

Reading Genesis in Borneo: Work, Guardianship, and Companion Animals in Genesis 2

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At the dawn of the modern era, in *Novum Organum*, Francis Bacon suggests that human beings recover the divinely given “empire over creation which they lost by the Fall through science and the arts”.² At the core of the project of modernity, of which *Novum Organum* is the ur-text, is the effort to dominate nature through science and technology. So intensively are modern humans now dominating and extracting value from the planet that they are using a majority of its biomass to resource their present and unprecedented levels of consumption. In the process forest cover, ocean floor, soil quality and water sources are systematically destroyed such that biologists believe one third of species will likely be extinct before the end of the present century. This historically unprecedented rate of species extinction is primarily because of habitat loss, whose principal causes are deforestation, destructive fishing practices, industrial agriculture and human-induced climate change.³

The present wave of extinction is occurring at 100 to 1,000 times the rate at which any previous wave of extinction in geological history has taken place.⁴ And the present wave is the first large extinction event provoked by the behaviour of only one species. A small number of large mammals and birds in the last 70,000 years – such as Mammoths in North America and Moas in New Zealand – have become extinct because of human hunting and habitat modification. But not until the modern era are large numbers of species extinguished as a direct consequence of human activities.

The root meaning of the word “extinguish” is to put out a light. In Genesis 2.18-19 species come before Adam to be named by him as potential companions, and as a mode of his *enlightenment*. In this seminal event, Adam discovers his powers of language and speech. He also first engages in practical reason, discerning kinds in the world set before him, separating and naming them. As Leon Kass puts it:

The prototypical or defining human act is an act of speech, naming. Encountering the nonhuman animals actualizes the potential of human speech, thereby revealing the human difference.⁵

But at the same time the narrative of Genesis 2 indicates that God brings the animals before Adam as his potential companions. And hence the work of naming also reveals Adam's creaturely companionship with other kinds.

In this essay I will explore the theological meaning of the seminal work of naming, and of Adam's given companionship with other animals, as described in Genesis 2, in the context of the extinction crisis in one particular location, Malaysian Borneo, which is part of the country in which I began my teaching career. I will suggest that when we

read Genesis in the forest it has a different meaning to that which it has when read in the city. Reading it in the forest reveals anew the calling of Adam in this text to “tend and care”, and to evoke and enhance in speech and action the beauty, diversity and fecundity that the Creator set within the created order. Reading it in the forest recovers the role of other animals as companions for Adam, and not just creatures to be ruled over. And reading it in the forest also resonates with the paradigmatic role of trees in salvation history. Adam and Eve fell by a tree, and the tree of death which is the cross of Christ is also revealed after the Resurrection as the root of the new creation. Psalmists and Prophets frequently refer to trees as the standard of righteousness and truthfulness.⁶ Myrtle and cypress trees ‘clap their hands’ and flourish where once grew thorns as witnesses to redemption and “an everlasting sign that shall not be cut down”.⁷

In Borneo

Christianity is often blamed for the deteriorating condition of the earth’s ecology, and in particular the opening chapters of Genesis in which dominion is granted to man that is “made in the divine image”. And indeed wherever European Christians have spread over the earth the impact of their spread has been one of destruction of native biodiversity. Thus when the eminent Victorian scientist Alfred Russell Wallace visited the Malay archipelago – which includes the tropical island of Borneo, the world’s fifth largest island – he found such an abundance of wildlife that hardly a day went by in which he did not capture new species. At the end of an eight year journey he had sent home by ship specimens that amounted to over 125,000 different species of bird, insect, mammal, plant, shell fish and reptile.⁸ But these were all dead specimens. And in the case of large mammals such as *Orang utan* – which in Malay means “man of the forest” – they had frequently been shot by Wallace himself. The scientist, the hunter, and the colonial adventurer are all part of the identity he presents to his readers in his classic *The Malay Archipelago*. There is no embarrassment, no hesitation, in recording the large number of specimens he kills, and sometimes leaves for dead in the branches of trees. Dominion for Wallace was unthinking: humans, especially wealthy Victorian ones, had the right, even the duty, to overpower the earth and its resources.

Large mammals which need significant range areas – such as snow leopard, rhinoceros, pygmy elephant, and Orangutan – were all relatively common in Wallace’s time as compared to our own. But it was not hunting in the end that reduced their numbers. The indigenous people – Dayaks, Penans, Ibans – had long hunted these species and they were still plentiful after thousands of years of human habitation when Wallace arrived. But after one hundred and fifty years of European forestry practices, timber extraction, and the spread of science-informed agriculture in the form of oil palm and rubber plantations, it is rare in the vicinity of the major rivers to find an intact patch of rainforest or to see a large mammal other than humans. On a flight from Kota Kinabulu to Sandakan that I took in 2008 all I could see from the plane was oil palm plantations, and the occasional small patch of secondary – that is, formerly logged – forest. Oil palm plantations have replaced more than forty per cent of the great forests of Sabah and Sarawak, and much of the rest is logged over and degraded. As I write, a hundred fires in Sumatra are turning an even greater percentage of that island into a large agricultural plantation for the production of palm oil for cooking, cosmetics, cleaning agents, and biofuel. And the greenhouse gas emissions from fires in this region, together with the Amazon, are so great that they exceed the weight of emissions from all the planes and cars on earth.

I visited Sabah – one of two Malaysian States in Borneo – in 2008, courtesy of the University of Malaysia Sabah where I had been speaking on religion and ecology. The

university arranged for me to visit the Kinabatangan Forest Reserve, which is an area of mostly secondary forest on the upper reaches of the Kinabatangan River managed by the conservation organisation HUTAN. HUTAN was founded by French primatologists Marc and Isabelle Ancrenaz in 1998. Working with the Sabah Wildlife Department and the University Malaysia Sabah, HUTAN has established the Kinabatangan Orangutan Conservation Project (KOCOP) in the upper reaches of the Kinabatangan River. KOCOP has as its core objective:

To restore harmonious relationships between people and the Orangutan, which in turn will support local socio-economic development compatible with habitat and wildlife conservation.⁹

The project achieves this aim by involving local residents and indigenous people who dwell in the areas still inhabited by Orangutan.

The principal work of the project has focused on efforts to protect and enhance the mostly secondary forest in which Orangutans live in the Kinabatangan River basin. This area was logged more than fifty years ago and research shows that Orangutan are fewer in number in logged forest.¹⁰ However, the HUTAN project has demonstrated that Orangutan numbers can be enhanced in secondary forest, provided it includes a good range of tree species of sufficient size in which the animals can nest and on which they can feed. KOCOP employs forty local people in managing a project which includes a research station, as well as an ecotourism project. Project scientists and guides chart the presence of nests and know most of the individuals who live in the area of the station. Besides generating scientific knowledge of these animals, the project is also intended to enhance the Orangutan survival chances, and to this effect the project employs four full-time tree planters. Orangutan eat around 300 species of tree and they are essential to the germination of some of the tree species whose seeds expand and absorb moisture and nutrients from the faeces of Orangutan after being eaten. The seeds of these tree species are therefore premixed with collected Orangutan faeces before planting by the tree planters. The areas where the planting is done are protected with electric fences or else the elephants will come in and eat the saplings. The tree planters are all local women. Experience shows that women are better than men at tree planting. They are more careful to clear the ground, especially the lalang or long grass and other things growing where the sapling is planted, to dig and water it in properly, and so their plantings are more successful.

The project employs local people both because they know the area and live nearby but also because conflicts between local people and Orangutan grow as the habitat and range area of Orangutan and forest and river peoples declines from the spread of palm oil plantations in which neither Orangutan nor indigenous people can live. The KOCOP use native guides from the river people who live in the forests; such links between the project and local cultures are designed to promote indigenous resource management so that local people, instead of being excluded from deriving material benefit from protected parks and conservation projects, are actively engaged in employment and educational opportunities linked to species conservation.¹¹

This approach differs from much scientific conservation management, wherein it is often assumed that conflicts between humans and other animals are intrinsic and that therefore the best strategy for conservation of endangered species is to exclude humans from the surviving habitats by declaring them wildlife reserves where humans may no longer dwell or harvest resources, even for local, customary use. The declared objective of the KOCOP to foster harmony between local peoples and endemic animals is a departure from the modern practice of "wildlife" reserves. It represents an approach to conservation grounded in human ecology, rather than human exclusion, in which there is no prior assumption of intrinsic species conflict. And it is therefore more consistent with the reading of the narrative of Eden in Genesis 2 I offer in this essay than the

narrative of original conflict between humans and other animals advanced by Bacon, Descartes, Darwin and other seminal shapers of modern scientific culture, as well as by many conservation scientists. But there is also a root of this understanding of original conflict within Christian exegesis of Genesis 1 – 3. And this is why it is so important rightly to discern the meaning of these three crucial chapters of the Christian Bible. The European Christian project of colonial expansion and wealth extraction from the lawless borders of empire, a project that continues to this day, has significant roots in the Baconian reading of the Christian narrative of Fall and Redemption. And that reading has roots even further back in the Fathers of the Latin West.

“To till and guard” (Genesis 2.15)

Augustine reads the command “to till and guard” the Garden of Eden as indicative of an original paradisiacal state where there is no physical work, and where nothing could be added by Adam to the original perfection of paradise, for “in the tranquility of the happy life, where there is no death, the only work is to guard what you possess.”¹² For Augustine the war between flesh and soul, mind and body, which is the dualistic condition of sinful being is read back into the original state of paradise: where there is no sin there is no physical work, no embodied engagement with a material world since such engagement already implies necessity, limits, death and sin. On this hugely influential reading of the meaning of Eden there are no physical limits to human engagement with the creation other than those which arise from the condition of sin. If so, then the work of redemption is, as Bacon, Locke and others have argued, to eschew limits in the quest to turn nature into human wealth. On this reading, the work of clearing forests and draining wetlands for agriculture is a consequence of the Fall and is at variance with the original and peaceable condition of life in Eden.

But there is another reading of tillage and work in Genesis 2 that we find in the Orthodox East. For Symeon the New Theologian, the work of tending and caring is not just spiritual but physical:

In the beginning man was created with a nature inclined to work, for in paradise Adam was enjoined to till the ground and care for it, and there is in us a natural bent for work, the movement towards the good.¹³

If work is part of the original calling of humankind then this gives redemptive significance to the limits to human work already indicated in Genesis; in the original rest of God the Creator on the seventh day,¹⁴ in the story of the forbidden “tree of knowledge” that is not to be eaten,¹⁵ and in the story of the flood which is brought on the earth because human violence and wickedness grew beyond limit.¹⁶ If work in Paradise is spiritual and material, then redeeming human work is a vital part of the meaning of salvation, and salvation is understood as a recovery or at least a re-orientation of human embodied life on earth towards the original condition of Eden or, in other words, the restoration of paradise. It is just such a reading of salvation that we find in early Christian art in the fifth century and onwards, and that we find also in the development of a spirituality of manual labour in Benedictine monasticism.

Among the earliest enduring artistic depictions of salvation as incorporating all creation – and all creatures – is the mosaic apse of the basilica of Saint Clemente in Rome, albeit in a tenth or eleventh century copy of a much earlier original. The Christ depicted as redeemer in Saint Clemente is reminiscent of a Tibetan Buddhist mandala. He is connected above his head to the heavens, to God as Spirit and to the Father, and at his arms and feet to many kinds of species on earth, which are depicted encircled by swirls of green leaves emanating from the outstretched arms and feet of Christ. In the

mosaic the restorative power of salvation reaches from the crucified and risen Christ throughout the cosmos, and brings wholeness to all the species of life on earth.

In the desert traditions and in Benedict there is an analogous reading of the meaning of human life after Christ, and the salvific significance of good work, that is closer to Symeon's than Augustine's reading of the meaning of work in Eden. The first monastic, St Antony, is said by Athanasius to have worked with his hands and to have commended this as one of the three essentials of the holy life:

He worked, however, with his hands, having heard, "he who is idle let him not eat", and part he spent on bread and part he gave to the needy. And he was constant in prayer, knowing that a man ought to pray in secret unceasingly.¹⁷

Similarly for Cassian and Basil, work is essential to the holy life because manual work makes possible alms giving and hospitality, and because manual work is a needful occupation of the body without which it tends to be distracted by wrong desire.¹⁸ This stance on the intrinsic relationship of manual work and holiness shapes the monastic tradition in East and West. Thus in the *Rule of Benedict* work is not punishment for sin, or a result of mortality, but a true means to the holy life:

If, however, local necessity or poverty require that they themselves are occupied in gathering the harvest, they should not be saddened; for they are then truly monks, when they live by the labour of their hands, as did our Fathers and the Apostles.¹⁹

Dom Rembert Sorg argues that the corruption of monasticism arises from the growing wealth of the medieval monasteries which made it possible for monks to pray, study, and eat without working with their hands. And that "the point of cleavage between healthy and decadent Benedictinism has been invariably the economic factor."²⁰ It was the over-reaching success of the monks in cutting down forests, draining marshes, and turning the land over to sheep and cereal growing, that ultimately led to their accumulated wealth and spiritual corruption. As this wealth enabled them to spend more time in Church, and less in manual labour, so the fruit of manual labour was lost to them:

Its fruit in the monks is a calm, tranquil peace and silence, and his soul easily and blissfully becomes pregnant with the Wisdom of God. In contrast one may sincerely pity the flighty restlessness of meddling busybodies who do not know the secret and practice of manual labour.²¹

In this perspective the original and first active command of God to Adam "to till and to guard" is a truly embodied and spiritual command. Good work in God's garden is an essential preservative of the goodness of human dwelling on earth because good work tends and conserves both the conscience and spirit of those who engage in it as well as the creatures among whom it is performed. Bad work, work directed by cost benefit sums, and the idle rich, deploying the power of their accumulated wealth not to protect but to destroy creaturely and human habitats, is a threat both to the spiritual, and ultimately the material, wellbeing of those who command it: "So God formed from the soil every living-thing of the field and every fowl of the heavens and brought each to the human, to see what he would call it."²²

The second kind of work that is given to Adam in Eden is as seminal as the command to till and to guard, for it involves the naming of the animals who are brought to him not in fear but as potential companions. And this second kind of work is also seminal in a more particular way for the birth of the sciences in Christendom, and thence the flowering of the sciences and technology in the modern era. As we have seen, Francis Bacon views the scientific calling as a form of power through which humans recover the dominion over the earth that they lost at the Fall. But for the editors of Genesis the calling of human beings to identify and name species – in which we see the Biblical root of scientific taxonomy and all the natural sciences – is a calling given to human beings *before* the exile from Eden. And again there is division from early in the

Christian era about the meaning of this passage. A number of patristic commentators on Genesis 2.18-19 reflect upon the apparent lack of animosity between Adam and the animals that come before him and they do so in ways that indicate significant disagreement with the Augustinian tradition about the theological meaning of life in Eden before the Fall. According to Ephrem the Syrian, God brings the animals to Adam in order that God might make known the wisdom of Adam and the harmony that existed between the animals and Adam before he transgressed the commandment. The animals came to Adam as a loving shepherd. Without fear they passed before him in orderly fashion, by kinds and species. They were neither afraid of him nor were they afraid of each other.²³

For Isaac of Nineveh the apparent peaceableness of the animals is not because they have ceased to be predators in Eden but because there is a special quality in the holiness of this Adam before the Fall which calms them:

The humble man approaches ravenous beasts, and when their gaze rests upon him, their wildness is tamed. They come up to him as to their Master, wag their heads and tails and lick his hands and feet, for they smell coming from him that same scent that exhaled from Adam before the fall, when they were gathered together before him and he gave them names in paradise. This was taken away from us, but Jesus has renewed it and given it back to us through his coming. This it is that has sweetened the fragrance of the race of men.²⁴

But for Augustine, who is so seminal in the development of Western Christian theology, and for Ambrose, the same action represents the great distance that there is between man and beasts, indicated by the reason that empowers Adam to name the beasts as they are paraded before him – presumably under coercion – by the angels. Thus Augustine tells us God first showed man how much better he was than cattle and all irrational animals. This is signified by the statement that all the animals were brought to him that he might see what he would call them and give them names. This shows that man is better equipped than the animals in virtue of reason, since only reason that judges concerning them is able to distinguish and know them by name.²⁵

For Ambrose also the spiritual meaning of this event is to reveal to Adam, and those who come after him, their superiority over brute beasts:

God granted to you the power of being able to discern by the application of sober logic the species of each and every object in order that you may be induced to form a judgment on all of them. God called them all to your attention so that you might realize that your mind is superior to them all.²⁶

For the fathers of the Latin West, in which tradition Bacon and Descartes stand, this story which, on a plain reading of the text, is about companionship as well as naming becomes yet another occasion for the assertion of human superiority over other creatures and that such creatures, in their spiritual significance, are merely expressions of misdirected human desires.

As is well known, the reading of scripture is by no means plain. For the Fathers of the Church, there is a literal reading as well as an allegorical or spiritual reading. As for Saint Paul, for the Fathers the spiritual reading is a reading *after* Jesus Christ because the author of scripture is also the God and Father of the Lord Jesus Christ. But against this traditional hermeneutic the modern historical-critical method of exegesis envisages each text as a material entity locatable in space and time and whose meaning is therefore scientifically isolatable from other texts, from the canon scripture and from tradition. Consequently, and paradoxically, modern exegetes, while more alive to the historical contexts of the original texts, have been less aware than the Fathers of their place in the whole narrative of salvation history, and of the location of the *reader*, as well as the text, in that narrative. This is not to deny that fuller understanding – including scientific understanding – of the location of the text enhances the modern reading. But the

knowledge acquired from this method has too often obscured the spiritual meanings of texts which arise from their location in the narrative of salvation history.²⁷ Analogously the historical critical method suppresses the narrative shaping of the *reader* by scripture and by her own life experiences.

In the light of this very brief hermeneutical excursus a reading of Genesis 2 in a primeval forest that is ecologically closer to the primeval condition of Eden than the modern university library or a Roman city may enhance both a historical critical and a canonical and spiritual reading of the text, and may help us to rightly deliberate on the variant spiritual readings of this text.

Companion Animals

I went into the Kinabatangan Forest Reserve on a morning in May 2008 in the hope of seeing Orangutan in their natural state. I was, however, to be frustrated in that goal by the presence along the river that day of a group of pigmy elephants that were passing through the district. When we got off the boat and approached the tree planting area it became evident that Orangutan were making themselves scarce because the herd of elephant – around 20 in all – were close by. Consequently, our guide decided to call on two others from the project who are local elephant guides in order that we might have the opportunity of at least walking safely through the area. In due course our elephant guides came and led our small group of eight persons to a small tributary river where we saw through the trees a group of elephants on the other side. We stood still and the group trumpeted, turned and ran off into the woods. We held our ground. A few minutes passed in the intense mid-day heat. And then the elephants returned again across the stream from us. At this point they wagged their heads and trunks from side to side and our guides whispered that this meant “it’s OK” and “they might be friendly”. Then one of the group, a six year old female about five feet in height and four in width, left the herd and approached us across the stream. As she drew near she turned and began to walk backwards, and finally raised a back leg in the air and wiggled it. At this one of our guides moved forward and patted her firmly on the rump. She ran off and undertook the same procedure again, with the same response. She then came again and this time swished her tail, which our guide then held and swished in turn. Eventually she began to approach us frontally and we found our small group being chased through the undergrowth, effectively playing “catch” with an elephant. After about twenty minutes – though it seemed a lot longer – the rest of the herd began to take an interest in joining in and one of the large males, tusks and all, standing around seven feet tall, began to follow the younger juvenile in the game. And at that point our guides suggested we back off as things could get a little too interesting.

I make no apologies in saying that for me this was a revelatory spiritual experience. During and after it I could not help but recall the passage before us now. How did the animals approach Adam? In fear and under angelic coercion, which is Augustine’s suggestion? As slaves of the divine will who could do no other, which is the suggestion of another of the fathers, Severian of Gambala?²⁸ Or like the elephants approached us in Borneo? Those animals were not afraid of us. They did not know us as *Homo industrialis*, who frequently kills them with a gun when the extensive incursions of the plantation industry into their terrain disturb them. They discerned in us fellow mammals, communicative agents, friends, fellow-wanderers in their nomadic world. They recognised us. They chose to play with us. They sought us out as companion animals. And may it not have been just so in Eden?

Ancient and modern interpreters of Genesis 2 in Latin (Western) Europe set human agency above animal agency and suggest that the scientific enterprise whose

aetiology the passage evokes indicates the superiority of humans above all creation, and the human calling to order and harvest creation as the divinely intended and redemptive mode of our species-being. I suggest that on the contrary the spiritual meaning of the passage is that animals are brought to Adam to indicate to him, and to us, that they are our companions, our co-creatures here on earth, that we share the earth with them, and that they as well as we are called to fill the earth and multiply (which implies some limit on our destruction of their habitats and which few, on such a reading of this passage, could not now judge we have clearly exceeded).

This is not to gainsay that Genesis 2 also indicates our superiority over them. But the peculiar form of that superiority is not that we are to harvest them at will but that we are responsible, uniquely as a species, for the flourishing of Eden, and hence the earth, which we and they share. When we misconceive our creaturely relationship with God, and put ourselves in the place of God, we corrupt our relationships with other beings, including trees and primates, using the ambiguous power-knowledge that our species acquired in that seminal act of eating of a forbidden fruit, of exceeding given creaturely limits, of claiming the powers of gods and not creatures. In so doing we acquired a new capacity – not given in Creation – to frustrate the lives of all other beings, which both undermines our dominion, and underlines how hard it is for us henceforth to till the earth in such a way as to guard the creatures in it, apart, that is, from the restorative work of Christ in vindicating and restoring the original condition of life on earth in his resurrection.

From this reading of Genesis in Borneo, the spiritual meaning of the text after the resurrection of Christ, and in the midst of ecological crisis, is that the work of science in naming and ordering the world stands as much in need of redemption as does the work of tending and guarding. Indeed these two works are in urgent need of reconnection because modern humans using industrial mechanical tillage have systematically degraded one third of the available soils for agricultural production, and industrially-originated climate change threatens to reduce crop output in some of the already most challenging environments for farmers.²⁹ Far from redeeming the earth, science and technology have conferred on *Homo industrialis* powers which have trained him to turn away from manual labour and distance himself from the soil and the forest and the garden. And while fossil-fuelled wealth accumulates, we also see the rotten fruit of excess wealth in the form of enforced idleness in the so-called “advanced” countries. In post-industrial Europe and North America good work – any work – is hard to find for many whose forbears found work, and a source of dignity and sustenance, in fields and forests and factories. There has never been a time when it was more important for Christians rightly to interpret the literal and spiritual meaning of work, guardianship, and companionship in Genesis 2.

Notes

1. Michael Northcott is Professor of Ethics at the School of Divinity in the University of Edinburgh, Scotland. He is the author of many books and papers in ecology and religion including *The Environment and Christian Ethics* (Cambridge University Press, 1996), *A Moral Climate: The Ethics of Global Warming* (Darton Longman and Todd, 2007) and *Cuttlefish, Clones and Clusterbombs: Preaching, Politics and Ecology* (Darton Longman and Todd, 2010). He was formerly Associate Professor in the Southeast Asia Graduate School of Theology and lecturer at the Seminari Theologi Malaysia in Kuala Lumpur, Malaysia. This paper was first read at a conference sponsored by Saint Mary's College at St Andrews University in 2009 and will appear in the conference proceedings to be published by Wm. B. Eerdmans Publishing Co. as *Genesis and Christian Theology* edited by Nathan MacDonald et. al. in 2012. Thanks are given to the editors for permission to publish it here.
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15. *ibid.*, 2.17.
16. *ibid.*, 6.5.
17. Athanasius, *Life of Antony*, vol. 4, trans. Paul Halsall, *Internet Medieval Source Book*, www.fordham.edu/halsall/basis/vita-antony.html, accessed April 27 2010.
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25. *op. cit.*, Augustine, 2.11.16.
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