overlooked. (Unction, sometimes called “last rites” is a service of healing, not a blessing over approaching death.²⁶) In a changing world, the priest’s role may be increasingly to preside over the lament and funereal acts of a creation where species are regularly going extinct. This is not, as it might initially seem, a morbid act. Rather, it is an act of hope: pointing to the new creation and God’s final reconciliation of all things which has always been the only enduring hope of this finite world. The death rate of individuals has always been 1 death for every 1 born. The extinction rate of species will someday be the same. Without minimizing the damaging severity of current human action, the process of lament and acceptance of the change that was always going to take place is an important task. The task of accepting the loss, helping people to cope with it, and to point to the theological hope of the resurrection is one that has been undervalued. Instead, people have often been told to look for the kind of stability, continuity, and absence of death in this world that has only been promised in the next. A priestly role could be to help people to accept the oft-painful change inherent in this world’s reality.

²⁶ Chryssavgis, *Creation as Sacrament*, 93.

5. Part of the community of creation

Richard Bauckham advocates that we must look beyond stewardship – that we must see ourselves as part of the community of creation. One biblical passage demonstrates this perspective well. The jubilant Psalm 98 reads:

⁴Make a joyful noise to the Lord, all the earth;
break forth into joyous song and sing praises.

⁵Sing praises to the Lord with the lyre,
with the lyre and the sound of melody.

⁶With trumpets and the sound of the horn
make a joyful noise before the King, the Lord.

⁷Let the sea roar, and all that fills it;
the world and those who live in it.

⁸Let the floods clap their hands;
let the hills sing together for joy

⁹at the presence of the Lord, for he is coming
to judge the Earth.

He will judge the world with righteousness,
and the peoples with equity.²⁷

The whole Earth, and the oceans, and all that are on or in them are encouraged to praise God, not articulated through human tongues (as might be the case in Psalm 19) but through their own means, unmediated by humans. We are part of that community chorus or orchestra, but each member must do their own part for the music of creation to be heard. This image of the symphony of creation may offer a practical way forward to thinking through ecological restoration and the change of climate that is upon us.

²⁷ Psalm 98:4-9, NRSV.

If we think for a moment about a symphony orchestra, it entails a whole group of different kinds of instruments doing different sorts of jobs towards a singular end. There is leadership amongst the orchestra – not just the conductor, but the first violin and the percussion sections too offer the lead melody and the rhythm keeping the pace of the music. There is an “ecology” of the orchestra. In each case, the efforts of the players must be coordinated. But no one member can do the whole work – in every instance, the players do their own part and trust to the composer and the conductor to create the harmonies and the themes.

We are part of the created world. Our excellence can exalt the performance of other life, and our mistakes can ruin the whole performance for everyone. Power in an orchestra is not a zero-sum game. It is not competitive: one does not play at the expense of another, rather it is co-operative and enabling. This model perhaps most easily captures the enmeshed complexity of how a singular focus on human flourishing (and humans *have* flourished over the last few centuries) is to the detriment of the whole community.

When it comes to the natural world, to see ourselves as part of the community of creation, part of this symphony of life, our task is not to perform or manage the work of others, but to play our part in harmony with other life. Musically, this means not belting out at full volume all the time, sticking to the score, and taking rests from time to time to allow others their chance to hold the spotlight. Human work and human identity then become part of this cooperative exchange – a perichoresis or co-inherence that enhances the work of other creatures without replacing or managing it.

Practically speaking, this would lead to restoration efforts that have more to do with protecting wilderness areas and encouraging efforts at rewilding (or simply “wilding”). It means keeping interventions quite minimal without forbidding them altogether. At most, we participate with God’s work in the world, but the ultimate work of both creation and redemption are God’s. Like the violins, we are an integral part of creation, but we are neither conductor nor composer. The work of

restoration, then, is God's ultimate work. Humanity's job is not so much to create new ecosystems or co-redeem the world, but to listen to the rest of the orchestra and try to pick up the performance in harmony. We enter into the exchange of the world, receiving and giving, eating and – in turn – being eaten. We have a unique gift to give with our specialised brains and technological power, but earthworms also have a unique gift to give in processing uncounted tons of soil every year.

Ecological restoration in this mode is cautious, humble, and ready to learn. Interventions are gentle. We can move quickly in preventing harm and cutting CO₂ emissions and conserving wilderness where we let other creatures be themselves. Human-invented solutions, however, should only be introduced slowly and cautiously. This may mean some difficult choices are made. For example, in 1981 Yellowstone Park bighorn sheep, an iconic species for the park, had an outbreak of chlamydial-driven conjunctivitis.²⁸ The eye infection was causing sheep to go blind or to interfere with sight enough that they lost their footing on treacherous mountain paths. As a result, they were dying at a rapid pace. 60% of the population (of 487 sheep) died in one winter. As the percentage of death rose steadily, there was a debate over whether park rangers should administer a vaccine that would protect the remaining sheep. Although it may seem like the compassionate thing to do, when humans could so easily prevent the epidemic, rangers decided not to intervene. They chose to let the disease run its course and allowed natural selection to leave the few with natural immunity or resistance live. This ensured that immunity would be naturally passed on to offspring, rather than require annual or generational vaccination by humans. A study in 2008 showed that the sheep population remained depressed even nearly 30 years later, showing that this was a long-impact decision.²⁹ Another

²⁸ Mary Meagher et al., "Chlamydial-caused infectious keratoconjunctivitis in bighorn sheep of Yellowstone National Park, *J. Wildl. Dis.* 28:3 (Apr 1992), doi: 10.7589/0090-3558-28.2.171

²⁹ Yellowstone National Park, "Yellowstone National Park: Superintendent's 2008 Report on Natural Resource Vital Signs" (National Park Service, Mammoth Hot Springs, Wyoming, 2009), accessed 12 October 2021, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwik_Iz2pcfzAhUO2KQKHYJpBq4QFnoECAIQAQ&url=https%3A%2F%2Fwww.

momentous decision by the rangers was the introduction of 21 wolves – no one quite knew what effect they might have on the vulnerable big-horn sheep population. There were worries that the wolves might finish off this iconic species. In fact, it turns out, they had basically no effect on the sheep – the wolves went after the numerous elk who lived in easier terrain for chasing rather than the few sheep on steep slopes. But this was not known prior to the re-introduction. As fellow-participants rather than managers – stumbling through the processes of life with very limited sight – human choices will always come with risk. Being part of the community of creation is an active “letting-be” – neither controlling nor mediating but walking alongside of and praising God with all the rest of creation.³⁰

6. The Suffering Servant

The concept of an active “letting-be” offers one more possible model of ecological restoration: that of kenosis. In Isaiah there are four “songs” of a suffering servant whose task is to bring justice to the nations, yet this vocation is borne out through bearing the brunt of suffering brought by the unjust works of people (Isaiah 42:1-4; 49:1-6; 50:4-7; and 52:13-53:12). These passages may have a new relevance in a world where climate change will create new injustices and where human kenosis will be necessary for the flourishing of many, both human and non-human creatures. In Philippians 2:7, Christ is emptied, or poured out, for the sake of the world. He does not use all the power at his disposal, but becomes like the suffering servant of Isaiah, where justice is mediated through Christ’s obedience even to the point of death. Similarly, in the Gospels, Jesus is portrayed as having the ability to stop the events of the Passion, but he chooses instead to allow them. When his disciples jump to his

nps.gov%2Fyell%2Fplanyourvisit%2Fupload%2FYELL_08_vital_signs_rep.pdf&us-g=AOvVaw0vvkTjqUyN1_s8Cgad0IXW.

³⁰ See Ruth Page, *God and the Web of Creation* (London: SCM Press, 1996), 7.

defence, Jesus rebukes them saying: “Do you think that I cannot appeal to my Father, and he will at once send me more than twelve legions of angels? But how then would the scriptures be fulfilled, which say it must happen in this way?” (Mt 26, 53-54)

The ecological sins of humans, past and present, have changed the basic conditions of life for generations of humans, both present and future. We will no longer be able to live at the level of luxury and ease that the Western world has taken for granted. Population will not be able to expand at the rate that it has expanded over the last two centuries (in which time it has grown from 1 billion to nearly 8 billion people). The choices left to today’s young and future generations will be hard choices, and a level of self-sacrifice will be required if the ecological exploitation of today is going to stop before total ecological collapse happens.

This model is one of the most difficult to articulate because it cannot be imposed on another. If someone is to live by the model of the suffering servant, it must be chosen for one’s-self, and not be imposed by outside force. That would simply be oppression. Yet the example of Christ on the Cross, and the suffering servant of Isaiah, and even the statement of John the Baptist «He must increase; I must decrease» (Jo 3, 30), provide a realistic portrait of what might be the choice that humans increasingly must face. We must choose to allow our own species to diminish – to not grasp at every chance and type of flourishing – in order to allow other species a chance to live and flourish in their own right. I am not anticipating, in saying this, the extinction of the human population nor advocating for a type of ecological suicide. Rather, I am anticipating that difficult choices around lifestyle, diet, and reproduction will be an inevitable consequence of the changing world that human greed has caused. The suffering servant model offers a way to transform suffering endured into suffering that is redemptive in scope and intent. It offers a way to interpret the suffering that occurs and a way to encounter it with courage and patience. As Jesus was “turned over” by Judas, so we have turned over future generations to innocent suffering. But that suffering need not be senseless – it can become the seedbed of

transformation into a new hope that does not avoid suffering but grows truly human through it.³¹

Conclusion

The immanence of climate change throws the traditional models of Christian anthropology into disarray, since many of them are premised around maintenance of the status quo. Still, models of priesthood, created co-creator, the community of creation and the suffering servant all offer different strands of possibility for how to encounter the changes that will come. It may be that no one model is sufficient, but that a variety of models will be appropriate in different circumstances. Our approach to agricultural land will necessarily be different from our approach to polar regions or the deep oceans. Yet, in each instance, we will have to make a choice as the whole globe begins to change under the effect of our activities.

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³¹ William Hubert Vanstone, *The Stature of Waiting* (London: Darton, Longman & Todd, 1982).

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