Christ and Creation

A Model for Ecotheology

This thesis is presented as part of the requirement for the Degree of Doctor of Philosophy at Murdoch University

by

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Declaration

The material contained in this thesis is my own account of the research carried out by me during my PhD candidature, 1 October 2008 to 11 July 2016. The thesis contains as its main content work which has not been previously submitted for a degree at any university. A portion of my Honours thesis, ‘The Cycle of Creation and the Soul’s Journey into God’ (Murdoch University, May 2004) has been included within sections of chapters one and two of this work.

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Title of thesis: Christ and Creation: a model for ecotheology
Abstract

In this thesis I develop the parallel noted by Ewert Cousins between Teilhard de Chardin’s evolutionary Christology and the trinitarian theology of St Bonaventure, in order to develop a contemporary ecotheology. Teilhard’s anthropocentrism and determinism is corrected through an extension of his noosphere construct as a shared noetic space for a more-than-human ecology, identified as a site of both risk and potential reconciliation. I further develop the noosphere model by noting its congruence with Bonaventure’s vision of eschatological shalom, which proposes resurrection as the inauguration of a transformed creation.

Although the application to ecotheology of Bonaventure’s trinitarian thought has been widely noted, the extended parallel with Teilhard’s evolutionary Christology enables it to be better applied to the contemporary ecological problem with its roots in the development of scientific models of evolution. Conversely, Teilhard’s neglect of trinitarian theology and failure to connect his Christ-Omega with the central Christian kerygma of crucifixion and resurrection is implicated in a deterministic and anthropocentric bias. This is corrected by bringing Teilhard’s evolutionary model into conversation with Bonaventure’s trinitarian theology.

My argument links a robust creation-centred Christology with a theoretical model for the more-than-human ecology, and connects human and divine wisdom with contemporary noetic models of ecological process. As a construct with a history of application in the life sciences, the noosphere provides a local and temporally proximate frame for theological dialogue with ecology. My extension of Teilhard’s noosphere underpins an ecological anthropology in which human existence is oriented towards Christ through dialogic relationship with all created things. By linking Bonaventure’s eschatological vision of shalom with the extended noosphere model the
claim of convergence on Christ-Omega is made relevant for an ecotheology, and an ecotheological eschatology emerges within which creation is identified both as cruciform and as a site of redemptive transformation.
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Introduction

This thesis is a comparative study of the Christocentric doctrines of creation of St Bonaventure (d. 1274) and Pierre Teilhard de Chardin (d. 1955), which aims to develop a model for ecotheology with principal application in the areas of Christology, anthropology and eschatology. While rejecting Teilhard’s dualistic and anthropocentric conception of the noosphere, I develop an alternative model of the noosphere as the shared noetic space for a more-than-human ecology. I identify the amended model as a site of both ecological risk and potential reconciliation, further developing it by comparison with Bonaventure’s Franciscan vision of eschatological shalom in creation.

Both Bonaventure and Teilhard understand Christ as the centre of the created order. Bonaventure develops a dynamic trinitarian doctrine that sees Christ as the persona media of the Trinity and exemplar of the created order. This provides the metaphysical basis for a Franciscan spirituality that connects creation with Incarnation. For Teilhard, Christ is understood as the centre and telos of an evolutionary and convergent universe. Like Bonaventure, Teilhard’s doctrine of creation based on the convergence of all things in Christ is deeply incarnational.

Teilhard initially proposes an understanding of matter as inseparable from spirit, describing evolution as an underlying pull towards complexity-consciousness. In his discussion of human evolution, Teilhard abandons his metaphysical commitment to matter, suggesting the formation of a noosphere or layer of human intellect that becomes disembodied and supra-personal as it continues its evolutionary development into union with Christ-Omega. This aspect of Teilhard’s thought has been much-critiqued. I propose a reformulation of the construct of the noosphere that, like Teilhard’s model, is centred and convergent on Christ, but that incorporates the shared
physical and noetic space of the more-than-human ecology. I argue that the noosphere reflects a process-ecological model of interaction and suggests an ethos of intersubjectivity, or deep attentiveness to the non-human realm as subject rather than object.

The noosphere as a site both of risk and potential ecological harmony can be connected with a Wisdom Christology. I argue that the ethic of intersubjectivity and attentiveness to systemic flows of information throughout the ecological system reflects the Biblical theme of wisdom. The noosphere, which Teilhard envisages both as a seminal stage in the development of a collective human wisdom and as a way-point in convergence on Christ-Omega also reflects in my formulation the participation of all created reality in divine Wisdom. By drawing together the noosphere with Bonaventure’s eschatological vision of shalom in creation, the hope of a renewed creation can be more specifically articulated as one in which the crucified and risen Christ stands as its centre.

I extend the parallel between Bonaventure’s and Teilhard’s thought by noting that Bonaventure’s vision of shalom in creation is also underpinned by a Wisdom Christology and anthropology. For Bonaventure, the age of eschatological peace reflects the spirituality of St Francis, who I argue enacts both the wisdom spirituality of Jesus and an Edenic model of shalom within creation. Bonaventure’s eschatological vision, which draws on Francis’ mystical identification with the crucified Christ and the image in Revelation ch. 7 of the sixth angel of the apocalypse, also suggests a narrative of resurrection as the inauguration of a transformed creation.

**Definition and scope of ecotheology**

As a theological perspective framed by concern for the environment, ecotheology has historical roots in Biblical traditions and in Benedictine,
Franciscan, Orthodox and Celtic traditions. Ernst Conradie suggests ecotheology should be regarded not as a subdiscipline of theology but rather a mode of theological reflection or a reform movement which emerged in the years following the 1961 speech by Joseph Sittler at the World Council of Churches assembly in New Delhi. Sittler argued that the unity of the Church founded in the reconciliation of all things in Col 1.15-20 is inseparable from the fate of the non-human ecology.¹ Sittler’s claim marks the beginning of ecotheology as a movement, approximately coinciding with the beginning of public environmental concern.

Conradie notes the seminal 1961 essay by Lynne White that attributed the historical cause of the environmental crisis to Christian theology and praxis.² Describing Christianity as the ‘most anthropocentric religion the world has seen’, White argued that Christianity had directly contributed to Western technological superiority and the anthropological assumption that, made in the divine image, ‘man is master’ of nature. Thus like feminist theology ecotheology engages in a ‘twofold critique’, in that it offers a critique from the perspective of Christian theology on cultural and social institutions that underlie the ecological crisis and at the same time engages in the critique of Christian theology and praxis from an ecological perspective.³ Conradie suggests that for this reason, ecotheology should be viewed as part of a wider reform movement within Christianity itself. Like all

reform movements, it lacks a clear organisation or agenda, is beyond the ability of the institution to control and often unwelcome.\footnote{Ibid., 108.}

In relation to ecotheology’s ‘twofold critique’, Conradie suggests the importance of restating the fundamentals of Christian theology from the perspective of creation and the environment. He notes that over the decade to 2013 it has become clearer ‘what is theological about ecotheology’. Conradie identifies six core theological issues requiring further reflection from an ecotheological perspective:

i. While most work focusses on divine immanence, divine transcendence also needs to be considered from an ecotheological perspective.

ii. Ecotheology must avoid giving support to dualist anthropologies, both reductionist descriptions of life in terms of physical processes or escapist spiritualities that are disconnected from the material plane.

iii. There has as yet been no satisfactory articulation of a theology of creation that is integrally related to soteriology.

iv. The articulation of an adequate eschatology that articulates a hope for the earth while realistically acknowledging the urgency and risks of the current environmental crisis.

v. The need to connect Christology with an adequate pneumatology.

vi. The relationship between Christian ecotheology and environmental concern within other faith traditions.\footnote{Conradie enumerates the six questions; Ibid., 109–12.}
In her 2008 book, *Eco-Theology*, Celia Deane-Drummond discusses the range and scope of ecotheological reflection, noting that ecotheology needs to connect with the major themes of the theological tradition to avoid collapsing into an environmental ethics.\(^6\) Deane-Drummond includes chapters on the environment and Christian ethics, noting different ecotheological emphases that distinguish writers of the global south where concern for the environment is articulated from a perspective of liberation theology.\(^7\) Deane-Drummond also devotes chapters to ecotheology from the perspective of Biblical studies with a particular focus on Wisdom traditions, as well as ecological approaches to categories of systematic theology including Christology, pneumatology and eschatology.\(^8\) While noting the historical traditions of Benedictine and Franciscan thought, Deane-Drummond does not explore these and comments only that ancient writers were not intentionally concerned with the environment. She therefore limits consideration to theology that has emerged in the context of late 20\(^{th}\) century and early 21\(^{st}\) century environmental awareness.\(^9\)

Conradie and Deane-Drummond both note the relative neglect in the ecotheological literature of Christological reflection.\(^10\) For Deane-Drummond an engagement with Christology is necessary if ecological concern is to be regarded as central to Christian faith. She points out that a doctrine of Christ and creation is also necessary in order to establish a framework for discussion of eschatology and the renewal or redemption of creation. She argues that models of Christology ‘from below’ will be less fruitful for

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\(^7\) Ibid. Chapter 4 “Eco-theology from the South”, loc. 1302 of 6390.

\(^8\) Ibid. locs. 2230ff, 2678ff of 6390.

\(^9\) Ibid., loc. 108 of 6390. See also fn 7.

\(^10\) Ibid. loc. 2678 of 6390; Conradie, “Towards an Agenda for Ecological Theology: An Intercontinental Dialogue.”
ecotheology than ‘cosmic’ models of Christology that emphasise the significance of the Incarnation as the identification of the Word with all creation. Also important for ecotheology, Deane-Drummond comments, is Wisdom Christology as one of the earliest stands of reflection on the meaning of Jesus in the New Testament. Deane-Drummond argues that Wisdom provides a paradigm for connecting reflection on the person of Jesus with the cosmological implications of the Incarnation.11

Both Conradie and Deane-Drummond delineate a very broad scope for ecotheology, to the extent that ecotheology may be considered less as a sub-category of theology and more as a position from which to reflect theologically. Their agreement that ecotheology must better address the major theological category of Christology forms an important background to my argument, which takes as its starting point the Christocentric doctrine of creation common to Bonaventure and Teilhard. This foundation also provides a rich vein of reflection on Christ as the Wisdom of God, and an anthropology informed by a wisdom spirituality. I make use of Biblical hermeneutics in relation to themes such as wisdom and shalom, and in the identification of the Johannine connection of resurrection with the renewal of creation which underlies Bonaventure’s theology of history. Questions of soteriology and eschatology are vital if ecotheology is to provide any basis for the hope of a restored creation, and are central to the approach suggested by the comparison of Bonaventure and Teilhard. Conversely, as neither theologian develops a systematic pneumatology my approach does not deal with the Holy Spirit in creation. Similarly, my approach does not engage with the methodology of liberation or feminist theologies.

11 Deane-Drummond, Eco-Theology, loc. 2959-3015 of 6390.
Review of ecotheological literature

In this section, I note the work of a number of authors who represent different perspectives in ecotheology and have informed my argument. The diversity of these perspectives attests to the scope of ecotheology, as well as the need for ecotheology to engage with the fundamental categories of the Christian tradition.

In *Christian Faith and the Earth*, a retrospective volume comprising a collection of papers from participants in the ‘Christian Faith and the Earth’ research between 2007 and 2013, the variety of perspectives reflect Conradie’s point that the task of ecotheology is nothing less than the reformation from an ecological perspective of the Christian tradition. Essays in the volume focus on the Trinity, Christology, pneumatology, creation, soteriology and eschatology, missiology, ecclesiology and liturgy. The editors note that just as an environmental awareness is relevant to almost every conceivable issue, so ecotheology must become a dimension of all theological reflection.¹² Ecotheology reflects the diversity of denominational traditions and engages a range of external disciplines ‘from astrophysics to the biological sciences, the social sciences, the humanities and the arts’."¹³ It has provided an opportunity for interfaith dialogue, engagement with traditional and indigenous culture and spirituality, emerging ‘green’ spiritualities and historical Christian traditions. The editors note the resultant ‘somewhat disjointed’ nature of ecotheological reflection and the underlying tension between different approaches.¹⁴ They argue that for this reason ecotheology should not be regarded as a sub-branch of Christian ethics, but

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¹³ Ibid., 3.
¹⁴ Ibid., 4.
must engage the breadth of the theological tradition with emphasis on the core doctrinal aspects, ‘including the Trinity, God as Father, creation, humanity, sin, providence, Jesus Christ, the Holy Spirit, salvation, the church, the sacraments and Christian hope’.  

In his essay ‘Ecological Theology of the Trinity in the Tradition of Athanasius’ in this volume, Denis Edwards calls for a ‘fully trinitarian’ narrative of God’s engagement with creation, and explores the trinitarian theology of Athanasius, commending its soteriological vision of deification, the active role it gives to the Holy Spirit in creation, the immediate presence of God to creation and the sense of divine delight in creation. Edwards’ 2014 book *Partaking of God* explores Athanasius’ trinitarian theology in more detail and develops a theology of incarnation in dialogue with Athanasius’ reflection on wisdom. Edwards understands ‘deep incarnation’ as the incarnation of God in Christ into ‘the very tissues of biological existence and system of nature’, and argues that in the incarnation God enters the life of creation in a radically new way. 

In earlier works, Edwards has developed a Wisdom Christology as a foundation for ecological theology, arguing that this approach to Christology illuminates the human life of Jesus of Nazareth while preserving the mystery and transcendence of God and reflection on the pre-existent divine Wisdom within the Trinity. Edwards explores the Wisdom tradition for an ecological and feminist anthropology as well as the connections it makes with other

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15 Ibid., 5.
faith traditions and indigenous spiritualities. Edwards notes that the perspective of Wisdom Christology runs through the trinitarian theology of Richard of St Victor and Bonaventure which leads to a view of creation as the self-expression of God or ars aeternae of divine Wisdom. The implication for human life is that, made in the divine image, human beings are intended to be persons in mutual relationship. The intersubjectivity that stands at the heart of the Trinity and the centre of created reality is also reflected in the true understanding of human life in relation to creation.

In The God of Evolution, Edwards continues his reflection on Wisdom and the kenotic trinitarian model of St Bonaventure, while exploring the question of divine self-limitation and chance in the unfolding of an evolutionary universe. In Ecology at the Heart of Faith, Edwards reflects on human beings as persons made in the image of God in order to live relationally and contextually within creation. The model of kinship within the community of creation is related to the mutuality of the Persons of the Trinity and Buber’s ‘I and Thou’ model of intersubjectivity. Edwards reflects on the role of the Holy Spirit in creation, companioning of all creatures and gathering all things in the transfiguration of creation. The Trinity as the model of God’s own life becomes the model for the diversity of the created order.

In this book, Edwards also reflects on the evolutionary Christology of Teilhard and his theme of the transformation of the created universe in

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19 Ibid., 59–66.
20 Ibid., 91–105.
21 Ibid., 105.
christogenesis. Conceding that Teilhard’s vision is not ecological, Edwards nevertheless argues it provides the foundation for an ecological theology. Edwards notes the theological criticism of Teilhard as well as scientific dismissal of his evolutionary thought, but commends his commitment to the material universe.25 His own eschatological reflection focusses on the Trinity as communion and the liturgical concept of anamnesis, proposing that sparrows (all things) loved and intended by God are also present to the trinitarian life of God, participate in redemption through the resurrection of Christ and are eternally held in the ‘living memory’ of the Trinity.26 The consistent theme of Edwards’ work is the identification of creation with Incarnation through the articulation of a Wisdom Christology within which Christ as the self-expressive Word of God is also the basis of the divine self-expression in creation. Edwards also takes from his commitment to a Wisdom Christology the inter-relationship of all created things that reflects the trinitarian life of God.

In her essay in *Christian Faith and the Earth*, Celia Deane-Drummond also reflects on the notion of ‘deep incarnation’.27 Deane-Drummond’s primary focus is on Christology, and she notes that it is in the Incarnation that God is revealed as one with the material creation. In relation to ‘deep incarnation’, Deane-Drummond points out the connection with the term ‘deep ecology’. Both concepts involve broadening the horizon of concern beyond the human; so ‘deep incarnation’ suggests that Christ enters not just human flesh but the ‘whole malleable matrix of materiality’. Deane-Drummond notes

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25 Ibid., loc. 1407.
26 Ibid., loc. 1578-1614.
that where deep ecology collapses the moral differential between human and non-human, the notion of ‘deep incarnation’ suggests a deep commonality without erasing the unique particularity of created subjects. She suggests Elizabeth Johnson’s approach of balancing cosmological argument with a focus on the ethical, pastoral and justice dimensions of real lives is helpful in avoiding the potential slide of this concept.\textsuperscript{28} That is, it is the loving ministry of Jesus that is at the heart of any theological reflection on the Incarnation.

In a similar vein Deane-Drummond commends the theo-drama approach of Hans Urs von Balthasar, who connects the Incarnation with the passion as an act of solidarity with all that suffers and dies.\textsuperscript{29} This stems from a Wisdom Christology that sees the coming of Christ both as a divine act in continuity with Israel’s history, and in cosmic terms through its connection with the creation account of Genesis ch. 1.\textsuperscript{30} The development of a Wisdom Christology for ecotheology is also the focus of her 2006 book, \textit{Wonder and Wisdom}, in which Deane-Drummond weaves together themes of natural, human, divine and crucified wisdom with the human response of wonder associated with scientific discovery, mystery, story and chaos.\textsuperscript{31} Deane-Drummond’s implicitly trinitarian approach explicates creation and Incarnation as a movement of loving solidarity which finds its response in a humanity endowed with the capacity for relationality and wonder. She presents a nuanced account of divine Wisdom as underpinning both the continuity and the distinctness of the human and natural worlds.

\begin{itemize}
\item \textsuperscript{28} Ibid., 32.
\item \textsuperscript{29} This is also the approach taken in C. Deane-Drummond, \textit{Christ and Evolution: Wonder and Wisdom} (Minneapolis: Fortress Press, 2009).
\item \textsuperscript{31} C. Deane-Drummond, \textit{Wonder and Wisdom: Conversations in Science, Spirituality and Theology} (Philadelphia: Templeton Foundation Press, 2006).
\end{itemize}
Writing from a Franciscan perspective, Ilia Delio moves from in-depth scholarship on Bonaventure in *Crucified Love* and *Simply Bonaventure* to an exploration of evolutionary Christology in *Christ in Evolution* where she notes the connection between the Christocentricity of Bonaventure and Teilhard. In *A Franciscan View of Creation*, Delio examines the Franciscan doctrine of creation, focussing on Francis, Bonaventure and Duns Scotus. Delio explores the religious and cultural world of St Francis, including the challenge of Catharism which denounced the evil of material creation and practised withdrawal and strict asceticism. By contrast, Francis modelled a God of compassion and understood creation as filled with the goodness of God and reflecting the wisdom of God. Delio examines Francis’ *Canticle of the Creatures* which reveals Francis’ awareness of consanguinity with all creation in and through Christ as the centre of the cosmos. In the chapters on Bonaventure, Delio draws the connection between Bonaventure’s exemplary metaphysics and trinitarian doctrine of creation with the spirituality and praxis of Francis.

In *Care for Creation*, Delio with Keith D. Warner and Pamela Wood develops a Franciscan spirituality and ethic of earth-care based both on the praxis of St Francis and the Christ-centred theology of Bonaventure. St Francis’ nature mysticism is described as a deep sense of inter-relationship

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34 Ibid., loc. 287-309.

35 Ibid., loc. 350, 418.

36 Ibid., loc. 506-517.
based on awareness of the incarnational presence of God in creation. Delio returns to the theme of evolution and the cosmic Christ in *The Emergent Christ*, building on dynamic models of God found in Bonaventure and Meister Eckhart and Teilhard’s evolutionary Christology. Delio suggests the death and resurrection of Christ involves the transformation and renewal of the whole cosmos. Delio connects her reflection on the universal and transforming Christ with a Christian praxis based on experience of the presence of God through Christ in every created entity, which she names as the ‘way of the crucified Christ’. Delio’s work explicates the relevance of a Franciscan creation spirituality for contemporary ecotheology. This is characterised by the ubiquity of Christ in creation explored primarily through the theology of Bonaventure. Delio’s Franciscan perspective emphasises the crucified and risen Christ as the transforming presence within creation.

The Christological approach taken by each of these three writers is central to my own argument, which likewise emphasises the connection between divine and created wisdom, for example in relation to the noosphere construct. Like Deane-Drummond, I will make use of Balthasar’s theo-dramaturgical narrative in exploring the soteriology of Holy Saturday, but will note the direct relationship between the theology of atonement in Balthasar and Bonaventure. Edwards and Delio, who build more directly on Bonaventure’s theology, have more direct application to my argument.

40 Ibid., 146–47.
follow Delio especially in relation to the transformation of creation implied by Bonaventure’s Franciscan eschatology.

In *The Travail of Nature*, Paul Santmire notes the equivocal relationship of Christian theology and praxis to nature, pointing for example to the critique of Lynn White and Rosemary Radford Ruether. Santmire argues that the theological tradition is ‘neither ecologically bankrupt’ nor equipped with a great store of ecotheological traditions. Santmire reflects on the roots of Christian reflection about creation and nature in the scriptures, Augustine and the early Fathers and the medieval theologians. His assessment of St Francis is entirely positive, while he regards Bonaventure as departing from Francis’ lived spirituality in writings such as the *Itinerarium* to retreat into a classical theology of ascent. Based on my reading of Bonaventure’s *Itinerarium* I disagree with this point, which fails to take account either of Bonaventure’s use of the medieval *coincidentia oppositorum* or the fact that in Bonaventure apophasis is more precisely an identification with the crucified Christ.

Santmire makes an important contribution in locating resources in the work of the ante-Nicene Fathers and in relating Franciscan spirituality to the contemporary ecotheological project. He also succinctly points to both the shortcomings and the potential of Teilhard’s thought. However, his assessment of Bonaventure is of limited relevance to my argument.

Sallie McFague develops ways of thinking about God that balance transcendence and immanence. In *The Body of God* McFague proposes a model of the world, or cosmos, as the body of God. This panentheistic approach makes it possible to speak of God as sharing in created

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42 Ibid., 103–4.
experience and embodiment, and to understand all created things as unique enfleshed members of God’s body. McFague suggests the body is a central aspect for reflection common to Christianity, feminism and ecology, drawing attention to issues such as physical inter-relationship and interdependence, unity and differentiation. By understanding the earth as the body of God, McFague seeks also to extend the notion of Incarnation to the entire planet, and suggests a model of the Trinity that sees the earth as God’s body enveloped by the presence of the cosmic Christ.

In *A New Climate for Theology*, McFague develops this model further, reflecting on the ecological anthropology implied by a model of the earth as God’s body. The ecological unity implied by the model of the earth as God’s body means that individuality can only be seen within the context of interrelationship and interdependency. Developing the ‘house rules’ (from *oikos* + *logos*) of an ecological anthropology in terms of restraint, recycling and sustainability, McFague brings her theological and ecological model into conversation with economics. She continues to develop the theme of restraint in *Blessed are the Consumers*. Stressing the connection between individual and planetary well-being, McFague relates the virtue of restraint to divine kenosis and voluntary poverty. Teilhard’s own Christology implies a view of creation as the body of Christ, and the extended model of the noosphere that I propose can be understood in McFague’s terms as the ‘body of God’. Her principal contribution is in the development of an

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44 Ibid., x11.
ecological anthropology and praxis which is reflected in my work through the reflection on the noosphere as a site of intersubjectivity.

Approaches to ecotheology that have an indirect application to my thesis include arguments from feminist or liberation theological perspectives. In general, ecofeminist and liberation approaches are sensitive to issues of language, culture and oppressive power. Ecofeminist approaches recognise the ways in which the ‘feminine’ qualities of the environment seen as fecund and sustaining, and human practices of sustainability that centre on self-limitation, inter-relationship and mutual flourishing are rendered invisible and suppressed by androcentric values such as individualism and conquest. Similarly liberation approaches emphasise relationships both between human beings and the natural world, and between wealthy and impoverished human communities. The emphasis both of these approaches place on mutuality and intersubjectivity is congruent with the emphasis on interrelationship implied by a wisdom perspective, and finds an echo in the argument of my thesis in relation to the noosphere.

Rosemary Radford Ruether takes an ecofeminist approach in *Gaia and God*, exploring the anthropocentric and androcentric nature of Western culture that has shaped the Church. Ruether considers the earth as an integrated living system (Gaia), within which the dominant narratives of Western and Christian traditions have led to alienation, distorted relationships and environmental destruction. Ruether proposes recovery of a cosmological Christology reconnecting creation with God as a way of healing both human life chronically alienated from creation, and a natural world vulnerable to destructive human exploitation.47 Elizabeth Johnson also takes an ecofeminist approach in *Women, Earth and Creator Spirit*, proposing the

interconnection of the three principal relationships – ‘human beings to the earth, among each other, and to God’. Johnson argues that within the Western tradition all three of these relationships are deeply affected by patriarchal assumptions and practices.\textsuperscript{48} The eco-feminist approach emphasises the discursive and relational nature of the more-than-human ecology and suggests that the community of creation can be understood as a reflection of the triune community of God’s own life.

Leonardo Boff writes from a perspective of liberation theology, arguing that ecology is primarily about inter-relationship, both between human beings themselves, and between humanity and nature. Boff argues an ecological theology must encompass not only natural systems but human systems of culture. Because ecology is about relationship it connects with issues of justice and oppression while engaging human spirituality as the awareness of the whole person and the experience of connection with all that is. Boff discusses the panentheist tradition which he argues has its roots in the praxis of St Francis, handed down through Bonaventure, Duns Scotus, William of Ockham and the Orthodox tradition.\textsuperscript{49} For Boff, an ecological theology is trinitarian, pneumatologically focussed and open like St Francis to a kinship with all living things growing out of deep awareness that all things are in God. Again, this approach emphasises the relational nature of the more-than-human community and insists that the system as a whole can only flourish when humanity learns to regard the non-human creation not as an object or resource but as related through the sharing of a common materiality and a common divine origin.


While the feminist and liberation perspectives are not directly reflected in my work, the theme of interrelationship and mutuality that emerges from these perspectives is explored in my treatment of the noosphere as a metaphor for the flow of communication that comprises the more-than-human ecology. While the pneumatological focus that Boff proposes is not strongly reflected in my work because of the strong Christological emphasis of both Bonaventure and Teilhard, the flow of communication and inter-relationship within the noosphere is modelled on the Trinity.

A number of writers develop an ecotheological reflection from a Biblical studies perspective. While my argument does not primarily rest on Biblical hermeneutics I employ arguments in relation to Biblical themes of wisdom and shalom, and the eschatological relationship between resurrection and the transformation of creation that emerge from my reflection on Teilhard and Bonaventure. Writers taking a Biblical studies approach to ecotheology include Richard Bauckham, Barry Leal and Dave Bookless. Bauckham discusses critical passages such as the creation narratives of Genesis, the Hebrew Wisdom writings, the ‘shalom’ passages from Isaiah (for example chs. 11, 32, 35, 55), the ‘cosmic Christ’ passages in the Johannine Prologue and Colossians and wisdom-oriented passages from Matthew (eg. 6.25-33).\(^{50}\) Leal takes a thematic approach, reflecting in turn on water, air, earth and fire, animals and birds, vegetation, creation and ecology in terms of the Biblical narrative. For example, water is related to the water of baptism, the water of life in Revelation, the still waters of ps. 23, Pilate’s hand-washing, Jesus’ washing of his disciples’ feet.\(^{51}\)

\(^{50}\) Richard Bauckham, *Bible and Ecology: Rediscovering the Community of Creation*, Sarum Theological Lectures (Waco, TX: Baylor University Press, 2010).

relationships are connected by Leal with passages from Exodus, Deuteronomy and the prophets on Sabbath-keeping.\textsuperscript{52} Bookless’ approach is also thematic, examining for example the great themes of creation, the fall, Israel, Jesus and the future age, as well as Christian worship, lifestyle and mission from the perspective of the Biblical narrative of God’s dealings with creation.\textsuperscript{53}

Some themes important to my argument are developed by writers who do not specifically offer an ecotheological application. Although not writing specifically in relation to ecotheology, Terry McGonigal makes an important contribution with his study that traces the theme of shalom and its cognates through both Testaments.\textsuperscript{54} McGonigal’s argument is that God’s original design for creation is shalom, or the weaving together of relationships of harmony and wholeness within creation. Once the original creative purpose is thwarted by the first humans in Eden, the Biblical narrative traces the contest between the human quest for power and the divine intention for shalom which the prophets recognise as the eschatological fulfilment of creation. McGonigal interprets the New Testament narrative of the Incarnation, ministry, crucifixion and resurrection of Christ as the inauguration of the eschatological purpose of shalom. This point is crucial to the identification of resurrection as the warrant for the eschatological renewal of creation. It is more explicitly developed by Mariusz Rosik and Mary Coloe, who argue from the theme of shalom in the fourth Gospel, and from textual analysis of the Evangelist’s narrative of the crucifixion and resurrection, that resurrection in this gospel is explicitly

\begin{footnotesize}
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\item[52] Ibid., 136–43.
\item[53] Dave Bookless, \textit{Planetwise: Dare to Care for God’s World} (Nottingham: Inter-Varsity Press, 2008), 17.
\item[54] Terry McGonigal, “‘If You Only Knew What Would Bring Peace’: Shalom Theology as the Biblical Foundation for Diversity” (Spokane, WA: Whitworth University, 2013).
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connected with the renewal of creation. These arguments are central to my development of the connection between Bonaventure’s eschatology and the noosphere model.

Biblical themes are essential in developing an ecotheology that is both grounded in the narrative of salvation, and able to offer a vivid contemporary analogy. An important example is the theme of the garden that is developed by Edward Echlin in *The Cosmic Circle*, which follows the events of Jesus’ life, from his growing up in Nazareth, his baptism in the Jordan, his ministry of teaching and healing, crucifixion and resurrection.

Echlin also suggests the narrative of crucifixion and resurrection as a recapitulation of Eden and the inauguration of shalom.

Echlin depicts Jesus as a prophet of relationality, wholeness and inclusivity, deeply immersed in the peasant spirituality of the earth and the interdependence of human communities and natural systems. At the Jordan, Mark’s account of Jesus’ baptism signifies a new creation and his communion with the wild animals during the 40 days sojourn in the wilderness suggests a new Eden. Jesus’ teaching and miracles employ the motifs of earth and water, fruit trees and desert stones. The Gospel accounts of the passion and crucifixion place the scene in a garden, and the connection with Eden is reinforced by the cross at the centre representing the Tree of Life with Jesus as the new Adam. Echlin argues that a new Eden, and a renewed creation, is indicated in the post-resurrection appearances of Jesus and the inauguration of a new community. Echlin

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57 Ibid., 77.
58 Ibid., 120.
warns against abstracting the resurrection promise of a new creation from its earthly context, noting that ‘new creation – paradise – would be lonely without peke companions, and transfigured garden robins’. 59

Echlin’s conclusion is similar to those of Rosik and Coloe, although his argument is more general and conflates the Synoptic and Johannine narratives. The common conclusion from these studies from the perspective of Biblical hermeneutics that a resurrection soteriology is inseparable from the eschatological hope of the restoration of the whole creation is central to the argument of my final chapter based on the Franciscan eschatology of St Bonaventure.

There is a broad congruence between the authors I have mentioned in this section. For example, the theme of intersubjectivity could equally well be raised from an ecofeminist or liberation perspective, Wisdom Christology or trinitarian theology. In addition, arguments from a Biblical hermeneutics perspective provide support for systematic approaches. Although I have selected authors whose work has informed my own argument, there are also matters of disagreement between writers in ecotheology. These will become more apparent in the following section, in relation to the legacy of Teilhard and the exemplary metaphysics of Bonaventure.

Literature on Bonaventure and Teilhard

Considerable research has been done in relation to both Bonaventure and Teilhard, however little attention has been given to the connection between them, first suggested by Ewert Cousins. Cousins’ 1978 book The Coincidence of Opposites followed a renewal of interest in Bonaventure studies since the late 1960s amid preparations for the celebration of the

59 Ibid., 123–25.
sesquicentenary of the saint’s death in 1274. Cousins provided an accessible introduction to Bonaventure’s exemplary metaphysics and theology of creation based on the key medieval motif of the *coincidentia oppositorum* which underlies Bonaventure’s thought. Cousins concludes his book with some suggestions for further research, observing that Bonaventure’s doctrine of the Word as the *persona media* of the Godhead bears a strong resemblance to Teilhard’s cosmology of convergence on the cosmic Christ.

Both Bonaventure and Teilhard see Christ as the centre of creation and the Incarnation as the completion of creation. For both authors, the doctrine of Christ is the key to understanding divine creativity and involvement in the world: Bonaventure through the metaphysics of exemplarity and Teilhard through the final causation of convergence on Christ Omega. Cousins also suggests that Bonaventure’s theology of history links his Christocentric vision of creation with Teilhard’s model of cosmic convergence on Christ-Omega. This suggestion, which has not since been taken up in a systematic way, forms the basis of my argument for the connection between the noosphere as a site of redemption and Bonaventure’s eschatological vision of shalom in creation.

Zachary Hayes has written extensive commentaries on Bonaventure’s writings which have been progressively made available in translation by the Franciscan Institute over recent years, and his *Bonaventure: Mystical Writings* is an interpretation of Bonaventure’s spiritual theology. As noted


61 Ibid., 255.

above, Ilia Delio also explores Bonaventure’s spiritual theology based on the Franciscan attitude of kinship with all created things centred on Christ. Delio explicates the connection between Bonaventure’s trinitarian theology and a theological concern for creation.63 I have also noted above Denis Edwards’ work in building a contemporary ecotheology based on Bonaventure’s model of the Trinity and Christocentric view of creation.

These writers follow earlier work by Hans Urs von Balthasar who uses Bonaventure’s metaphysics of exemplarity as a central resource in developing a contemporary theological aesthetic.64 In his book on Balthasar’s theological method, Junius Johnson notes that Bonaventure’s ‘robust Christology’ constitutes the principal influence on Balthasar’s thought. Balthasar retrieves Bonaventure’s doctrine of the spiritual senses in order to argue that a Christian spirituality centred on Christ collapses the duality of apophatic and cataphatic approaches. Bonaventure’s exemplary metaphysics thus becomes ‘the key concept in all of Balthasarian thought’.65 Mark McIntosh similarly argues for the retrieval of a contemporary exemplary metaphysics based on the divine ideas.66 I follow Balthasar and McIntosh in

63 For example: Delio, Crucified Love; Delio, Christ in Evolution; Ilia Delio, ed., From Teilhard to Omega: Co-Creating an Unfinished Universe (Maryknoll, NY: Orbis Books, 2014).


arguing for the utility of Bonaventure’s exemplary metaphysics for a contemporary ecotheology, noting opposition to this position for example by Wolfhart Pannenberg who bases his theology of creation on a stronger pneumatology than emerges from my study of Bonaventure.67

Christopher Cullen’s book, *Bonaventure*, and Joseph Ratzinger’s *The Theology of History in St Bonaventure* both provide detailed analysis of Bonaventure’s metaphysics and theological method, though neither are concerned with environmental theology.68 Ratzinger, Delio and Bernard McGinn provide detailed analyses of Bonaventure’s eschatology, and these studies inform my argument for a synthesis of Bonaventure’s final age of shalom with the noosphere construct that emerges from my critique of Teilhard.69

A great deal of commentary on Teilhard’s thought was produced over the years immediately following his death in 1955. A central difficulty is that Teilhard presents neither his metaphysical nor theological thought systematically. Another is that, although his Christology provides the key to his entire body of thought, Teilhard attempts to keep his scientific and theological writings separate. Still another difficulty in reading Teilhard is that because of the ban on teaching and publication imposed on him in 1926, his entire oeuvre was published posthumously during the 15 years following his death. This renders obscure differences between Teilhard’s earlier and later ideas.

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Earlier commentaries by George Maloney and Christopher Mooney provide an accessible introduction to Teilhard’s thought with particular emphasis on the centrality of Christ. Subsequent studies have focussed on other aspects of Teilhard’s thought. For example, James Lyons’ 1982 study reveals the foundation of Teilhard’s evolutionary Christology in patristic thought, in particular the Christology of Origen. Ian Barbour and Donald Viney provide important analyses of Teilhard’s process metaphysics. A recent work by David Grumett takes a fresh perspective in considering Teilhard within a wider context as a philosophical theologian of the early 20th century, and explores systematically his thought on creation, spiritual ascent and epistemology, before turning to its implications for evolution and society.

Ecotheological engagement with Teilhard has consistently noted both the strengths and the shortcomings of his thought. A volume of essays originally published in the journal Ecotheology in 2005, and republished with an introduction by Celia Deane-Drummond in the 2006 book Pierre Teilhard de Chardin on People and Planet provides a representative sample. In this volume James Skehan and André Daleux note that Teilhard is one of the earliest writers to systematically relate theology and science, and commend his rejection of the materialistic determinism of 20th century ‘modern


synthesis’ evolutionary theory. Papers by Ursula King and John Grim with Mary Tucker focus on Teilhard’s mystical identification with physical matter, while Diarmid O ‘Murchu argues that Teilhard pioneers a creation spirituality. Mary Grey takes this further by suggesting Teilhard develops in his essay ‘Mass on the World’ a Eucharistic theology based on a sense of deep Incarnation. The book as a whole suggests Teilhard’s work is important for the development of ecotheology, while not itself based on an ecological awareness.

I have briefly noted the contribution of H. Paul Santmire above. In his earlier work, The Travail of Nature, Santmire is dismissive of Bonaventure’s theology and also notes that Teilhard’s model of human development apparently culminates in separation from the material cosmos. While noting the contribution Teilhard makes in developing an evolutionary Christology, Santmire points out that Teilhard’s notion of cosmic evolution is fundamentally a metaphor of ascent from the material to the spiritual plane. This leaves only the possibility of a spiritualised union with the cosmic Christ, and places Teilhard within the Western ‘Great Chain of Being’ tradition for which the spiritual goal involves withdrawal from and denigration of material reality. In a later work, Nature Reborn, Santmire argues Teilhard’s legacy has potential if it can be expressed in terms not of ascent but of a view of creation in which matter and spirit are perfectly united. Such a vision would focus on a ‘divine eliciting’ of the universe from primordial chaos into a pluralistic Omega World (rather than Omega Point) as the intended structure

75 Ibid., 13–51.
76 Ibid., 55–104.
79 Ibid., 54.
of creation in which ‘every creature, and indeed all creatures together, are one day to be consummated in God’. This observation is indicative of my approach in re-imagining Teilhard’s construct of the noosphere.

In *Christ and Evolution* Deane-Drummond agrees that Teilhard is important in connecting Christ with creation and theology with evolution. However she concludes that Teilhard’s teleological view of evolution and especially his view that evolution proceeds in a linear and irreversible (orthogenetic) fashion is outdated and scientifically unsupported. Deane-Drummond also notes that Teilhard neglects the reality of evil and that his Christocentric model of creation lacks Trinitarian grounding or any connection with the historical Jesus. While concurring with much of Deane-Drummond’s critique, I argue that more recent findings in molecular biology call into question the mechanistic determinism of the ‘modern synthesis’ evolutionary consensus, and give support to a view that combines chance with non-random processes. Such developments lend partial support to Teilhard’s assumption that evolution tends towards self-organisation and noetic complexity.

Finally, Alejandro Garcia-Rivera’s 2009 *The Garden of God* proposes a theological cosmogony based on Teilhard’s vision. Garcia-Rivera’s *Garden of God* references Augustine’s *City of God*, as a vision of a new reality humanity is invite to cocreate. Garcia-Rivera suggests the appropriate vision for a redemptive future is of a garden, and an appropriate ecotheological narrative one that links the original creation with creation

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81 Deane-Drummond, *Christ and Evolution*, 40.
83 Ibid., 5.
restored. Thus a theological cosmology must connect creation with eschatology in order to provide a desperately-needed vision for an age of existential environmental anxiety. Garcia-Rivera argues that Teilhard, with his deep reflection on the place of humanity in the cosmos, and on Christ as the centre and telos of creation, provides a foundation for a theological cosmogony for an age of ecological crisis. Garcia-Rivera draws a connection between the Christocentric evolutionary theory of Teilhard and the Christocentric trinitarian theology of Bonaventure, and also offers a reflection on the category of aesthetics in Teilhard’s vision, which he compares with both Bonaventure and Balthasar.

Essentially, for Garcia-Rivera, Teilhard’s vision of a convergent cosmos is the divine milieu, the garden of shalom in which the life of creation is interpenetrated and transfigured by the risen Christ. Garcia-Rivera’s cosmological vision is rich and suggestive, but unsystematic. The metaphor of the garden resonates with the analysis in my thesis of the noosphere model in terms of shalom, and its connection with the garden of resurrection. The scope of my argument precludes an analysis of a theological aesthetic in Teilhard and Bonaventure, however I offer a more systematic analysis of the shared Christocentric doctrine of creation and its metaphysical underpinnings. Garcia-Rivera’s argument for the garden of life as the divine milieu of Teilhard’s vision is weak given that Teilhard’s Christology does not adequately connect with the death and resurrection of Christ. The vision is given more credibility once an argument is made for the synthesis of

84 Ibid., 9.
85 Ibid., 130.
86 Ibid., 25.
87 Ibid., 47, 93–104.
88 Ibid., 73.
Teilhard’s vision with that of Bonaventure, and this is the argument of my final chapter.

As noted in this section, although the scope of secondary literature on both Bonaventure and Teilhard is considerable, and the application of the legacy of both to ecotheology has been noted, there is a dearth of argument that develops the connection first noted in 1978 by Ewert Cousins. It is this connection which I specifically address in my thesis.

Scope of the thesis

Following Conradie and Deane-Drummond I regard the theological relationship between creation and Incarnation as central to the articulation of an ecotheology. The primary connection between the thought of Bonaventure and Teilhard is that both articulate a strongly Christocentric doctrine of creation, which underlies the vision of created reality as able both to reflect and to participate in the divine life. Through the articulation of a Wisdom Christology, the link between creation and Incarnation is made explicit.

Teilhard’s evolutionary Christology lacks a clear relationship with the passion and resurrection of Christ, which is corrected by Bonaventure’s trinitarian rigour. Neither Bonaventure nor Teilhard develops an extensive theology of the Holy Spirit in creation, instead developing a Christology which links creation and Incarnation. In Bonaventure this is an explicit Wisdom Christology deriving from the Christian neo-Platonism he inherits from Augustine, as well as his exegesis of the life of St Francis who emulates Jesus as a Wisdom teacher. In Teilhard there is not an explicit Wisdom orientation, but I argue that his vision on convergence into the cosmic Christ through unification and the development of complexity-consciousness reveals an implicit Wisdom Christology.
In my extension of Teilhard’s noosphere construct, I emphasise the noetic or informatic aspect of ecological systems. While the noosphere offers both risk and redemptive opportunity, I conclude that a more-than-human ecology in which human management is characterised by an ethic of intersubjectivity is potentially convergent on what Santmire refers to as Omega-World. However, as Teilhard’s Christology does not make an adequate connection with the death and resurrection of Christ, the noosphere model does not offer sufficient resources for an eschatological vision of creation restored. By contrast, the connection between resurrection and new creation is explicitly developed by Bonaventure in his eschatological vision of shalom in creation.

While sharing Deane-Drummond’s focus on Christ and wisdom, my work is more closely related to that of Ilia Delio, whose work on Bonaventure and Franciscan theology is foundational. Following Delio I note that Bonaventure’s later thought is developed out of reflection on the life and spirituality of St Francis, and that his eschatological vision of shalom in creation is related specifically to his exegesis of Francis’ life. Denis Edwards’ exploration of Bonaventure in connection with creation, evolution and ecology is also central to my approach. These three writers all additionally note the importance of Teilhard’s evolutionary thought, and the importance to ecotheology of reconciling Christology with evolutionary thought.

A major argument of my thesis is that the Christocentric models of creation offered by St Bonaventure and the 20th century palaeontologist-priest Pierre Teilhard de Chardin reveal a deep congruence. Expanding on this connection, I develop a model for the more-than-human ecology that underwrites a discussion of divine and human wisdom, spirituality and eschatology. The model of the noosphere that emerges from my critique of Teilhard is congruent with the eschatological vision of Bonaventure based on
his exegesis of the life of St Francis. The extended noosphere model also resonates with the Biblical image of shalom, and makes a deep connection with the narrative of resurrection in the fourth Gospel. The synthesis of the noosphere with Bonaventure’s vision of shalom in creation thus leads to a reappraisal of Christian soteriology and the resurrection itself, in terms of the transformation not only of human life but the whole of creation. This supports a model for Christian spirituality that reconnects the physical with the spiritual, and human life with the flourishing of the living systems of the earth.

My argument thus establishes a model for ecotheology that connects with the core Christian kerygma, and reveals the theological connection between issues of justice and ecological shalom in the current time, and the future anticipation of eschatological peace.

**Thesis outline**

My thesis consists of seven chapters, of which the first two chapters explore Bonaventure’s trinitarian theology and doctrine of creation. Chapters three and four cover the development of evolutionary thought between the 17th and early 20th centuries, and introduce elements of Teilhard’s evolutionary Christology within the context of this history. Chapters five and six bring Teilhard’s and Bonaventure’s into closer comparison, within the context of process approaches to creation and history. In the course of these chapters I introduce the extended model of the noosphere and compare this with Bonaventure’s eschatological image of creation at peace. In the final chapter, I argue that the combined model emerging from my discussion of Teilhard and Bonaventure is congruent with the Biblical theme of shalom in the Hebrew Bible and the fourth Gospel.

The first chapter introduces Bonaventure’s metaphysics, which builds on the foundation of Christian neo-Platonism, and his trinitarian theology
influenced by the kenotic logic of self-donation found in Dionysius and the Victorine school. I note the transformation of Platonic thought in the hands of early Christian writers, who connected the divine ideas with the Hebrew Wisdom tradition and the central kerygmatic claims of the New Testament. Bonaventure, who uses the medieval concept of the *coincidentia oppositorum* as a key structuring motif, regards the Son or Word as the *persona media* of the immanent Trinity and also the midpoint between the Trinity and creation. All created things are ontologically grounded in the Word as Exemplar, finding their truest identity in the divine ideas of the Exemplar. This implies a similar dynamic of self-donation in the related movements of the inner-trinitarian processions and the act of creation. Creation, then, is a characteristic act of divine self-gift which discloses its divine source.

The second chapter continues the exploration of Bonaventure’s theology, focussing on his mature theology which emphasises the centrality of Christ in creation. Bonaventure’s spiritual theology outlines a path for the mind’s journey to God based on the contemplation of created things, the mind itself (the world within) and the Godhead (world above). Against Santmire, who suggests Bonaventure retreats from his creation spirituality in locating the final stage of the spiritual journey in apophatic withdrawal, I argue that Bonaventure’s spiritual theology recapitulates St Francis’ creation-mysticism, and is structured on the final days of the Passion. Far from rejecting an embodied spirituality, Bonaventure affirms the highest union with God precisely at the point of the most complete identification with created reality.

Moving forward several centuries, in the third chapter I turn to the development of evolutionary thought in philosophy and the natural sciences from the middle of the 18th century. This forms a background to the discussion of Teilhard’s thought, and highlights the challenge to the
teleological finalism of Great Chain thinking based on the ancient neo-
Platonic assumptions of plenitude and continuity. The importance of this in
relation to ecotheology is that during this period scientific thought was
generally articulated within a philosophical and theological frame.

Although the question of evolution did not arise from an environmental
concern, the study of natural populations over long timespans foreshadows
late 20th century ecological science. In general, three distinct approaches
emerge. Where the ‘strong’ teleological finalism of developmental
evolutionary thinkers such as Spencer is ultimately deterministic, the
emergence of a new scientific mechanism in the model proposed by Charles
Darwin in his 1858 *On the Origin of Species* imposed an equally
deterministic reduction of biological systems to the supposedly mechanical
processes of chemistry and physics.89 A process model of evolution
proposed by Henri Bergson in the early years of the 20th century was unique
in that it focussed on the agency of living organisms themselves.

The emergence of a professional scientific academy and the
simultaneous professionalisation of academic theology meant that new
scientific ideas were received in a variety of ways within the Church. In
addition, until the early 20th century, both mechanistic and teleological
models of evolution were propounded within the scientific community. Thus
the relationship between theology and evolutionary science, and the state of
the science itself, were both extremely fluid at the time Teilhard commenced
writing prior to World War I.

Chapter four introduces Teilhard’s Christology and evolutionary
thought. I identify elements of Teilhard’s system that echo Bonaventure’s

89 Etienne Gilson, *From Aristotle to Darwin and Back Again: A Journey in Final
Causality, Species, and Evolution* (San Francisco, CA: Ignatius Press, 2009), 111; Charles
Christ and Creation: a model for ecotheology

theology of creation, principally his strong assertion of Christocentricity. Teilhard’s model of convergence on the cosmic Christ functions similarly to Bonaventure’s exemplary metaphysics in grounding creation in Christ. Teilhard follows Origen in so closely linking the incarnation with creation that he suggests the world is the cosmic body of Christ, and thus understands redemption as including the radical transformation of the whole cosmos.

In relation to his doctrine of evolution, Teilhard’s understanding of evolutionary processes at all levels is strongly teleological, and he argues that the end of evolution is the unification of that part of the cosmos made self-aware with ‘Christ-Omega’ as its ‘physical’ centre. I evaluate recent critiques of Teilhard, agreeing with the charge that his assumption of ‘unidirectional’ or ‘orthogonal’ progress towards complexity-consciousness is incorrect. I also agree that Teilhard’s ‘strong’ version of teleology and orthogenetic model of convergence result in an inappropriate anthropocentrism. His model also lapses into a cosmic determinism of final causality, and needs to be refocussed at a local level that respects the agency of living organisms and ecological systems. On the hand I note that Teilhard’s evolutionary thought foreshadows some recent directions in molecular biology which point to the inadequacy of explanations that rely solely on random variation and the subsequent processes of natural selection.

Turning to theological critique of Teilhard, I agree that his trinitarian theology is underdeveloped and his model of the cosmic Christ is insufficiently connected with the historical Jesus. However, I do not support the criticism that Teilhard gives insufficient attention to evil and natural suffering. I conclude that while Teilhard’s thought needs to be corrected it provides a helpful basis for ecotheology because of its strong connection between Incarnation and creation, his initial affirmation of matter as
‘diaphanous’ with spirit and recognition of the common basis and interdependency of all life.

I begin the fifth chapter by bringing Teilhard’s and Bonaventure’s metaphysical systems into closer comparison. While both have a view of created reality as dipolar, or having both and outer and inner aspect, and of all created entities grounded in Christ as the ontological centre of created reality, there are some fundamental distinctions. Firstly, Teilhard’s system is grounded in an evolutionary or process view of the created order, and so his metaphysics of the ‘within’ is designed to explicate change and development. Bonaventure’s medieval exemplary system conversely assumes the natural world is static, with the species of created entities fixed at the original creation. I note that Bonaventure’s system needs to be updated by Teilhard’s more current outlook, and briefly propose an extension to Bonaventure’s model of the divine ideas that takes account of complex physical structures and natural systems. Conversely, Teilhard does not propose an adequate trinitarian foundation for his metaphysical system, and so fails to recognise that all created entities participate in the being of God. I suggest that Teilhard’s insights are better expressed within Bonaventure’s trinitarian exemplary model, arguing that an exemplary metaphysics is of continued utility in a contemporary ecotheology.

Following Balthasar I argue that a viable theology of creation requires an understanding of creation as ontologically related (‘analogous’) to God, rather than wholly other than or identical to God. A metaphysics based on the divine ideas emphasises that the deepest truth of all created identity is ontologically grounded in God. This leads to the conclusion that human life is not separate from the non-human creation. Sharing a common identity in the divine life, all created things reflect the beauty of God.
In the second major section of this chapter I propose an extended model of Teilhard’s noosphere as the shared noetic space of the more-than-human ecology. As a shared noetic space the extended noosphere model corrects Teilhard in relation to his overt anthropocentrism and provides a more proximate (as opposed to cosmic) horizon of concern. Within the extended noosphere the tendency towards complexity-consciousness is seen in the networks of semiotic pathways that connect natural systems. I argue that the extended noosphere is compatible with models of ecological process and so provides a useful metaphor for theological engagement with ecology.

In chapter six I consider the eschatological implications both of the noosphere model and Bonaventure’s theology of history based on an exegesis of St Francis. The noosphere model provides a powerful metaphor for the more-than-human ecology that emphasises noesis, communication and relationality and speaks both of ecological risk and redemptive possibility. Noting the implicit Wisdom orientation of Teilhard’s thought, I argue that the extended noosphere better supports a Wisdom interpretation. As a space of redemptive potential, the noosphere reveals a human vocation in relation to the natural world which I explore in terms both of Buber’s ‘I and Thou’ model of intersubjectivity and as a reflection of the trinitarian life of God. I discuss the noosphere in relation to the eschatological hope of creation restored, made possible and necessary by the resurrection of Jesus Christ.

In the second section of the chapter I explore Bonaventure’s eschatological vision of creation at peace through his theology of history. Bonaventure sees human history as culminating in an age of peace inaugurated by St Francis. This eschatological age reflects Francis’ own spiritual praxis, and is made accessible by Francis’ complete identification
with the crucified Christ exemplified by the reception of the stigmata shortly prior to his death. I argue that Bonaventure’s vision of creation at peace is congruent with the model of the noosphere developed out of my critique of Teilhard, and identify the shared model in terms of the Biblical image of shalom. The theme of Wisdom noted in relation to the noosphere is reinforced in Bonaventure’s exegesis of Francis’ life in the *Legenda*. Bonaventure’s eschatological vision explicitly connects the praxis of Francis with the evocation of Eden, and clarifies the Christocentric nature of this redemptive space, as it is in the identification with the crucified Christ that all creation unites in praise.

In the final chapter, I return to the Biblical theme of shalom and creation restored. I trace the theme of shalom as God’s original intention for creation, broken in Eden as a result of human sin and anticipated in the prophet Isaiah as the eschatological promise for creation. The theme of shalom is connected with human wisdom, and the original vocation conferred in Eden. The Isaianic vision of shalom resonates with the model of the noosphere, but the Christian kerygma affirms that the vision is transformed into eschatological anticipation only through the ‘remembered hope’ of resurrection. I turn in the final section to the narrative of crucifixion and resurrection in the fourth Gospel, which interweaves the theme of shalom with that of creation restored. The Johannine narrative of the resurrection reinforces my interpretation of the final stages of Bonaventure’s *Itinerarium* as the intimation of resurrection and recreation.

In this thesis I develop the connection between Bonaventure and Teilhard pointed out by Cousins. I argue that Bonaventure’s Christocentric theology of creation based on the spiritual example of St Francis’ makes a strong contribution to ecotheology. However Bonaventure’s medieval worldview makes it difficult to appropriate his thought directly to a
contemporary ecotheology, and Teilhard’s evolutionary Christology provides a model that better connects with the contemporary scientific outlook. Although Teilhard also predates the current ecological crisis, and his thought is heavily anthropocentric, his engagement with evolution and scientific methodology is of foundational importance for ecotheology. The model of the noosphere that emerges from my critique of Teilhard provides a strong ecotheological construct that can facilitate further reflection, for example in relation to process and systems ecology. Ultimately, Teilhard’s conception of the cosmic Christ as a centre of convergence is heavily skewed towards the noetic, because this is what Teilhard emphasises in his model of evolution. The noosphere model reveals a strong affinity with Teilhard’s preferred indices: communication, complexity, cooperation and ultimately amalgamation which Teilhard interprets as love. This resonates with the themes of a Wisdom Christology, but the noosphere model needs to be deepened by joining it with Bonaventure’s Franciscan model of shalom that better articulates the connection with the mysteries of crucifixion and resurrection.

In bringing together the thought of Bonaventure and Teilhard a model emerges that is capable of articulating both the relationship between God and creation, and between humanity and the non-human creation. The combined model also provides scope for reflecting theologically on human life in the context of the whole creation. It is my hope that the positive assessment of Teilhard and systematic connection of his thought to that of Bonaventure in this thesis may offer further possibilities for reappraisal of both thinkers in relation to ecotheology.
1 Bonaventure’s trinitarian theology

I begin my argument by tracing the antecedents of Bonaventure’s thought in the development of a Christian neo-Platonism from its roots in Hellenistic Judaism, Middle Platonism and the reception of neo-Platonic thought by early Christian theologians. Because of its appropriation of Wisdom themes and focus on Christ as the template of creation Christian neo-Platonism emphasises not the distance between God and creation but the interweaving of creation into the triune life of God. In Bonaventure’s hands, Christian neo-Platonism provides the metaphysical framework of exemplarism and the trinitarian theology that can articulate the creation mysticism of St Francis.

Bonaventure’s trinitarian theology of creation emphasises the divine initiative in creation and creaturely autonomy as participation in the life of the Trinity. The result is a depiction of creation as reflecting the beauty of God’s own life, and a spirituality of immersion in created reality that points beyond itself to its Creator. Because Bonaventure’s trinitarian theology of creation articulates the meaning of creation within a Christological framework, the natural world is recognised as a central theological concern.

I begin the chapter with a brief overview of the development of the Christian neo-Platonic tradition on which Bonaventure depends, paying attention to the ways in which thinkers such as Origen and Augustine connected Platonic thought with the Christian kerygma so that creation is related to Incarnation, and the Platonic ideas identified with divine wisdom. Through thinkers such as the sixth-century Dionysius and Richard of St Victor in the 12th century, the Plotinian doctrine of emanations was transformed into a trinitarian framework of self-communicative love. In the second half of the chapter I turn to Bonaventure’s doctrine of Trinity and
creation which builds both on the exemplarism of St Augustine and the mystical theology of Dionysius and the Victorine school.

1.1 Neo-Platonism and Christian thought

In the first section of the chapter, I outline the major antecedents of Bonaventure’s trinitarian thought, tracing the Christian neo-Platonic tradition from its New Testament origins in Middle Platonism, the ‘baptising of the ideas’ by Origen and Augustine, and its application to trinitarian theology through Dionysius and the Victorine school. This tradition with its roots in Hellenistic Judaism makes a strong connection between creation and Incarnation, and is the oldest strand of Christian reflection on creation. I argue that the dialogue between the Jewish and Hellenistic Wisdom traditions and Middle Platonism beginning in the inter-Testamental literature and with Philo of Alexandria, and continuing in the New Testament and with early Christian theologians including Origen and Augustine, constitutes a metaphysical basis both for trinitarian theology and for Christian reflection on creation that uniquely values the earth as an incarnation of God’s creative Word.

I explore the application to Bonaventure’s trinitarian theology in the second half of this chapter, and in the following chapter will turn to Bonaventure’s doctrine of the centrality of Christ in creation, and his spiritual theology that combines the mystical ascent of Dionysian spirituality with the creation mysticism of St Francis. In the final chapter I will argue that the Christian neo-Platonic tradition Bonaventure inherits from Augustine is still useful for a contemporary ecotheology.
1.1.1 Middle Platonism and the Biblical tradition

Bonaventure generally adheres to what was in the early 13th century the conservative intellectual fashion of Christian neo-Platonism. As I shall show in subsequent sections, this tradition is substantially developed through the Christological reflection of thinkers such as Origen and Augustine, and given systematic expression by the pseudonymous sixth century Dionysius. Bonaventure inherits this tradition through Richard of St Victor (d. 1173) and his own teacher, Alexander of Hales. In this section I begin by examining the origins of this tradition in Hellenistic Judaism and the philosophical milieu of Middle Platonism; before turning in following sections to the development of Christian neo-Platonism and its application in medieval theology. The initial reception of the Platonic ideas into Hellenistic Judaism is of crucial importance because it is the conflation of Greek philosophy with the Jewish Wisdom tradition that provides the foundation for the eventual doctrine of Christ as the centre of creation.

In various dialogues, Plato (c. 428 – 348 BCE) develops his theory of forms which posits that phenomenal reality is grounded as ideas within the realm of ideas. The ideas of classical Platonism find explicit expression within Judaism in the Hellenistic synthesis of the philosopher Philo (c. 25 BCE – 50 CE), who similarly regards the phenomenal world as a copy of the world of ideas. Philo believed that 'when (God) willed to create this visible world he first fully formed the intelligible world, in order that he might have the use of a pattern wholly God-like and incorporeal in producing the

material world as a later creation, the very image of an earlier’.\(^\text{92}\) Philo separates the literal sense of Torah from its inward meaning, which properly understood belongs to the world of ideas.\(^\text{93}\)

Schooled in the realist tradition of Judaism, Philo affirms the value of phenomenal reality and resists classical Platonism’s easy slide into dualism. John Collins points out that Philo’s treatment of the Logos as the intelligible Word of God bridging the divine and created worlds is representative of Middle Platonism which appropriates concepts from both the classical Platonic doctrine of ideas and the Stoic doctrine of ‘seminal reason’.\(^\text{94}\) While Stoicism’s view of an immanent deity identified with the cosmos itself is difficult to reconcile with the transcendent deity of classical Platonism, Middle Platonism reconciles this tension by affirming both a transcendent deity and the Logos as an intermediate stage between the divine and visible worlds.

In Hellenistic Judaism the Logos becomes associated in the first century BCE work, the Wisdom of Solomon, with the divine figure of Wisdom envisaged as a pre-existent emanation of God, penetrating all things and able to be apprehended in them (Wis Sol 7.22–8.1). This work predates and would have been a major influence on Philo.\(^\text{95}\) The Wisdom of Solomon insists on the necessity of divine revelation through a combination of Law and the gift of wisdom to arrive at knowledge of the transcendent Creator. This gives mortals a limited ability to discern God in nature (Wis Sol 9.14-16; 13.1-9). Collins argues that Philo locates his Jewish apologetic within the


\(^{93}\) Ibid., 252–53., citing Philo, De Migratione Abrahami, 89-93.


context of contemporary Greek philosophical thought, enlisting classical
Platonism's belief in a transcendent deity against Stoic identification of the
divine with creation, while adopting the Stoic Logos to connect the Creator
with a fully historical and contingent creation.

Both the Logos as a somewhat hypostacised intermediary and the
non-dualistic Hebrew figure of Wisdom as the aspect of God present to
creation affirm divine immanence as well as transcendence. In addition, the
association of Wisdom with the Stoic Logos and the ideas of classical
Platonism reflected a common theme of divine noesis as the ground for
creation. This would enable early Christian thinkers to develop a Wisdom
Christology as one of the earliest strands of New Testament reflection on
Christ by drawing together neo-Platonist arguments with the central Christian
kerygma.

An echo of the Wisdom of Solomon can be heard in the Pauline
epistles, for example Romans 1.19-20 drawing on the Stoic position that God
is knowable. As James Dunn comments in relation to this passage, 'there is
an innate rapport between the divine and the human because the divine
Logos immanent throughout the world is immanent also in man as the power
of reason'.96 There is also a hint of the Platonic ideas in the aorata autos (v.
20, 'invisible characteristics’ or ‘divine attributes’). Dunn notes that the
language of this verse is more characteristic of Stoic than early Christian
writings, but comments that Paul utilises the language of Stoicism as an
‘apologetic bridge’ without necessarily committing himself to it.97 Dunn points
out that the only other use of aoratos in the Pauline epistles occurs in the

96 Bruce M. Metzger and Michael David Coogan, eds., The Oxford Companion to the
97 Ibid., 57.
Logos-hymn of Col 1.15. Following Philo, Paul appears ambiguous about the ability of humans to apprehend divinity (Rom 2.15) but he regards creation as the eschatological locus of revelation. The same attitude is revealed in Acts 17.16-34, where Luke recounts the first Christian missionary contact by Paul in Athens. In this cultural and intellectual centre of the classical world Paul begins, not by asserting a fundamental conflict between Hellenism and Christianity but by suggesting their connection. In terms congruent with Romans 1.19-20, Luke's Paul speaks of God's immanence and omnipresence, insisting that knowledge of the divine is accessible to all humans because of their inherent affinity with the Creator. This point is qualified by Larry Hurtado, who points out that Paul goes much further than simply claiming an association between Christ and the Jewish figure of personified divine Wisdom. Although the language of Wisdom theology is enlisted, along with that of Stoic philosophy, Hurtado points out that Paul consistently subordinates his philosophical language to the kerygmatic claim that is already well known to his readers, that the crucified and risen Christ was not only pre-existent but had an active role in creation.

Wisdom themes are also apparent in the Gospels of Luke (7.35, 10. 21-22, 11.49, 13.34) and Matthew (11.19, 28-30). Denis Edwards notes that where Luke sees Jesus as the last of Wisdom's representatives, Matthew goes a step further, identifying Jesus as Wisdom incarnate (for example Luke 7.35 ‘Wisdom is justified by all her children’, becomes Matthew 11.19 ‘Wisdom is justified by her deeds’. Finally, Jesus’ invitation at Matthew 11.28-

98 I note challenges to Pauline authorship of Colossians, however this question is beyond the scope of my thesis and so ‘Paul’ in this context includes a subsequent Pauline author.


30 to those who are weary and carrying heavy burdens to ‘take my yoke upon you’ completes the identification as it echoes Wisdom’s invitation to enter her house of instruction (Sir 51.53), to take up her yoke (Sir 51.26), to receive her gift of easy labour and rest (Sir 51.27).\(^{101}\) As Deane-Drummond points out, Matthew’s Wisdom Christology competes with other themes including a strong ‘Son of God’ Christology.\(^{102}\)

Another non-Pauline example is the epistle to the Hebrews, which describes the Jewish sacrificial system in terms that reflect the influence of Platonist thought. For example, at Heb 9.11 the writer contrasts the earthly temple with the ‘greater and perfect tent not made with hands, that is, not of this creation’. The Platonic ideas are directly in view in Heb 9.23-24 that contrasts the heavenly things with their earthly replicas, as ‘sketches of the heavenly things’. The identification of Christ with the Jewish figure of Wisdom in Heb 1.2-3 as ‘the reflection of God's glory and the exact imprint of God's very being’ makes explicit the author’s affiliation with the tradition of Hellenistic Judaism represented by Philo.

Finally, the Prologue to the fourth Gospel (John 1.1-14) powerfully combines Hellenistic and Wisdom themes. Here, the Word (\textit{logos}) who was with God and was God in the beginning, and the basis for all created reality, echoes both the creative word of Genesis 1.1 – 2.4 as the divine utterance that brings creation into being, and also the Stoic Logos as the harmonious expression of the divine Nous that holds all created reality together.\(^{103}\)

Despite the substitution of the Hellenistic Logos for the Hebrew Sophia, the Prologue appears to draw on the themes both of Proverbs chapter 8 and

\(^{101}\) Edwards, \textit{Jesus the Wisdom of God}, 40–41.


There is clearly a distinction between the feminine Sophia as an aspect of God and the masculine Logos envisaged since Philo as a pre-existent hypostasis. However as Deane-Drummond remarks, in using Logos to describe Christ the fourth Gospel does not submerge Sophia but broadens and transforms the understanding of Logos by placing it in the broad historical context of Hebrew Wisdom. Certainly, Hellenistic philosophy and Jewish Wisdom theology are inextricably intertwined in the Johannine Prologue, just as they are in the Wisdom of Solomon and Philo. However, just as the Prologue’s use of Logos does not exactly mirror that of Philo, so it also transcends its roots in Hellenistic Judaism. Waetjen notes that within John 1.1-13 most of the assertions in the Prologue would seem unexceptionable to a Hellenistic Jew familiar with Wisdom theology apart from the ‘dynamic relationship of union and differentiation’ between the Logos and God the Creator. However there is a fundamental shift into verse 14, ‘the Logos happened as flesh and tabernacled among us’, which echoes Sir 24.8 and more broadly suggests the tabernacle of God’s presence with the people in Exodus 40.35. With this assertion the Prologue moves beyond the bounds of the Wisdom-Logos synthesis in articulating the fundamental kerygma of faith in Jesus Christ.

Jewish Wisdom theology is thus progressively combined with Stoic and Platonist themes in the inter-testamental and New Testament literature. Although this is not the only strand of early Christian reflection on Christ, and

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109 Ibid., 279.
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despite differences between texts in how the themes of Hellenistic Wisdom are appropriated, this tradition provides a firm foundation for the articulation of a distinctly Christian strand of neo-Platonist thought over following centuries. The relational emphasis of Jewish Wisdom theology that connects the human vocation of wisdom and the life of the more-than-human creation with divine Wisdom, foreshadows the emphasis on Christian theology on the participation of the life of creation in the trinitarian life of God.

1.1.2 Early Christian neo-Platonism

An explicitly Christian Platonist metaphysics building on the foundation of Hellenistic Judaism and the Wisdom Christology of the New Testament comes into being with Origen (ca. 184 – 253). In his article, “The Maker's Meaning: Divine Ideas and Salvation”, Mark McIntosh argues that by Origen’s time Plato's thought represented in the *Timaeus* was well known. Following the Wisdom Christology of the New Testament, Origen applies Platonic thought primarily in the articulation of the central *kerygma* of the faith. Thus, he identifies the divine ideas with the Word of the Johannine Prologue 'so that all things came to be in accordance with the wisdom and plans of the system of thoughts in the Word'. In the following argument evidently referring to the craftsman of the *Timaeus*, Origen follows Philo in connecting the Platonic ideas to the Hebrew wisdom tradition:

... just as a house and a ship are built or devised according to the plans of the architect, the house and the ship having as their beginning the plans and thoughts in the craftsman, so all things have come to be according to the thoughts of what will be, which were prefigured by God in wisdom, 'For he made all things in

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110 Lawrence Jansen, “The Divine Ideas in the Writings of St Augustine,” *The Modern Schoolman* 22, no. 3 (1945): 117–31., notes that other early Christian writers including Justin Martyr and Tatian also approved the writings of Plato including the doctrine of the ideas.


112 Ibid., 370., quoting Origen's *Commentary on the Gospel of John*, Book 1. s. 112-3.
wisdom’. And ... from the models in her he entrusted to her [to present] to the things which exist and to matter [both] their conformation and forms.\textsuperscript{113}

Origen thus connects the intelligibility of the universe with the templates of creation in divine Wisdom, who invests the created world with: 'the meaning of the mysteries and secrets which are contained within the wisdom of God'.\textsuperscript{114} Origen also establishes a connection between divine creativity and creaturely participation and contemplative entering of the mystery of the divine mind; or between the existential and noetic poles of reality. Origen believes all of creation, both actual and potential, is prefigured and contained in Eternal Wisdom:

Wisdom, speaking through Solomon in regard to these very created things that had been as it were outlined and prefigured in herself, says that she was created as a ‘beginning of the ways’ of God, which means that she contains within herself both the beginnings and causes and species of the whole creation.\textsuperscript{115}

In connecting the ideas with the Hebrew Wisdom tradition, recalling the role of divine Wisdom as the amon (‘darling child’ or apprentice worker) of God in the primal act of creation, Origen incorporates the ideas into a theology of the pre-existent Christ through the New Testament Wisdom Christology of the Johannine Prologue and the Pauline corpus.\textsuperscript{116} Origen notes that ‘the eternally begotten Word of God is the divine Wisdom in whom there was implicit every capacity and form of the creation that was to be ... she fashions beforehand and contains within herself the species and causes

\textsuperscript{113} Ibid., quoting Origen’s \textit{Commentary on the Gospel of John}, Book 1. s. 114-5. Origen is presumably alluding to the craftsman and the model in Plato, \textit{Timaeus}, s. 28 A/B.

\textsuperscript{114} McIntosh, “The Maker’s Meaning,” 368–69.

\textsuperscript{115} Edwards, “The Ecological Significance of God-Language.,” citing Origen, \textit{De Principiis}, 1.2.2

\textsuperscript{116} Ibid.
of the entire creation'.\textsuperscript{117} Origen not only uses Wisdom language to reflect on Christ, but specifically identifies Jesus as divine Wisdom: 'Whatever then we have said of the wisdom of God will also fitly apply to and be understood of him in his other titles as the Son of God, the life, the Word, the truth, the way and the resurrection'.\textsuperscript{118}

Following Philo, Origen thus explicitly re-interprets the Platonic ideas in terms of divine Wisdom, and incorporates this into a Christological vision that understands creation as grounded in Christ. However, the development of a fully-fledged Christian Platonic metaphysics does not grow solely from the soil of Philo and the Wisdom Christology of the New Testament, but is also a response to the more urgent threat posed by the systematisation of Platonic metaphysics by the third century pagan philosopher Plotinus (c. 204/5 – 270).

The term 'neo-Platonist' was applied by 19\textsuperscript{th} century commentators to Plotinus and his successors on the basis that Plotinus’ systematic interpretation initiated a new phase of the Platonic tradition. As Gerson notes, Plotinus himself did not regard his work as anything other than an orderly exposition of Plato.\textsuperscript{119} Plotinus's scheme establishes a divine hierarchy beginning with an absolutely transcendent One which is the Good, slightly below which is the Mind (Nous) and then the Soul from which proceed the emanations that create the material world. These emanations establish gradations in created reality leading farther and farther from the divine world. The Plotinian schema for raising the soul into union with the


One is also based on a hierarchy of reality, so that humans transcend the lower levels of created reality as they ascend toward union with the One.\textsuperscript{120}

The neo-Platonism of Plotinus and his pupil Porphyry (234?-305?) forms the intellectual milieu of St Augustine (354-430) and underlies Augustine’s incorporation of the divine ideas into a uniquely Christian neo-Platonism. Even before his conversion, Augustine would have been familiar with neo-Platonism through Porphyry’s version of Plotinus’ \textit{Enneads}, and he continued to believe neo-Platonism was amenable to Christian thought.\textsuperscript{121} He writes, ‘The Platonists with a change of a very few words and opinions would become Christians’.\textsuperscript{122}

Both Augustine’s doctrine of exemplarity and his trinitarian theology draw on the more systematic Plotinian doctrine of the divine ideas. For Plotinus, the ideas ground multiplicity in the Nous which is the second of the three divine hypostases.\textsuperscript{123} Plotinus specifically believed that the ideas could not be located in the One, as this would imply a duality between the knower and that which is known which would be incompatible with the absolute simplicity of the One.\textsuperscript{124} While Philo had identified the ideas with divine Wisdom, this is not hypostasised or separate from God in Jewish theology. Origen, who is one of the first Christian theologians to write of the Trinity as three hypostases, connects the ideas with the Word as the second hypostasis. For Origen, who along with most Christian writers at that time assumed the Word that created the world existed only from its utterance in

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\textsuperscript{120} Rik Van Nieuwenhove, \textit{An Introduction to Medieval Theology}, Introduction to Religion (Cambridge, UK: Cambridge University Press, 2012), 8., citing \textit{Enneads}, 6.9.9. \\
\textsuperscript{121} Ibid. \\
\textsuperscript{122} Jansen, “The Divine Ideas in the Writings of St Augustine.”, citing Augustine \textit{De Vera Relig.}, 7. \\
\textsuperscript{123} Van Nieuwenhove, \textit{An Introduction to Medieval Theology}, 9. \\
\end{flushright}
the act of creation, the Word while homoousios with the Father is not autotheos or fully God.\textsuperscript{125}

Heidl notes evidence Augustine knew of Origen's homilies and other works first hand, although it is unclear how far Augustine's doctrine of the ideas is dependent on Origen.\textsuperscript{126} Like Origen, Augustine describes the ideas as the 'wisdom of God', which creates all things according to the exemplars or patterns in the divine mind.\textsuperscript{127} However he could also be following Plotinus' lead in locating the divine ideas which he refers to as the rationes aeternae, in the Word as the second divine hypostasis of the Christian Trinity. Augustine recognises the eternal Word as the intelligible ground of creation, writing that the angels 'without any doubt know all creation, of which they are the creatures first made, and they have this knowledge first in the Word of God himself, in whom are the eternal reasons of all things made in time.\textsuperscript{128}

With this move, Augustine connects the doctrine of creation with the theology of the Trinity.\textsuperscript{129} The primary importance of this is that Augustine utilises the ideas as a way of linking creation with God in a way that recognises the divine initiative in creation, and the participation of creation in the divine life, whilst asserting the integrity of both.\textsuperscript{130} However Augustine also explicates the ideas in a way that serves his doctrine of creation and


\textsuperscript{127} Jansen, “The Divine Ideas in the Writings of St Augustine.”


\textsuperscript{129} Van Nieuwenhove, An Introduction to Medieval Theology, 9.

\textsuperscript{130} Kondoleon, “Divine Exemplarism in Augustine.”
time. This is a point on which Bonaventure, who for the most part adopts Augustine’s exemplarity without demur, will disagree, with the result that Bonaventure’s theology of history also differs from that of Augustine on an important point. I will explore this in some detail in Chapter 6 in relation to Bonaventure’s Franciscan eschatology, but at this point it is sufficient to note that for Augustine the *rationes aeternae* constitute not only the ground of what is, but the seeds of all that will be.

Specifically, Augustine argues that time itself is part of creation: ‘At no time then had you not made anything, for time itself you made’. Augustine argues that God is not subject to time, and that it is meaningless to ask what God was doing before the universe was made. Because God is eternal, within God all time is experienced from an atemporal perspective. As Alexander Jensen expresses it, Augustine does not separate God from creation and time, but sees God as experiencing the whole of time 'in one timeless instant'. On the other hand the created world and human history unfold within time, and time might be described simply as the arrow of process and contingency. By attributing to God possession of the whole of time within the atemporal instant of eternity, divine foreknowledge of the unfolding of created time is preserved without impinging on the freedom of created entities.

Augustine proposes that the future is simply the extendability of the mind itself. Thus for Augustine the six 'days' of creation in Genesis are a figurative retrojection, because from the divine perspective the primal act of

133 Jensen, *Divine Providence and Human Agency*, 38.
creation is an instant. On this interpretation, the Genesis account describes the temporal unfolding of creation from the original instantaneous act. Augustine thus suggests that the descendants of the original creation are present from the beginning as 'seeds', and that the rationes aeternae which he now refers to as the rationes seminales also constitute the seeds of all natural variations to the original creation. Thus, Augustine writes that: ‘the motion we now see in creatures, measured by the lapse of time as each fulfils its proper function, comes to creatures from those rationes seminales implanted in them, which God scattered as seeds at the moment of creation’. Later he writes, ‘in the seed, then, there was invisibly present all that would develop in time into a tree’.

Thus all things are created by and in the primordial Word so that 'beings already created received at their own proper time their manner of being and acting, which developed into visible forms and natures from the hidden and invisible reasons which are latent in creation as causes'. This arguably deterministic view based on divine atemporality is accepted neither by Bonaventure or Teilhard, each of whom will argue that created entities are able to participate in the triune life of God. Apart from this, as I shall show in the second half of this chapter, Bonaventure closely follows Augustine’s exemplary metaphysics. In the next section I shall note some important aspects of the thought of the sixth-century pseudo-Dionysius, transmitted into medieval theology through Hugh and Richard of Saint Victor in the 12th century.

138 Ibid., Kindle edn.:Book V, chap. 23, para. 45.
140 See ss. 4.1.2, 0 and Error! Reference source not found..
century, which constitute a more proximate influence on Bonaventure’s trinitarian theology.

1.1.3 Neo-Platonism and medieval theology

The neo-Platonic doctrine of *reditus* or return to the divine mind is first systematically explored in Christian theology by Evagrius Ponticus (349-399), who develops a spiritual theology based on gradations of purification and ascent leading into an apophatic state of union with God. However, it is through the *Mystical Theology* of an anonymous sixth-century monk known as Dionysius that a spiritual theology of ascent is introduced into medieval Christian thought. Dionysius, who wrote pseudonymously under the persona of the Dionysius the Aeropagite of Acts 17.34, was probably a Syrian monk steeped in the philosophy of Proclus of Athens (412-485), whose interpretation of older sources including Plotinus was crucial in transmitting neo-Platonism into the Middle Ages.141 In this section I firstly describe aspects of Dionysian thought that would be an important influence on Bonaventure’s trinitarian theology, and then outline the transmission of these ideas through the Victorine school into medieval theology.

Following the Plotinian metaphysic of emanation and return, Dionysius develops a triadic structure of creation based on the unity of God. He envisages creation as a divine overflowing, and a creaturely return to God through the stages of purgation, illumination and perfection, impelled by divine yearning. For Dionysius, the coincidence of immanence and transcendence is the source of a dialectic between cataphatic and apophatic

mystical strands. Although God is revealed in the created world, everything that can be said about God must ultimately be negated as the ascent to God is through the mystical darkness of unknowing.142

Central to Dionysian theology is emphasis on the goodness and beauty of creation as an erotic outpouring of divine goodness, through which God is differentiated from Godself in creation while retaining absolute unity and transcendence.143 For Dionysius, goodness is the defining characteristic of God in the dual sense that the goodness of God fully differentiates God from creation, and also that the ‘Good-Being’ that is God extends the gift of being by diffusing itself to all things.144 Dionysius writes that the Good is also known as Light, as Beauty and as Love, and contains in frontal and transcendent form the fullness of created light, beauty and love.145

Dionysius describes divine goodness in terms of an infinite divine quality of productive energy.146 His insistence that love (agape) is the same as yearning (eros) suggests that the attribute of love as applied to God has the quality of a raw energy of desire.147 Thus, the primary characteristic of an erotic outpouring of divine love is that it joins the beloved to the lover and turns the created object back to its Source. Ecstatic eros is ‘a unifying factor in the cosmos’.148 This unifying force is God, and the communication of this erotic divine energy is the basis of creation.

142 Corrigan and Harrington, “Pseudo-Dionysius the Aeropagite,” s. 4.2.
145 Dionysius the Aeropagite, The Mystical Theology and the Divine Names, DN 4.5-7.
The same energy of desire leads human beings back to God. In *The Divine Names*, the scale of desire leads upwards: from material objects to the spiritual, from that which is beautiful and good to Beauty and Goodness.¹⁴⁹ For Dionysius, the ecstatic forgetfulness and ambiguity of eros is the key to divine union. As Blevins suggests, in *The Divine Names* God is both the object of erotic yearning and the source of erotic desire.¹⁵⁰ The self-interested desire for completion through union with the other underlies both the *exitus* and the *reditus* of creation: ‘The divine yearning is naught else than a Good yearning towards the Good for the mere sake of the Good’.¹⁵¹

The Dionysian legacy is preserved into the Middle Ages by the ninth century Irish theologian John Scotus Eriugena (c. 800-877), who combines the Augustinian doctrine of illumination with the Dionysian dialectic of knowing and unknowing.¹⁵² Eriugena’s synthesis would lie fallow for the next three centuries before re-surfacing in the writings of Hugh of the abbey of Saint-Victor.¹⁵³ His trinitarian thought combining Western creedal formulations with the Eastern Church’s emphasis on the Persons by relation of origin, would be a major influence on Bonaventure through Hugh’s pupil, Richard of St Victor.


Rorem comments that Hugh’s commentary on Dionysius’ The Celestial Hierarchy is generally faithful to the original, although Hugh’s attribution to Dionysius of the view that ‘love surpasses knowledge’ better reflects Hugh’s own theology. \(^1^{54}\) Hugh adds love to the Dionysian schema of knowing and unknowing: ‘love surpasses knowledge ... one loves more than one understands, and love enters and approaches where knowledge stays outside’. \(^1^{55}\) Thus, at the threshold of apophasis where knowing gives way to unknowing, love persists. Through Hugh, Dionysian thought becomes accessible to medieval scholars and in particular to his own pupil Richard of Saint-Victor, who in his trinitarian theology builds on Hugh’s emphasis on love as the culmination of knowledge.

Richard begins from the assertion that the supreme form of the good is love, arguing that as the self-transcending experience of friendship is the apex of human life, it must also be reflected in God. \(^1^{56}\) Richard’s argument for the plurality of divine Persons hinges on the observation that the highest form of love is relational and mutual, requiring a Lover and a Beloved. \(^1^{57}\) As Ruben Angelici notes, caritas was also considered by Augustine as the best possible definition of the Trinity. However for Augustine, love is not necessarily social and may even include self-love. Richard, in comparing divine love to human friendship, shows a preference for Gregory the Great’s insistence that love cannot exist unless it is known in alterum. \(^1^{58}\) He writes, ‘none can be said to possess charity-love in the truest sense of the word if

\(^{1^{54}}\) Ibid., Intro, 606-607.
he loves himself exclusively. It is thus necessary that love be aimed at someone else in order to be charity-love.\textsuperscript{159} Richard believes that the perfection of charity-love requires reciprocation by another of the ‘same dignity’ in order that ‘each of the two [persons] be loved by the other at a supreme level, and that … both be worthy to be supremely loved’.\textsuperscript{160} Thus, the perfection of love found in God must be directed to God Himself, as Zachary Hayes expresses it: ‘If there were only one person in God, then a perfect self-communication would not be possible at all; for no creature could sustain such a communication.'\textsuperscript{161} Thus God as the supreme expression of love necessarily involves a mutual sharing between Persons.

Richard argues that the fullest expression of love is not static but dynamic; not remaining as private communication between the two but bearing fruit. Richard names this fruitful expression of the love between the Lover and Beloved, as the \textit{condilectus} or Co-Beloved.\textsuperscript{162} As Hayes comments ‘if there were only two, then there could be only their love for one another, and this would not be the fullness of love … \textit{Condilectio} is found where a third is loved by two in harmony’.\textsuperscript{163}

Central to Richard’s model of the Trinity is his conception of the term, \textit{persona}. As Angelici notes, both the Cappadocian notion of \textit{hypostasis} and the Latin \textit{persona} emphasise relationality, although Augustine emphasises divine unity over trinity.\textsuperscript{164} Boethius takes this to an extreme in so emphasising unity that relationality is not mentioned at all, and defining

\begin{footnotesize}
\begin{enumerate}
  \item Richard of Saint Victor, \textit{On the Trinity}, trans. Ruben Angelici (Cambridge: James Clarke, 2012), s. 3.II.
  \item Ibid., s. 3.VII.
  \item Bonaventure, \textit{M. Trin.}, 16–17.
  \item Richard of Saint Victor, \textit{On the Trinity} Intro. 45 and s. 3.XI.
  \item Bonaventure, \textit{M. Trin.}, 17.
\end{enumerate}
\end{footnotesize}
'person' as 'an individual substance of a rational nature'.\textsuperscript{165} Eastern theology by contrast emphasises the relation of origin of each of the divine Persons, which has the effect of emphasising trinity over unity.\textsuperscript{166} As Gregory Nazianzen states, ‘Father is not a name either of an essence or of an action … It is the name of the Relation in which the Father stands to the Son, and the Son to the Father’.\textsuperscript{167}

Richard approaches ‘person’ differently to Boethius, noting that a substance (as a ‘what’) describes a common property, while a person (a ‘who’) defines a unique and incommunicable property.\textsuperscript{168} If there are a number of divine Persons, then they must each be distinct in this sense, while being of one substance.\textsuperscript{169} For Richard, as discussed above, the relationality of the Persons of the Trinity does not come from the relation of origin as it does in the Cappadocian system, but from the logic of \textit{caritas}. However in seeking to establish the distinctness of each of the Persons, Richard suggests this can only come from their origin.\textsuperscript{170} Here, Richard employs Eriugena’s categorisation in insisting that there must be a first Person who is unoriginate, and who gratuitously donates being to another.\textsuperscript{171} Eriugena, who unusually among Western scholars of his period was familiar with the Greek language, drew significantly on Greek sources including the Cappadocians, Basil, Gregory of Nyssa and Gregory Nazianzus.\textsuperscript{172} Eriugena’s system of relations between the divine Persons echoes the Cappadocian nomination of the Father as the Person who is Unbegotten, the

\begin{footnotes}
\footnotetext[165]{Ibid., Intro. 48-49.}
\footnotetext[166]{Ibid., Intro. 13.}
\footnotetext[167]{Ibid., Intro. 48., citing Gregory Nazianzen, \textit{On the Son}, XXIX.}
\footnotetext[168]{Richard of Saint Victor, \textit{On the Trinity} Intro. 50-51 and s.4.VII.}
\footnotetext[169]{Ibid. Intro. 51 and s.4.VIII.}
\footnotetext[170]{Ibid. Intro. 52 and s. 4.XIV-XV.}
\footnotetext[171]{Ibid. Intro 25, 53 and s. 5.XVII.}
\footnotetext[172]{Moran, “Eriugena,” Intro., s. 2.}
\end{footnotes}
Son as Begotten and the Holy Spirit as Proceeding, without however conceding to the Greek system on the manner of proceeding of the Holy Spirit (the *filioque* dispute).\(^\text{173}\) Thus in Eriugena’s system there must also be at least one intermediate Person who derives being from the first Person and who also donates being to another (as *condilectum*).\(^\text{174}\) Finally, there must be a last Person who receives being but does not donate being to another. Based on this Richard reasons that there can only be one intermediate Person, because if there were more then the intermediate Persons would be indistinguishable in terms of origin.\(^\text{175}\)

The result, as Angelici notes, is that Richard works out a trinitarian model within the Latin and Augustinian tradition that shows a close parallel with the Cappadocian system.\(^\text{176}\) Where the Cappadocian system begins from consideration of the relations of origin, Richard begins from charity-love, deriving the necessity for a Trinity distinguished by the order of processions.

As I have argued above, the Dionysian tradition while not substantially informing the trinitarian theology of Richard of St Victor nevertheless touches upon it historically. As I shall show in the second half of the chapter, Bonaventure receives both traditions through his own teacher, Alexander of Hales, and incorporates both in his own trinitarian theology. Specifically, Bonaventure makes use of the Dionysian emphasis on the self-diffusion of the good, and Richard’s trinitarian logic of Persons in relation. However, Bonaventure also inherits the non-Dionysian Christ-mysticism of Francis. To quote Rorem: ‘when (the Victorines) encountered the loveless, mostly

\(^\text{174}\) Richard of Saint Victor, *On the Trinity*, s. 5.XIX.
\(^\text{175}\) Ibid., s. 5.XIV.
\(^\text{176}\) Ibid., Intro. 59-60.
Christ and Creation: a model for ecotheology

Christless *Mystical Theology*, they added love. Bonaventure’s use of *The Mystical Theology* adds not only love but also Christ’.\(^{177}\)

### 1.2 Bonaventure’s theology of creation

Bonaventure (c. 1217-1274) received his theological education at the University of Paris, where he studied under the Franciscan master, Alexander of Hales, receiving a master’s degree between 1238 and 1243. Around this time, Bonaventure joined the Franciscan order. Although licensed to teach at the university in 1254, Bonaventure was unable to take up his chair at the university until 1257 due to a series of disputations brought against the friars by secular masters.\(^ {178}\) During this academic period his primary focus was the systematic exposition of the doctrine of the Trinity in his *Commentary on the Sentences of Peter Lombard*, and the short primer for Franciscan friars, the *Breviloquium*.\(^ {179}\)

Bonaventure’s academic career was cut short the same year, however, as he was elevated to the leadership of the Franciscan order, a post which he held until his death in 1274.\(^ {180}\) During this time he composed his major works of mystical theology, including the *Itinerarium Mentis in Deum*, and his thought is characterised by a focus on Christ as the mystical centre of creation and the human soul.\(^ {181}\) Towards the end of Bonaventure’s life, he was called back into the world of academic disputation with the

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\(^ {177}\) Rorem, *Pseudo-Dionysius*, 220.

\(^ {178}\) Cullen, *Bonaventure*, 11.


\(^ {180}\) Cullen, *Bonaventure*, 12.

necessity to defend the Franciscan order against the attacks of radical
Averroist philosophers. Representative of this period are the *Collations on
the Hexaëmeron* (Six Days of Creation) transcribed from lectures
Bonaventure delivered at the University of Paris.\(^{182}\)

In this section I introduce Bonaventure's theology, focussing on his
trinitarian doctrine of creation developed during the first half of his career as
an academic theologian. It is one of the central arguments of my thesis that
Bonaventure's trinitarian theology that follows Richard of St Victor's
emphasis on the order of processions, and develops Augustine's Christian
neo-Platonism to arguably its highest degree, provides a helpful resource to
the contemporary ecotheological project. Of central importance is that
Bonaventure simultaneously recognises the participation of creation in the
life of the Trinity and preserves the freedom and transcendence of God.I
begin by exploring the logic of self-donation which Bonaventure receives
from Dionysius and Richard of St Victor and which characterises his model
of the Trinity as kenotic. Bonaventure follows Richard in distinguishing the
divine persons according to relations of origin. The Father, who Bonaventure
describes as the fountain fullness, empties himself in self-gift and perfect
self-communication to the Word, and the Spirit as the bond of love between
Father and Word is spirated by their mutual self-emptying love. The Word,
who receives as gift all that the Father can do, is the Exemplar of creation
which follows the same kenotic logic of self-emptying donation.

Following this, I explore Bonaventure's metaphysics of exemplarity,
based on the *rationes aeternae* of Augustine, which connect the life of
creation to the Word as divine Exemplar. This is an important move for a

Bonaventure*, Translation from the Latin Text of the Quaracchi Ed. (Paterson, NJ: St Anthony
contemporary ecotheology, as it provides a basis for understanding created existence as a participation in the life of the Trinity. This theme will be further explored in later chapters. I conclude the current chapter by arguing that Bonaventure’s trinitarian theology resolves the medieval problem of reconciling the grounding of creation in God with divine freedom.

1.2.1 The doctrine of the Trinity

In this section I outline Bonaventure’s model of the immanent Trinity, which forms a major part of his work during the academic phase of his career. The most important influences on Bonaventure’s theology were introduced through his teacher at the University of Paris, Alexander of Hales (1185-1245). Alexander, who was already an established master at the university before joining the Franciscan order later in life, is credited with introducing a generation of Franciscan scholars to an Augustinian neo-Platonism, and in his own work also drew significantly on the works of Dionysius and Richard of Saint Victor.183

Bonaventure, who describes Alexander as his ‘father and master’, was introduced by Alexander to the most important influence on his trinitarian theology: an Augustinian neo-Platonism tempered by the thought of Dionysius and Richard. Bonaventure’s instruction by Alexander centred on the systematic exposition of the Sentences of Peter Lombard (1100-1161), who had become magister of the University of Paris in 1145. Alexander was the first medieval theologian to structure his own theological work as a glossa on the Sentences of Peter Lombard. Following this example, Bonaventure’s own Commentary on the Sentences forms the major work of

his academic period.184 Although most of Bonaventure’s mature theological themes are present in the *Commentary*, the most important are further developed in the writings of his second period as Minister-General of the Franciscan order.

Briefly, Bonaventure follows Richard in his argument for the triune nature of God and emphasis on relations of origin between the divine Persons. In the *Commentary*, Bonaventure follows the argument for the plurality of divine Persons based on relations of origin that Richard derives from Eriugena: that for the highest perfection there must be an unoriginate Person who is the source of being for another.185 Bonaventure also follows Richard in arguing that the highest perfection and the greatest beatitude require both dilection (love of another) and condilection (the mutual love of a third).186

As noted above, Eriugena’s argument is derived from his knowledge of the Cappadocian Fathers, and Bonaventure develops this in a way that demonstrates deep familiarity with its premises. Bonaventure appropriates Dionysian thought to a greater extent than Richard, describing the trinitarian life of God as based on the self-communicative diffusion of the Good. In the *Itinerarium*, Bonaventure relies on the fundamental Dionysian axiom of the self-diffusiveness of the good: ‘For the good is said to be self-diffusive, and therefore the highest good is most self-diffusive’.187 As John Dourley notes, in applying the Dionysian maxim of the self-diffusion of the good to the intra-divine processions Bonaventure also goes further than Dionysius, for whom

186 Ibid., d2, q4, concl.
187 Bonaventure, *Itin.*, 89, s. 6.2. For the Dionysian doctrine see s. 1.1.3.
the self-diffusion of the good was the operative principle only in the emanation of creation from God. For Bonaventure, there must be a prior and perfect diffusion within the Godhead itself. Bonaventure writes:

For the diffusion that occurred in time, in the creation of the world, is no more than a focal point or brief moment in comparison with the immense sweep of the eternal goodness. From this consideration of creation one is led to think of another and a greater diffusion – that in which the diffusing Good communicates to another His whole substance and nature.

Bonaventure also moves beyond the Dionysian axiom by connecting the self-diffusive fecundity of the Father with the property of unbegotten-ness, or *innascibilitas*, writing in the *Commentary* that 'the more primary a thing is, the more it is fecund and the principle of others'. Although Bonaventure (following Alexander) ascribes this axiom of priority to Aristotle, the correct source is the *Liber de causis* by an unknown philosopher familiar with the neo-Platonic work of Proclus. It is this observation that is the ground of Bonaventure’s deployment of the logic of *coincidentia oppositorum*.

Bonaventure argues that the Father is the source and principle of fecundity: 'Therefore, just as the divine essence, because it is first, is the principle of other essences, so the Person of the Father, since he is the first, because from no one, is the principle and has fecundity in regard to

189 Ibid., 118.
190 Bonaventure, *Itin.*., s. 6.2.
191 Bonaventure, *f Sent.*, d27, p1, q2/3.
192 Ibid., d2, au, q2, 4 with fn 6; and d27, p1, q2, concl.; See also Delio, *Crucified Love*, 39, and footnote 21. Cullen, “Alexander of Hales,” 105.
193 Cousins, *Bonaventure and the Coincidence of Opposites*, 15. The idea of the unity of opposites first appears with Heraclitus, its medieval use generally attributed to Nicholas of Cusa. Cousins argues the logic of the *coincidentia oppositorum* structures Bonaventure’s entire thought.
Bonaventure designates the Father *fontalis plenitudo*, or fountain-fullness: "Since innascability signifies primacy, it follows that it signifies fountain-fullness in relation to the production of Persons."\(^{195}\)

Cousins notes that the opposite attributes of innascability and fecundity, originally the cause of conflict between neo-Platonism and Arianism, are adopted by Bonaventure as the root and basis of his entire logic.\(^{196}\) Thus, in Bonaventure's dialectical *coincidentia oppositorum*, the Father is the fountain-fullness and constituted as the Source precisely because the Father is unbegotten.\(^{197}\) Hayes comments that for Bonaventure the Father's innascability carries both negative and positive implications; as the one who has no origin (negatively) must also be first and most absolute, and thus highest in perfection.\(^{198}\)

Bonaventure identifies two modes of emanation within the Godhead: generation of the Son and spiration of the Holy Spirit. He writes, 'Father designates Him in a proper, complete and determinate manner by affirmation and the positing of a relation'.\(^{199}\) This intra-divine procession is an outpouring of the illimitable fountain of fecundity and love that is the Father. Although the divine self-expression in creation must be limited, the perfection of divine love requires absolute perfection of self-communication. This can only occur within the intra-divine processions; the Son perfectly expressing the fullness

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\(^{195}\) Bonaventure, *1 Sent.*, d27, p1, q2.

\(^{196}\) Cousins, *Bonaventure and the Coincidence of Opposites*, 104; LaCugna, *God For Us*, 32–33.

\(^{197}\) Bonaventure, *1 Sent.*, d27, p1, q2. See also Cousins, *Bonaventure and the Coincidence of Opposites*, 102–3.


\(^{199}\) Bonaventure, *Brev.*, 36, I, s. 3.7; see also Bonaventure, *1 Sent.* d27, p1, q2.
not only of the Father’s self-diffusive love, but of the Father’s creative and self-expressive potential.

That the Father is both fountain-fullness and absolutely self-given follows from the original coincidentia oppositorum of innascability and fecundity. Bonaventure states that the diffusion of the Father into the Son is complete, so that the Son expresses everything that the Father can be: ‘The Father begets a Son similar to Himself ... and in so doing He expresses the sum total of His active potency: He expresses what he wills to be, and He expresses everything in Him’.200 The Son, or Word, receives all that the Father can be and expresses the Father fully:

Such diffusion is not utterly complete in any creature, for God does not grant to any creature the full splendour of exemplarity. He confines His grant to begetting the Son who is entitled to say, ‘All things that the Father has are Mine’. No creature can say such a thing. ... If, then, nothing can be conceived that is greater than the Father, the same may be said of the Son. If the Father also did not diffuse Himself in the most final way, He would not be perfect.201

By bringing together the Dionysian axiom of diffusion with the emphasis on relations of origin found in Eriugena and Richard, Bonaventure conceives a dynamic of self-gift within the Trinity that finds an echo in the Incarnation. The self-emptying generation of the Son may be described as kenotic because ‘that which constitutes the Father, the fecundity of the good, is given to an Other by the very nature of the Good’.202 Thus the Father is hidden in the Son, and at the same time is fully disclosed by the Son. Thus for Bonaventure, the paternity of the Father is expressed in the humility and poverty of absolute self-donation.

200 Bonaventure, Hex., s. 1.13.
201 Ibid., s. 11.11 citing John 16.15; also Bonaventure, Itin., s. 6.3.
202 Delio, “Bonaventure’s Metaphysics of the Good.”
The Son is both the recipient of the Father's goodness and, having received as gift the self-diffusive goodness of the Father, 'generates or diffuses the good as self-gift to the Father, the union of which is expressed in the person of the Holy Spirit'. Following Augustine, Bonaventure writes that the Holy Spirit is spirated by the Father and the Son as the voluntary gift of love *par excellence*: 'The Holy Spirit is properly the Gift, the mutual Bond or Love ... Gift designates Him as the One who is given through the will; Bond or Love as the One given through the will who is the Gift *par excellence*, and Holy Spirit as the One given through the will, the Gift *par excellence*, who is a Person.'

In relation to the number of divine Persons, Bonaventure conjoins Dionysius’ argument for divine self-diffusion with that of Richard. In the *Commentary* Bonaventure argues ‘because there is love (*amor*) among all the Persons, as Richard says, being a threefold love (namely gratuitous and due and a mingling from both), there are only three Persons: One who only gives, in whom is gratuitous love: the Other, who only accepts, in whom is due love; and a Middle, who gives and accepts, in whom is a love mingled from both’. Summarising Richard’s argument, Bonaventure argues more concisely in the *Breviloquium* that the fullness of divine love is shown ‘by eternally having a Beloved and another who is loved by both’.

In the *Itinerarium*, Bonaventure describes the Trinity of divine Persons as the fullest outworking of divine self-communication:

> Unless there were in the highest good from all eternity an active and consubstantial production, and a hypostasis of equal nobility,

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203 Ibid.
205 Bonaventure, *1 Sent.*, d2, au, q4, concl.
206 Bonaventure, *Brev.*, I, 2.3.
as is the case with one who produces by way of generation and spiration – thus there belongs to the first principle from all eternity a co-producer – so that there is the loved and the beloved, the generated and the spirated, that is, the Father, and the Son, and the Holy Spirit ... there would not be the highest good there, because it would not be supremely self-diffusive'.

Bonaventure discusses at length the disputed *filioque* issue, insisting that the Holy Spirit proceeds from both Father and Son as both the Augustinian and Victorine arguments imply. He concedes that the Holy Spirit proceeds *principally* from the Father as the ultimate author of the divine Persons, yet no less *fully* from the Son who has received the fullness of all the Father can be or do. In the *Hexaëmeron* Bonaventure later notes that 'a distinction without order is confusion. Hence it is necessary that the Holy Spirit proceed from both, and this is what all the wise Greeks say ... the error is found only among the foolish Greeks.' The Holy Spirit thus completes the dynamic *exitus* and *reditus* of self-communicative love within the Godhead: 'there is here a love that is gratuitous, properly due, and mutual ... a love that is pure, full and perfect: as flowing out and outpoured, in the Son; as poured back, in the Holy Spirit'.

At this point it is the Son who most explicitly manifests the *coincidentia oppositorum*, as the *persona media* or centre of the Trinity through whom the Father's creative love finds expression and flows back to its source through the unity of the Spirit. Cousins argues that the Son as *persona media* is the culmination of Bonaventure's treatment of the coincidence of opposites. Structurally, the Son incorporates and resolves

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207 Bonaventure, *Itin.*, s. 6.2.
208 Bonaventure, *1 Sent.*, d12, au,q2, concl.
210 Ibid., s. 11.12.
the diametrical opposites of the Father's unbegotten fecundity and the Spirit's spirated superfluity: ‘This by necessity must be the central one of the Persons, for if there is one who produces and is not produced, and another who is produced and does not produce, there must necessarily be a central one who is produced and produces’.212

The dynamic of self-donation based on the coincidentia oppositorum means that at the heart of Bonaventure’s trinitarian theology is a vision of God that resists dualist explanations and affirms both divine transcendence and immanence. Bonaventure’s understanding of the generation of the Son as the complete self-expression of the Father and recipient of all the Father can be, makes the Son not only the persona media of the Trinity but the creative Word of God. In the following section I outline Bonaventure’s doctrine of creation, which recapitulates the logic of the inner-trinitarian processions. For Bonaventure, creation itself is structured as a self-expressive Word of God and a sign by which human beings are able to ascend into union with the Creator. This view of creation as disclosing the goodness and character of God, and participating in the trinitarian life of God, is fundamentally incompatible with any view of the natural world as merely instrumental.

1.2.2 Creation and the eternal ideas

Because Bonaventure describes the immanent Trinity in phenomenological terms as donation, or being-toward, he is able to explicate the structure of creation as inextricably linked to the divine life. For Bonaventure, creation is viewed as a symbol of the triune God: ‘the universe is like a book reflecting, representing and describing its Maker, the Trinity’.213

212 Bonaventure, Hex., s. 1.14.
Thus, the limited and imperfect emanation which is creation is an echo of the full and perfect emanation within the Godhead. I begin this section by discussing the extension of the axiom of diffusion to the creation of phenomenal reality, before outlining the doctrine of exemplarity by which Bonaventure grounds each created entity individually in the Word as Exemplar.

As Ewert Cousins suggests, Bonaventure is unique in locating the diffusion of self-emptying fullness within the life of the immanent Trinity itself, and the perfection of this intra-trinitarian diffusion means that God does not need to create.214 As noted above, for Dionysius the axiom of self-diffusion of the Good describes the emanation of creation from God, not the dynamic life of the immanent Trinity.215 Bonaventure applies the axiom to the inner-trinitarian processions themselves, making the perfect self-gift of the Father into the Son the ground both of the intra-trinitarian coincidentia oppositorum and of the Word as the locus of the divine ideas and the Exemplar of creation.216 The perfect self-diffusion of the Good is completed within the immanent Trinity, as the Father and the Son together spirate the Holy Spirit as the condilectum or fruit of their mutual self-donation. Because God is the highest Good, then the self-diffusion that is the mutual self-gift of Father and Son is itself perfect. Bonaventure writes in the Itinerarium that ‘this good exists in such a way that it cannot rightly be thought of unless it is thought of as triune and one. For the Good is said to be self-diffusive and therefore the highest Good is most self-diffusive’.217

214 Cousins, Bonaventure and the Coincidence of Opposites, 237.
215 See s. 1.2.1.
216 Dourley, Paul Tillich and Bonaventure, 118.
217 Bonaventure, Itin., s. 6.2.
Bonaventure argues that unless this diffusion involved the perfect self-gift of the one who diffuses, and unless this dynamic of self-gift were also active from eternity then it could not be the most perfect possible diffusion. This is to say that the dynamic of self-diffusion that is the generation of the Word from the self-emptying love of the Father, and the spiration of the Holy Spirit from the mutual self-emptying love of Father and Word is the perfection of the diffusion of the Good. For this reason, the perfect and eternal diffusion of the Good can only take place within the eternal Trinity. As Dourley notes, while in Bonaventure's model creation is not necessary to God, the structure and dynamic of the intra-trinitarian relations is necessary, because '... through the utmost communicability of the Good, there must be the Trinity of the Father, the Son, and the Holy Spirit'.

The implication of this is that the self-diffusion of the Good which accompanies the act of creation must be less than perfect, firstly because it is an act in time, and secondly because the finitude of the created world means it cannot contain the immensity of the fullness of divine self-diffusion. The perfection and the necessity for the self-diffusion of the Good, in Bonaventure's system, is reserved for the internal structure of the divine Trinity. This means that Bonaventure is never in danger of suggesting that God creates the world out of necessity. He makes this explicit in the same paragraph: 'For the diffusion that occurred in time in the creation of the world is no more than a pivot or point in comparison with the immense

\[218\] Ibid.
\[219\] Dourley, Paul Tillich and Bonaventure, 119; Bonaventure, Itin., s. 6.2.
\[220\] Bonaventure, Brev., II, 2.5. Bonaventure does not accept Augustine’s doctrine of creation as a single atemporal instant. I shall expand on this in relation to Bonaventure’s theology of history in s. 6.2.1.
sweep of the eternal goodness'. Thus, for Bonaventure, the act of creation is perfectly free: ‘The utterly perfect Principle from whom flows the perfection of all things must act by His own power and law, and for Himself as an end; for in His action He needs none but Himself’. While being utterly gratuitous, creation is grounded in the divine Word as Exemplar.

Bonaventure writes that, 'creation reflects the trinitarian structure at three levels: in every created object as a trace or vestige; in rational creatures as an image; and in the human mind conformed to Christ, as a likeness'. In the pre-fallen state of innocence humans were able to discern the light of divine Wisdom in the book of Creation, yet as the result of human sinfulness the rational soul made in the likeness of the Trinity has been distorted. Bonaventure thus sees his theological task as explicating the whole sweep of Creation in which created beings come from God, disclose God in their creaturely existence, and ultimately return to God. As the *persona media* of the Trinity and the nexus between God and creation,

... the Word expresses the Father and the things he made, and principally leads us to union with the Father who brings all things together ... through the first truth, as the Son expresses it, "I came forth from the Father and have come into the world. Again, I leave the world and go to the Father" ... Such is the metaphysical centre that leads us back, and this is the sum total of our metaphysics: concerned with emanation, exemplarity and consummation.

Bonaventure’s Christology here echoes that of the fourth Gospel which assumes the purpose of 'coming forth' and 'returning' is to reunite the disciples with God through the medium of the Paraclete (e.g. John 16.28). The emphasis in this passage is on the freedom of access the disciples will

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221 Bonaventure, *Itin.*, s. 6.2.
223 Ibid., II, 11.2, 12.1., echoing Paul in Rom 1.19-23.
224 Bonaventure, *Hex.*, s. 1.17.
have once Jesus has returned to the Father, as Beasley-Murray suggests: 'Through the entrance into the world he establishes fellowship with men, through the departure from it he consummates his fellowship with God'.  

Bonaventure speaks of the second Person not only as Son, but also as Image and Word: 'By the fact that He is Son, He is also Image, and for that very reason, He is Word'. Each of these titles points to a particular aspect of the relationship between God and the world. As Image, the Son's likeness to the Father is emphasised, to the extent that apart from the Father's personal characteristic of *innascibilitas*, the Son is a true reflection of the Father's character as the source of being for others. This is seen in the Son's co-production of the Spirit. The Trinity is not an economy of the same, as one Person (the Father) is unproduced and produces, one Person (the Spirit) is produced and does not produce, while the Word as the *persona media* both produces and is produced. Bonaventure's favoured designation is to speak of the second Person as Word, which articulates the relation of the Son both to the Father and to creation as the vehicle and content of the Father's self-communication in the entire mystery of creation, revelation and Incarnation. As the inner Word of God, the Son is revealed as the self-expression of God's goodness and love, the perfect likeness of the Father and the fecund source of all that is and all that can be. Because of the ongoing pattern of donation, the same language used of the Father can

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226 Bonaventure, *1 Sent.*, d27, p2, au, q2.
be used of the Word, leading one to think of an overflowing fountain filling up at one level and spilling over into the next. As the complete self-expression of the Father, the uncreated Word is the Exemplar, the Wisdom of God and so the repository of the eternal forms, or *rationes aeternae*.\(^{231}\)

The *rationes aeternae* are the divine 'ideas' of neo-Platonism, which represent within God's mind everything that can be. The ideas do not just reflect God's knowledge about the world, but are the *ars aeternae*, or Eternal Art, which is the ground and dynamic cause of creation.\(^{232}\) Creation is a kind of scripture, or a representation of the Wisdom of God reflected in creatures in different ways, just as light shining through a stained glass window is refracted into an array of colours:

As you notice that a ray of light coming through a window is coloured according to the shades of different panes, so the divine ray shines differently in each creature and in the various properties ... the creature exists only as a kind of imitation of God's wisdom, as a certain plastic representation of it', and hence, 'the whole world is a shadow, a way, and a trace, a book with writing back and front.\(^{233}\)

Bonaventure follows Augustine in connecting the *rationes aeternae* with divine Wisdom, 'because in eternal Wisdom there is a principle of fecundity tending to the conceiving, the bearing and the bringing forth ... For the exemplary reasons are conceived from all eternity in the womb or uterus of eternal Wisdom'.\(^{234}\) The *rationes aeternae* also constitute seminal potentialities (*rationes seminales*) or the potential for the emergence of new forms in creation, as well as human creativity (*rationes intellectuales*) by which humans are able to share in the divine work of creation while

\(^{231}\) Bonaventure, *Hex.*, s. 12.7.
\(^{232}\) Ibid., ss. 12.12-13.
\(^{233}\) Ibid., s. 12.14.
\(^{234}\) Ibid., s. 20.5.
remaining absolutely dependent upon the self-expression of God.\textsuperscript{235} For Bonaventure, the term \textit{rationes seminales} is synonymous with \textit{rationes aeternae} as he does not accept Augustine’s doctrine of simultaneous creation, instead following Peter Lombard in insisting on creation in time: ‘Now God could have done all these things simultaneously, but preferred to accomplish them over a succession of times’\textsuperscript{236} This will become an important distinction in Bonaventure’s theology of history, and underpins the amenability of Bonaventure’s metaphysics to ecotheological thought.\textsuperscript{237}

Within the internal life of the Trinity we see the most ‘complete and perfect self diffusion, emanation and expression’ that leads from the Father’s fountain-fullness, to the Word as the perfect self-expression of the Father, and the consummation of love which is the Spirit.\textsuperscript{238} Then, as Leonard Bowman writes: ‘The fountain fullness of the Father is recapitulated in regard to the not-God, and the entire Trinity itself becomes a fountain-fullness expressing itself outward and into the world’.\textsuperscript{239} Thus the uncreated Word becomes the Exemplar or pattern of all things. This means created beings stand as analogies; the Word as prototype of all that exists is expressed in creation, so creatures both reflect and find their true existence in their Creator.\textsuperscript{240} Ilia Delio remarks that this denotes a fundamental difference between (pagan) neo-Platonism and Bonaventure’s exemplarism because in the former ‘there is no link between the absolute realm of expression (ideas) and...’

\textsuperscript{235} For Bonaventure the terms \textit{rationes aeternae} and \textit{rationes seminales} are interchangeable. See the translator’s footnote † in ibid.
\textsuperscript{236} Bonaventure, \textit{Brev.} II, s. 2.5 and translator’s note 17.
\textsuperscript{237} See s. 6.2.1.
\textsuperscript{238} Bonaventure, \textit{Itin.}, 6.2.
\textsuperscript{240} Ibid., 184. I shall argue in s. 5.1.4 following Balthasar that for ecotheology it is important that creation be viewed as an analogy of God, and that Bonaventure’s exemplary metaphysics retains its utility for this reason.
and the created world’. Another important difference is that for classical neo-Platonism the quality of creaturely reflection of the divine is dependent on position on the hierarchical chain of being. Thus, while in classical neo-Platonism forms are by species, in Bonaventure’s metaphysics the rationes aeternae represent creatures in their individual existence. As Bonaventure expresses it in the Breviloquium, ‘Since divine Wisdom is utterly perfect, it knows each and every thing in the most distinct fashion. … God possesses the principles and ideas of all individual beings as the perfectly expressive likenesses of these same beings.’ Thus the perfect unity and simplicity of God produces ‘the plurality of present, future and possible things’. For created beings the implication is that all creatures are equally close to God and are individually known and loved.

Bowman notes that as the expression of the fountain-fullness of the Trinity, creation becomes analogous to the Word in a widening circle of exemplarism, as a reflection and expression of the divine ideas; ’Just as the Son is called the Eternal Word, the world can be called a temporal or created word’. The pattern of donation and fecundity emanates from God to not-God: first the uncreated Father is the Source; then the Word as both the Father’s self-expression and the Exemplar of creation; then creation itself emerges as God’s self-expressive Word. In Bonaventure’s doctrine of illumination, following Augustine, created entities are enabled by the Holy Spirit to participate creatively in the rationes aeternae of divine Wisdom.

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241 Delio, Crucified Love, 69.
243 Bonaventure, Brev., I, 8.7; Bonaventure, Hex., s. 12.5 and translator’s note †.
244 Bonaventure, Brev., I, 8.7.
245 Ibid., I, 8.7.
247 See s. **
Thus, for Bonaventure every creature becomes a divine word, and the universe appears as a book reflecting, representing and describing its maker.\textsuperscript{248} The dialectical structure of the Trinity, expressed through the logic of \textit{coincidentia oppositorum} is reflected in creation, which although finite coincides with the infinite through the exemplarity of the Word. The created world is therefore Christic, an external expression related at a deep level to the uncreated Word. Since the Word as Image expresses the triune nature of God, then Creation as an expression of the uncreated Word also discloses the trinitarian structure of reality.

Through the metaphysics of exemplarity, Bonaventure is able to describe creation both as radically dependent on its grounding in the Word as Exemplar, and as fully contingent and autonomous. As a temporal or created word, creation bears witness to the triune life of God. As I shall argue in the next chapter, Bonaventure also argues that through reflection on created entities the human soul is led closer to God. Because all created entities are grounded in the Word as \textit{rationes aeternae} and all reflect their divine origin, then there is a fundamental kinship of all creation. This underlies Bonaventure's reflection on the life and spirituality of St Francis in the \textit{Itinerarium Mentis in Deum} and the \textit{Legenda Major}.

\subsection*{1.3 Conclusion}

In this chapter I have introduced the trinitarian theology of St Bonaventure, beginning with the antecedents of his thought in the tradition of Christian neo-Platonism formalised by Origen and Augustine, and transmitted through the mystical theology of pseudo-Dionysius, Eriugena.

\textsuperscript{248} Bonaventure, \textit{Hex.}, s. 12.14.
and the Victorine school. Bonaventure follows the emphasis on the relations of origin in the immanent Trinity that he receives through Richard of Saint Victor. He joins to this the Dionysian formula of the diffusion of the good, and goes further than either Richard or Dionysius in applying the logic of diffusion, reformulated as self-donation, to the Persons of the Trinity. This leads to a view of the Word as the fullest expression of all the Father can be or do, the *persona media* both within the Trinity and the Exemplar or creative template of the created order.

The neo-Platonic strand of Christian theology which Bonaventure inherits makes a connection from the outset between creation and Christ, as the Wisdom of God and the locus of the divine ideas. Bonaventure extends this through his trinitarian doctrine, as the limited emanation in time that is the creation of phenomenal reality recapitulates the perfect diffusion of self-emptying love within the immanent Trinity. Bonaventure’s doctrine of creation thus values phenomenal reality highly, understanding all created entities as grounded in the life of the Trinity as vestige, image or similitude.

Bonaventure’s trinitarian doctrine linking Christ with creation provides a strong foundation for a contemporary ecotheology. In the next chapter, I shall continue to explore Bonaventure’s theology, focussing on texts produced during the second half of his career after he was called away from the world of academia as Minister-General of the Franciscan order. During this period Bonaventure developed his spiritual theology based on the life of St Francis, and was involved in disputations on behalf of the order. The focus of Bonaventure’s thought during this phase of his career is on Christ as the centre of creation and of the human soul, and reflects more visibly the Christ-centred creation mysticism of St Francis. In subsequent chapters I will show that Bonaventure’s Christocentric model of creation also makes an important connection with the Christocentric evolutionary thought of Teilhard
Finally, I shall bring together Bonaventure’s eschatological vision of shalom within creation, based on his exegesis of Francis’ life, with a model of the more-than-human ecology as a noetic system based on Teilhard’s concept of the noosphere.
2 Creation and the journey to God

In the first chapter I introduced Bonaventure’s trinitarian theology, arguing that because of his focus on relations of origin in the intra-trinitarian processions and application of Augustinian neo-Platonic exemplarity, Bonaventure is able to affirm the transcendence and aseity of God while also describing creation as a book that reflects and represents its creator. By affirming the value and identifying the ontological kinship of all creation, Bonaventure’s trinitarian model provides a sound basis for the contemporary ecotheological project.

In this chapter I continue my exploration of Bonaventure’s theology, focussing on the second half of his career, during which he develops a radical emphasis on Christ as the centre of creation and the Godhead. This emphasis emerges after Bonaventure’s elevation to the post of Minister-General of the Franciscan order, which he took on at a time of great turmoil and dissension. From this point, Bonaventure's theology was formed out of his deep meditation on the life and spirituality of Francis of Assisi, and also in response to urgent challenges to the Franciscan order including the implications of radical Averroism and the political challenge of adjudicating between radical and worldly factions. Cousins notes that although Bonaventure's emphasis on the centrality of Christ grows to dominate his mature thought and the culmination of his earlier exemplary trinitarian theology, it is never developed as systematically as his earlier theology. The full corpus of Bonaventure's reflection on creation forms an eccentric orbit of exitus (emanation) and reeditus (return), corresponding fairly closely to the two major emphases of his academic and Franciscan phases,

249 Bonaventure, Brev., 2.12.
250 Cousins, Bonaventure and the Coincidence of Opposites, 50.
however the seeds of his later reflection on the centrality of Christ are clearly present in his earlier work.\textsuperscript{251}

In this chapter, I explore the second half of Bonaventure's cycle of creation, which deals with the soul's return to God. Integral to this is Bonaventure's theology of Incarnation, and of Christ as the metaphysical centre of Creation and of the human soul. Because Bonaventure relates the Incarnation primarily to the work of Creation, the emphasis is on cosmic completion. The uncreated Word who is the Exemplar of Creation becomes the Incarnate Word and thus the most extreme \textit{coincidentia oppositorum}; holding together the opposites of divinity and humanity, love and suffering, matter and spirit, existence and non-existence. This is the completion of the divine work of creation as the fullness of creaturely experience is joined with the triune life of God.

Bonaventure’s spiritual theology in the major work of this period, the \textit{Itinerarium Mentis in Deum}, reflects the same \textit{coincidentia oppositorum} in balancing an outward movement that discerns the Trinity at the heart of material creation with an inward movement that discerns the crucified Christ at the centre of the human soul. The journey culminates in a negation of experience through identification with the crucified Christ, which some commentators have interpreted as an apophatic withdrawal from created reality.

Where Bonaventure’s theology of creation reveals the Word as Exemplar, and the inter-relationship of all created entities through exemplarity, his spiritual theology begins from the revelation that created objects reflect their Creator. Through meditation on the created order the mind is led beyond it to the divine origin of all things. Bonaventure’s spiritual

\textsuperscript{251} Ibid., 111.
Christ and Creation: a model for ecotheology

theology thus reflects the spiritual praxis of St Francis, who sees Christ in all created things and who models piety, or living from a deep awareness of kinship with creation. Read through the filter of the life and spirituality of Francis, Bonaventure’s spiritual theology in the *Itinerarium Mentis in Deum* is revealed as the darkness not of withdrawal but of solidarity with all creation through participation in the death of Christ imitating the example of St Francis in his stigmatisation. Following Hans Urs von Balthasar’s interpretation of Bonaventure’s doctrine of the spiritual senses, I argue that the Christological focus of the *Itinerarium* implies a deep engagement with sensory reality. The final goal of the soul’s journey in Bonaventure’s spiritual theology, as the soul enters the darkness of the tomb with the crucified Christ is the threshold of a new creation on Easter morning.

The argument based on the *Itinerarium*, which will not be completed until the final chapter, is that the culmination of human spirituality is not withdrawal from the world but creative identification with the world by entering into the experience of the crucified Christ. This suggests an anthropology in which human life can only be understood within its created context, and the fulfilment of the human vocation is realised within relations of mutuality within the more-than-human ecology.

### 2.1 Christ and creation

In this section I begin my exploration of Bonaventure’s second major theological theme, the vision of the cosmic Christ as the centre of the Trinity, of Creation, and of the human soul. There is a deep coherence between Bonaventure’s trinitarian theology and his Christocentric vision. As Ewert Cousins points out, Bonaventure’s trinitarian doctrine itself is strongly Christocentric, as the Word is the *persona media* or centre of the Trinity, and
as the Exemplar of creation is also the medium between humanity and God. This cosmic Christocentricity undergoes an evolution into the incarnational Christocentricity of Bonaventure's later work.\textsuperscript{252} The unsystematic nature of Bonaventure's later work may be due to the fact that his academic career was interrupted, or that following his elevation as Minister-General in 1258 his fundamental concern shifted to the interpretation of the mysticism of the Crucified Christ. Bonaventure's Christocentric vision first emerges in his \textit{Itinerarium Mentis in Deum}, the spiritual primer he wrote the same year as a reflection on the spiritual model of St Francis while on retreat at the site of Francis' stigmatisation on Mt Alverna. Bonaventure's reflection on Christ as the centre of the created universe and of human history achieves its most coherent expression in the first collation (lecture) of the \textit{Hexaëmeron}.

I begin with a reflection on Bonaventure's theology of the Incarnation as cosmic completion, which connects the work of Incarnation to that of creation. This carries the soteriological implication that the Incarnation of the Word is central not only to human life but the whole of creation. Turning to Bonaventure's reflection in the \textit{Hexaëmeron}, I then explore the implications of his doctrine of Christ as the centre of creation. In the first collation on the \textit{Hexaëmeron} Bonaventure also develops a doctrine of atonement based on Christ as the cosmic centre, and I argue that this can form the basis of an ecological soteriology. The centrality of Christ in creation and the understanding of Incarnation as cosmic completion is a major point of connection between St Bonaventure and Teilhard de Chardin, and I shall develop this connection further in Chapter 4.

\textsuperscript{252} Ibid., 59.
2.1.1 Incarnation and cosmic completion

Bonaventure’s doctrine of Incarnation derives from his vision of the Word as the Father’s complete and perfect self-expression. It is as ’Word’ that Bonaventure believes the Son of God is most fittingly described, because this ‘expresses not only a relation to the one speaking, but to that which is expressed through the Word, to the sound with which it clothes itself, and to the knowledge effected in others through the mediation of the Word’. Delio comments that the primary significance of the term Word is in its expressiveness, not just as the second person of the Trinity, but as the eternal expression of the Father’s being and fullness.

Following Augustine, Bonaventure suggests the relationship between the Eternal and Incarnate Word is equivalent to the progression between an unspoken word and the uttered word which can communicate that mental image to another person:

Every word stands for a concept of the mind ... known to the one conceiving himself. But in order that it be made known to the hearer, it puts on the form of voice, and the intelligible word by means of that clothing becomes sensible and is heard outwardly and is received in the ear of the hearer’s heart, and yet does not leave the mind of the utterer.

As Zachary Hayes describes it: ’As the Word is the self-expression of the Father within the Godhead, the world is the external objectification of that self-utterance in that which is not God. And the humanity of Jesus is the fullest objectification of that utterance within the created world’.

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253 Hayes, Introduction, in Bonaventure, M. Trin., 51., quoting Bonaventure, Commentary on John, c1, p1, q1 (VI, 247).
254 Delio, Crucified Love, 33.
Thus, the Incarnate Word connects the inner life of the Trinity with the whole cycle of creation, revelation and redemption. As the One through whom the Father's self-communication takes place, the Incarnate Word establishes a relationship between God and all that is not-God. The eternal Word, which is the Father's self-expression within the inner life of the Trinity, is given objective form within creation in the human existence of Jesus of Nazareth. Because only this form can adequately express the mystery of the inner eternal Word, it is the most complete external form of that Word. Bonaventure's theological vision thus connects the inner life of God with creation in a single outward movement originating from the primordial fountain-fullness of the Father. The trajectory from Eternal to Incarnate Word exemplifies the meaning of the Word as God's perfect self-expression so that the Incarnate Word resonates as a 'concrete expression which co-determines the expressed content'.

Because he understands creation as an external utterance of the eternal Word, Bonaventure also views the Incarnation as the completion of creation. This becomes evident in examining Bonaventure's soteriology, which over the course of his career comes to link the Incarnation with creation.

In the *Breviloquium*, Bonaventure accepts the Anselmian theology of atonement, in which Christ's death resolves the conflict between God's offended honour that demands juridical satisfaction for human sinfulness, and God's mercy which chooses to forgive. On this view the eternal Word is made flesh in order to raise humans from the effects of sinfulness. However, in her discussion of Franciscan Christology, Delio notes that Franciscan thinkers consistently linked reflection on the Incarnation to

creation, and developed a soteriology that was cosmic rather than personal in orientation. Deriving from the original insight of Francis, whose radical praxis of kinship with all creatures is related to his vision of the crucified Christ at the heart of creation, this orientation led Franciscan thinkers to reject the focus on individual sinfulness. Delio notes such a development in Bonaventure's soteriology, rejecting the view of some scholars that Bonaventure continues to accept the Anselmian position.259 Indeed, in the Breviloquium, Bonaventure suggests an alternative emphasis on the Incarnation as the completion or perfection of creation:

Just as Christ, insofar as he was the uncreated Word, had formed all things most perfectly, so it was most fitting that Christ as the Word Incarnate should perfectly restore all things. As the utterly perfect First Principle could not allow an imperfect work to leave His hands, so the principle of the redemption of humankind had to make that remedy a perfect one.260

This emphasis begins to predominate in De Reductione Artium ad Theologiam written a year or two afterwards: '.... that the Word might be known by human beings who are endowed with senses, the Word assumed the form of flesh ...'.261 In the ‘Sermon on the Nativity’, composed shortly after De Reductione, the emphasis is entirely on cosmic completion:

It is in the Word that we discover the perfection of that greatness of heart which brings all reality to its consummation and completion ... And the last among the works of the world is man. Therefore, when God became man, the works of God were brought to perfection.

260 Bonaventure, Brev., IV, 10.2.
261 Bonaventure, Red. Art., 16.
This is why Christ, the God-man, is called the Alpha and the Omega, the beginning and the end.262

Ultimately, the notion that the Incarnation is the perfection of creation stems from the neo-Platonic tradition that because of its exemplary nature, creation reflects a potentiality for union with the divine. This potential is realised in the human creature which, as a rational soul, has awareness of and desire for God and, because embodied, also has the capacity to apprehend the presence of God in creation. In his 'Sermon on the Nativity', Bonaventure thus views humanity as the pinnacle of creation: 'For this reason ... the last of all things, namely man, is said to be first and last. The ability of human nature to be united in a unity of persons with the divine ... is reduced to act so that it would not be a mere empty potency'.263

In other words, the embodied soul which perceives sensorily is able to apprehend symbols, and as a composite of body and soul the human person is a microcosm of the whole created order. Denys Turner discusses the serious problem for medieval neo-Platonists of accounting for the fact that human, not angelic, form was the vehicle of Incarnation. This arises from the conflict between the neo-Platonic hierarchy of being, and the immediacy of all creatures in relation to God. Bonaventure's solution outlined in the 'Sermon on the Nativity' is to insist that the embodied existence of human creatures implies a superior representational capacity.264 Similarly, in de Reductione Artium ad Theologiam, Bonaventure argues that 'the supreme and most noble perfection in the universe cannot be, unless the nature in which there are seminal reasons and the nature in which there are

intellectual reasons, and the nature in which there are ideal reasons, come together in the unity of a person; which came about in the Incarnation of the Son of God’. Christ, as the perfection of creation, is the creative *a priori* by which matter is brought fully into union with Spirit and the innate human potential for divinisation is realised.

Here, the trajectory of *coincidentia oppositorum* reaches its apogee, joining together finite and infinite, temporal and eternal, matter and spirit, imperfection and perfection, kenotic outpouring and fountain-fullness, so that 'the eternal is joined with time-bound man ... the most perfect and immense is joined with that which is small; He who is supremely one and supremely pervasive is joined to an individual that is composite and distinct from others, that is to say, the man Jesus Christ’. Thus in joining the uncreated Word with the human form of Jesus of Nazareth, not only humanity but the whole created order is brought into union with its Creator. This is the perfection of the divine work of creation.

### 2.1.2 Christ as cosmic centre

In the first *collatio* of the *Hexaëmeron*, Bonaventure lays out in concise form the central element of his mature theology, which is the centrality of Christ. Here, Christ, who already in the *Commentary on the Sentences* and the *Breviloquium* has been depicted as the medium of the Trinity is revealed as the universal centre who unites in Himself the polarities of spirit and matter, divine and human. This vision, which has been emerging throughout Bonaventure's early works, and is implied in the *Itinerarium*, is laid out explicitly in the first chapter of the *Hexaëmeron*. The importance of

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266 Bonaventure, *Itin.*, s. 6.5.
267 Bonaventure, *Hex.*, s. 1.
this move lies in the range of meanings that are carried by the term medium, which implies not only the mathematical centre between two extremes, but that which joins or reconciles them. Thus, in being connected through Christ as the medium, opposites are neither negated nor merged into uniformity, but related dialogically as a coincidentia oppositorum.\textsuperscript{268} Thus in Christ, divine and human are both fully differentiated and fully united. Bonaventure considers Christ as a seven-fold medium by enumerating the seven classical sciences or types of reality: metaphysics, physics, mathematics, logic, ethics, politics and theology.\textsuperscript{269} As the medium metaphysicum, Christ is the ground and centre of created reality and of the human soul, the dynamic centre by which the Father objectifies Himself and through which all things are reconciled with the Father through the Spirit.\textsuperscript{270} This provides the key, not only to Bonaventure's soteriology, but also to his view of created entities which he regards as a complementarity of matter and spirit brought together in the medium metaphysicum. Describing Christ as the centre in the order of nature (physics), Bonaventure draws a parallel between Christ and the Sun, describing the spirits of living and non-living elements and complex forms, plants, animals and 'rational beings' as diffusions from Christ as the centre in the same way that in the human body 'the natural spirit is diffused by the same heart'.\textsuperscript{271} In the order of distance (mathematics) Christ is the centre in his crucifixion in the lowest place (and centre) of the universe and thereafter in solidarity with all that dies sinking to 'the depth of its centre' which is hell.\textsuperscript{272} Here, time and space itself is asserted to be cruciform, and

\begin{superscript}{268} Bonaventure, Brev., IV, 2.5-6. 
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\begin{superscript}{269} Bonaventure, Hex., s. 1.11. 
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\begin{superscript}{270} Ibid., s. 1.17. 
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\begin{superscript}{271} Ibid., ss. 1.18-20. 
\end{superscript}
\begin{superscript}{272} Ibid., ss. 1.21-23; Bonaventure is assuming a “three tiered” universe with the earth as its centre. As Lovejoy remarks in The Great Chain of Being, 101–2, such a universe was literally diablocentric. 
\end{superscript}
Bonaventure makes the stunning assertion that the crucifixion at the centre of created reality is universally salvific: 'He has wrought salvation in the midst of the earth'. Bonaventure evidently means by this that the salvation accomplished by the death of Christ is not just for human beings who believe, but rather a structural reformation of the whole created order. This assertion, which follows from the uncreated Word taking on the full implications of created reality even to the point of solidarity with the mortality of created beings, is more fully developed by Hans Urs von Balthasar and I explore this further in the final chapter.

Creation, then, has both its existence and its completion in Christ as the Eternal Word, Exemplar and Incarnate Word. Stunning as this assertion is, it begs the question: how can creation as a site of competition, predation and suffering be redeemed in Christ? Bonaventure here is articulating a doctrine that takes seriously St Francis's experience of the natural world as Christic, but as a medieval theologian is ultimately concerned only with a human soteriology. However, over the following paragraphs I will argue that the doctrine of atonement Bonaventure develops in the first collation of the Hexaëmeron provides the basis for a cosmic soteriology that can be helpful for the ecotheological project.

Bonaventure believes that in the pre-fallen state of innocence humans were able to discern the light of divine Wisdom in the book of Creation, yet as the result of human sin the rational soul made in the likeness of the Trinity has been distorted. Humans have been 'bent over' by sin and the decision to turn away from the eternal light toward a changeable and impermanent

\[\text{273} \text{ Bonaventure, } \text{Hex.}, \text{ s. 1.22.} \]
\[\text{274} \text{ See s. 7.2.} \]
\[\text{275} \text{ Bonaventure, } \text{Brev.}, \text{ II, 12.1; III, 11.2.} \]
good.\textsuperscript{276} However, Bonaventure sees a complex relation between sinfulness and human completion, so that the desire to be united to Christ is itself grounded in our fallen human nature.\textsuperscript{277} While the emphasis in the 'Sermon on the Nativity' is clearly on cosmic completion, Bonaventure also states that the Incarnation of the Word 'took place for the sake of the flesh in view of its final salvation.'\textsuperscript{278} Clearly, Bonaventure regards sin as built into the structure of human history and psychology, and holds the redemptive function of Incarnation in tension with its cosmological purpose. As Delio remarks, 'the redemptive function is not simply added to the Incarnation; for the actual Incarnation is shaped by its redemptive function'.\textsuperscript{279} More generally, as the completion of creation, the Incarnation is in view from the outset of creation itself.

The relationship between redemption and completion is clarified in the first collation of the \textit{Hexäemeron}. Here, Bonaventure sees sin as ontologically related to the good, originating in the desire of humans to be like God. 'The devil deceived the first man and assumed the existence in the heart of man of a kind of self-evident proposition such as this: the rational creature must needs desire to be the same as its Creator since He is its likeness'.\textsuperscript{280} Bonaventure asserts that evil is fundamentally related to the proper telos of human life. Confusing the authentic human condition as an image or likeness of the divine for a distorted ambition to become equivalent to the Creator is fundamentally an inappropriate assumption of power. Showing how far he has distanced himself from the Anselmian juridical

\begin{flushright}
\textsuperscript{276} Bonaventure, \textit{Itin.}, s. 1.7.
\textsuperscript{277} Delio, \textit{Crucified Love}, 40, and footnote 53., quoting Bonaventure \textit{Dom. 2 Adv. 9} (IX, 56ab).
\textsuperscript{279} Ibid.
\textsuperscript{280} Bonaventure, \textit{Hex.}, s. 1.26.
\end{flushright}
model, Bonaventure's description of the effects of sin in terms not of guilt and satisfaction but of psychology and desire is broad enough to encompass not just the wrongs done by individuals but the whole structural complex of oppression and inequality that limits human freedom and growth. Bonaventure is aware of the moral complexity and subtlety of evil: 'no-one commits evil with evil as a goal: every man intends good and desires good. But he is deceived because he takes for true what is only a likeness of good.'\textsuperscript{281} Thus, evil is related to good not as an absence or a lack, but as an illusion or a distorted image. The pervasiveness and subtlety of evil is underscored by the fact that the very desire to be like God becomes the prerequisite for damnation. As Cousins notes, in the confrontation between evil and good can be seen the 'most subtle and deceptive' emergence of the \textit{coincidentia oppositorum} woven into the fabric of human existence.\textsuperscript{282}

Bonaventure argues that the devil deceives humans by a cunning manipulation of the logical syllogism: although his major premise is true (that humans made in God's image desire to be like God), the minor premise is false (if you eat the forbidden fruit you will become like God).\textsuperscript{283} In his death and resurrection, however, Christ enters into a sort of cosmic battle of wits with the devil, becoming the \textit{medium logicum} or the centre of a more powerful syllogism. Because humans had become alienated from God as a result of their mimetic desire to imitate God; so Christ had to share in the human condition by reuniting the extremes within Himself.\textsuperscript{284} In relation to this, Cousins remarks that the entire duel revolves around the \textit{coincidentia oppositorum}; the devil promised life but delivered death, so Christ had to be

\textsuperscript{281} Ibid.
\textsuperscript{282} Cousins, \textit{Bonaventure and the Coincidence of Opposites}, 144.
\textsuperscript{283} Bonaventure, \textit{Hex.}, ss. 1.25-26.
\textsuperscript{284} Ibid., s. 1.27.
united with death and draw from it new life.\textsuperscript{285} The result is that Christ makes a fool of the devil (and reveals a way out of the human conundrum) by substituting a valid syllogism: 'the major proposition existed from all eternity, the minor came about on the cross, and the conclusion appeared in the resurrection'.\textsuperscript{286} Bonaventure stresses the importance of human agency in the debate, combining the logic of redemption with that of teleology:

This is our logic, this is our reasoning which must be used against the devil who constantly argues with us. But in assuming the minor proposition, we must do it with all our strength; often, in fact we refuse to suffer, we refuse to be crucified. And yet the whole reasoning tends to this one point: that we resemble God.\textsuperscript{287}

There is here an echo of an earlier narrative of atonement. In \textit{Deceiving the Devil}, Darby Ray outlines the patristic interpretation of Christ's suffering and death which finds expression in the writings of early Christian theologians such as Irenaeus, Gregory of Nyssa and Augustine.\textsuperscript{288} Less a systematic formulation than a series of allegorical images, the 'patristic model' also views atonement in terms of a cosmic confrontation between God and the devil. At stake in the duel is liberation for humans who are held by the devil in bondage to sin. Christ's suffering and death is understood to be a sort of ransom, or payment, by which humans are redeemed from the devil's authority. However, the devil is deceived when Christ as the perfectly sinless one who is not subject to death, offers himself into the devil's hands. This renders powerless the devil's claims, not only over the divine victim, but over sinful humanity. According to Augustine, 'we see the devil overcome

\textsuperscript{285} Cousins, \textit{Bonaventure and the Coincidence of Opposites}, 145.
\textsuperscript{286} Bonaventure, \textit{Hex.}, s. 1.28.
\textsuperscript{287} Ibid., s. 1.20.
when he thought he himself was overcoming'.\textsuperscript{289} Bonaventure himself offers a similar interpretation in the \textit{Lignum Vitae} in which the devil appears to have won a victory with the death of Christ, but 'he who had no right over the Head which he had attacked, also lost what he seemed to have over the body'.\textsuperscript{290}

Both Bonaventure's symbolic interpretation and the patristic narrative hinge on the motif of 'deceiving the devil'. In each case, the devil is defeated by being outmanoeuvred and forced into a logical impasse. There are, of course, also clear differences. According to the patristic narrative the devil is deceived by its own hubris into overreaching its legitimate authority. However in his mature theology Bonaventure, for whom creation is the outpouring of divine love through the exemplarity of the Word, does not concede to the devil any legitimate authority; and in the \textit{Hexaëmeron} we see the devil's seductive but false logic exposed by the true reasoning of Christ. Given that Bonaventure sees sin as a distortion or mistaken image of the good, it is appropriate that the duel between Christ and Satan takes place at the discursive level, the precise point being Christ's interpolation of himself as the \textit{medium logicum} or centre of a true syllogism, by which humans as active moral agents are enabled to resist the deceptive attractiveness of evil. Despite his use of the devil as protagonist, Bonaventure's doctrine of sin thus precludes any slide into moral dualism. The dispute relates precisely to the complex and morally confusing human struggle between the good and that which the logic of self-interest holds out as good. Far from being a once-

\textsuperscript{289} Ibid., 125.

for-all victory, the successful argument of Christ provides a paradigm for human resistance to evil through 'assuming the minor proposition'.

The most striking aspect of Bonaventure's syllogistic model of atonement, however, is that it emerges from an overtly trinitarian perspective linking the meaning of Christ's life, death and resurrection, to the meaning of creation itself. The eternal Word, as the mid-point or persona media of the Trinity, becomes the mid-point between Godhead and creation, and the midpoint of creation itself; revealing the fundamental kinship between created beings which experience themselves as separate and distinct from one another. As the Incarnate Word, Christ becomes the objective correlate of the eternal Word as the fullest expression of divine goodness. Finally, as the Crucified One, Christ joins together the opposites of love and suffering as the major proposition which had existed from the beginning, and the minor proposition freely embraced on the cross. It is important to note that in Bonaventure's cosmic soteriology the crucifixion as the 'minor proposition' of solidarity with human suffering and death is not an end in itself, but the coincidentia oppositorum that stands at the midpoint of creation and is the key to its completion. As the Incarnation is the joining together of created reality with the life of God, so the death of the incarnate Word defines the deepest point of divine solidarity with creation and thus perfection of the divine creative act.

That, for Bonaventure, humans cannot be the passive recipients or objects of the divine initiative follows from his view of creation as striving toward completion and participating in the mystery of the procession of the Word from the Father. Bonaventure understands Christian life existentially as participation in the 'minor proposition', which is to say, participation in the

291 Delio, “Revisiting the Franciscan Doctrine of Christ.”
suffering of Christ: ‘but in assuming the minor proposition, we must do it with all our strength; often we refuse to suffer, we refuse to be crucified. And yet the whole reasoning tends to this one point: that we resemble God’.  

Christ's power to redeem humanity is revealed as fundamentally relational because human life and sociality is modelled on the community of the Trinity itself. In the death and resurrection of Christ the image of the Trinity is restored in the communities of which we are part, to the extent that we are prepared to take up the 'minor proposition' of Christ's argument; which is the solidarity of suffering love. Such a claim needs to be carefully handled lest it become a justification for oppression. However Bonaventure's syllogistic argument highlights the realities of moral ambiguity and clearly suggests a strategy of resistance to deception and oppressive power.

In considering relationships within a more-than-human community, Bonaventure's syllogistic model of atonement may be generalised. In the Genesis account the first humans are given the vocation of care for a creation that belongs to God, and it is this vocation which by their disobedience they fail to fulfil (Gen ch. 3). In the terms of Bonaventure's syllogistic narrative the devil, recognising the desire of human beings to become as God, has promised life but delivered death. However, in taking the 'minor proposition' at the centre of created reality, the Crucified One stands in solidarity with the whole of suffering creation, and in Bonaventure's terms this challenges humanity also to assume the minor proposition of solidarity with the natural creation. Applying Bonaventure's argument in this case highlights the importance of understanding the human vocation as participation in the redemptive death of Christ - defeating the destructive

292 Bonaventure, Hex., s. 1.30.
consequences of our own hubris by accepting the ‘minor proposition’ of self-limitation in solidarity with a suffering creation.

Thus, Bonaventure’s doctrine of the centrality of Christ both simultaneously establishes the ground of all created reality in the divine Word, and the vocation of human life as participation in the ‘minor proposition’ through creative participation in the death of Christ as the perfection of creation. As I shall argue in the final chapter, based on Bonaventure’s theology of history, the concrete outworking of this ‘minor proposition’ is the shalom of creation made possible by the death and resurrection of Christ. In the second half of the current chapter, I shall turn to Bonaventure’s spiritual theology based on the praxis of St Francis in the *Itinerarium Mentis in Deum*, in which spiritual ascent is paradoxically understood as identification with the suffering of Christ.

**2.2 Wisdom and the soul's journey to God**

In the first section of this chapter I explored the emphasis on the centrality of Christ that is the major theme of Bonaventure’s mature theology. In his trinitarian theology Bonaventure has presented the Word as the *persona media* of the Trinity and the Exemplar of creation. This makes creation itself an expressive Word of God, and allows us to see all created entities as related through exemplarity. In his doctrine of Christ as the centre and completion of creation, Bonaventure also develops a soteriology that has a broader focus than that of the remediation of human sin and has applicability to the whole of a more-than-human creation.

In this section I turn Bonaventure’s primary work of spiritual theology, the *Itinerarium Mentis in Deum* which he wrote shortly after his elevation as Minister-General of the Franciscan order. In this work Bonaventure brings his
trinitarian theology into relationship with a Franciscan spirituality. Against Santmire, who finds an inconsistency between the Augustinian-Dionysian synthesis that informs Bonaventure’s trinitarian theology of creation and his spiritual ascent that culminates in the sleep of apophasis, I will argue that the conclusion of the *Itinerarium* represents not the apophatic withdrawal from creation but the transformation of human sensory experience through meditation on the incarnate Word. The work culminates in the kenotic identification of the soul with the death of Christ in solidarity with creation, and the final abnegation of experience that is Holy Saturday and the anticipation of the eschatological renewal of creation on Easter morning.

### 2.2.1 The soul's journey to God

Bonaventure's most important work of spiritual theology is his *Itinerarium Mentis in Deum*, written shortly after assuming the leadership of the Franciscan order while on retreat at the site of St Francis's stigmatisation. In the prologue, Bonaventure records that while meditating on Mt Alverna he realised that the vision of the fiery seraph with three pairs of wings in the form of the crucified Christ that had appeared there to St Francis provided the basis for a scheme of spiritual ascent based on Francis's Christ-centred mysticism. This vision revealed a path to God through identification with the burning love of the Crucified which 'so absorbed the soul of Francis that his spirit shone through his flesh' in the marks of the stigmata. Ewert Cousins argues that Bonaventure's own experience on Alverna marks a profound spiritual integration, as well as a transition from the academic theologian to the mystic. More precisely,

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293 Bonaventure, *Itin.*, Prologue, para. 2.
294 Ibid., Prologue, para. 3.
Bonaventure's insight on Alverna involves the integration of the Christocentricity already implicit in his trinitarian theology with the mysticism of St Francis focused on the humanity and suffering of the historical Christ.

In the Breviloquium, Bonaventure follows Augustine in seeing the human soul as an image of the Trinity in its triadic structure of memory, intelligence and will, corresponding to the ability of the mind to apprehend three levels of reality: the world without, the world within, and the world beyond ourselves.\footnote{Bonaventure, \textit{Itin.}, ss. 1.2-4 See also editor’s footnote no. 10 at p. 118.} These correspond to the three classical stages of spiritual ascent which Bonaventure refers to in the Breviloquium: ‘... the universe is like a book representing and describing its Maker, the Trinity, at three different levels of expression: as a trace, an image and a likeness ... through these successive levels, comparable to the rungs of a ladder, the human mind is designed to ascend gradually to the supreme Principle who is God’.\footnote{Bonaventure, \textit{Brev.}, II, 12.1.}

However, following his own vision at Alverna, Bonaventure writes that the three-stage model must be expanded to six, ‘... according to whether we consider God as the Alpha and the Omega, or ... as through or as in a mirror’.\footnote{Bonaventure, \textit{Itin.}, s. 1.5.} Philotheus Boehner comments that at each stage we may consider God as the ground of being (Alpha) or as goodness which is the end of all being (Omega). The distinction, which corresponds to Bonaventure's subdivision in the \textit{Itinerarium}, is between seeing God \textit{in} the mirror as a vestige in the creature or to see God \textit{through} the mirror, which is to say, directly by looking beyond the creature to the creator.\footnote{Ibid., 112, editor’s footnote no. 9.} Denys Turner argues that Bonaventure’s usage of the same distinction in the

\footnote{Bonaventure, \textit{Itin.}, ss. 1.2-4 See also editor’s footnote no. 10 at p. 118.}
Commentary on the Sentences reveals that he has in mind the distinction between simulacra that reveal God, and simulacra that not only reveal God but in some way make God present.\textsuperscript{300} In the Commentary, Bonaventure notes that ‘to cognise God in a creature is to cognise His presence and influence ... but to cognise God through (per) a creature is to be elevated by cognition of a creature to cognition of God’.\textsuperscript{301}

Bonaventure’s principal metaphor for the first two chapters of the Itinerarium is the mirror of creation in which the soul begins to discern vestiges of divine truth in the material world through physical sensation and imagination. Mixing his metaphors, Bonaventure invites us in Chapter One to begin at the lowest rung on the ladder of creation, and by ascending, pass through the mirror.\textsuperscript{302} This chapter consists of a meditation on material objects as vestiges of the Trinity, according to their properties and in order of the threefold way of seeing: empirically; by faith; and through the intellect. In Chapter Two, Bonaventure invites us to meditate on God through our sensory experience of the visible world. According to Bonaventure’s theory of sensation, derived from Augustine’s doctrine of illumination, the sensory apprehension of physical objects depends on the interaction of the 'light' of God, with the 'light' of reason and the contingent sense object itself.\textsuperscript{303} From this follow pleasure and discernment, which purify and abstract the sensory likeness; leading us from consideration of the sensory likeness of material objects to an consideration of their exemplary origin in God: ‘If, therefore, all knowable things must generate a likeness of themselves, they manifestly proclaim that in them, as in mirrors, can be seen the eternal generation of

\textsuperscript{300} Turner, The Darkness of God, 109.
\textsuperscript{301} Bonaventure, 1 Sent., d3, p1, au, q3, Conclusion.
\textsuperscript{302} Bonaventure, Itin., s. 1.9.
\textsuperscript{303} Ibid., s. 2.4 See also editor’s footnotes no. 6, p. 116.
the Word, the Image, and the Son, eternally emanating from God the Father.\textsuperscript{304} Thus, through contemplation of created things, the mind is led beyond the things themselves to the Trinity of which they are a reflection.

In summarising the first two chapters, Bonaventure states that through meditation on material objects the contemplative ascends to God: '... for creatures of this visible world signify the invisible things of God: partly because God is the Origin, Exemplar and End of every creature and the effect is the sign of the cause; the thing exemplified, of the Exemplar; and the way, of the end to which it leads ...'.\textsuperscript{305} Here Bonaventure follows the nature-mysticism of Francis, interpreting creation as a Word of God that leads the human soul back to its divine Source. Creation is a sign pointing to the presence of God; a mystery of self-transcendence that points beyond itself to its trinitarian origin and directs the human soul to God as Creator.

In Chapter Three, Bonaventure leaves the material world and invites the reader to enter within to meditate on the image of the Trinity in the human faculties of memory, intellect and will: ‘Consider, therefore, the activities of these three powers and their relationships, and you will see God through yourself as through an image; and this indeed is to see through a mirror in an obscure manner’.\textsuperscript{306} Bonaventure here follows Augustine in arguing that the triadic psychological structure of memory, intelligence and will reveals the human mind as an image of the Trinity: 'See therefore how close the soul is to God, and how, through their activity, the memory leads us to eternity, the intelligence to Truth, and the elective faculty to the highest Good'.\textsuperscript{307}

\textsuperscript{304} Ibid., s. 2.7.
\textsuperscript{305} Ibid., s. 2.12.
\textsuperscript{306} Ibid., s. 3.1 quoting 1 Cor 13.12.
\textsuperscript{307} Ibid., s. 3.4.
Bonaventure utilises the Plotinian scheme of introversion and ascent that he receives through Augustine, as meditation on the material world leads the mind inward. Bonaventure understands memory in the Augustinian sense of an 'image of eternity', holding 'that the memory has present in itself a changeless light in which it recalls changeless truths'.\(^{308}\) Past, present and future are simultaneously represented in the 'indivisible present' of the memory, which is grounded in the changeless light of God. Bonaventure thus understands that the human capacity to mentally represent external objects in memory or imagination (future memory) stems from directly participating in the divine ideas (rationes aeternae).\(^{309}\) He also understands reasoning as a process of reduction, by which a thing is recognised in terms of its essence or being, or a proposition in terms of its truth; originating in the soul's knowledge of absolute Being and absolute Truth.\(^{310}\) The will, which desires what it sees as good, has its origin in the ultimate Good.\(^{311}\) These three attributes reflect the Trinity, '... for from memory comes forth intelligence as its offspring ... from the memory and the intelligence is breathed forth love, as the bond of both. ... The soul, then, when it considers itself through itself as through a mirror, rises to the speculation of the Blessed Trinity, the Father, the Word, and Love'.\(^{312}\)

In the fourth chapter, Bonaventure reflects on the image of God within the soul, reformed by the gift of grace. Meditating on the soul as a reflection of the Trinity through its attributes of memory, intelligence and will, we are led to contemplate the First Principle dwelling within. Yet, Bonaventure


\(^{310}\) Bonaventure, *Itin.*, s. 3.3.

\(^{311}\) Ibid., s. 3.4.

\(^{312}\) Ibid., s. 3.5.
notes, the human mind is generally so distracted by the sensory world that it is unable to enter into itself as the image of God. Having fallen down, the soul would be unable to contemplate itself or the eternal truth within ‘... had not Truth, taking on human form in Christ, become a ladder restoring the first ladder that had been broken in Adam’. In this image we see the Incarnate Christ as the One in whom God and creation coincide, reconnecting the opposites of human finitude and divine transcendence. Bonaventure argues that through meditation on Christ and study of the sacred scripture, the soul recovers its spiritual senses: ‘hearing to receive the words of Christ, and sight to view the splendour of that Light’.

The spiritual senses, analogous to the five physical senses, are understood as the work of the Holy Spirit through which the soul becomes immediately present to the life-giving activity of divine grace, and represent both the grace-acquired ability to grasp the eternal truth that is contemplated, and the state of delight thus produced. The soul is thus made hierarchical; that is, properly ordered that it may ascend through the degrees of purgation, illumination and union with the Beloved.

Bonaventure's spiritual theology here begins to connect with the Christ-mysticism of Francis. Ilia Delio suggests that the practical key to understanding the theoretical vision of the Itinerarium is Bonaventure's major life of Francis, the Legenda Major written shortly afterwards in 1261. In the Legenda, Bonaventure depicts Francis as the exemplary mystic, consumed with a burning love for the Crucified Christ to the point that 'after the true love of Christ had transformed his lover into the same image ... this angelic man

313 Ibid., s. 4.2.
314 Ibid., s. 4.3.
315 Ibid., 125, editor’s footnote no. 2.
316 Ibid., 75–77, s. 4.4.
317 Delio, Crucified Love, 79.
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Francis descended from the mountain bearing with him the likeness of the Crucified engraved … on the members of his flesh by the finger of the living God'. 318 In Chapter Four of the Itinerarium, Bonaventure indicates that through meditation on Christ the soul is reoriented and rightly ordered toward compassionate love. 319 The spiritual exercises corresponding to this chapter are those of the Lignum Vitae, a series of structured meditations on Christ from his cosmic origins and miraculous birth, through the temptations, miracles and transfiguration towards an vivid evocation of Christ's passion, death, resurrection and ascension. 320 Turner notes the important difference that whereas the mystical Christ is central in the Itinerarium, the historical Jesus becomes the object of meditation in the Lignum Vitae. Similarly, whereas the cosmic Christ is the Exemplar of Creation, the Incarnate and crucified Christ 'makes visible the invisible' and is the means of ascent to the Father. 321 In this system of mental prayer which anticipates the reflective meditations of Ignatius Loyola's Spiritual Exercises, the meditator uses the imagination to enter into the scene at a sensory level in order to experience Christ as the heart of compassionate love.

A purely linear reading of the Itinerarium would suggest that in Chapter Four the soul moves beyond its 'natural' powers to participation in the Trinity through the infusion of grace. Turner argues however that the medieval conception of hierarchy means each step incorporates the previous stages and anticipates the remaining ones, so at this stage the natural image of the Trinity in the soul is brought by grace to participate in the trinitarian life

319 Bonaventure, Itin., s. 4.5.
320 Bonaventure, “Lig. Vit.”
321 Turner, The Darkness of God, 117.
it naturally reflects. This is evident if we reflect that in the first two chapters divine traces within the natural world may be apprehended by the human mind through the exercise of omniform wisdom; however in order to recognise the creature as a vestige of the divine or to recognise the divine in the creature the mind must also be opened by scripture and the theological virtues (multiform wisdom), through the grace of the Holy Spirit present to the mind (uniform wisdom). Bonaventure's schema should thus be read as implying that the stages are in some sense simultaneous, even if one stage predominates at any particular time.

Chapters Five to Seven move beyond 'exteriority' and 'interiority', to 'ascent'. From this point, the focus is on mystical union, which Bonaventure understands not as dissolution into the oneness of divinity, but union with God by being joined to Christ as the medium linking divinity with created reality. The theme of conformity to Christ, begun in the fourth chapter, is completed in the sixth and seventh, where Christ as the coincidentia oppositorum becomes the medium of ecstatic union with the Father.

The last three chapters are connected by the symbolism of the tabernacle, representing the soul as the dwelling place of God. In Chapter Five, Bonaventure informs us that the meditation of the earlier stages has brought us into the sanctuary of the temple, and the threshold of the Holy of Holies, 'where the two Cherubim of Glory stand over the Ark, overshadowing the Mercy Seat'. Bonaventure here reflects on the coincidence of opposites in the divine nature considered as Being, which corresponds to the first Cherub:

Behold, if you can, this most pure Being, and you will find that it cannot be thought of as a being which is received from something

\[322\] Ibid., 112–13.
\[323\] Bonaventure, Itin., s. 5.1.
else. Hence, it must necessarily be thought of as absolutely first … Because it is first, eternal, most simple and most actual, it is most perfect; for such a being lacks absolutely nothing, nor can any addition be made to it.\textsuperscript{324}

In Chapter Six, he turns to the second Cherub and invites us to contemplate the coincidence of opposites in the Trinity. This corresponds to the movement from the contemplation of God as Being to God as the Good:

The first method fixes the soul’s gaze primarily and principally on Being itself, declaring that the first name of God is ‘He who is’. The second method fixes the soul’s gaze on the Good itself, saying that this is the first name of God. The former looks primarily to the Old Testament, which proclaims chiefly the unity of the divine essence. … The latter looks to the New Testament, which determines the plurality of the divine Persons by baptising in the name of the Father, and of the Son, and of the Holy Spirit.\textsuperscript{325}

The progression from Being to Goodness, or Being-Towards thus corresponds to the movement from divine Unity to Trinity. Bonaventure directs attention from God as the eternally self-sufficient ground of existence to God as the triune flow of self-gifting love in which are united ‘the first and the last, the highest and the lowest, the circumference and centre, the Alpha and Omega, the caused and the cause, the Creator and the creature’.\textsuperscript{326} As the \textit{persona media} of the Trinity and the \textit{medium metaphysicum} or centre of creation and the human soul, Christ here functions as the final reconciliation of opposites that is able to unite the human soul to God. This is the perfection of the soul’s illuminations, to which corresponds the completion of God’s act of creation on the sixth day.\textsuperscript{327}

\textsuperscript{324} Ibid., ss. 5.5, 5.6.  
\textsuperscript{325} Ibid., s. 5.2.  
\textsuperscript{326} Ibid., s. 6.7.  
\textsuperscript{327} Ibid.
In the final chapter we enter through the Crucified Christ into the abyss of mystical ecstasy, and the mind must 'transcend and pass over not only the visible world, but even itself'.

Turner argues that Bonaventure's ground for apophasis here is not withdrawal from the world but the coincidentia oppositorum, which reaches its most extreme form in the Crucified as both the fullness of every divine vestige and the brokenness and crucifixion of all affirmations. Thus, apophasis in Bonaventure is not negation but participation in the death of Christ in solidarity with all who die.

In the final paragraph of the *Itinerarium* Bonaventure writes that the aspirant should ask not learning, understanding or clarity:

> but the fire that wholly inflames and carries one into God ... it is Christ who enkindles it in the flame of His most burning passion. This fire he alone truly perceives who says, 'My soul chooseth hanging, and my bones death'. ... Let us, then, die and enter into this darkness ... With Christ crucified, let us pass out of this world to the Father.

For Bonaventure the primary motif at this stage is the figure of St Francis who precisely when he bears the wounds of Christ is said to have 'passed over' into the abyss of divine love. Delio remarks that this demonstrates that Bonaventure's spirituality is never disembodied and never disengaged from its created context, although always seeking to gaze beyond the creature to the figure of the Crucified.

As noted above, the movement from Chapters One through Seven in the *Itinerarium* does not constitute a hierarchy or stage-process in the spiritual journey. Following Dionysius, who structures his theology in the dialectic between cataphasis and apophasis, in Bonaventure's mystical

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328 Ibid., s. 7.1.
330 Bonaventure, *Itin.*, s. 7.6.
331 Delio, *Crucified Love*, 81.
theology the movements of cataphasis and apophasis similarly constitute a *coincidentia oppositorum*. In the writing of Hugh of Saint-Victor, Bonaventure's more proximate source, the Dionysian dialectic is qualified by the observation that love persists, even when knowledge fails.\(^{332}\) Bonaventure adds to this that the apophasis of love is participation in the death of Christ.\(^{333}\)

I shall continue in my discussion of the *Itinerarium* in the final section of this chapter, arguing for an interpretation in which the apophasis of the sleep with Christ in the tomb finds its transcendence in the dawn of a new creation on Easter morning. For now, the most eloquent summation is that of Denys Turner, who refuses a dualistic separation and sees cataphasis and apophasis brought together in the *coincidentia oppositorum* of the Crucified: 'More radically still, Bonaventure locates that *transitus* (from knowing to unknowing) in the broken, crucified Christ, in a similarity so dissimilar as to dramatise with paradoxical intensity the brokenness and failure of all our language and knowledge of God'.\(^{334}\) Appropriately, then, the final chapter of the *Itinerarium* ends with an exhortation to silence.

### 2.2.2 Ecstasy and the spiritual senses

In the following paragraphs I conclude my reflection on Wisdom and the soul's journey to God in the mystical theology of Bonaventure by proposing a reading of the *Itinerarium* following Hans Urs von Balthasar's reflection on mystical experience and the spiritual senses in Bonaventure. Balthasar, who retrieves Bonaventure's doctrine of the spiritual senses for a contemporary theological aesthetics, argues that its Christological focus

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\(^{332}\) See s. 1.1.3.

\(^{333}\) Rorem, *Pseudo-Dionysius*, 220.

renders spiritual experience inseparable from the imagination and senses. Through contemplation of Christ as the self-expressive Word made flesh, the senses are oriented toward the Good. Ultimately, Balthasar suggests that through identification with the self-offering of Christ as the highest Good, the soul ‘passes over’ into the abnegation of experience that is participation in the death of Christ. This is understood not as withdrawal from created reality but as the deepest point of solidarity with all that dies. I conclude by suggesting that the conclusion of the *Itinerarium* with the invitation to enter into the sleep of death with Christ in the tomb implies the anticipation of resurrection as the joyful transformation of creation. To begin, I discuss the apparent contradiction in the apophatic sleep with which Bonaventure concludes.

It is evident from the above discussion that Bonaventure’s synthesis of Augustinian-Dionysian theology with an early Franciscan Christ-mysticism is not altogether seamless. The problem hinges on Bonaventure’s simultaneous assertion of introversion and extraversion; of Plotinian gradations leading from sensation to spirit, on the one hand, and imaginal immersion in created reality, on the other. Some commentators regard this aspect of Bonaventure’s spiritual theology as contradictory and incoherent. For example, H. Paul Santmire points out that while Bonaventure’s exemplary metaphysics reflect a Franciscan sensibility in seeing creatures as reflecting God in myriad ways like light refracted through a stained glass window, in the *Itinerarium* he apparently regards creation only as a ladder to be climbed towards apophatic union with God. Santmire suggests that Bonaventure contradicts his own view of God’s overflowing goodness in creation by opting for a spiritual theology of ascent which identifies the final

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beatitude in withdrawal from creation.\textsuperscript{336} Against this view, Turner suggests that apophasis in Bonaventure must be understood in terms of the coincidentia oppositorum as the simultaneous affirmation of immersion in created reality and the silence of unknowing epitomised by crucified Love. This point may be elaborated by turning to Balthasar’s analysis of ecstasy in Bonaventure’s spiritual theology.

Balthasar argues that apophatic approaches to spirituality emphasising withdrawal from sensory reality are both dualistic and contrary to the Biblical witness, which consistently connects revelation with sensory experience. Balthasar attributes the denial of imagination and the senses to the neo-Platonic tradition, and subsequently as a reaction against Montanism following Augustine.\textsuperscript{337} Against this, Balthasar believes the resolution of subjective mystical experience requires a synthesis of sensation and spirit.\textsuperscript{338} Discussing the Exercises of St Ignatius of Loyola, in which the retreatant is encouraged both to apply the senses in meditating on the scriptures, and to meditate on the senses, Balthasar commends an understanding of sensory experience as capable of apprehending grace through its end or object in creation.\textsuperscript{339}

In \textit{Glory of the Lord}, Balthasar discusses at length the understanding of spiritual ecstasy received from Dionysius, which Bonaventure tempers with a Franciscan spirituality. Firstly, Balthasar points out that for Bonaventure, the soul’s approach to God is primarily an experience of beauty:

\textsuperscript{336} Santmire, \textit{The Travail of Nature}, 102, 103.


\textsuperscript{339} Ibid., 1:368, 373–75; cited Fields, “Balthasar and Rahner on the Spiritual Senses.”
For there is great beauty in the world, and far greater beauty in the Church which is adorned with the splendour of the gifts of holiness, but an even greater beauty lies in that heavenly Jerusalem and the greatest beauty of all is to be found in that supreme and most blessed Trinity.\(^\text{340}\)

Secondly, Bonaventure goes beyond a Dionysian understanding of apophasis, which he terms *ecstaticus excessus*, by the use of nuptial terminology.\(^\text{341}\) Such language conveys a sense of being transported out of oneself, united with the Bridegroom as God’s personal and loving self-disclosure – an experience that may be beyond words, but constituted by positive delight and self-giving relationship. Thirdly, and most importantly, for Bonaventure’s spiritual theology the *ecstaticus excessus* is epitomised by the foundational event of St Francis’ stigmatisation on Mt Alverna. Balthasar suggests that in the light of Francis’ experience ecstasy, especially as represented in the final paragraph of the *Itinerarium*, should be understood ‘as a Franciscan stripping away of all things, that is to say, as poverty’.\(^\text{342}\) That the self-abandonment of Francis in union with the crucified was experienced bodily is clear, given that the embrace of the flaming Seraph on Mt Alverna imprints on his body the wounds of crucifixion. The ecstatic wounding occurs because the absolute abandonment of Christ to the world on the cross is matched by the consuming desire of Francis to be one in love with the crucified.\(^\text{343}\) What this means is that for Bonaventure the soul is not united with God through separation or withdrawal from the body, but on the contrary must be embodied in order to reach its goal.\(^\text{344}\) Balthasar concludes


\(^{343}\) Ibid., 2:271–72.

that for Bonaventure ‘ecstasy, even in its Dionysian aspects, is not a flight out of the world that leaves it behind, but rather the opening of the world for God, or more precisely the revelation of the fact that the world has already been grasped by God’.  

For Balthasar, the material itself becomes a form of sacrament because the incarnation of the Word gifts the whole human person with the potential to become a vehicle of grace. Specifically, Balthasar holds that for the human person, understood through the prism of an incarnational metaphysics, there can be no dualistic separation between matter and spirit. Thus, the sensory is capable of bearing the spiritual because that is what has occurred in the Incarnation. As a result, ‘the higher orders express themselves immanently in the lower orders, that become the forms within which the higher orders are grasped. The lower orders are thus ontologically efficacious since they make the higher orders present’. Phenomenal reality becomes sacramental, or a ‘monstrance of God's real presence’.

As the embodied human person is already elevated to the highest possible form as the vehicle of the Incarnation, Bonaventure does not believe the human person can achieve a spiritual perfection disconnected from bodily experience. Thus, Balthasar argues, Bonaventure always maintains a view of the human person as a unity in duality. This is evident in his doctrine of the spiritual senses, which operate to connect sensory experience and imagination to the higher powers such as intellect and will. In the Breviloquium, Bonaventure notes that as the ‘complete human being placed in paradise … our first parents were given a double range of senses,'
an inner and an outer’. Thus in relation to every exterior sense or movement ‘there is a corresponding appetite toward some good’. Balthasar notes that the spiritual senses are not a separate ‘higher’ sensory apparatus, but an orientation of the human senses to the incarnate Word as the ecstatic union of spirit and flesh comprising an economy of ‘verbum increatum (hearing and seeing), inspiratum (smelling) and incarnatum (tasting and touching)’ which surpasses all intellectual or conceptual experience of God. As Balthasar notes, human beings equipped with duplex sensus receive the grace to ‘interpret God’s invisible wisdom in the physical book of nature’, and are enabled to ‘read the book written on the inside and on the outside: the book of Wisdom and her works’.

For Bonaventure (following Augustine) the physical beauty of things generated from the elements and from light passes from the object into the subject through sensory perception. As Balthasar remarks, Bonaventure is concerned to make the aesthetic sense-perception ‘transparent’ to the trinitarian reality that lies behinds it; and thus in the first stage of the Itinerarium, oriented towards beauty in the external world and responding to external beauty as vestige, image or similitude of the Trinity, the mind is led toward the source of the pleasure it receives.

Balthasar notes that the spiritual senses reach their highest point in the second stage (Chapters Three and Four) of the Itinerarium. Here, through faith, hope and love focussed on Christ, the soul receives the

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354 Ibid., 2:341.
355 Ibid., 2:321.
fullness of spiritual hearing and sight so that ‘she now sees and hears her Bridegroom, she smells and tastes and embraces him and can exult like the Bride in the Song of Songs’.\(^{356}\) The spiritual senses emerge from the contemplation of incarnate Wisdom precisely because this meeting-place of heaven and earth is also the chief object of human experience of God through the senses.\(^{357}\) This, Balthasar argues, is consistent with Bonaventure's interpretation of the height of Francis's own experience, which culminates in the stigmata, an intensely personal and corporeal connection with the wounds of Christ.\(^{358}\)

Balthasar thereby rejects an apophatic interpretation of the 'rest with Christ in the tomb' that is experienced at the completion of Bonaventure's third and final stage, noting that ‘at the foot of the ascent the spiritual senses touch the bodily senses, but they endure through all the stages of the intellect’s perception until the ecstasy’.\(^{359}\) Within the third stage of the *Itinerarium* (Chapters Five and Six), Bonaventure first addresses the mystery of God as Being, 'proclaiming that the primary name of God is the one Who Is'.\(^{360}\) The attention of the soul is then turned towards the Good Itself, 'proclaiming that this is the primary name of God'.\(^{361}\) It is in the identification with God as the Good that the soul is oriented towards the self-abandonment of the incarnate Word. With the attention thus directed towards the Good, the senses remain fully engaged until the conclusion of the final chapter, when the soul enters into a negation of experience which parallels the abandonment of the Crucified and the darkness of Holy Saturday. This

\(^{356}\) Ibid., 2:322; citing Bonaventure, *Itin.*, s. 4.3.
\(^{358}\) Ibid., 2:321.
\(^{359}\) Ibid., 2:323.
\(^{360}\) Bonaventure, *Itin.*, s. 5.1.
\(^{361}\) Ibid., s. 6.1.
explicitly Christological negation is for Balthasar not the darkness of apophasis but a transition through grief and self-loss that must be negotiated before the soul can enjoy the beatific paschal vision. The invitation in the final paragraph of the *Itinerarium* to sleep with Christ in the tomb references both the Sabbath of Jesus’ sleep in the tomb and the seventh day of creation on which God rests.

Bonaventure sees the culmination of the third stage (Chapter Six) as the perfection of creation and of humanity as 'man made to the image of God'. Thus, the penultimate chapter ends with an allusion both to the sixth day of Jesus’ final week beginning with the arrest on Thursday evening and ending with his death on the cross, and to the sixth day of creation in Genesis ch. 1. For Bonaventure, the man 'so wonderfully exalted, so ineffably united' is epitomised by Francis who, having received the vision of the six-winged seraph and the wounds of Christ in his feet and hands arrives at the threshold of his passover into the paschal mystery. This explicit glorification as the culmination of the sixth stage best corresponds with the Johannine version of the Passion. In the final chapter of my thesis I will use this correspondence with the final stages of the *Itinerarium* to suggest an ecotheological reading of the passion narrative in the fourth Gospel.

The ultimate goal of the *Itinerarium* is not the darkness, whether of solidary death or of apophasis, but the anticipation of the paschal dawn. In describing the sleep with Christ in the tomb as a 'passing over' and a self-transcendence, Bonaventure is clear that the negation of the soul's experience is itself not the final word, as it is 'a darkness that is resplendent

363 Bonaventure, *Itin.*, s. 6.7.
364 Ibid., ss. 6.7, 7.2-3.
365 See s. 7.2.
above all splendour, and in which everything shines forth ... which fills invisible intellects full above all plenitude with the splendours of invisible good things that are above all good'.

Following Balthasar’s interpretation, the *Itinerarium* thus describes a journey that begins and ends within the matrix of creation and traces the incarnation, crucifixion and resurrection of Christ. The journey concludes at the penultimate point of the identification which is the self-abandonment or kenosis of Christ upon the cross. This reflects a similar emphasis to Francis’ own identification with the crucified Christ that culminates in his stigmatisation on Mt Alverna, and may also be understood as a radical identification with the suffering of all creation. That the rest with Christ in the tomb is not the ultimate destination is made clear in the third collation of the *Hexaëmeron* where Bonaventure notes: ‘The seventh day coincides with separation from the body. "This day thou shalt be with me in paradise." And this day has no evening. Then follows the eight day, which does not differ from the one before but is a repetition of the first, when the soul rejoins its body’.

I shall return to Balthasar’s narrative approach to the redemptive meaning of the death of Christ in the final chapter, where I discuss the theme of shalom as the eschatological completion of creation. For Bonaventure, the self-donation of the Crucified is understood as the fulfilment or outworking of the same self-donation of the Word in the act of creation. Thus, the end-point of the *Itinerarium* is the out-pouring of divine love in creation, as the only conceivable arena of the salvific action of the triune God. Bonaventure’s spiritual theology, through its emphasis on conformity to

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366 Bonaventure, *Itin.*, ss. 7.1, 7.5.
367 Bonaventure, *Hex.*, s. 3.31.
368 See s. 7.2.
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Christ as the metaphysical centre of creation and the human soul, thus sees the human creature as transformed in and through its created context into the likeness of the one who is poured out in love for creation.

2.3 Conclusion

This chapter completes my initial survey of Bonaventure's theological project, from the emphasis on the Trinity in the first half of his career to the mature emphasis on the centrality of Christ in creation and the journey of the human soul through creation into conformity with Christ.

Several important themes emerge have emerged, beginning with the emphasis on the dynamic of self-emptying or kenotic donation in the imminent Trinity. This leads to a view of creation as gifted with divine goodness and reflecting the beauty of the Trinity in its own fecundity. Bonaventure's emphasis on the centrality of Christ both in the immanent Trinity and in creation means that all created entities mirror the divine Exemplar as vestige, similitude or likeness, and lead the mind back to its uncreated origin. The theme of the coincidentia oppositorum which structures the dynamic flow of the Trinity is also evident in Bonaventure's spiritual theology in the Itinerarium. As the medium metaphysicum of creation, Christ conjoins the opposites of matter and spirit, created flesh and divine (uncreated) Word. Because of the Christological focus of Bonaventure’s spiritual theology underpinned by his doctrine of the spiritual senses, the mind’s journey toward God through identification with the death of Christ represents a journey, not of withdrawal from created reality, but toward kenotic identification with the whole of creation in suffering and love.

Bonaventure’s theology thus proposes a view of creation not only as ontologically grounded in and reflecting the self-expressive Word of God, but
as tending back to God through Christ in whom is reconciled ‘the circumference and centre, the Alpha and the Omega, the caused and the cause, the creator and creature’. The spiritual journey of human beings through contemplation of created beauty, meditation on Christ as the incarnate Word, and participatory identification with God as being and goodness epitomised by the death of Christ, retraces the self-outpouring of divine love within creation. The implication for my argument is not simply that Bonaventure’s theology renovates creation by relating it to the dynamic of kenotic love at the heart of the Trinity, but also that it proposes a human journey based ultimately on the spiritual praxis of St Francis, for whom identification with Christ led ever deeper into solidarity with his fellow creatures.

Over the course of the next two chapters, I will introduce the evolutionary Christology of Pierre Teilhard de Chardin, who like Bonaventure understands Christ to be at the centre of created reality. Whereas Bonaventure proposes a journey, or itinerarium, of the human soul into the heart of Christ, Teilhard imagines an evolutionary itinerarium of the whole created order into Christ. In subsequent chapters I will draw out the correspondence between these visions in order to propose a model for a contemporary ecotheology that both connects the life of the more-than-human ecology to Christ and suggests a human vocation that reflects divine Wisdom.

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369 Bonaventure, Itin., s. 6.7; cited Cousins, Bonaventure and the Coincidence of Opposites, 91.
3 Evolution and the Great Chain of Being

In this chapter, I explore developments in philosophy and the natural sciences between the 17th and 19th centuries. During this period premodern assumptions gave way to developmental models of the emergence of species and foundations were laid for both for scientific models of evolution and philosophical process thought. These foundations provide the context for the evolutionary Christology of my second major thinker, the Jesuit theologian/scientist Pierre Teilhard de Chardin (1881-1955).

From the point of view of ecological theology, one of the most significant scientific advances is the transformation of the biological sciences with the advent of the theory of evolution in the mid 19th century, which dismantled premodern assumptions of fixed species. In the following chapter I will introduce the thought of Teilhard de Chardin who insists on the validity both of scientific observation and theological reflection, and asserts that Christology must take into account the radically altered perspective on creation and human life offered by evolution.370 In exploring Teilhard's evolutionary Christology I will note a number of connections with Bonaventure's exemplary theology of creation, and argue that Bonaventure and Teilhard together provide some important resources for a contemporary ecotheology. However, between the medieval world of Bonaventure and the modern world of Teilhard lie seven centuries of philosophical and scientific reflection. Following his death, Bonaventure's unique Christocentric theology of creation that emerges from an Augustinian Christian neo-Platonism was overtaken by more dualistic Aristotelian approaches. Although Bonaventure's writings dominated Franciscan theology and philosophy for several decades,

their influenced waned with the arrival of John Duns Scotus (1266-1308). Bonaventure’s thought was retrieved in the 16th century by Capuchin Franciscans and re-emerges in the late 19th century study by Franz Ehrle of the disputes within medieval scholasticism.\footnote{Cullen, \textit{Bonaventure}, 20–21.} A comprehensive retrieval of Bonaventure’s thought would not be attempted until Etienne Gilson’s 1938 \textit{Philosophy of St Bonaventure}.\footnote{Etienne Gilson, \textit{The Philosophy of St Bonaventure}, trans. Illtyd Trethowan and Frank Sheed (New York: Sheed and Ward, 1938).} My study of the parallels between Bonaventure and Teilhard thus jumps ahead several centuries to the beginnings of evolutionary thought in the late 17th century, which form the background to Teilhard’s evolutionary Christology.

In the first section of the chapter I explore four early philosophical responses to the implications of impermanence and change in the natural world. Here, I follow the reflection by Arthur Lovejoy in \textit{The Great Chain of Being}, while noting the challenges to this work in relation to the classical and medieval periods. The ancient assumption that the inventory of nature represented a hierarchy of all possible creatures (plenitude) from the simplest to the most complex possible creature, without gaps (continuity) was contradicted by the accumulation of evidence that existing species had changed over time and that species that once existed had become extinct. Attempting to re-imagine the chain of being as a chain of becoming, philosophers introduced an emphasis on process and development.

In the second section of the chapter, I consider the reception of Charles Darwin’s theory of evolution in the 19th century. For some decades prior to Darwin evolutionary perspectives had gained strength, but Darwin’s \textit{On the Origin of Species} won immediate acclaim for its exhaustive
accumulation of evidence. The period following the 1859 publication of *Origin* is of interest as the widespread support for the evolutionary development of species within the scientific community belied a lack of consensus regarding Darwin’s specific model of evolutionary process until the early years of the 20th century. For the remainder of the 19th century scientific models of evolution were divided between Darwin’s ‘mechanistic’ proposal of random variation and natural selection, and developmental models that regarded evolution as teleological, or purposeful.

Finally, I explore the model of evolution proposed by French philosopher Henri Bergson in 1905, which sought to avoid the extremes of both mechanistic and teleological determinism by focusing on the agency of living organisms themselves. As I shall show in the following chapters, Bergson’s argument not only influenced Teilhard’s evolutionary thought but also offers an important corrective.

### 3.1 Evolutionary thought in the 18th century

Bonaventure’s medieval trinitarian doctrine provides a view of creation as grounded in Christ and reflecting Christ through exemplarity as a vestige, likeness of similitude. Creation itself is a Word of God, or a book which reveals God’s character and purposes, although human beings bent over by sin are unable to read it except by the illumination of the Holy Spirit. This makes the natural world, for Bonaventure, of importance in drawing the human soul closer to God, and important in its own right as an aspect of divine self-expression. While important for ecotheology, Bonaventure’s thought is not ecological in the contemporary sense of understanding the

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373 *Darwin, On the Origin of Species.*
natural world as an interdependent network of processes and relationships within which human life finds its necessary context. An ecological sense would not emerge until the 20th century, but the roots of this lie much earlier, in the gradual development of evolutionary models in philosophy and science.

The evolutionary understanding, which begins to emerge in the 17th century with the availability of evidence of species extinction and intermediate forms, introduces both a horizontal focus on species’ interactions with their environment and one another, and a longitudinal perspective on change over time. This completely reverses the ancient neo-Platonic understanding of creation as proceeding from God as a series of emanations: commencing in perfection and gradually devolving into fixed species.

In *The Great Chain of Being*, Lovejoy notes that from the last half of the seventeenth century, hitherto unassailable assumptions of plenitude (that every possible created entity should exist in phenomenal reality) and continuity (that there should be no ‘missing’ intermediate stages) began to crumble under the weight of observational evidence and the emergence of scientific thinking.\(^ {374}\) I engage with Arthur Lovejoy’s *The Great Chain of Being* in exploring the changes in natural philosophy in the 18th century as the new science of palaeontology began to uncover evidence that challenged the premodern view of humanity as the pinnacle of creation conjoining earth and heaven. Lovejoy’s influential 1936 analysis of the history of the chain of being as a *scala natura* hierarchy of creatures spanning the full range of possibilities from the simplest to the most perfect, has attracted vigorous criticism over several decades.\(^ {375}\) In this work,

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Lovejoy attributes to Plato and Aristotle the axioms of plenitude and continuity which hold that all possible creatures on the chain of being must be instantiated in nature. On this basis he argues that the ‘chain of being’ formed the most important basis of reflection on the natural world for almost two millennia. Edward Mahoney argues that Lovejoy overstates the basis of the schema in Plato and Aristotle and misattributes the conception of the great chain that was current in the 17th and 18th centuries to an earlier period. In addition, Lovejoy’s analysis of medieval writers neglects the rich tradition of medieval trinitarian thought and theological metaphysics that were able to answer questions about the relationship between God and creation without the constraint of assumptions about a chain of being. In particular, as Mahoney notes, Lovejoy misreads Aquinas by assuming he occupies the same thought-world and is interested in answering the same questions as the Greek philosophers. As McGinn notes, ‘Lovejoy’s stress on the plenitude and continuity of the chain of being … may be legitimate for 18th century usage, but is less valuable for explaining most of the neo-Platonic and medieval uses’. Similarly, Mahoney allows the basic premise of Lovejoy’s conceptual schema, and his analysis of the central meaning of the chain of being as it presented itself to thinkers in the 17th and 18th centuries.

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Lovejoy notes that even as logical difficulties with the axioms of plenitude and continuity became impossible to ignore, during the first half of the 18th century the image of creation as a Chain of Being attained its most widespread popular acceptance. It would be in this same century, however, that problems posed by scientific observation would fatally challenge the foundational assumptions of Great Chain thinking.

Lovejoy comments that for early 18th century thinkers, the principle of continuity had come to suggest there must also be a continuity between the non-human and human creation. This, of course, would presage one of the key assumptions of modern evolutionary theory. However, given the persistence of the assumption that humans occupied a middle station between the material and spiritual realms, a picture began to arise of human existence as somehow discordant. Lovejoy notes the general attitude is aptly eulogised by Alexander Pope as 'Plac'd in this isthmus of a middle state ... In doubt to deem himself a god or beast'. This dislocated view of the human condition exposed a contradiction between the principle of continuity and the assumption of discrete categories separating animate and inanimate species, that had operated since it was proposed by Aristotle. As a result, the notion of species as fixed and bounded categories also began to be called into question. By mid-century, palaeontologists began searching for evidence of 'missing links' between species, in particular between humans and the great apes. The development of microscopy and the availability of fossil remains also enabled the search for extinct organisms at the bottom of the scale. Thus the assumption of a fixed and static creation had been replaced by the model of a world in which species boundaries were blurred.

383 Ibid., 227–28.
and transient, with routine extinctions and emergence of new species. This forced the conclusion that the current range of species was incomplete, punctuated by holes representing those species which had become extinct as well as invisible gaps representing the future forms of creatures.384

Gradually, the idea of a complete, continuous chain of being came to be re-conceptualised not as the current inventory of creation but as the ideal 'programme of nature', the sum of all things across time; never completely realised at any one time but destined to be gradually achieved in the course of cosmic history. As Lovejoy summarises it: 'While all of the possibles demand realisation, they do not all achieve it at once'.385 Thus, while the created world at any given time was admitted to be discontinuous, the idea of continuity was amended to mean that nature gradually fills in the gaps. The most important consequence of this shift is that, during the course of the 18th century, the project of creation had come to be conceived as dynamic: incomplete and in process towards fulfilment. Now, for the first time, completion was understood to be the telos of creation, its destination rather than its initial state.

In this section I note the contributions of four 18th century thinkers, each of whom foreshadow Teilhard’s evolutionary Christology in important ways. I begin with Gottfried Leibniz (1646-1716) who by the beginning of the century had proposed a way of preserving the assumptions of plenitude and continuity with the additional requirement of compossibility: that of the all imaginable things that could be created only those that were compatible with the series of things chosen by God would achieve phenomenal existence. This foreshadows the emphasis on incompleteness and change which is

384 Ibid., 243.
385 Ibid., 244.
crucial in evolutionary approaches. I also discuss Leibniz's philosophy of substance which emphasises activity and mind over form and matter, and foreshadows process and panpsychist views of reality including that of Teilhard.

Robinet's 'germ' theory of creation also emphasises process and final causation as change and development in the natural world are the consequence of the 'germ' striving to achieve its developmental programme. Robinet's 'germ' whether singular or plural also assumes the ubiquity of proto-consciousness in all physical entities, which in Teilhard's system will be referred to as the 'Within'.

At the beginning of the 19th century, Jean-Baptiste Lamarck developed a teleological view of evolution which ascribed agency to living organisms and an innate drive towards complexity. Lamarck also privileges process as the essential characteristic of living systems. Lamarck's views on evolution would provide a powerful alternative narrative of evolutionary process to that of Darwin, and his teleological model is explicitly upheld by Teilhard in relation to human development.

Finally, I discuss the work of G. F. Schelling, who proposes the idea of God and creation involved together in a process of mutual completion. Schelling regards suffering and struggle as essential to the completion of creation and also that suffering is central to God's own experience. Schelling's idea of divine self-donation resonates with Bonaventure, and his model of creation in process from a primordial chaos foreshadows Teilhard as does his doctrine of the final ingathering of the good.

3.1.1 Leibniz, compossibility and process

Leibniz is one of the first natural philosophers in the modern era to recognise the difficulty with the neo-Platonic conception of the natural world
as an emanation from the mind of God following the principles of plenitude and continuity. According to Brandon Look, Leibniz’ philosophy is best seen as a theological response to two different strands of modernist thought. These were the Cartesian view of matter as simple geometric extension (size, shape and movement), and thus infinitely divisible; and the necessitarianism of Spinoza, who considered on the grounds of plenitude that the original creation contained all possible forms. Against Descartes, Leibniz considered if matter was infinitely divisible there could be no simple unity of substance, and if matter was to be equated with geometric extension then there could be no fundamental ground for process other than God. Against Spinoza, Leibniz considered that a creation that was necessarily complete left no room for contingency and denied both divine and human freedom. Although Leibniz does not articulate an evolutionary or developmental view of reality, his emphasis on contingency and incompleteness, process and interiority foreshadows the fundamental concerns of both Teilhard and 20th century process philosopher A. N. Whitehead. In this section I will explore firstly Leibniz’ doctrine of sufficient reason, as an attempt to balance the doctrines of divine goodness and freedom with the evidence of incompleteness and change in created reality. I then turn to Leibniz’ doctrine of substance, in which he deals with interiority, process and final causation.

Aware of evidence that suggested both the disappearance of earlier forms of life and gradual changes of existing forms which suggested the

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388 Ibid., 28.
possibility of new forms in the future, Leibniz rejected Spinoza’s understanding of plenitude as ‘the existence of all possible beings at all times’. Where Spinoza held that if creation was at any time anything less than complete then God would at that time be incomplete or imperfect, Leibniz argued this diminished the freedom of God’s creative will. Thus, Leibniz connects the incompleteness of creation with an affirmation of divine freedom, a solution that echoes Bonaventure’s insistence that the divine self-diffusion in the act of creation is less than perfect. By contrast with Spinoza who insisted on the fullness of creation, Leibniz wished to establish that there must be a determining reason for what in fact is. As a corollary of divine perfection and power, Leibniz holds as axiomatic that God always acts for the best. From this he derives his principle of sufficient reason that ‘nothing is without a reason ... or there is no effect without a cause’. Lovejoy notes that Leibniz does not consistently define causation in this sense but considers his doctrine of sufficient reason amounts to a strong assertion of teleological or final causality. Chiek disagrees that Leibniz embraces a strong teleological finalism, despite regarding God’s choosing of the best as the ultimate explanation of every material event. As I shall suggest below in relation to Leibniz’ doctrine of substances, his view on final causation is not deterministic because the impetus for activity is located with created objects themselves.

389 Lovejoy, The Great Chain of Being, 154; Chiek, “Compossibility,” 115, fn 181.; by corollary, Spinoza believes only presently existing things can be possible.
391 See s. 1.2.2.
392 Look, “Gottfried Wilhelm Leibniz”, ss. 3.1, 3.4.
393 Lovejoy, The Great Chain of Being, 146.
394 Chiek, “Compossibility,” 36.
Leibniz reasoned that whereas in the world of ideas all imaginable existents may be equally possible, in concrete reality the existence of some created things must be incompatible. Building on his principle of sufficient reason, Leibniz explained the apparent incompleteness of creation through the theory of 'compossibility'. This asserted that the actual existence of a creature must be not only possible but 'compossible', which is to say 'compatible with the series of creatures that God has chosen'. At its simplest, this principle may relate to the consistency of certain physical properties. For example, Look suggests Leibniz would regard the metallic properties of mass and ductility as compossibles. More generally, Bertrand Russell believed the criterion of compossibility lay in Leibniz' assumption that any possible created world should obey a uniform series of laws. Lovejoy notes Leibniz does not unequivocally define the term, and considers there is no real difference between Leibniz's 'compossible' and the ordinary meaning of 'possible'. Against this, Chiek argues that compossibility relates to the harmony of the entire world-system grounded in divine wisdom, citing Leibniz’ Summa Rerum: ‘Descartes takes refuge in the immutability of God; but he should have appealed to the harmony of the works of God [harmonium rerum Dei], for the wisest being chooses the simplest means to achieve the greatest results’. Chiek’s interpretation makes compossibility less mechanistic and suggests Leibniz has in mind a continual divine working through the natural processes of change. Although Leibniz’ own meaning is unclear, Chiek’s identification of an explicit

396 Look, “Gottfried Wilhelm Leibniz”, s. 6.6.
397 Lovejoy, The Great Chain of Being, 171., citing Russell, Philosophy of Leibniz (1901), 66.
398 Ibid.
connection in this passage between 'sufficient reason' and divine Wisdom is intriguing.

The most important point is that in grappling with the inadequacy of the ancient notion of plenitude, Leibniz has for the first time drawn attention to the finitude and contingency of creation. His notion of compossibility draws attention not only to the incompleteness of creation but to its internal coherence and relationality. Finally, through his doctrine of sufficient reason, Leibniz introduces final causality as a factor in accounting for natural change, a step which foreshadows the understanding of temporal process in creation in Teilhard and Whitehead. While Leibniz' doctrine of sufficient reason underlies his view of final causation, it does not fully explain his model of natural change, for which it is necessary to explore his doctrine of substances.

Rejecting the Cartesian view, Leibniz insists that only unique created entities with the capacity for agency are true substances. Leibniz argues that 'matter and motion are not substances or things as much as they are the phenomena of perceivers'. Simple substances for Leibniz are called 'monads', which are irreducible noetic units endowed with perception and 'appetition' or drive. Although physical objects or bodies are not in themselves substances they are ultimately composed of simple substances or monads endowed with agency and drive. Thus for Leibniz mind and body are a unity, and apart from simple phenomena every created entity has a dual aspect as matter and mind.

Leibniz suggests complex relationships between monads give rise to all the physical characteristics of creation, including time and space, and eventually also to perception and consciousness in higher organisms.

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400 Look, “Gottfried Wilhelm Leibniz”, s. 5.2., citing Leibniz, Die philosophischen Schriften, II 270/AG 181
arranged as hierarchical aggregations of monads. Thus the entire universe is composed of aggregations of fundamentally mentalistic states. Rescher notes that for Leibniz, monads could be considered as 'centres of force' or programmed units of activity equipped with an innate drive (or 'appetition') which energetically seeks trajectories between present states of instability and new patterns of integration. This makes process, rather than substance, into the primary ontological category, phenomenal reality being constituted not of substantial objects but of ever-changing, coordinated aggregations of fundamental processual units.

What this means is that, for Leibniz, temporal change is shaped by divine wisdom (sufficient reason) as a final cause, but is driven by the agency of individual entities (simple or complex aggregations of monads) as an efficient cause. It is this distinction that prevents Leibniz' model from collapsing into a final determinism. In his view of simple substances endowed with ‘appetition’, Leibniz introduces the idea of a primal multiple, and of all phenomenal entities as complex aggregates. He also introduces the idea of panpsychism, which sees matter as fundamentally inseparable from mind. Finally, his view of the universe as incomplete and characterised by process and change foreshadows process models of the following two centuries. Despite his focus and incompleteness and change, Leibniz does not envisage the natural world as developmental or evolutionary, in the sense of proceeding from simple to more complex organisms. This idea begins to take shape in the work of J. B. Robinet (1735-1820).

401 Ibid., s. 5.4.
3.1.2 Robinet’s germ theory

In Robinet, the idea of the ‘chain of being’ is definitively changed from the static idea that the set of all existing creatures exhaust the creative possibilities, to that of a temporal progression. Observational data had made the ancient assumptions of plenitude and continuity unworkable because self-evidently some creatures that could (and previously did) exist do not in fact exist. However the emerging understanding of a changing natural world made it possible to apply plenitude and continuity to a developmental model. The natural creation as it existed across time would ‘fill in the gaps’. Robinet is one of the first thinkers to develop a model for change directed towards completion. His assumptions regarding interiority foreshadow those of Teilhard, as does his assumption of developmental progress towards a final telos. Like Leibniz, Robinet understands all actual entities to have a noetic as well as a physical aspect, and this will also reappear in the thought of Teilhard and Whitehead.

Although there is a dearth of English-language scholarship on Robinet, Lovejoy discusses his work at length in his 1936 *The Great Chain of Being*. Another valuable source is Terence Murphy in his 1975 doctoral thesis, *Jean-Baptiste Robinet and the philosophy of nature*. Murphy and Lovejoy offer different interpretations of Robinet’s thought which I will briefly explore. On either interpretation, Robinet proposes a developmental and teleological view of created reality.

In his earlier work Robinet assumes a static form of the chain of being, insisting on the fullness of the created order: ‘The work of the Creator

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405 Ibid., 269–74.
would have been incomplete if aught could be added to it.\footnote{407} This leads Robinet into some quaint corollaries such as asserting on the basis of plenitude and continuity that because mermaids can be imagined then they must exist.\footnote{408} In his later work, however, Robinet recognises the difficulties caused by the manifest lack of continuity in the created order, but salvages the principles of plenitude and continuity by proposing that the scale of nature is completed over time.\footnote{409} Briefly, Robinet proposes the original creation, not only of creatures and things, but of a creative ‘germ’ which internalises the principle of development, resulting in a multiplicity of new forms. The forms themselves are transitory while the germ is indestructible.

The difference between Lovejoy and Murphy’s interpretation is that Lovejoy understands Robinet to be proposing multiple ‘germs’, resembling Leibniz’ monads, of which all other entities are composed. Each germ passes through countless physical forms to its ultimate purpose.\footnote{410} Murphy, on the other hand, understands the ‘germ’ to be singular. Everything that occurs in creation history is due to the progressive development of a single creative ‘germ’, within which unfolds the series of time as well as the entire range of possible forms.\footnote{411} This model locates agency, purpose and desire within nature as a whole, conceptualised as the ‘germ’ of God’s initial creation.\footnote{412}

On either interpretation, Robinet is seeking a way to locate the impetus for the creative unfolding of nature within life itself, rather than a continual divine influence which is limited to the original act of creation. As

\footnote{408} Ibid., 272.  
\footnote{409} Ibid., 273.  
\footnote{410} Ibid., 274., citing \textit{De La Natura}, III, 142-143.  
\footnote{411} Murphy, “Robinet and the Philosophy of Nature,” 231.  
\footnote{412} Ibid., 232–33.
Murphy points out, Robinet assumes a Cartesian separation of the spiritual and material realms, and wishes to find a principle for development that does not require an ongoing divine engagement in the natural world.413 This is a similar suggestion to that of Augustine, who holds that the seven 'days' of creation are a single atemporal instant in which creation is endowed with the rationes seminales that enable the unfolding of all that is divinely intended.414 Robinet thus sees the programme of life as a dialectical unfolding of opposites that transcends individual forms.415 As Lovejoy comments, Robinet's model seeks to explain the multiplication of variety in nature, while preserving an overall movement toward some implicit goal.416 This implication is made even clearer in Murphy's analysis which equates the progress of the 'germ' with the working out of the original dialectic of creation.

Robinet's 'germ' theory presupposes an interiority or drive within creation that operates both as an efficient and also final cause, thus preserving a radical separation between God and creation while maintaining creation's progress towards a pre-ordained telos. The essence of Robinet's 'germ' doctrine is that there is in fact only a single creative prototype (the germ) which generates all possible creative possibilities.417 On the basis of a strict interpretation of continuity Robinet also concludes that the phenomenon of consciousness could not emerge ex nihilo in higher forms of life.418 He therefore suggests a proto-consciousness that attaches not only to all living entities but also to inanimate objects. This early theory of

413 Ibid., 228.
414 See s. 1.1.3.
415 Murphy, “Robinet and the Philosophy of Nature,” 230.
417 Ibid., 277.
418 Ibid., 276.
panpsychism which relies, as Lovejoy points out, on the assumption that we can trace the attributes of more complex structures back into simpler and prior entities, will also reappear in elaborated form in Teilhard’s thought.  

For Robinet, as for most of his contemporaries, the evolutionary process is assumed to be teleological, and in particular directed towards the emergence of human life. Robinet's model also displays a somewhat circular logic, given that much of what he ascribes to simpler entities simply serves the aetiological purpose of accounting for the emergence of human attributes. For example, in Lovejoy's account, when Robinet talks about human beings he departs from his premise of continuity by proposing a dialectic or struggle, with mind as the active principle trying to overcome the resistance of inert matter. Lovejoy remarks that Robinet here falls back into the same dualist separation of matter and mind that he tried to avoid. A similar criticism will be levelled against Teilhard, who begins with an insistence on the inseparability of mind and matter, but in relation to human development suggests mind may escape its material frame. In Murphy's analysis however, where Robinet imposes a strong dualism between God and nature he does not place any artificial divide between human and non-human or mind and matter.

The greater significance of Robinet's model is that supposes a creation that is both complete in its original form, and in a state of continual becoming as it progresses towards an inbuilt goal or telos. His overall contribution is thus a view of reality that emphasises pattern both as elaboration of an underlying unity, and as process. The basic reality for

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419 Ibid., 276–77. See s. 4.1.3 for Teilhard's metaphysics of the within.
420 Ibid., 280–81.
421 Ibid., 281–82.
422 See s. 4.1.4.
423 Murphy, “Robinet and the Philosophy of Nature,” 232.
Robinet is not so much matter as creative impulse, process, and pattern. This emphasis will later be taken up by Bergson in his notion of *elan vital*, and Robinet's model of biological evolution also foreshadows the work of Schelling, whose theological model of creative becoming I shall explore later in this section. As Lovejoy suggests, with Robinet the original neo-Platonic logic of emanationism has been replaced by a 'radical evolutionism'. In Robinet's thought, the emphasis has shifted from the way in which the imperfect creation flows from the perfection of God, to concern with how higher and more complete forms emerge from what is lower and less complete. This fundamental shift in emphasis would have profound implications for the development of evolutionary thought.

### 3.1.3 Lamarck and the creative agency of organisms

While the responses of Leibniz and Robinet are predominantly theological, the evolutionary thought of Jean-Baptiste Lamarck (1744-1829) represents the earliest attempt to articulate a truly evolutionary theory of development from the perspective of natural philosophy. As David Young notes, Lamarck coined the term 'biology' for the study of living things, and recognised that a developmental perspective that accounted for changes was a central challenge. Trained as a geologist and zoologist, Lamarck specialised in the study of invertebrates and conducted a series of studies of mussels which he compared with fossil samples. In his 1809 book

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424 See s. 3.2.3.
425 Lovejoy, *The Great Chain of Being*, 281. See s. 3.1.4.
426 Ibid., 280.
Philosophie zoologique, Lamarck proposed that new and more complex species descended over time from simpler organisms.\textsuperscript{428}

Lamarck’s model of evolution would continue to receive widespread support throughout the 19\textsuperscript{th} and early 20\textsuperscript{th} centuries, and is cited by Teilhard in relation to human development although the mechanism Teilhard actually suggests is not equivalent to Lamarck’s model.\textsuperscript{429} In this section I shall focus primarily on Lamarck’s analysis of the ways that evolution is driven by the behavioural choices of organisms themselves, and the complexity of the interaction between living things and their environment. Although the specific mechanism proposed by Lamarck has been thoroughly refuted I will note that his general emphasis on the agency of living things themselves foreshadows Bergson’s model in the early 20th century.\textsuperscript{430}

Lamarck is best known today for two assumptions articulated in Philosophie zoologique. The first is his belief that environmental changes lead to changes in the structure of an individual organism over time as organs develop or decay through use or non-use. Lamarck held that the needs created by a changing environment are experienced by the organism as an inner feeling leading ultimately to physical changes. As David Young notes, this was a widely held belief in Lamarck’s time.\textsuperscript{431} Lamarck’s second assumption is that characteristics acquired by organisms responding to environmental conditions could be passed on to subsequent generations. Lamarck’s model was thus opposed to the then-prevalent ‘design view’ which held that organisms were originally created to suit their environments.

\textsuperscript{429} See s. 4.1.4.
\textsuperscript{430} See s. 3.2.3.
\textsuperscript{431} Young, The Discovery of Evolution, 84.
For Lamarck, all living organisms have agency, respond to and act upon their environment. He thus emphasises the processes by which an individual organism is related to the overall organisation of the natural world. Living matter is quintessentially process, imbued with a 'plastic force' which seeks equilibrium and growth, retaining in its progression through the environment from immaturity to death what it needs for self-preservation and growth.\textsuperscript{432}

Lamarck believes that life is endowed with what he calls ‘le pouvoir de la vie’ an innate drive directed toward increasing complexity and adaptation.\textsuperscript{433} The physical environment creates challenges and introduces discontinuities to which the organism must creatively respond 'not exactly as expression of will but as expression of nature as a living being'.\textsuperscript{434} Lamarck thus holds a view of the living world that emphasises process and growth as organisms react creatively to the challenges and resistances of their environment. In his later writings, Lamarck introduces a principle of equilibrium, or the 'balancing of life against mass', in order to suggest a mechanism for transformation using an analogy with geological erosion. That is, he envisages the process of life as analogous to a wearing away of new channels as an organism overcomes various environmental resistances. The development of new structures, and the differentiation or specialisation of existing structures comes about through the action of the directed 'plastic force' of the organism on the essentially dull matter of its environment. Thus


\textsuperscript{434} Gillespie, “Lamarck and Darwin in the History of Science,” 269.
there is a tendency towards increasing complexity and specialisation as an organism adapts to different environmental challenges.

For Lamarck, mind is synonymous with life. In this he takes a middle ground between the panpsychist view that mind is indigenous to matter, as articulated by Leibniz and Robinet, and the modern materialist view that mind can be reduced to material processes. Lamarck views matter itself as plastic or impermanent: simply that which is digested by the organism in its process toward completion. For some commentators, Lamarck represents 'a medley of dying echoes: a striving toward perfection ... a life process of the organism digesting its environment ... seeking to return to its own; the world as flux and as becoming'. In short, Lamarck is held to represent one of the final coherent attempts to reconcile great chain thinking with the observed reality of a material world characterised by transformation, growth and decay. This conclusion is unsatisfactory, because for Lamarck the telos of evolutionary change is determined not by the final causation of the divine ideas, but by the behavioural choices of organisms and species striving against natural challenges. Lamarck's model thus takes account, in a way that no other evolutionary model would do until Bergson in the early 20th century, both of the behavioural choices of organisms themselves, and the complex interaction between organisms and their environment. Lamarck's insistence on the agency of the living organism is also a strong assertion of the difference between living and non-living entities. As I shall note in my discussion of Teilhard's evolutionary theory, this distinction is largely absent from the neo-Darwinist modern synthesis evolutionary narrative, but is being

435 I will explore this further in s. 4.1.3 Teilhard's version of panpsychism, which he terms the 'within'.
recovered in contemporary research in molecular biology from the informatics perspective.\textsuperscript{437}

With Lamarck, a coherent developmental view of the natural world provides an explanation for the change in species over time based only on behavioural responses to environmental challenges. Today, the assessment of Lamarck’s contribution is generally negative, although he is widely credited with proposing the first testable model for evolutionary process.\textsuperscript{438} Lamarck’s mechanism of the inheritance of acquired characteristics was experimentally refuted by Weismann as early as 1893, and from the mid 20\textsuperscript{th} century the assumption of modern synthesis biology was that the genome of an organism is impervious both to environmental effects and the organism itself. However, as Denis Noble notes, these assumptions have now both been disproved ‘in various ways and to varying degrees’ from within the field of molecular biology itself. Noble details evidence not only for the heritability of acquired characteristics across several generations in certain circumstances, but also for non-random drivers of genetic variability.\textsuperscript{439} As I shall argue in the following chapter, the emphasis in Lamarck’s model on the agency of organisms themselves is also important to recent discoveries in evolutionary science.

3.1.4 Schelling and the unfolding of creation

As Lovejoy suggests, the implications of evolutionary thinking for philosophy and theology first fully emerge within the work of Friedrich Wilhelm Schelling (1775-1854). Schelling’s evolutionary thought envisages creation as a universe-long becoming, with creation in process towards

\textsuperscript{437} See s. 4.2.1.
\textsuperscript{438} Bergstrom and Dugatkin, \textit{Evolution}, 40.
\textsuperscript{439} Noble, “Physiology Is Rocking the Foundations of Evolutionary Biology,” 1236–39.
Christ. For Schelling, the coming to fulfilment of creation is also the perfection of Christ. This emphasis on mutual completion foreshadows Teilhard’s emphasis on universal convergence on the glorified Christ as the centre of creation, which he refers to Christ-Omega. Schelling also makes process central to his conception of reality, and his notion of a God fully engaged with creation in struggling together toward completion ushers in the modern philosophical preoccupation with temporality. Schelling’s model is useful for my argument both in relation to his model of teleological finalism and for his attention to the divine engagement with a suffering and incomplete creation.

In his 1809 treatise Über das Wesen der Menschlichen Freiheit, Schelling first explicitly suggests the idea that God and creation are engaged in the process of coming to mutual completion:

God is a life, not merely a Being. All life has a destiny however, and is subject to suffering and becoming. God has thus freely subordinated himself to this as well, ever since he first separated the world of light from that of darkness in order to become personal. Being becomes aware of itself only in becoming. In Being there is admittedly no becoming; rather in the latter Being itself is posited as eternity; but in its realisation by opposition it is necessarily a becoming. Without the concept of a humanly suffering God … all of history would be incomprehensible.  

With the distinction between being and becoming, Schelling echoes the distinction Leibniz makes between ‘phenomena’ and true substance which has the capacity for appetition and action. For Leibniz, physical objects or static ‘phenomena’ are only recognised as true substance if they are in process. True substance is developmental, because it is composed of

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441 See above, s. 3.1.1.
monads; and thus true substance is also endowed with the inner quality of appetition. For Schelling, to exist is to be actualised by process towards completion. Schelling also applies this criterion to God, suggesting that suffering and process in created reality can only be considered meaningful if God is understood as deeply engaged with the struggle of creation. In the above quote Schelling follows Lamarck in suggesting a view of life as emerging through the overcoming of resistance. Schelling's distinction between the divine being and goodness also echoes Bonaventure's trinitarian theology, which makes a similar distinction within the immanent Trinity based on Dionysian spirituality between God as Being and as 'Being-For'.

Schelling suggests Leibniz's idea of the 'best of all possible worlds' was wrong because he uses the word 'possible' too loosely, connoting all that is not self-contradictory. Schelling agrees with Spinoza that creation follows necessarily from the divine nature, but criticises Spinoza for describing this as a mechanical necessity by emphasising the divine will over the divine nature. Arguing that 'God is life and not merely being', Schelling suggests that God must create the world in a way that is congruent with God's own life. From the fact that creation must be congruent with the divine nature, 'everything follows with absolute necessity, that everything which is possible by means of it must also be actual, and what is not actual must also be morally impossible'. In other words, everything that is congruent with the goodness of God must be given expression within creation, while everything that does not appear in the history of creation is excluded because it is incongruent with the divine nature. This might appear to be a

442 See s. 1.2.1
443 However see my analysis of Leibniz' notion of compossibility at s. 3.1.1.
444 Schelling, *Philosophical investigations into the essence of human freedom*, 61.
straightforward application of the principle of plenitude, except that for Schelling the working out of this congruence depends on the universe-long engagement of God with creation in which the suffering and striving of created beings is matched by the openness and vulnerability of God.

Thus the unfolding of creation is also the unfolding or coming to fullness of God. For example, while affirming the traditional view of God as the Alpha and Omega of creation, Schelling insists that God's own nature is in process towards completion, claiming 'as Alpha He is not what He is as Omega'. Secondly, recalling arguments against Leibniz' 'best of all possible worlds', Schelling suggests that the only view that can make sense of the fact of evil and suffering is one that sees both God and creation as engaged in a 'confused and troubled ascent toward fuller and higher life'.

In his 1977 book, *The Later Philosophy of Schelling*, Robert Brown explores this idea, commenting that for Schelling it is important that the final goal or telos of creation cannot be given from the beginning, because the meaning of the goal is worked out in the struggle to achieve it. In creating the universe, God gives to the divine ideas an independent creaturely existence, which implies struggle and contingency. However, Schelling also believes that at the 'end' of creation God brings all that is good into unity in order to attain its fullest perfection, as 'the good is to be raised out of darkness to actuality in order to dwell with God everlasting: and evil is to be separated from goodness in order to be cast out eternally into nonbeing'.

Thus Schelling is suggesting contingency is central to both divine and creaturely experience. Through engaging with creation, God entices created beings to unfold into fullness.

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447 Ibid., 146., citing Schelling, *Über das Wesen*. 
beings towards their fulfilment; but this is also the fulfilment of God, as the telos of creation is unity with its divine Source. Schelling’s conception of the process of creation towards God resembles Teilhard’s model as it begins from a primordial chaos and ends with the drawing together of reality into Christ while recognising the potential for failure and loss. With his recognition of the incompleteness of God, however, Schelling’s model avoids the outcome of deterministic finalism. This will be important to my argument in chapter 6, where I argue for an amended model of Teilhard’s convergence on Christ-Omega.448

Firstly, Schelling develops a notion of the primordial reality of precreation that he names Ungrund. The primordial reality is not nothingness (Nichts) but formlessness or indistinguishability (Nichtsein).449 This echoes Leibniz’ conception of the primordial chaos, and also foreshadows Teilhard’s idea of the chaos of precreation which he christens the ‘Multiple’.450 Schelling balances this initial condition with a similar distinction at the end of all things between spirit (God’s personhood described as ground and existence), and love (the drawing together of creatures in unity with God). In his notion of the ingathering of the good with the separation of that which is evil, Schelling recognises the potential for failure and loss, and the reality of suffering.

In a 1965 paper entitled 'The Controversy between Schelling and Jacobi', Lewis Ford points out that Schelling’s evolutionary account of God and creation was proposed in the course of a heated dispute with F. W. Jacobi.451 Ford suggests that for this reason, Schelling did not fully realise

448 See s. 0.
449 Schelling, Philosophical investigations into the essence of human freedom, 68–69; see also Brown, The Later Philosophy of Schelling: The Influence of Boehme on the Works of 1809-1815, 146.
450 See ss. 3.1.1 and s. 4.1.2.
the significance of his own proposals, and his evolutionary view of God was never formally developed. Ford also suggests Lovejoy overestimates the extent to which Schelling sees God as engaged with creation in a struggle towards mutual completion. What emerges from a reading of Lovejoy, together with Brown's *The Later Philosophy of Schelling* and Ford's critique, is substantial agreement on Schelling's contribution to evolutionary theology which in connecting temporality with divine contingency opens the way to an ecotheological consideration of natural suffering and the adequacy of traditional axioms in relation to the engagement of God with creation.

As my review of four representative figures has shown, during the 18\textsuperscript{th} and early 19\textsuperscript{th} centuries philosophical and theological attention was drawn to issues of incompleteness and change in the natural world. Old views of the natural world as comprised of fixed species created by God in their current form gave way to evolutionary perspectives and a focus on process that would be continued into the 20\textsuperscript{th} century. Reflection on the ubiquity of change and suffering in the natural world also led to new theological perspectives including the possibility that divine engagement with a creation struggling toward completion might also be the completion of God.

In the next major section of this chapter, I discuss the development of scientific models of evolution, and the reception of Darwin's 1859 *On the Origin of Species*. As I have shown in this section, early scientific narratives of evolution developed alongside and were even foreshadowed by philosophical models of process up to the beginning of the 19\textsuperscript{th} century.

### 3.2 Darwin's theory of evolution and its reception

I turn now to the development of scientific models of evolution during the 19\textsuperscript{th} century, beginning with the decades prior to Charles Darwin's 1858
publication of *On the Origin of the Species*, during which the momentum of scientific speculation regarding evolution gathered pace. Through its exhaustive analysis of the body of available evidence, Darwin’s work crystallised the popular and scientific support already accumulated for some form of evolutionary theory. Nevertheless, the rapid success of *Origin* in convincing both scientists and the public of the fact of evolution obscures the reality that until the early years of the 20th century there was little agreement on the causes of natural variation.

I begin by discussing the decades prior to Darwin’s *Origin*, during which period a number of scientific and popular publications rehearsed the arguments for evolution without offering convincing evidence. Arguments for and against were made, and although few in the scientific academy were in agreement during this period general support for the idea of evolution gradually grew. The publication of *Origin* precipitated a swing of scientific opinion into the pro-evolution camp, primarily due to the weight of observational evidence Darwin had accumulated. Darwin did not propose a comprehensive mechanism for evolution, but suggested evolutionary change depended on random variation within species and natural selection which assured only the most favourable variations were transmitted.

My argument in this section is concerned with the reception rather than the detail of Darwin’s model. As Peter Bowler argues in *The Non-Darwinian Revolution*, although the scientific community generally accepted the evolutionary conclusions of *Origin* there was little support over the following decades for the processes of evolutionary change proposed by Darwin.\(^\text{452}\) Indeed, the tacit position of many scientists was for a teleological process similar to that proposed by Lamarck, with the result that by the end

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of the 19th century there was effectively no scientific consensus on evolutionary process. This would need to await the 1901 rediscovery of the work of Gregor Mendel, and the subsequent development of gene theory in the 1920s.\footnote{Ibid., 6; Marsha L. Richmond, “The 1909 Darwin Celebration: Reexamining Evolution in the Light of Mendel, Mutation, and Meiosis,” \textit{Isis} 97, no. 3 (2006): 447–84.}

To conclude the section I outline French philosopher Henri Bergson's agential model of evolution, which was published in 1911. Bergson's model is unique in that it emphasises the agency of living organisms themselves, and their interaction with the environment. Bergson’s model, which incorporates some of the insights of Lamarck, differentiates between living and non-living things and attributes evolutionary change to the interplay between environmental influences and the \textit{étan vital} or self-directed energy of living things. Bergson’s approach is also important because it is a philosophical response to the emerging findings of evolutionary science. His emphasis on process and interrelationship foreshadows the development of process philosophy as well as some of the concerns of later 20th century biology.

The various evolutionary models I explore in this section demonstrate the fluid and contested state of biological science and theology during the period in which Teilhard would begin to articulate his evolutionary thought. As I turn to this in the following chapter, I will suggest that his proposals are best understood within the context of the philosophical and scientific debates of the 19th and early 20th centuries.

### 3.2.1 The decades before Darwin

Arthur Lovejoy, in an essay in \textit{Forerunners of Darwin}, argues that for at least two decades prior to the publication of Darwin's work, there had
been sufficient evidence for some model of evolution, if not for a proposal as to the processes involved.\(^{454}\) Lovejoy paints a picture of a scientific community prior to *Origin* generally trying to defend a compromise between the Biblical account of creation and evidence of evolution (generally referred to at that time as transformism) emerging from the increasingly extensive fossil record. For example, the theory of successive special creations proposed periodic (‘punctuated’) catastrophes followed by divine acts of creation through which new species were introduced to repopulate the earth. In this section I outline some of the ways in which the emerging understanding of change in the natural world was represented in the decades prior to *Origin*.

Lovejoy observes that all the relevant facts supporting some form of evolution had been well known from the early 1830s. One important but under-appreciated plank in the argument had been provided by Charles Lyell, in his 1835 *Principles of Geology*. In this book, Lyell argued for the new methodological axiom of uniformitarianism which asserted that past geological events could be inferred from the present state of the earth by assuming the constancy of physical laws operating uniformly across time. Opposed by those geologists who adhered to the notion of punctuated catastrophe, uniformitarianism implied that ‘all former changes of the organic and inorganic creation are referable to one uninterrupted succession of physical events, governed by the laws of nature now in operation’.\(^{455}\) What this meant was that only those physical processes actually observed in nature could be used as causal explanations. The principle of

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uniformitarianism primarily distinguished professional geologists from their amateur colleagues who continued to 'read' the Book of Nature with an eye to the Book of Genesis (the ‘two books’ compromise).\textsuperscript{456} Uniformitarianism thus implied a functional scientific agnosticism, or as Lyell remarked, the conduct of scientific research and reasoning ‘as if the Scriptures were not in existence’\textsuperscript{457}. As Karen Armstrong remarks, once the principle of uniformitarianism was accepted, scientists began to see themselves as professionals, and no longer regarded their discipline as a branch of philosophy.\textsuperscript{458}

Lovejoy suggests that once the uniformitarian principle was established then some form of transformism in relation to the living world should have been a natural corollary. In fact, not even Lyell recognised the connection between the geological axiom of uniformitarianism, and the transformation of species. Indeed, Lyell spent considerable energy in his book attacking the idea that one species may be gradually converted into another by 'insensible modifications in the course of ages'.\textsuperscript{459}

The second major but generally unrecognised advance, in Lovejoy's view, was Robert Chambers' argument for transformism in his 1844 work, \textit{Vestiges}. An amateur writing for the general public rather than a scientific readership, Chambers was the first to recognise the link between uniformitarianism and the transformation of species. By applying Lyell's uniformitarian logic, Chambers argued that natural processes must also be the basis of a causal explanation for undeniable changes in species revealed

\textsuperscript{456} See below s. 3.2.2.
\textsuperscript{458} Ibid.
\textsuperscript{459} Lovejoy, "The Argument for Organic Evolution before 'On the Origin of Species,'" 367.
by the fossil record. Lovejoy enumerates several of Chambers' arguments that were derided by the scientific community in 1844 but later used by Huxley and others in support of evolution after the publication of *Origin*. Huxley himself recalled in 1887 that Lyell's work had been crucial in establishing the foundation for evolution 'because it raised in the mind of every intelligent reader this question: if natural causation is competent to account for the not-living part of our globe, why should it not also account for the living part?' Nevertheless, in 1844 Huxley was foremost among those who denigrated Chambers' arguments and non-scientific status.

It is noteworthy that Chambers' work continues to receive the cool reception from the scientific community as it did in his own day. Lovejoy's positive evaluation, for example, is not shared by Young in his 1992 historical work, *The Discovery of Evolution*, who dismisses Chambers' effort as pop science: 'a fairly amateurish argument that the Divine Plan could be realised if species in one geological period gave rise to species of next period 'by a process of modified reproduction', ie. evolution'. Nevertheless, as Bowler points out, contemporaneous scientific attacks on Chambers were entirely unsuccessful. Chambers was not writing for a scientific audience, and the more he was discredited, the more his book was actually read. Thus, Chambers' work was instrumental in building popular support for transformism and the general idea that the creation of life unfolds in a law-like fashion. It would take a more scientific work, built on the painstaking accumulation of observational evidence, before the scientific community was prepared to follow suit.

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460 Ibid., 366–67.
461 Ibid., 377–78.
462 Ibid.
3.2.2 On the Origin of Species and its reception

Almost overnight, the 1858 publication of *On the Origin of Species* made scientific acceptance of evolution possible. Prior to Darwin's publication there were relatively few British naturalists who publicly supported a transformist model, while immediately after publication notable scientists including Julian Huxley, Lyell, Hooker and Asa Grey declared their support. Although models for transformation had been proposed prior to Darwin, as Huxley commented it was Darwin who provided sufficient ground to give them credence. In this section I briefly describe Darwin’s findings, before exploring the different ways in which scientific opinion formed around it over the following decades.

In his earlier works, Darwin did not distance himself from the belief that nature was an unfolding of the divine will, and tried to suggest ways in which God might initiate conditions in which species would be stimulated to adapt to a changing environment. Bowler maintains Darwin at times 'steered close' to Lamarckism and continued to accept that the inheritance of acquired characteristics could play a limited role in evolution. Nevertheless in *Origin* Darwin proposes a completely mechanistic model of random variation, coupled with natural selection for adaptations that conferred an adaptive advantage. In Darwin's model the main driver for change upon which natural selection can operate is change in the natural environment; for example climate change or migration may create new adaptive challenges conferring an adaptive advantage on particular random

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Ibid., chaps. 4, 75–104.

Ibid., 25 notes that Darwin’s ideas continued to develop after he published an earlier version of his theory in 1844.

Ibid., 28.
variations in a genotype. Darwin does not offer any explanation for the
causes of natural variation, other than to assert that this must be random.\textsuperscript{468}

In Darwin's model living organisms are not regarded as having any
influence of their own, being entirely subject to the interaction between
random variations in their own genotype and the vagaries of their
environment. Herbert Spencer who in 1851 published a proposal for
evolution based on a philosophical argument for the significance of humanity
as the pinnacle of the natural creation, later critiqued this aspect of Darwin's
model in particular as both deterministic and mechanistic.\textsuperscript{469} Spencer was
critical of the implication that the emergence and behaviour of living things
could ultimately be reduced to the laws of physics and chemistry. \textsuperscript{470}

Bowler suggests that Darwin's work attracted scientific support even
though it proposed a radically materialistic causal mechanism, for two
reasons. Firstly, the quality of the argument itself based on painstaking
observation brought the transformist hypothesis within the purview of
objective science. For example, Huxley records his own initial reaction to
reading \textit{Origin} as 'how extremely stupid not to have thought of that'.\textsuperscript{471}
Secondly, Darwin proved an extremely able advocate and lobbyist for his
own theory.\textsuperscript{472} However the widespread phenomenon of scientific
'conversion' to Darwinism was superficial, accepting the general hypothesis
of transformism but either ignoring or denying the proposed mechanism of
random variation and natural selection. By the end of the 19\textsuperscript{th} century,

\begin{flushright}
\textsuperscript{468} Ibid., 3–7; Diarmuid O'Murchu, \textit{Evolutionary Faith: Rediscovering God in Our Great
\textsuperscript{469} Bowler, \textit{The Non-Darwinian Revolution: Reinterpreting a Historical Myth}, 64.
\textsuperscript{470} Gilson, \textit{From Aristotle to Darwin and Back Again}, 111.
\textsuperscript{471} Gillespie, "Lamarck and Darwin in the History of Science," 267.
\textsuperscript{472} Bowler, \textit{The Non-Darwinian Revolution: Reinterpreting a Historical Myth}, 69–70.
\end{flushright}
although virtually all biologists accepted some form of evolutionary process, there was no consensus as to the mechanisms involved.

As the only other candidate for an adaptive explanation, Lamarckism retained considerable support within the scientific community among both 'pseudo-Darwinists' (who called themselves Darwinists but in fact adhered to developmentalist views) and 'anti-Darwinists' (who openly sought alternative models). Over the remainder of the 19th century, many of Darwin's most vocal early advocates would remain committed to a teleological view of species transformation. In addition, it was possible to hold that both random variation and Lamarckian processes applied in different circumstances.

Huxley, generally regarded as one of Darwin's staunchest supporters, never fully supported his views on natural selection. Bowler notes that Huxley was a typical 'pseudo-Darwinist', who accepted that observable patterns could be the result of evolutionary processes shaped by adaptation and specialisation, but continued to assert that species transformation could in some ways be influenced by internal (ie. teleological) factors.473 Darwin's leading German advocate, Ernst Häckel, was even more open in incorporating non-Darwinian models, somehow reconciling a belief in natural selection with Lamarckist processes and the nature-mysticism of Goethe. In his later works on evolution published in the early years of the 20th century, Häckel would continue to advocate the Lamarckist principle he called 'direct adaptation' – changes to a species' structure resulting from changes in habitual behaviour.

The mixed reception of Darwin's evolutionary model within the scientific community was paralleled by an equally mixed reception from the churches. Here, the situation was more complex. Although the scientific

473 Ibid., 76ff.
community was divided on questions of evolutionary process, the 1858 publication of *Origin* served to unify opinion around the fact of evolutionary transformation. Amongst theologians and the clergy, the primary axis of dispute was between those who accepted the fact of evolutionary development and those who did not.

As James Moore argues, both churches and scientific academy were undergoing rapid changes associated with professionalisation during the middle of the 19th century. This meant that following Lyell's uniformitarian hypothesis scientists were able to present evidence and argue for new explanations without reference to Biblical authority. Within the Church of England in particular, Bible scholars and theologians were increasingly informed by the findings of historical-critical textual studies. Lindberg and Numbers thus describe the lines of conflict after 1858 as an alliance between professional geologists and Bible scholars, on the one hand, against 'amateur geologists and exeges'. Professional theologians and exeges found little difficulty in accepting developmental models of evolution, although Darwin's suggestion of natural selection was less palatable. Despite the early acceptance of evolutionary thought by theologians such as Cardinal Henry Newman, Roman Catholic theologians were more constrained in their response as a proclamation by Pope Pius IX following

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the First Vatican Council in 1870 forbade the support of scientific conclusions 'contrary to the doctrine of faith'.

Finally, 19th century evolutionary science was turned on its head by the impact of the 1901 rediscovery of the genetic laws first proposed by Gregor Mendel. Coming at a time when many scientists were proclaiming the 'death of Darwinism', modern genetics at first appeared to provide an alternative explanatory model to Darwin. As Marsha Richmond notes, the 50th anniversary celebration of the publication of *Origin* in 1909 was overshadowed by the fractious and chaotic state of evolutionary science, as Darwinism found itself still competing with a variety of developmental models. The impact of the rediscovery of Mendel's laws on Darwin's theory at that time also seemed unclear. By the 1920s, however, most biologists realised that while Darwin had offered no explanation for variation within species, the mechanistic model of variation provided by genetic theory neatly complemented Darwin's model of natural selection. This would provide the basis for the current consensus model known as the 'modern synthesis' which dominated evolutionary biology until it met significant challenges beginning around the late 1970s.

As I have argued above, although Darwin's mechanistic view of evolution ultimately won the day within the scientific community, most biologists for seventy years following the publication of *Origin* espoused models that were at least implicitly teleological. In addition, teleological models provided the common ground between most professional scientists.

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and theologians. Thus, until the beginning of the third decade of the 20th century, the state of evolutionary science remained conflicted, with developmental and Lamarckian views in the ascendancy. Part of the difficulty may have been that during this period no comprehensive philosophical approach to evolution was attempted, apart from Spencer’s 1851 proposal that critiqued the deterministic assumptions of Darwin’s model. A new philosophical approach to the problem of evolution was published by Henri Bergson in 1911, and takes the middle ground by rejecting both the mechanical determinism of Darwin’s model of evolutionary process, and the determinism of teleological finalism assumed by non-Darwinian models. Bergson’s proposal follows Lamarck in attaching the greatest significance to the agency of organisms themselves, and lays the foundations for early 20th century process philosophy.

3.2.3 Bergson’s agential evolutionary philosophy

In 1911, with the publication of his *Creative Evolution*, French philosopher Henri Bergson proposed a model of evolution which in dismissing the extremes both of radical mechanism and radical finalism emphasised instead the agency of the living organism in interaction with its environment. Bergson’s model is particularly important because it engages with the problem of evolution from a philosophical perspective. This allows him to strongly differentiate between living and non-living things and to describe the interaction between organisms and their environment in processual terms. Bergson’s model also foreshadows some aspects of Teilhard’s thought.


482 See s. 4.1.3.
Bergson gives unequivocal support to the fact of evolution, citing the 'triple witness' of anatomy, embryology and palaeontology, but disputes Darwin's mechanistic model on the ground that it denies any agency to the living organism itself and fails to differentiate in any essential way between living and non-living processes.\footnote{Bergson, \textit{From Aristotle to Darwin and Back Again}, 110.} Bergson's rejection of mechanism is ultimately an extension of his emphasis on the inner quality of living organisms: 'we cannot sacrifice experience to the requirements of a system. That is why we reject radical mechanism'.\footnote{Ibid., 113., citing Bergson 'L'Évolution créatrice', in \textit{Oeuvres}, ed. Mitchell, 528.} Bergson's anti-reductionist argument against mechanism is that as evolution is a process involving living organisms it is only to be understood from this perspective.

Bergson's rejection of radical finalism is articulated on exactly the same grounds. He notes that a radically teleological evolutionary model is just as deterministic as a mechanistic model: 'Finalism thus understood is only inverted mechanism'.\footnote{Ibid. \textit{L'Évolution créatrice}, in \textit{Oeuvres}, ed. Mitchell, 528.} This argument is opportunistic, as no evolutionary system had ever proposed that organisms and species evolve according to a predetermined template.\footnote{Ibid., 114.} In steering between the posts of mechanism and 'false finalism', however, Bergson allows himself to propose a weakly teleological model of evolution that emphasises the agency of living organisms themselves in a way that only Lamarck had previously attempted. Approving Bergson's proposal of an 'inadequate' finalism 'wherein living beings change only in order to realise predetermined ends', Etienne Gilson suggests that it echoes the 'ancient immanent teleology of Aristotle'.\footnote{Ibid., 117–18.}

Bergson notes that evolution is primarily to be understood as a process in time, but differentiates between 'mathematical time' and 'duration'

\footnote{Gilson, \textit{From Aristotle to Darwin and Back Again}, 110.}
as the inner experience of time as lived by an organism: 'we perceive duration as a stream against which we cannot go. It is the foundation of our being ... the substance of the world in which we live'.\textsuperscript{488} True process, for Bergson, is thus a quality experienced by living organisms, rather than a feature of the inanimate environment.

As the defining characteristic of living things, Bergson proposes the concept of \textit{élan vital}. Loosely defined as 'the entirety of natural forces' or the 'push' of organisms against environmental challenges, \textit{élan vital} is intended as an example of what Bergson refers to as the 'true empiricism' that should inform a metaphysical system.\textsuperscript{489} As an energy that structures and organises living organisms \textit{élan vital} is responsible both for the cohesion of species and individuals, and for the creativity through which organisms meet environmental challenges. The most telling early critique of Bergson was brought by Bertrand Russell, who equated the \textit{élan vital} with a dualistic vitalism of an earlier era, dismissing Bergson's thought as creating a dualism of life and inanimate matter.\textsuperscript{490} However as Gilles Deleuze argues, while Bergson’s thought proceeds on a series of ‘dualisms’ or oppositions, these are always transcended by a resolution into an overarching reality so that matter and life are not ultimately distinguished as different categories.\textsuperscript{491} James DiFrisco similarly argues it is incorrect to associate Bergson with vitalism, as the \textit{élan vital} is neither 'scientific explanation ... nor empty


metaphysical idea' but simply posits a weak teleology related to the behavioural choices of living organisms themselves.\textsuperscript{492} To this might be added that whether the \textit{élan vital} is dualistic, the alternative of failing to make any meaningful distinction between living and non-living matter is clearly reductionist.

While offering an alternative explanation for sources of both variation and stability within species Bergson's model is compatible with Darwin's model of natural selection.\textsuperscript{493} A central problem to be explained by biology is that on the one hand, living organisms are remarkably stable, even to the extent that while technically incorporating an 'ecological community' of microbes and bacteria, individual phenotypes defend their own individuality by rejecting foreign tissue and species reject cross-fertilisation; while on the other hand species continually change and diverge in multiple directions.\textsuperscript{494} Bergson deals with this by emphasising adaptation and interaction with the environment, so that, as Steven Peck notes, the \textit{élan vital} itself is an integrating tendency 'acting through its counter-tendency', leading to differentiation and divergence.\textsuperscript{495}

The construct of \textit{élan vital} is also important for Bergson in relation to the environment. Although Bergson's strong distinction between living and non-living things superficially resembles Robinet's construct of the 'germ', it is clear in the third chapter of \textit{Creative Evolution} that Bergson sees the interaction with environmental systems, both animate and inanimate, as

\begin{footnotesize}
\begin{enumerate}
\item DiFrisco, “Élan Vital Revisited,” 60., citing Bergson \textit{L'évolution créatrice} 1941, p. 51. See also Gilson, \textit{From Aristotle to Darwin and Back Again}, 118–19.
\item Ibid., 989; Gilson, \textit{From Aristotle to Darwin and Back Again}, 119.
\item Peck, "Life as Emergent Agential Systems," 994; Gilson, \textit{From Aristotle to Darwin and Back Again}.
\end{enumerate}
\end{footnotesize}
vitally important. In this chapter Bergson describes matter as a 'flux rather than a thing', thus emphasising interaction between environment and organism. DiFrisco argues that Bergson's position here can be seen as an energeticist or thermodynamic view of nature 'in which processes of fluxes have a more fundamental status than substances or things'. From this perspective, Bergson's *élan vital* reveals a tendency of living things to be opposed to the general tendency towards entropic disorganisation. bergson's emphasis on active interaction and feedback cycles linking organisms and their environment also finds an echo within later 20th century biology.

Finally, it can be noted that Bergson's description of the environment as a 'flux' represents a fundamental orientation to process rather than substance. Peck sees an affinity between Bergson's view of evolution and process theologies, with its 'open, unfolding view of creation' leading to a recognition of the importance of interrelationship and ecological sensitivity. Hartshorne notes that Bergson was the first to express the pivotal idea that what is non-processual is derivative from what is in process. Similarly, in *The Concepts of Nature*, Whitehead also acknowledges his debt to Bergson for the concept of duration and experience 'as a flow of time that cannot be grasped from the outside, but can only be intuitively experienced'. Bergson's differentiation between strongly teleological models and his own 'inadequate' agential finalism also points the way towards a

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496 DiFrisco, “Élan Vital Revisited,” 59. See s. 3.1.2 for Robinet.
498 Ibid., 63.
500 Viney, “Teilhard and Process Philosophy Redux,” 16., citing Hartshorne CSPM 26, 109
reconsideration of finalism, for example in relation to the divine ideas in Bonaventure's theology. Gilson comments that Bergson's dismissal of the finalism of substantial forms ultimately fails to offer an adequate alternative to the scientific embrace of radical mechanism, remarking that 'it is not forbidden to think of the substantial form as an inventive and at the same time conservative formula'.502 However any model of finalism for a contemporary ecotheology needs to incorporate Bergson's emphasis on openness and the creative agency of living systems. The other major contribution of Bergson's model is that in emphasising the interaction of organisms with their environment it opens the way to ecological process models which focus on small-scale ecological systems. This emphasis is largely absent from Darwin's model which by contrast imagines natural selection as a process acting on organisms, but is central to niche construction theory which has been important to evolutionary theorists since the early 1980s.503 I shall address this further in the following chapter.

My review of the development of evolutionary thought in the 19th and early 20th centuries, and theological responses to evolutionary science, has demonstrated the range of opinions both within the scientific academy and the churches. In addition, evolutionary theory is revealed as the defining issue for the emergence of a modern, professional and evidence-based model of science. The challenges for the scientific academy of accounting for the overwhelming accumulation of observational evidence, and for churchmen in responding to the ‘new science’ articulated without reference to scripture, fundamentally changed both institutions. At the same time, the

502 Gilson, *From Aristotle to Darwin and Back Again*, 120.
positivist language of the new scientific discourse made deep theological engagement more difficult. As the 20th century began, both scientific evolutionary theory and theological responses to it were in some disarray.

Against this background, the philosophical evolutionary model of Henri Bergson offers the possibility of an approach to evolution that is neither mechanistic nor determined by a teleological finalism. Despite being placed on the Index of prohibited books by the Vatican in 1914, Bergson’s thought was initially well-received in the United Kingdom and in North America.\(^{504}\) Nevertheless, his evolutionary thought did not substantially influence scientific models up to the time of the mid 20th century ‘modern synthesis’ consensus. As I shall note in the following chapter, Bergson’s model would influence aspects of Teilhard’s evolutionary thought.

### 3.3 Conclusion

In this chapter I have explored the philosophical and theological responses to the scientific discoveries between the late 17th and mid-19th centuries. With the availability of new observational methods the evidence of the fossil record for species extinctions and changes over time had become impossible to ignore. From the early decades of the 18th century natural philosophers became aware that the neo-Platonic assumptions of plenitude and continuity required revision, as clearly some species that once existed had vanished, and not all living creatures that could be imagined were in existence. The neo-Platonic vision of creation as a perfect and complete

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emanation from the mind of God that Lovejoy refers to as the Great Chain of Being could no longer serve as a template for natural philosophy.

During the 18th century philosophers attempted to qualify the assumptions of Great Chain thinking, changing the emphasis from an originally complete creation to a creation in the process of completion. I have discussed the contributions of Leibniz, Robinet, Lamarck and Schelling, each of whom emphasises natural process and paves the way for evolutionary thought. In the following chapter I will identify aspects of Teilhard de Chardin's evolutionary model that build on these foundations.

In the second half of this chapter I have discussed the development of scientific models of evolution in the 19th century, noting that despite the success of Darwin's *Origin* in popularising the idea of evolution, there was little consensus on the processes involved until well into the 20th century. Many scientists, including some of Darwin's closest supporters, continued to advocate for teleological or developmental models of evolution, ignoring or denying Darwin's hypothesis of random variation and natural selection. Until well into the 20th century there was an absence of scientific consensus, with developmental models predominating until around the 1920s. Thus, at the time Teilhard de Chardin began developing his own evolutionary Christology in the early 20th century, the intellectual environment in both scientific academy and Church was chaotic and conflicted. I ended this section with a reflection on the philosophical approach by Henri Bergson published in 1911, which as I shall note in the following chapter would be an important influence on Teilhard's evolutionary thought.

In Lovejoy’s terms, the development of evolutionary thought during the period I have considered represented the inversion of the Great Chain of Being. Thus, instead of seeing the natural world as created by God and reflecting its divine origin according to the complexity of its form, the
emphasis was shifted to the development of complexity out of simpler, more primitive forms of life. Bonaventure's medieval theology of creation is ignorant of any such development, but as I shall show in subsequent chapters is compatible with process models and sees created entities as able to participate in the creative life of the Trinity. For this reason, Bonaventure's trinitarian theology can underwrite the contemporary theological project.

In the following chapter I shall introduce the main themes of Teilhard's thought, pointing out the connections his Christocentric evolutionary thought makes with Bonaventure's theology, and the ways in which it builds on the thought of the philosophical thinkers I have discussed in this chapter. I shall also explore some contemporary critique of Teilhard from both a scientific and theological perspective. In subsequent chapters, I shall draw together Bonaventure and Teilhard's visions into a model for ecotheology.
4 Teilhard's evolutionary Christology

In the previous chapter I discussed the challenges for philosophy and theology associated with the development of thought about evolution. Following Lovejoy, I showed how traditional assumptions of 'great chain' thinking were gradually modified and inverted during the 18th century, and the scientific and religious debates of the 19th and early 20th centuries which form the intellectual and cultural milieu within which Teilhard would come to maturity.

In this chapter, I summarise the main themes of Teilhard's evolutionary thought, and consider some of the scientific and theological criticisms that have been levelled against it. I begin by outlining Teilhard's major proposals, including his evolutionary model which depends on the tendency towards complexity-consciousness, his theory of radial energy and cosmic convergence on Christ-Omega, as well as his understanding of dipolarity (the 'within') and the noosphere as a 'thinking layer' of the earth, noting that although Teilhard's thought is hampered by the lack of a clear trinitarian structure there are clear points of connection with Bonaventure's trinitarian theology. In the second section of the chapter, I evaluate current scientific and theological critiques of Teilhard's legacy. I agree with criticism that Teilhard's strongly teleological model of universal cosmic convergence is deterministic, given his emphases on the tendency towards complexity-consciousness which he understands as universal convergence on Christ-Omega. Notwithstanding the legacy of Darwin and the modern synthesis model, I argue that a weakly teleological approach to evolution is justified in the light of contemporary work in molecular biology from behavioural and cybernetic perspectives and suggest that the fundamental insights of Teilhard's model can be accommodated within this.
In relation to theological critiques of Teilhard’s work, I agree with Celia Deane-Drummond that Teilhard’s model is anthropocentric. Deane-Drummond also points out Teilhard’s treatment of suffering and his attitude towards the redemption of the non-human creation are unclear. These aspects need to be addressed from an ecotheological perspective, and in particular the ecotheological value of Teilhard’s evolutionary theology rests on whether or not it can articulate a vision of hope for the more-than-human ecology. While in this chapter both the general concepts and the limitations of Teilhard’s model are explored, its utility for a contemporary ecotheology will be more fully articulated in the following chapter.

4.1 Teilhard, Christ and evolution

Because publication of Teilhard’s theological writings was banned by his Jesuit superiors during his lifetime, the bulk of his work was published posthumously between 1955 and 1970. These writings consist primarily of correspondence and essays as well as major works including the scientific works on evolution, *The Phenomenon of Man* and *The Future of Man* and the mystical work, *The Divine Milieu*.505

Although the mature form of Teilhard’s arguments, for example in *Phenomenon*, may be distinguished from the earliest expression of his thoughts on evolution and Christology expressed in his correspondence during the years of his war service, there is little evidence of development or change in the major lines of his thought. While Teilhard presented his ideas in the form of essays or correspondence for approval and comment from his

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colleagues and superiors in the Jesuit order over a period of decades, his thought developed in isolation from the normal discussion and critique of academic life. For these reasons Teilhard's writings have an 'encapsulated' quality, as though they have emerged as a whole from some point between the two great wars of the 20th century.

For the purposes of my thesis I have not attempted a close textual survey of Teilhard's works but have engaged with what I see as the major themes relating to a contemporary ecotheology. In this section I begin with a summary of Teilhard's early career, identifying some of the major influences on his thought. I then present a summary of the major theological propositions in *Christianity and Evolution* before turning to the themes of evolution and human evolution outlined primarily in the *Phenomenon*. My aim is to summarise and explore Teilhard's ideas on their own terms before expanding on their application to the contemporary ecotheological project in the following chapter. In the final section of this chapter I will engage briefly with the major scientific and theological critiques of Teilhard's ideas.

### 4.1.1 Teilhard's early life and context

Born in Orcines, near Clermont-Ferrand, France in 1881, Teilhard was admitted as a Jesuit novice in Aix-en-Provence in 1899, completing his novitiate in 1905 in Jersey in the Channel Islands. From an early age Teilhard had a passion for collecting rocks and fossils, and in Jersey acquired an education in geology, physics and chemistry along with his theological studies. Teilhard's interest in geology and palaeontology were fostered by a period of three years in a Jesuit-run high school in Cairo as a

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506 Teilhard de Chardin, *Christianity and Evolution*.
teaching novice. He returned in 1908 to the Jesuit ‘scholasticate’ in Hastings, Sussex, to commence postgraduate studies in theology leading to the award of a qualification ‘equivalent to a doctorate’ in 1912.508

Teilhard’s theological development took place during a period in which the Roman Catholic Church was retreating into a theological conservatism. As noted in the previous chapter, papal encyclicals in 1870 and 1907 had taken a progressively harder line in relation to ‘modernism’ and the historical-critical method.509 These documents affirmed the value of historical criticism only insofar as it took due account of the authority of the teaching Fathers and reinforced the primary place of the Thomistic corpus in Catholic theology.510 The ‘agnostic’ approach of scientific enquiry that emerges from Lyell’s uniformitarian thesis and separates the ‘field of phenomena’ from revelation and the authority of the Church was also condemned.511 Nevertheless during his doctoral studies Teilhard undertook wider scientific as well as theological research.512

It was during this time, according to Sion Cowell, that Teilhard read Cardinal Newman’s 1864 Apologia in which Newman generalises from a ‘developmental principle’ in philosophy and theology.513 Newman identifies what he calls an ‘evolutionary perspective’ in the Cappadocian Fathers, including Basil of Caesarea, Gregory of Nyssa, Gregory of Nazianzus and

508 Ibid., 40.
509 See s. 3.2.2.
511 Pius IX, “Dogmatic Constitution of the First Vatican Council (1869-1870)”, ch. 4 “On faith and reason”; also Pius X, “Pascendi Dominici Gregis [Encyclical of Pope Pius X on the Doctrines of the Modernists]”, paras. 6, 17, 47. See also ss. 3.2.1 and 3.2.2 for Lyell’s uniformitarian thesis and the emerging professionalisation of science.
512 King, Spirit of Fire, 32.
Athanasius. Cowell also references Teilhard's biographer, Henri de Lubac, who records that Teilhard was first introduced to articles by and about Newman during his studies between 1908 to 1912.\textsuperscript{514} Cowell believes Teilhard was greatly influenced by Newman's fundamental conviction that faith must be a matter not just of the heart but the mind, and was won over by Newman's belief that evolution should be 'at the heart of the Christian faith'.\textsuperscript{515}

During this period Teilhard also read Bergson's 1911 book, \textit{Creative Evolution}, in which the author suggests an original creative impulse or élan vital, and the tendency towards differentiation by which the cosmos diverges through the process of evolution.\textsuperscript{516} Teilhard was profoundly influenced by Bergson's views. In his autobiographical essay, 'The heart of matter', Teilhard cites Bergson's \textit{Creative Evolution} alone in his discussion of the development of his evolutionary theory. He claims that 'the only effect that brilliant book had upon me was to provide fuel at just the right moment, and very briefly, for a fire that was already consuming my heart and mind'.\textsuperscript{517} Given Teilhard's frequent references to Bergson in his letters during World War 1, and his 1917 essay 'Creative Union' which apparently references Bergson's \textit{Creative Evolution}, Teilhard may be understating the extent to which Bergson's views inform his own.\textsuperscript{518} As I shall note below, Teilhard's construct of the 'within' mirrors to some extent Bergson's \textit{elan vital}, and his doctrine of 'groping' by which organisms explore potential evolutionary pathways through a process that is both random and purposive also echoes

\begin{itemize}
\item \textsuperscript{514} Ibid., 56.
\item \textsuperscript{515} Ibid., 53., citing Newman \textit{Apologia pro vita sua}, (London, Fontana, 1959) p. 247.
\item \textsuperscript{516} King, \textit{Spirit of Fire}, 37. See also s. 3.2.3.
\item \textsuperscript{517} Pierre Teilhard de Chardin, \textit{The Heart of Matter} (San Diego, CA: Harvest, 1974), 25.
\end{itemize}
Bergson’s emphasis on the agency of the organism itself. The primary respect in which Teilhard’s model departs from Bergson’s is in his axiom of evolution as convergence toward Christ as the centre of created reality that he takes from Col 1.17. This gives Teilhard’s thought a strong teleological finalism that is absent from Bergson. As I shall argue in the following chapter, Teilhard’s model of convergence into Christ-Omega is made more relevant for ecotheology by placing a greater emphasis on autonomous process at the ecological level.

Teilhard completed his theological studies in 1912, and immediately travelled to Paris to undertake graduate studies in geology and palaeontology, and was involved in a number of excavations including prehistoric cave sites in Altamira, Spain, before his scientific research was cut short by the outbreak of World War I. Teilhard was drafted into the French Army in January 1915, serving as a stretcher-bearer within an infantry regiment that saw action in many of the major battles of the war. The period of Teilhard’s war service proved intensely creative, as he sketched out in surprisingly mature form the main ideas that comprise his eventual doctrines of creation, original sin, evolution and Christology. During the war years Teilhard corresponded regularly with his cousin Margeurite, to whom he sent his manuscripts for circulation to his Jesuit friends for possible publication. The essays reveal a rapid development from what Margeurite described as an 'initial awakening to an astonished awareness of the world' to the beginnings of his Christology and the theme of centration; although

520 Ibid., 48–52.
Teilhard commented later of his 'war papers' that 'they contain nothing that I have not said more clearly at a later date'.

Christopher Mooney suggests Teilhard was driven by a sense of existential anxiety 'before the mystery and apparent futility of human life'. Mooney believes Teilhard's optimism for human life and progress, and his mystical feeling for convergence on some absolute, are the obverse of a deep fear that human life may ultimately be futile and evanescent. This, he suggests, may initially be related to the trauma of Teilhard's war experiences, but becomes a fundamental strand of Teilhard's outlook.

Whatever its source, a preoccupation for mystical convergence is evident in the essay, 'The Priest', which Teilhard wrote in July 1918, two months after his final vows and ordination. In this essay, Teilhard develops a broad eucharistic spirituality and writes of human suffering itself as sacramental:

Since today, Lord, I your priest have neither bread nor wine nor altar, I shall spread my hands over the whole universe and take its immensity as the matter of my sacrifice. Is not the infinite circle of things the one final Host that it is your will to transmute? The seething cauldron in which the activities of all living and cosmic substance are brewed together - is not that the bitter cup that you seek to sanctify?

For Teilhard the whole world is 'concentrated ... in expectation of union with God'. And yet such a union can only happen by a gratuitous gift of God: 'nothing can attain Christ except he take it up and enfold it'. This essay speaks both of ecstatic union and of frustrated longing. Teilhard writes

523 Mooney, Teilhard de Chardin and the Mystery of Christ, 15.
524 Ibid., 16–19.
525 Ibid., 21–22.
526 Teilhard de Chardin, Writings in Time of War, 205.
527 Ibid., 206.
that 'permeating the whole atmosphere of creation, God encompasses me and lays siege to me', and that the universe itself has 'become your adorable Body and your divine Blood'. This reveals the beginnings of a spiritual theology that sees the whole of creation transformed in unity with Christ.

On demobilisation in January 1919, Teilhard returned to his scientific research, completing his doctoral thesis in geology in 1922 and joining a palaeontological expedition to China the following year. Following his return to Paris in 1924, Teilhard's ideas and circulation of some essays on human origins and his ideas on original sin attracted negative attention from the Jesuit hierarchy. Eventually Teilhard was dismissed from his teaching position and banned from publishing ideas contrary to the Church's official teaching.

This ban would remain in place for the remainder of Teilhard's life. For the remainder of his career Teilhard confined himself to scientific publication, spending many years including those of World War II in China. On his return to Paris in 1947 where he completed the final draft of *The Phenomenon of Man*, Teilhard learned that his Jesuit superiors continued to find his ideas unacceptable and even threatened to put *Phenomenon* on the Index.

Teilhard spent the final years of his life in the United States, where he continued both his scientific research and religious writing, dying on Easter Day 1955. Because Teilhard’s central synthesis of Christology and evolution was never tested through publication in his own lifetime, even the mature form of his thought does not reveal a deep engagement with other major

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528 Ibid., 210.
530 Ibid., 106–7.
531 Ibid., 191.
trends in 20\textsuperscript{th} century theology, and it is only during the decades following his death that Teilhard’s ideas began to receive attention.

In line with Teilhard's practice of separating his theological writing from his scientific output, I will turn in the following section to a discussion of Teilhard’s evolutionary Christology, developed in a series of essays over 30 years collected in \textit{Christianity and Evolution} and published in 1971. Following this, I shall discuss the main themes of Teilhard's scientific writing on evolution published in 1959 in \textit{The Phenomenon of Man}.

\subsection*{4.1.2 Teilhard's evolutionary Christology}

In \textit{Christianity and Evolution}, a collection of essays published in 1971 that span several decades of his career, Teilhard attempts to develop a Christology and a metaphysical perspective that is congruent with evolutionary theory. Teilhard regards the cosmos as being in process from a state of primal chaos to convergence with a universal centre which he identifies as Christ-Omega or the 'consummated' Christ. This convergence is understood in a sufficiently material sense that Teilhard refers to Christ-Omega as the 'physical centre' of the universe.\textsuperscript{532} As an objective reality, the consummated Christ constitutes the midpoint of the physical universe and is co-extensive with it, equidistant from every point and constituting an attractional centre. As well as constituting the 'physical centre' of the cosmos the cosmic Christ is at the same time fully transcendent, 'emerging above a world from which, seen from another angle, it is at the same time in the process of emergence'.\textsuperscript{533} Teilhard thus sees the whole cosmos as being in process towards spirit and consciousness. As Christ is the physical centre of creation, the incompleteness of creation is also the incompleteness of Christ.

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\textsuperscript{532} Teilhard de Chardin, \textit{Christianity and Evolution}, 70–71.

\textsuperscript{533} Pierre Teilhard de Chardin, \textit{Let Me Explain} (London: Collins, 1966), 84.
Teilhard considers this cosmic convergence as the fulfilment not only of creation but of Christ, a universe-long process that he refers to as 'pleromisation'.\textsuperscript{534} Although this is a similar view to that of Schelling, there is no evidence that Teilhard is aware of Schelling's proposals which I explored in the previous chapter.\textsuperscript{535} Given that the widespread retrieval of Bonaventure commenced around his sesquicentennial in 1974 it is also unlikely Teilhard would have been aware of Bonaventure's trinitarian theology, however as I shall demonstrate, through his dependence on Origen Teilhard's emphasis on the centrality of Christ echoes Bonaventure's doctrine of creation.

Teilhard attempts to keep his scientific work on evolution separate from his evolutionary Christology, although central to his entire project is his belief in the necessary coherence of theology and science. For example, in his essay, 'Christology and Evolution', Teilhard notes that traditional understandings of the meaning of Christ that emerged within the conceptual framework of a static four-thousand-year old universe must now be reimagined in a way that is congruent with a universe evolving in time and boundless in space.\textsuperscript{536} Accordingly, in the essays that make up Christianity and Evolution, Teilhard reconsiders the fundamental questions of creation, sin and redemption, Incarnation and Christ. Teilhard sums up his project as consisting of three major steps: firstly, the development of an evolutionary metaphysics that describes a universe in process of convergence on a universal centre; secondly, the development of a Christology that is congruent with an evolutionary metaphysics and the cosmic emphasis of Pauline theology; and thirdly, a spirituality based on the cosmic figure of

\textsuperscript{534} Teilhard de Chardin, Christianity and Evolution, 88.
\textsuperscript{535} For Schelling's model of convergence on Christ see s. 3.1.4.
\textsuperscript{536} Teilhard de Chardin, Christianity and Evolution, 76ff.
Christ as the universal centre of creation.\(^{537}\) In the following paragraphs I will summarise the first of these themes, and in the remainder of this section explore in more detail Teilhard's doctrine of convergent evolution which he develops more fully in *Phenomenon* and *The Future of Man* beginning with his doctrines of creative process and sin, before considering his Christology in more detail.

For Teilhard, creation is understood not as a single act by which the universe is brought into being *ex nihilo* but as a continuous pressure exerted on a universe beginning from a state of primal chaos. Teilhard calls this primary mode of creation 'creative transformation', meaning 'an act *sui generis* which makes use of a pre-existent thing to create a wholly new being'. This avoids implications of discontinuity and ontological disconnection between created things which from a natural and evolutionary point of view must be seen as related.\(^{538}\) Under the influence of the divine creative force, the universe is in process towards greater concentration, complexity and consciousness, from an initial diffuse and undifferentiated state which he characterises as 'an initial and extremely dispersed Multiple, which is the lowest aspect of the world, the form in which it comes closest to non-being'.\(^{539}\) Teilhard evidently derives his notion of the 'multiple' from Leibniz, as in his earlier writing he refers to it as 'the whole throng of monads ... dissociated and scattered'.\(^{540}\)

Teilhard argues that there is no historical or developmental reality corresponding to the Biblical account of Eden, and notes that the story's

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\(^{538}\) Teilhard de Chardin, *Christianity and Evolution*, 22.

\(^{539}\) Teilhard de Chardin, *The Heart of Matter*, 226.

implication of a fall away from an initial state of wholeness and connectedness is antithetical to his position. He argues that the Biblical account of the Fall corresponds rather to a yearning forwards of a human society newly emerging from prehistory, and dimly still aware of a past that preceded human self-awareness. The Biblical account of the Fall thus represents a longing for completion and union with the divine centre of creation that was never an evolutionary or historical reality but that symbolises the direction and true end of human evolution.\textsuperscript{541}

Teilhard’s doctrine of continuous creation is inconsistent with Augustine’s distinction between a temporal creation and the atemporality of God.\textsuperscript{542} Whereas for Augustine the seven ‘days’ of creation represent a single eternal instant and creation is endowed from the outset with the rationes seminales which enable it to become all that is divinely intended to be, Teilhard envisages a divine engagement or continuous act of creation throughout the life of the cosmos. As I shall show in chapter 6, Bonaventure similarly rejects Augustine’s doctrine of instantaneous creation. I will argue that this move is necessary for a process view of creation, and underlies any claim for the eschatological realisation of shalom within the created order.\textsuperscript{543}.

In rejecting an aetiological interpretation of the Fall as the origin of human sin, Teilhard interprets natural evil and suffering in effect as a ‘systems error’ in creation, or the logically inevitable ‘shadow of the creative act’. He recognises that the evolutionary progress of creation towards complexity and consciousness depends on competition, predation and suffering at an individual level, not to mention evolutionary dead-ends,

\textsuperscript{541} Teilhard de Chardin, \textit{Christianity and Evolution}, 46–52.
\textsuperscript{542} Augustine of Hippo, \textit{Confessions}, Book Eleven, XIV para. 17. See my discussion of Augustine’s theory of instantaneous creation at s. 1.1.2.
\textsuperscript{543} See s. 6.2.1.
species extinction and catastrophe. This is the cost of evolutionary convergence on Christ, who, in his suffering and death on the cross, bears in solidarity the pain of universal becoming. Teilhard does not mean by this that the suffering of Christ takes on himself the suffering of creation but that Christ redeems the universal resistance to convergence, and also on the cross forges a link between the Whole and the Multiple by which that which is experienced as separate and isolated may be reconciled. Despite upholding the traditional understanding of sin as moral alienation which is reconciled on the Cross, Teilhard argues this doctrine must be augmented by seeing the work of Christ on the Cross in structural terms as the opening of a bridge or pathway by which the fragmented and alienated Multiple may be joined to the One. I will discuss some critiques of Teilhard's doctrine in the next section, however it is important to note here that Teilhard understands both sin and suffering primarily in terms of resistance to systemic convergence on Christ-Omega. The implication is that sin and suffering are necessary concomitants of the creative act.

Teilhard’s metaphysics may thus be summarised as a cosmos-wide convergence from a primal ‘multiple’ of disorganised chaos into union with Christ-Omega. Echoing Schelling, Teilhard considers that this universal convergence is the fulfilment not only of the created order but also of Christ. At every stage, however, there is also a resistance to convergence which results in natural suffering and sin. I shall show in the following section how this informs Teilhard’s view of evolution through his mechanism of

544 Teilhard de Chardin, Christianity and Evolution, 84.
545 Ibid., 85.
546 Ibid.
547 See s. 3.1.4.
process towards complexity-consciousness, but turn now to a closer exploration of the foundations of Teilhard’s Christology.

Teilhard sees himself as being in the tradition of the Greek Fathers, especially Irenaeus, Origen and Maximus the Confessor. In *Christianity and Evolution*, Teilhard writes with approval of the 'Alexandrian school' which introduced Logos theology into the New Testament through John and Paul, links the theology of creation and Incarnation and understands original sin as 'pan-cosmic in nature'. From this tradition, Teilhard receives a warrant for linking his vision of Christ with creation not only as its initial cause, but as its efficient cause throughout the course of the universe, but also as its telos or final cause.

Teilhard is particularly close in his Christology to Origen, who similarly sees Christ as present throughout the whole of creation. Both Origen and Teilhard rely on St Paul's metaphor of the body of Christ, and both suggest the world (or cosmos) itself is the cosmic body of Christ. As Christopher Mooney suggests, Teilhard extends the doctrine of the Incarnation by drawing an implicit parallel between the union of divinity and humanity in Jesus of Nazareth with the evolutive union of humanity and the cosmic Christ.

Teilhard, like Origen, seeks to understand the Incarnation focussed not just narrowly on the person of Jesus of Nazareth, but in the broadest

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551 eg. 1 Cor 12.27, Rom 12.5.


terms to include the whole of the physical creation.\textsuperscript{554} Both Teilhard and Origen believe in a cosmic redemption that goes beyond the issue of personal salvation to include the radical transformation of the whole creation.\textsuperscript{555} Origen incorporates Wisdom themes in his Christology, making creation a reflection of eternal Wisdom in which ‘creation was always present in form and outline’.\textsuperscript{556} Teilhard’s Christology makes an implicit connection with Wisdom themes as a result of his emphasis on the connection between noesis and convergence into Christ.\textsuperscript{557} Where Teilhard does not follow Origen is in the explicit linking of the neo-Platonic ideas to divine Wisdom, however his doctrine of universal convergence functions in a way that is functionally equivalent because the true identity of every created thing is known in Christ as its final cause.

Teilhard’s evolutionary Christology thus builds on the ancient foundation of Origen’s synthesis of neo-Platonism and Wisdom theology. In Teilhard these themes are not explicitly developed, although he acknowledges patristic Christology and in particular Origen for his view of Christ as the attractional centre of creation. He develops from this both an existential Christocentric spirituality and his doctrine of evolution.

Teilhard is at pains to differentiate an embodied experience of Christ as the centre of created reality from the merely ‘juridical’ spirituality of the Gospels that constitutes believers as the body of Christ only in an ethical or social sense.\textsuperscript{558} St Paul's \textit{en Christou} ('in Christ') formula represents for

\textsuperscript{554} Lyons, \textit{The Cosmic Christ in Origen and Teilhard de Chardin}, 77; Teilhard de Chardin, \textit{Christianity and Evolution}, 87.

\textsuperscript{555} Lyons, \textit{The Cosmic Christ in Origen and Teilhard de Chardin}, 78.

\textsuperscript{556} Bostock, “Origen’s Doctrine of Creation,” 223., citing Origen \textit{Prin}. 1.4.4. See also my discussion of Origen’s Wisdom Christology in relation to Christian neo-Platonism at s. 1.1.2.

\textsuperscript{557} See the discussion of the noosphere at s. 4.1.4.

Teilhard nothing less than the ontological reality of individual created existence in relation to the Whole. Teilhard builds his doctrine of existential participation on the Pauline and Johannine argument of creation ‘through’ and ‘for’ Christ, and the coming together of the whole creation ‘in Christ’, and in particular on Col 1.17b (‘... and in him all things hold together’), which in 1920 he refers to as the ‘fundamental article of belief’.559

This incorporation ‘in Christ’ is experienced for Teilhard in an organic, ‘physical’ way. His frequent use of the word ‘physical’ in this connection is never quite explained, but clearly connotes a connection which is more akin to lived enfleshed experience than to moral exhortation.560 Although a thorough exposition of Teilhard’s spiritual theology and his development of Eucharistic themes is beyond the scope of my argument, it is helpful to note that his spiritual theology is primarily experiential, emerging from his understanding that created reality is ‘diaphanous’ with spirit and in process towards Christ-Omega. For example, in a letter by Teilhard to Maurice Blondel in 1923 he writes: ‘the supernatural plenitude of Christ receives support from the natural plenitude of the world... the supernatural is continually being formed by new creation of the natural...’ 561 Thus, believers have a relationship with Christ that is fundamentally organic and enfleshed, and that is experienced within the struggle and process of creation towards Christ.

In the following section I shall explore Teilhard’s doctrine of evolution towards complexification and consciousness, which underpins a universe being drawn into unification with Christ. For Teilhard, this is a convergence in which the created identity of all things is not collapsed but rather heightened

560 Teilhard de Chardin, Christianity and Evolution, 18.
561 Mooney, Teilhard de Chardin and the Mystery of Christ, 75, footnote 14.
and fulfilled. This is a paradox, or to use Bonaventure’s terminology a *coincidentia oppositorum* in which ‘union differentiates’. Teilhard’s emphasis on the centrality of Christ and unification with Christ as the universal final cause thus echoes Bonaventure’s vision of Christ as the centre in his Incarnation and through exemplarity as the final cause of every created entity. As I shall note below, Teilhard’s doctrine of evolution may be criticised for its anthropocentric emphasis and deterministic overtones, however I shall argue that his insight that Christ is the centre of created reality and the telos of created existence is crucial to a process view of the more-than-human ecology.

### 4.1.3 Evolution, complexity-consciousness and the ‘within’

The previous section outlines Teilhard’s doctrine of Christ as the universal centre without suggesting a mechanism for the convergence of creation from multiplicity towards the One. In this section I discuss Teilhard’s doctrine of evolution as an outworking of the ontological affinity between the divine Whole and the interiority of individual creatures.

Teilhard claims that evolution always proceeds in the direction of complexity and consciousness. He understands consciousness not as a new phenomenon that emerges *ex nihilo* at a particular point in the evolutionary process, but as a quality of material reality that emerges or becomes evident as a function of the increasing complexity of material forms. For Teilhard evolution is unidirectional, leading to a ‘constant increase in psyche over time’ without the possibility of a reverse. Just as Origen identifies the

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564 See s. 2.1.
divine ideas with divine Wisdom and thus with Christ, so Teilhard recognises the evolutionary emergence of noetic complexity as process towards Christ.\textsuperscript{566}

For Teilhard, interiority or spirit is ubiquitous in creation, and he exalts matter as 'diaphanous' with spirit.\textsuperscript{567} He develops a metaphysics that sees matter as having both an external form and an interior quality which he refers to as the 'within'. This corresponds to Bonaventure's metaphysics of exemplarity because Teilhard sees the 'within' as 'a partial centre of the Whole' which gradually comes to experience itself reflected in the underlying patterning of the universe.\textsuperscript{568} This dual aspect of matter is mirrored in a theory of energy which Teilhard also sees as having two aspects: a centrifugal or outwards aspect as well as what he calls 'radial' or 'centripetal' energy, which is the energy of convergence, \textit{unire}, 'amorisation', or love.\textsuperscript{569} I begin my discussion of Teilhard's evolutionary theory by exploring his axiom of growth towards complexity-consciousness, before exploring in more detail his metaphysics of the 'within' and his associated theory of radial energy.

Teilhard begins his reflection on evolution with a view of the primal universe as an unstructured and irreducible multiplicity.\textsuperscript{570} This multiplicity is entirely disorganised, although 'however narrowly the heart of an atom may be circumscribed its realm is co-extensive, at least potentially, with that of every other atom'.\textsuperscript{571} Despite its primal fragmentation, Teilhard insists that the universe must be considered in \textit{toto} 'as a kind of gigantic atom, (forming)

\textsuperscript{566} See my discussion of Origen's Christian neo-Platonism in s. 1.1.2.
\textsuperscript{567} Teilhard de Chardin, \textit{Christianity and Evolution}, 107; see also Teilhard de Chardin, \textit{The Phenomenon of Man}, 64.
\textsuperscript{568} Teilhard de Chardin, \textit{Christianity and Evolution}, 61.
\textsuperscript{569} Mooney, \textit{Teilhard de Chardin and the Mystery of Christ}, 38–39, 52–53.
\textsuperscript{570} Teilhard de Chardin, \textit{The Phenomenon of Man}, 44. As noted previously, Teilhard is writing prior to widespread acceptance of the 'Big Bang' quantum theory.
\textsuperscript{571} Ibid., 45–46.
in its totality... the only real indivisible'.\textsuperscript{572} Even prior to the appearance of life, the universe begins evolving towards greater complexity and coherence, for example through the creation of more complex elements and the formation of megamolecules through chemical interaction which increases the informational or noetic component of the cosmos.\textsuperscript{573} With the advent of life the pace of evolution is quickened and the locus of evolution becomes the living cell as 'the natural granule of life in the same way as the atom is the natural granule of simple elemental matter'.\textsuperscript{574} The process of evolution proceeds in a linear, unidirectional manner in response to the law of complexity-consciousness, as the universe as a whole moves in the direction of its 'main axis'.

This assumption of linearity has attracted criticism since \textit{Phenomenon} was first published in English in 1959. In his 1961 review, zoologist Peter Medawar wrote scathingly of Teilhard's 'confusion of thought ... that evolution has a main track or privileged axis', derived from the 'élan vital of an earlier terminology'.\textsuperscript{575} Similarly, palaeontologist George Simpson argued that evolution is multidirectional and opportunistic. Simpson pointed out that arguing backwards from the fact of humanity's existence to derive a model for evolution overlooks the fact that humanity is only one of the evolutionary directions, 'or rather a variety of them in succession, for there was no such sequence in a straight line'.\textsuperscript{576}

\textsuperscript{572} Ibid., 47.
\textsuperscript{573} Ibid., 94.
\textsuperscript{574} Ibid., 87.
As I argued in the previous chapter, Teilhard was by no means the only 19th or early 20th century thinker to have theorised that evolution proceeded in a definite direction. Teilhard's underlying assumptions are inconsistent with the early 20th century 'modern synthesis' consensus that natural variation is entirely probabilistic. Teilhard does not discount the operation of mechanistic processes, but even at the cellular level of evolution suggests the process is not entirely random, remarking on the:

fundamental technique of groping ... (which) ... strangely combines the blind fantasy of large numbers with the precise orientation of a specific target. It would be a mistake to see it as mere chance. Groping is directed chance. It means pervading everything so as to try everything, and trying everything so as to find everything.

I shall discuss criticism of Teilhard's evolutionary doctrine from a scientific perspective later in the chapter, suggesting that a weakly teleological view of evolutionary process derives some support from current developments in molecular biology. At this point it may be sufficient to remark that Medawar’s criticism of Teilhard’s rigid insistence on evolution as unidirectional and irreversible has some merit. More significantly, Teilhard's insistence on orthogenetic evolution is connected to his theological schema for creation as being in process toward completion in Christ as the 'physical centre' of the universe. In his treatment of human evolution, which I will discuss in the next section, Teilhard insists that the evolution of humanity towards greater consciousness leads inevitably to convergence on the cosmic Christ as a universal 'Omega Point'. The mechanism for this convergence lies in Teilhard's metaphysics of the 'within', which I shall now explore in more detail.

577 See s. 3.2.2.
578 Teilhard de Chardin, The Phenomenon of Man, 121.
579 See s. 4.2.1.
In a chapter entitled 'The Within of Things' in his seminal work, *The Phenomenon of Man*, Teilhard develops his theory of the 'within' by generalising from the starting point of human self-awareness, which he argues must be an example of universal lawfulness. From the evidence of introspection Teilhard observes an 'interior' life which (to preserve phenomenal regularity) he proposes must be ubiquitous:

Since the stuff of the universe has an inner aspect at one point of itself, there is necessarily a double aspect to its structure, that is to say in every region of space and time - in the same way, for instance, as it is granular: co-extensive with their Without, there is a Within to things.\(^580\)

Where Lamarck and Bergson draw a distinction between living and non-living matter, Teilhard takes the opposite approach, generalising from living to inanimate objects. Teilhard suggests that all material objects possess a dual aspect: 'co-extensive with their Without, there is a Within to things'.\(^581\) By this, he means that even inanimate objects possess a nascent subjectivity, although this may be vanishingly small and apparent only at the greater levels of organisation found in living organisms.

The origins of Teilhard’s notion of the ‘within’ may be sought in both Leibniz and Robinet. Given that Teilhard follows Leibniz in his description of the ‘multiple’ as a ‘throng of monads dissociated and scattered’;\(^582\) he perhaps also bases his notion of the ‘within’ on Leibniz’ ascription of ‘appetition’ and subjectivity to this substratum of reality.\(^583\) Alternatively Robinet’s ‘germ’ may also be a model for Teilhard’s ‘within’, given that the important aspect is the explication of non-random process towards a goal.\(^584\)


\(^{581}\) Ibid.

\(^{582}\) Teilhard de Chardin, *Writings in Time of War*, 103.

\(^{583}\) See s. 3.1.1.

\(^{584}\) See s. 3.1.2.
Teilhard takes the idea much further, developing a more mystical appreciation for the inter-weaving of matter with spirit, for example in the Eucharist overtones of his ‘Hymn to Matter’.\(^{585}\) At its heart, Teilhard's view of matter as suffused with spirit is based on his extension of the doctrine of Incarnation by which Christ is the centre of created reality, and ‘through his Incarnation, is interior to the world, rooted in the world even in the heart of the tiniest atom’.\(^{586}\) For Teilhard, the attractional pull of Christ as the cosmic centre of creation thus relies on the ontological affinity between Christ and created reality.

For Teilhard the autonomy and agency of living organisms is a reflection of the divine creative impulse which 'recapitulates its creative, unifying act in human action'.\(^{587}\) Ultimately, this claim is related to the 'ideas' or *logoi* of Middle Platonism that connect all created objects with their divine origin.\(^{588}\) More specifically, however, in Teilhard's notion of the 'within' there is an echo of Bonaventure's exemplary metaphysics, in which all created objects resemble and find their true identity in the *rationes aeterna* of the divine Exemplar, whether as a vestige (inanimate objects), image (sentient creatures) or likeness (human beings).

The most important implication of Teilhard's assertion of proto-consciousness even within inanimate matter is that evolutionary processes are continuous. Thus, he notes critical points in evolutionary history at which novel forms appear while insisting that these must be potentially present also at lower levels: 'In the world, nothing could ever burst forth as final across

\(^{585}\) Teilhard de Chardin, *Hymn of the Universe*, 65–70.


\(^{588}\) See s. 1.1.1.
the different thresholds successively traversed by evolution (however critical they be) which had not already existed in an obscure and primordial way ... everything, in some extremely attenuated version of itself, has existed from the very first'. This position, referred to as 'panpsychism', is opposed to that of 'emergentism', which regards noesis as ultimately reducible to physical processes and emerging at a particular stage of complexity. That is, while Teilhard regards consciousness as ubiquitous but only becoming apparent at a particular level of material complexity and organisation, the only real alternative is the reductionist option of regarding consciousness as entirely a property of material process.

For Teilhard, the 'without' of things is predominately deterministic, subject to mechanistic processes of chance, decay and dissolution. The 'within', by contrast, is characterised by freedom, spontaneity and novelty. From this premise, Teilhard makes three important extensions, the first two of which follow Leibniz. Firstly, he proposes that, similarly to the external aspect of reality, the 'within' has an atomic or particle-like nature. Secondly, Teilhard proposes that in a similar way to physical particles, the fundamental units of interiority form complex and differentiated structures over time. Thirdly, the more complex or better organised the physical structure, the more developed is the interiority or proto-consciousness associated with it. This third move provides the key to understanding the emergence of conscious awareness, because 'we are seeking a qualitative law of development that ... should be capable of explaining first of all the invisibility, then the appearance, and then the gradual dominance of the within in

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589 Teilhard de Chardin, *The Phenomenon of Man*, 78.
590 Seager and Allen-Hermanson, "Panpsychism". s. 1.
592 Ibid., 64–65.
comparison to the without of things'. As an example, Teilhard would hold that the proto-consciousness of a single-celled organism is greater than that of an amino acid molecule, given that its physical structure is more complex. This might be more apparent (or acceptable) if the ‘within’ is related to the informatic or noetic content of an object’s structure and organisation.

As Grumett notes, Teilhard 'transforms Leibnizian monadology' with his axiom of complexity-consciousness or the 'drift of matter towards spirit'. Teilhard names this principle as a universal 'Law of complexity and consciousness', and foreshadows the conclusion of his thesis in The Phenomenon of Man by suggesting it 'implies a psychically convergent structure and curvature of the world'. This somewhat vague formulation suggests he believes physical complexification and differentiation has a sort of natural limit which is approached asymptotically, and that conscious awareness must therefore also converge towards a limit.

Teilhard’s doctrine of the ‘within’ thus establishes the ontological basis for convergence on Christ-Omega. While Teilhard, like Bonaventure, regards all objects as deriving their reality from Christ as the centre and the final cause, by relating the concept of the ‘within’ to the physical structure of real objects Teilhard is able to distinguish between the inanimate bulk of created reality, living things and human beings which more fully reflect their divine origin. This differentiation parallels Bonaventure’s classification of created things which reflect Christ as vestige, image or likeness. Teilhard’s identification of the ‘within’ as related to the growth of complexity-consciousness reflects an implicit orientation towards Wisdom theology.

593 Ibid., 66.
594 Grumett, Teilhard de Chardin: Theology, Humanity, and Cosmos, 15, 30.
595 Teilhard de Chardin, The Phenomenon of Man, 67.
Finally, in 'The Within of Things', which summarises the metaphysical underpinnings of his thesis in *The Phenomenon of Man*, Teilhard introduces his theory of two distinct energies corresponding to the Without and the Within. He is unwilling here to propose two unrelated forms of energy, and discusses at length his assumption that spiritual energy cannot exist in the absence of material energy: 'This is depressingly and magnificently obvious. "To think, one must eat."' Teilhard hypothesises that the energies associated with physical matter and consciousness must be independent and inter-related, and so develops a 'two energies' doctrine to account for the principle of centration, by which more and more complex material and psychic structures are formed.

Teilhard names the two forms of energy as 'tangential' and 'radial'. Tangential (centrifugal) energy links objects horizontally, determining the relationships between material objects in the ordinary physical sense; and in general tends towards greater entropy. Radial (centripetal) energy, on the other hand, draws entities together and produces complex inter-related systems in apparent defiance of the Second Law of Thermodynamics (that systems tend towards greater entropy). Radial energy holds things together and unites elements into a more complex whole, while tangential energy is produced or consumed between separate elements at the same level of organisation. An example of radial energy would be the formation of more complex organic molecules from simple elements such as carbon, oxygen or nitrogen. Conversely an example of tangential energy would be the physical work required to lift a mass from a lower to a higher level. As the energy associated with organisation and structure, radial energy is

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596 Ibid., 69.
597 Ibid., 70–72.
necessarily noetic. When with increasing complexity living organisms evolve, increases in radial energy are associated with increasing consciousness.\textsuperscript{599}

For Teilhard radial energy is responsible for the emergence of new forms because it drives increasing structural complexity. Increases in radial energy provide stability to more complex forms in apparent defiance of the otherwise ubiquitous tendency towards entropy in physical systems. Associated with increasing levels of complexity-consciousness, radial energy represents the tendency towards unification and the energy of convergence which ultimately brings created reality into union with Christ-Omega.

Teilhard’s metaphysics of the within, which underlies the tendency towards complexity-consciousness through the operation of radial energy, describes both the ontological grounding of created reality in Christ and the mechanism of convergence itself, which is the basis for evolution. This view of reality, for which I have suggested Teilhard is indebted to Origen, ultimately connects with an exemplary metaphysics. In the following chapter, I shall explore the parallel between the within and noesis in Teilhard, and Bonaventure’s exemplary metaphysics. In the next section, I shall continue to explore Teilhard’s theory of evolution, focusing on human development and the process of noogenesis (the end-point of human intellectual development) and the projected unification with Christ-Omega.

\textbf{4.1.4 Human evolution and the noosphere}

As noted above, Teilhard insists that although the appearance of novel forms through evolution may at times appear discontinuous, it reveals a deeper continuity because novelty at one stage is always adumbrated in what has gone before. The primary example of this is the emergence of self-

\textsuperscript{599} Teilhard de Chardin, \textit{The Phenomenon of Man}, 158, 162.
reflexive consciousness that is evidently unique to human beings. The massive ramifications for human development that follow from the acquisition of conscious awareness lead Teilhard to view this phenomenon, which he calls 'hominisation', as the defining characteristic of human existence and the beginning of a new phase in the evolutionary process. In this section I explore Teilhard’s doctrine of human evolution, focusing on his proposal that the expansion of human consciousness reaches a critical saturation point within the confines of its planetary home and is compressed into a ‘thinking layer’ of the earth. Teilhard names the layer of human awareness the noosphere, thereby drawing a parallel between the layer of compressed human consciousness and the geological planetary layers. As the collectivisation of human awareness, the noosphere for Teilhard is an important construct which bridges the evolutionary growth towards complexity-consciousness and the process of christification, or union with Christ-Omega.

For Teilhard, the noosphere construct is the first stage of convergence within which human individuality is transfigured and hyper-personalised through its unification. I shall argue in this section the noosphere may reflect a theological connection between human life and divine Wisdom. Nevertheless, as envisaged by Teilhard the noosphere construct is without scientific merit. In the following chapter, I shall consider the noosphere in more detail, extending Teilhard’s model by following his contemporary Vernadsky in defining the noosphere as the noetic component of the earth’s living systems. As Vernadsky’s model of the noosphere does have scientific application this extension facilitates a theological engagement with

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600 Ibid., 187.
601 Ibid., 279.
ecological science. In the current section I explore Teilhard’s noosphere construct in its own terms, noting the role it plays in the process of cosmic convergence.

Teilhard remarks that the sudden appearance of self-reflexive consciousness must have been the result of 'preparing a whole group of factors for a long time and simultaneously'.\(^\text{602}\) He lists various physical characteristics which had to be achieved in human evolution prior to cranial capacity and increasing intelligence, for example: 'It is thanks to two-footedness freeing the hands that the brain was able to grow'.\(^\text{603}\) His assumption is that the evolution of a species - in this case, humanity - follows a pre-ordained 'principal axis' with many small changes occurring over a long period making the appearance of self-reflexive consciousness possible and even inevitable as one final infinitesimally small increment within the span of a single generation.\(^\text{604}\) Likewise, Teilhard argues that various human characteristics evolved simultaneously in order to serve a common purpose.\(^\text{605}\) This highlights the tendency towards determinism and an anthropocentric bias in Teilhard's evolutionary model, which I will discuss in the second section of this chapter in relation to subsequent critique of his thought.\(^\text{606}\)

The emergence of reflexive awareness marks, for Teilhard, the end of the initial phase of evolution characterised by Darwinian processes of random variation and natural selection, and the beginning of a qualitatively different process in which the increasing ability to manipulate the natural environment frees the human species from dependence on random external

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\(^{602}\) Ibid., 189.  
\(^{603}\) Ibid.  
\(^{604}\) Ibid., 190.  
\(^{605}\) Ibid., 199.  
\(^{606}\) See s. 4.2.1.
factors. Noting the existence of intelligent and purposeful behaviour in the higher primates, he argues that the step from animal intelligence to reflexive awareness may have been vanishingly small, even a 'mutation from zero to everything' that occurred in the union between two individuals. 607 Teilhard considers the emergence of human life not only a new stage in planetary evolution, but an evolutionary nexus between biological evolution and cultural-spiritual evolution which he terms 'christification'. Teilhard refers to the emergence of reflexive self-awareness, which he calls 'hominisation', as a 'discontinuity in continuity'. 608

With hominisation, the stage is set for the long development and evolution of mind, or 'noogenesis'. 609 Teilhard argues that the growth of human consciousness with the transmissibility of knowledge based on shared symbols, combined with population growth, leads eventually to a psychic concentration within the small physical space of a single planet. Two processes take place: the first being the collectivisation of consciousness and the second the compression and spatial distribution of human consciousness as a sheath or layer around the earth. Teilhard lists the various geological layers of the earth: the lithosphere, hydrosphere and atmosphere. 610 To these, biology adds a living layer, the biosphere as 'an envelope as definitely universal as the other spheres and even more definitely individualised'. On top of this, Teilhard proposes the addition of a nascent sixth layer, 'the thinking layer, which since its germination at the end of the Tertiary era, has spread over and above the world of plants and animals. In other words, outside and above the biosphere there is the

608 Ibid., 188.
609 Ibid., 200–201.
610 Ibid.
noosphere. Thus a small 'anatomical leap' has ushered in a quantitatively new era: 'The earth gets a new skin. Better yet, it finds its soul'.

Teilhard argues the beginning of noogenesis, or growth of the noosphere, marks a discontinuity in the underlying process of human evolution. Up until this point evolution has proceeded at the biological level, driven by chance processes but subject to an overall drive toward complexity-consciousness. By contrast human evolution proceeds by a process Teilhard refers to as 'Lamarckian', in which humanity develops by learning how to preserve and transmit intellectual and cultural innovations. This process replaces 'germinal' with 'educational' heredity, accelerating the development of the human species by multiplying its capacity for innovation as well as the storage and transmission of adaptive ideas or technologies.

Teilhard discusses the stages of development of the noosphere, the first of which over the course of more than 100,000 years was the geographic expansion of the human species to colonise virtually the entire planet and dominate all other forms of life. During this phase, characterised by the apparent absence of limits to growth, human culture expanded and branched into multiple sub-forms. Teilhard remarks on the fact that the human species has resisted zoological sub-speciation, proposing that, as human evolution has come to be driven by cultural innovation and transmission, sub-speciation has been replaced by the splitting and branching of cultural sub-groups. Because evolution based on cultural transmission allows the inheritance of acquired traits, the speed of sub-group

611 Ibid., 201–2.
612 Ibid., 202.
613 Teilhard de Chardin, The Future of Man, 208.
formation accelerates, but so also does the capacity for cultural sub-groups to interact, compete with and assimilate one another.615

Once the colonisation of the entire surface of the planet had been completed, Teilhard suggests, a new phase commenced as the finite available geographic space combined with a rapidly increasing population 'compresses' human activity to the point of planetary saturation.616 Consistent with his time, Teilhard shows limited awareness of ecological constraints. The crisis he sees as building relates rather to the pressure of increased competition and the clash of divergent cultural groups resulting from burgeoning population, as well as the sheer aggregation of the 'stuff' of human consciousness that saturates the available physical space. For Teilhard, the physical compression of more and more humans within the confined space of the planet necessarily means that human consciousness must converge: 'to become ultra-reflexive (that is, ultra-human) by reaching some stage of mono-culturation - or else to resign and to die on the way - this, aside from any temperamental or philosophical considerations, must on purely scientific grounds be regarded as the biological fate of man'.617

Teilhard is correct in noting that as more and more human beings live their lives in dependence on a finite shared resource base, humanity must achieve a new dimension of cooperative activity and even cooperative consciousness in order to survive as a species. This practical argument is confounded, however, with the specious assertion that as human life achieves a maximum density and complexity, the noosphere 'folds in on itself' in a process of 'planetisation' characterised by the super-organisation

615 Teilhard de Chardin, “The Antiquity and World Expansion of Human Culture”; see also Samson and Pitt, The Biosphere and Noosphere Reader, 73–79.
617 Teilhard de Chardin, “The Antiquity and World Expansion of Human Culture.”
of matter and human consciousness. It is important to note the dubious consequences of Teilhard’s reification of human awareness as an almost physical substance that metamorphoses under pressure. Teilhard’s vision is relentlessly optimistic: rather than foreseeing that increasing proximity might lead to heightened inter-group paranoia and competition he predicts an apotheosis of cooperation and convergence leading to social cohesion, the enhancement of human life through technological innovation, and heightening of human creativity and vision.\(^\text{618}\) Like his assumption that evolution is orthogenetic and irreversible, Teilhard’s construct of noogenesis based on the assumption of a single dominant axis of growth misses the true complexity of human political, cultural and intellectual discourse. His vision of a monolithic monoculture is also ethically problematic as it could be used as a justification for the suppression of cultural, religious and ethnic diversity in the name of following a ‘principal axis’ of development. In the following section I shall address there and other criticisms of Teilhard’s vision.

Teilhard does not see the noosphere as the final goal of human development, but as the beginning of a new phase of convergence on the universal centre.\(^\text{619}\) The compression of human consciousness that results in the emergence of the noosphere is a milestone in the path of christification as it results in the super-personalisation of the human phenomenon. Teilhard points out that in any natural synthesis ‘union differentiates. In every organised whole, the parts perfect themselves and fulfil themselves.’\(^\text{620}\) In the noosphere human consciousness is sharpened and transfigured, in the paradox that is the ‘essential immiscibility’ of individual consciousness and the perfection of mutuality humanity enters the stage of unification with


\(^{620}\) Ibid., 288.
Omega. In the Phenomenon, Teilhard explicitly identifies Omega with the cosmic Christ only in the Epilogue: 'If the world is convergent and if Christ occupies its centre, then the Christogenesis of St Paul and St John is nothing else and nothing less than the extension ... of that noogenesis in which cosmogenesis ... culminates'. Here, Teilhard connects his theory of evolution and human development with his evolutionary Christology, making clear that the universal centre towards which the evolutionary tendency towards complexity-consciousness is directed is the risen and glorified Christ.

Teilhard suggests that at some point after the formation of the noosphere human life will shed its connection to the material entirely, leading to 'the ultimate breakup of the partnership complexity/consciousness, to release, in the free state, a thinking without brain. The escape of some part of the Weltstoff from entropy'. Human consciousness, which in this state Teilhard refers to as 'super-personalised', continues its path towards unification with Christ-Omega. Although he regards this main axis of evolutionary development as inevitable, it is not entirely clear whether it is universal. For example, in his earliest writings on the subject Teilhard refers to the 'chosen' or 'elect' who are to be 'fused into God through Christ'. Referring either to the non-human or to those humans not of the 'elect', Teilhard comments: 'In all evolution, in fact, we have to allow for failure, perversion and wastage - for evil. Not the whole of the mass summoned to union obeys the flood that urges it on'. Here Teilhard acknowledges that

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621 Ibid.
622 Ibid., 325.
624 Teilhard de Chardin, Writings in Time of War, 175, “Creative Union”.
625 Ibid., 165.
not everything can be drawn into unity in Christ Omega. This echoes Schelling, who believes that while evolutionary process brings the good into union with Christ while that which is evil disintegrates into non-being.\footnote{626}

Conversely in his later writings Teilhard suggests the entire cosmos is redeemed by the work of unification that is completed by human convergence, as 'time and space become truly humanised - or rather superhumanised ... the Universal and Personal ... grow in the same direction and culminate simultaneously in each other'.\footnote{627} This implies that as the spirit of humanity expands to fill all time and space so the more-than-human universe is also brought into union with Christ-Omega. There is an echo here of a similar suggestion by Bonaventure that the non-human creation is redeemed by the salvation of humanity, or that 'all things will be made new and rewarded in the renovation and glorification of humanity'.\footnote{628} As I shall show in chapter 6, Bonaventure’s Franciscan eschatology is based on the completion of human life within creation, and Teilhard’s vision may be read in similar terms.

This completes my brief overview of Teilhard’s evolutionary Christology and anthropology. Teilhard's vision of a humanity transformed into love and super-consciousness and united in the cosmic Christ as the noetic centre and source echoes the neo-Platonic Wisdom Christology of Origen, who sees Christ as the Wisdom of God in whom the fullest capacity of creation is hidden.\footnote{629} Although he does not explicitly engage with a Wisdom Christology, Teilhard’s emphasis on christification as the increase of noesis and love reflects an implicit Wisdom orientation. Whereas Origen

\footnotetext[626]{See s. 3.1.4.}
\footnotetext[627]{Teilhard de Chardin, *The Phenomenon of Man*, 285.}
\footnotetext[628]{Bonaventure, *Brev.*, VII, 4.7.}
\footnotetext[629]{See my discussion of Origen’s Christian neo-Platonism at s. 1.1.2.}
shares the ancient understanding of creation as complete and static, in Teilhard’s vision of an evolving universe divine Wisdom operates as a final cause drawing creation into its fullness of being.

Teilhard’s understanding of Christ as the ‘physical’ centre of the cosmos echoes not only Origen but also the Christocentric trinitarian doctrine of Bonaventure. Teilhard’s metaphysical doctrine of the ‘within’ which connects every real entity with the divine Whole, combined with his doctrine of universal convergence on Christ, also shows a similar structure to Bonaventure’s exemplary metaphysics. Through this connection, Teilhard’s conflation of love (‘amorisation’) and unification that underlies the process of convergence becomes amenable to a trinitarian interpretation and thus related to the doctrine of Incarnation. I will explore both avenues in the following chapters as I extend Teilhard’s noosphere construct as a model for the more-than-human ecology.630 Despite the limitations of Teilhard’s noosphere construct, as a model of mutuality and transfiguration within a finite social space the noosphere will provide a useful metaphor for noetic interaction within the more-than-human ecology.

I have noted above a connection between Teilhard’s thought and Bonaventure’s trinitarian theology in relation to the shared vision of Christ as the centre of created reality. In subsequent chapters I shall explore a more extensive parallel between Teilhard and Bonaventure who each describe a vision of the journey of creation into Christ. For Teilhard, this is the evolutionary journey or convergence of created reality into the heart of Christ. Although Bonaventure does not share an understanding of the natural world as being in process, he views the human soul as being in process through creation into Christ. As I shall show in chapter 6 he similarly

630 See ss. 5.2 and 6.1.
understands human history as converging in Christ, and bases his theology of history on the *itinera*rium of the human soul. This structure of Bonaventure’s processual model of history functions in the same way as Teilhard’s model of cosmic convergence. Ewert Cousins, who points out the deep connection between the cosmologies of Teilhard and Bonaventure, suggests that the image of cosmic process in both thinkers can be described as a mandala, with the entire cosmos for Teilhard inscribing the path of the individual soul in Bonaventure. For both thinkers, the journey is one of interiorisation – a process that leads from the ‘without’ to the ‘within’ and thence to the divine. Similarly, for both Teilhard and Bonaventure, the cosmic Christ is revealed as the ‘coincidence of cosmological opposites’. In my argument in the following chapters, I will suggest that the convergence on Christ that is the common vision of Teilhard and Bonaventure is in fact the incarnation of the trinitarian relations of love within the more-than-human ecology that is reflected in the Biblical theme of shalom.

As I have shown above, Teilhard’s doctrine of evolution with its axiom of complexity-consciousness relies on a strongly teleological view of natural process with the evolution of human awareness as its main axis. In the second section of this chapter I will discuss the major criticisms of Teilhard’s model, including charges of determinism and anthropocentrism. Noting both the limitations and the insights of Teilhard’s thought, I will indicate the directions in which his thought may be retrieved for a contemporary ecotheology. While his assumptions regarding orthogenetic evolutionary process and the reification of human consciousness in the noosphere construct have been widely dismissed, his attempt to bring Christology

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together with a scientific view of natural process provides an important perspective and useful resources for the ecotheological project.

4.2 Current perspectives on Teilhard

In the previous section I outlined the major themes of Teilhard's Christology and evolutionary thought, noting its implicit foundation in Origen's Christian neo-Platonism and the connections it makes with Bonaventure's Christocentric trinitarian theology. Like Bonaventure, Teilhard links creation and Incarnation, and sees redemption in cosmic rather than personal terms. Despite the limitations of his thought, Teilhard's construct of the noosphere and his model of evolution as convergence will be helpful for an ecological theology.

Teilhard's evolutionary thought emerges within the early 20th century context of competing models of evolutionary process, with many in the scientific community adhering to teleological or developmental models despite claiming allegiance to Darwin's mechanistic model.632 Apart from Teilhard, only Bergson proposed a philosophical model of evolution, and Teilhard’s attempt to reconcile evolution with Christology is unique. The strong teleological finalism of Teilhard’s model makes it deterministic as well as anthropocentric, however as Bergson had observed the determinism of teleological finalism simply ‘inverts’ the mechanistic determinism of Darwin’s model.633

In this section, I explore recent critique of Teilhard from an ecotheological perspective. These are succinctly summarised by Celia

632 See s. 3.2.2.
633 See s. 3.2.3.
Deane-Drummond, who lists six major objections. The first two of these relate to Teilhard’s evolutionary model itself, which because of its foundation in Christology rests more strongly on metaphysical doctrine than evolutionary biology. Deane-Drummond notes that Teilhard is out of step with the modern synthesis evolutionary consensus based on Darwin’s model and displays an unacceptable anthropocentrism with its assumption that evolution proceeds in a linear fashion toward human consciousness. Deane-Drummond also lists some theological objections, including the problem that Teilhard’s identification of evolution with Christology subordinates the cosmic Christ to created reality. In addition, Teilhard’s doctrine of the cosmic Christ without any link to the historical Jesus (described by Deane-Drummond as ‘Christomonism’) disconnects his Christology from the historical Christian kerygma. Deane-Drummond also refers to Teilhard’s weakening of the Christian understanding of evil by making it a necessary component of natural process, and points to his ‘naïve and optimistic’ faith in human scientific progress.

I begin by considering the critique of Teilhard’s evolutionary thought from the current scientific perspective. Teilhard’s view of evolutionary process is certainly opposed to the modern synthesis model, despite his claim that he accepts Darwinian process up to the point of hominisation, because even when he accepts the role of chance process he subordinates this to the deep tendency towards complexity-consciousness. Recent advances in evolutionary biology call into question the strictly stochastic view of natural variation that underlies the modern synthesis, leading to what is referred to as an extended evolutionary synthesis. These include the

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behaviourist perspective that emphasises how the behavioural choices of living organisms can interact with natural selection, niche construction theory that emphasises the ways organisms interact with and can alter their environment, and the evidence of 21st century molecular biology that reveals evolutionary outcomes driven by autonomous cellular process. These advances reinforce the complexity of evolutionary process, and allow for a combination of chance processes with a weakly teleological emphasis on the autonomy of living processes themselves. The extended evolutionary synthesis gives support to an ‘inadequate finalism’; and I note that through his concept of ‘groping’ Teilhard’s model of evolutionary process may also be modified to one of inadequate finalism.

In the second section, I discuss theological objections to Teilhard's model, giving support to some of these including the charge of anthropocentrism. I also conclude Teilhard's doctrine of sin and attitude towards suffering and redemption needs to be reviewed, especially from an ecotheological perspective. I will continue to explore these themes as I build on Teilhard’s noosphere construct in the following chapter.

4.2.1 Current evolutionary perspectives on teleology

From the time that Teilhard first published his evolutionary doctrine in *The Phenomenon of Man*, the over-riding difficulty from the scientific perspective has been its assumption that evolution proceeds orthogenetically in the direction of ever greater complexity and the development of physical forms that are capable of higher consciousness.635 I begin this section by outlining the basis of early critique of Teilhard’s teleological model of evolution from the perspective of the modern synthesis.

635 See Medawar, “The Phenomenon of Man.”
As I have noted above, the charge of determinism can be levelled against both the teleological finalism of Teilhard’s model and the reductionist mechanism of Darwin’s model incorporated in the modern synthesis. For this reason, I subsequently explore developments in evolutionary science since the 1970s which expose the limitations of both extremes. These are incorporated in an extended evolutionary synthesis which emphasises the autonomy and agency of living organisms interacting with their environment.⁶³⁶ The extended evolutionary synthesis, while broader than Teilhard’s focus on consciousness and ‘hominisation’, similarly emphasises autonomous noetic process and active interaction with the environment. As I shall show in the following chapter, the contemporary focus on noetic processes in relation to evolution is also reflected in process ecological models which emphasise complex interactions between noetic systems. These observations will provide the basis for an extension of Teilhard’s noosphere which will ultimately allow Teilhard’s doctrine of convergence to be re-framed as the incarnation of the inner-trinitarian relations of love within the more-than-human ecology.⁶³⁷

At the heart of the critique of Teilhard’s model from the perspective of modern synthesis evolutionary theory is the assumption of consensus around the random and mechanistic basis of evolutionary process.⁶³⁸ From the modern synthesis perspective, the genome variations that natural selection works upon are entirely random, comprising both the random selection of genetic material from two parents in every generation as well as random genetic mutation. For biologists committed to this model, any appearance that evolution has worked towards a particular result is due to

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⁶³⁶ Laland et al., “The Extended Evolutionary Synthesis.”
⁶³⁷ See s. 6.1.
⁶³⁸ Deane-Drummond, Christ and Evolution, 40.
the observer's position of hindsight, as well as failure to fully appreciate the vastness of the timescales involved. That is, Teilhard’s assumption of ‘orthogonal’ or ‘unidirectional’ evolution tending towards the increase of complexity-consciousness is an instance of arguing backwards from the observer’s own position.

At the time Teilhard’s *Phenomenon of Man* was first published in 1955, the modern synthesis evolutionary model had achieved almost universal acceptance in the scientific community. As I shall note below, more recent evolutionary research calls the mechanistic assumptions of the modern synthesis model into question. Current behavioural systems and cybernetic approaches that see living organisms as actively seeking to control their own environment and alter their own genome have fundamentally challenged the modern synthesis exclusion of teleological process. The critique of Teilhard’s thought from the position of the modern synthesis thus needs to be moderated.

Teilhard’s position in the *Phenomenon* regarding the interplay of random processes and overall direction in evolution is typical of early 20th century scientific thought. Firstly, he gives unequivocal support to the fact of evolution ‘which has long since ceased to be a hypothesis’. He also shows himself aware of the debate ‘about the mechanism of life’s transformations, and whether there is a preponderance of chance (the neo-Darwinians) or of invention (the neo-Lamarckians) in the emergence of new characteristics’.\(^{639}\) In a subsequent essay included in *The Future of Man*, Teilhard remarks that the neo-Darwinians are ‘probably right’ in claiming that in pre-human evolution only chance processes can be detected, but goes on to comment that ‘biological purposiveness (as with so many other physical parameters of

\(^{639}\) Teilhard de Chardin, *The Phenomenon of Man*, 155.
the universe) is not everywhere apparent in the living world, but ... only shows itself above a certain level'.

As he argues elsewhere in relation to the phenomenon of consciousness, Teilhard here suggests that in relation to simple organisms it may be that evolution appears purely mechanistic, because at that level individual conscious processes are vanishingly small. However due to what he describes as the ‘fantasy of large numbers’, while it proceeds through a myriad of apparently random transactions the overall direction of evolution is towards complexity and consciousness. Central to this point is Teilhard’s concept of ‘groping’ as the incessant experimentation of life which appears random but is both purposive and persistent. As I have remarked above, at this point Teilhard’s argument reveals the influence of Bergson’s *élan vital*. That is, the drive of living things to establish a secure niche ‘tries out’ the inventory of adaptive possibilities. Unlike Bergson, who proposes the *élan vital* as a naturalistic explanatory device, Teilhard’s idea of groping is related to his metaphysical commitment to the ‘within’. While Bergson’s *élan vital* has been defended as a non-dualistic distinction between living and non-living matter, for Teilhard there is no distinction as groping emerges as a function of complexity in organic life.

Teilhard’s concept of groping suggests a complex interaction between organisms’ own behaviours and the chance processes of natural selection. For example, an organism may acquire a behaviour in response to some environmental challenge. If the behaviour is passed on to other individuals and across generations, genomic characteristics favouring the acquired

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642 See s. 4.1.3.
behaviour may subsequently be enhanced through natural selection.\textsuperscript{643} This ‘Organic Selection’ model first proposed in 1896 by Lloyd Morgan was demonstrated experimentally with fruit flies by Waddington in 1942.\textsuperscript{644}

More generally, any activity of a living organism that defends its own physical structure or ability to procreate must be considered purposeful and so teleological.\textsuperscript{645} Teilhard’s acceptance of the agency of living organisms in driving evolution is not so explicit as that of Bergson, but through his concept of ‘groping’ similarly endorses a weak teleology in evolutionary process that is within the range of current thought. In addition, in arguing for an evolutionary tendency towards complexity-consciousness, Teilhard also endorses the operation of probabilistic processes. Thus, while Teilhard’s synthesis of Christology and evolutionary theory suggests a strong teleological finalism, his argument in relation to evolutionary process associated with ‘groping’ reflects only the ‘inadequate finalism’ of Bergson’s agential model.

Even a weak teleology is lacking from the modern synthesis approach, which considered only the ways in which organisms are acted upon by their environment. As Peter Corning notes, for much of the 20\textsuperscript{th} century biologists committed to a positivist scientific model have been reluctant to concede ‘the fundamental purposiveness and partial autonomy of living systems’.\textsuperscript{646} Such failure to recognise an interaction between behaviour and natural selection is to deny agency to the living organism and ultimately to fail to distinguish between living and non-living organisms.

\textsuperscript{643} Bowler, The Non-Darwinian Revolution: Reinterpreting a Historical Myth, 10.
\textsuperscript{645} Corning, “Evolution ‘on Purpose.’”
\textsuperscript{646} Ibid., 246.
This began to change during the 1960s and 1970s as biologists came to accept the observable 'internal teleology' displayed by living organisms, a characteristic that came to be referred to by the now widely accepted term 'teleonomy'. Less quickly accepted was the corollary that living organisms could no longer be 'reduced to the laws of physics' and that living systems respond to environmental feedback in purposeful ways. Corning cites research especially since the turn of the 21st century that recognises learning and behavioural influences on genotype via the mechanism of natural selection. That is, behavioural choices affect an organism’s physical development, and through natural selection also the genetic information passed on to future generations.

The common denominator of such research is the assumption that living organisms constitute 'intentional systems' with a degree of autonomy. This concept echoes Teilhard’s idea of the ‘within’. Corning views the operation of an intentional system as purposeful in selecting behaviours that increase an organism’s prospects for survival and reproduction: 'Organisms do not adapt to their environments in a random way ... even trial and error processes are purposeful. They are shaped by evolved, pre-existing search and selection criteria, namely, the adaptive needs of the organism'. Similarly to Bergson’s élán vital and Teilhard’s ‘groping’, Corning’s idea of ‘intentional systems’ suggests that organisms actively and purposefully search for adaptive solutions through exhaustive trial and error.

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647 Ibid., 248.
648 Ibid., 249.
649 Ibid.
A central feature of the new approach now known as the extended evolutionary synthesis is niche adaptation or niche construction theory.\textsuperscript{650} Kevin Laland \textit{et al} emphasise that the extended synthesis does not replace the modern synthesis, although it challenges some aspects and adds new complexity. The extended evolutionary synthesis challenges the very notion of biological inheritance as limited to genetic material, recognising that the ecological inheritance includes the sum of environmental factors and accumulated changes as a result of the niche construction activity of that or other interdependent species.\textsuperscript{651} Niche construction theory recognises that life always evolves within environmental contexts that are themselves in a state of flux, and that while the environment imposes evolutionary constraints on the organism, it is also continuously restructured by the ecological community that inhabit it.\textsuperscript{652} Given that the environment for a particular species comprises not just the surrounding non-living context but the other species sharing the vicinity, niche construction theory also includes the ways that different species compete, interact, adapt to and shape one another’s evolutionary outcomes. As Steven Peck points out, the constant back and forth between the environment and organisms that inhabit it not only results in changes to the species genome through natural selection but the creation of new environmental niches that provide new opportunities for survival and new impetus for evolutionary development not only for that species but the entire ecological community. This point will be further clarified in chapter 5 as I draw on the emerging field of process ecology to


\textsuperscript{651} Laland \textit{et al}., “The Extended Evolutionary Synthesis,” 4.

\textsuperscript{652} Peck, “Life as Emergent Agential Systems,” 991.
describe the noetic interaction that characterises even simple systems.\textsuperscript{653}

For the purposes of evaluating Teilhard’s contribution to evolutionary theory, niche construction assists in understanding how and why life increases in complexity over evolutionary time-frames, and so supports a weakly teleological view of evolutionary process.\textsuperscript{654}

A further parallel to Teilhard’s notion of the ‘within’ is provided by 21\textsuperscript{st} century research that recognises the function of noetic systems in evolutionary process. For example a systems approach to biological evolution uses cybernetic concepts to describe the relationship between goal-oriented behaviour and the external environment. Corning notes that cybernetic control processes have been discovered at various levels, including morphogenesis, cellular and neuronal network activity, as well as in feedback processes that influence behaviour. He notes the general principle that ‘... many levels of goal-oriented feedback processes exist in nature, and complex organisms such as mammals ... are distinctive in their reliance on more inclusive, emergent, ‘higher-level' controls’.\textsuperscript{655} That is, the intentional problem-solving behaviour exhibited by higher mammals is an example of the more widespread existence of informational feedback systems that regulate behavioural choices of even simple organisms based on environmental factors. The emphasis on the role of informational systems in current evolutionary research reflects Teilhard’s less precise notion of the ‘within’ as fundamental to evolutionary process.

Corning’s argument demonstrates the emphasis in current evolutionary research on the agency of living organisms, and highlights the role of noetic feedback systems. This informational, or cybernetic approach

\textsuperscript{653} See s. 5.2.2.


\textsuperscript{655} Corning, “Evolution ‘on Purpose,’” 250.
is also used by James Shapiro in his 2012 study of the cellular-level processes involved in biological evolution.\textsuperscript{656} Shapiro’s research suggests that the noetic feedback systems of even simple organisms can influence evolutionary development by writing changes into the organism’s genome.

Shapiro comments that ‘The capacity of living organisms to alter their own heredity is undeniable. Our current ideas about evolution have to incorporate this basic fact of life’.\textsuperscript{657} An 'informatic' approach emphasising living organisms as self-modifying systems builds on the findings of molecular biology, which have revealed the ubiquity of powerful sensory and communication networks operating at all levels. Shapiro maintains the fundamental driver of evolutionary change must now be recognised as innovation, rather than natural selection.\textsuperscript{658} He argues that at both the cellular level and that of the genome, the evolutionary process involves 'combinatorial innovation', followed by environmental feedback and adaption to novel situations. Living cells, Shapiro argues, restructure and repair their own genome by 'writing new information' at an epigenetic level which leads to long-term changes in the organism's DNA.\textsuperscript{659} This claim was experimentally verified in a recent study by Dias and Ressler, who found that trauma in mice associated with an olfactory stimulus was transmitted to subsequent generations via parental gametes.\textsuperscript{660} It is at the cellular level in particular that Shapiro sees the driver of evolution: 'Cells are built to evolve; they have the ability to alter their hereditary characteristics'.\textsuperscript{661} He claims this

\textsuperscript{657} Ibid., loc. 0303.
\textsuperscript{658} Ibid., loc. 0283.
\textsuperscript{659} Ibid., loc. 1625, 2608.
\textsuperscript{661} Shapiro, \textit{Evolution}, loc. 2618.
innovation is the primary driver of evolution, with natural selection operating to eliminate non-functional or non-adaptive changes.

Shapiro thus implicates complexity and noetic interaction in evolutionary process at even the simplest level of organic life. This does not diminish the role of probabilistic factors but does suggest, as Teilhard claims in his idea of ‘groping’, that organisms search for adaptive advantage in ways that are systematic and purposive. The current emphasis on innovation and autonomy as drivers of evolution echoes Bergson’s agential perspective and Teilhard’s notion of the ‘within’ as fundamental to evolutionary process.

The import of these developments in the extended evolutionary synthesis is not to support Teilhard’s unidirectional and irreversible evolutionary model. However, it suggests a weakly teleological and agential model of evolutionary process as well as a complex view of interaction between species and the environment. In a way that Teilhard could not have anticipated, modern science confirms the noetic processes (the ‘within’) of living cells as a significant driver of evolutionary change directed towards the needs of the living system and modified by feedback from the external environment. This does not mean that evolution is directed towards the production of hominised life, as Teilhard suggests. In fact, the recognition of complex informational and noetic systems at a cellular level serves as a reminder that while noetic systems may be a ubiquitous evolutionary mechanism, such systems need not be associated with self-reflexive intelligence.

A review of recent developments in evolutionary science thus does not support the critique of Teilhard’s model from the mechanistic perspective of the modern synthesis, although it suggests Teilhard’s model needs to be augmented with a more explicit emphasis on the agency of living organisms. In the following chapter I shall propose an amendment of Teilhard’s model of
creative process following Bergson that recognises the agency of organisms and the complex interactions between the environment and the different species that depend on it. This will enable the application of Teilhard’s noosphere construct to the noetic community that is the more-than-human ecology. The emphasis in Teilhard’s noosphere model on noogenesis as a high-level supra-personal interaction can then be understood in terms of biological models of autopoiesis as self-sustaining noetic interactions within closed ecological systems. The extended noosphere construct will be seen to make a strong connection with Wisdom themes and Teilhard’s claim of convergence on Christ-Omega can be re-framed with a trinitarian model as the incarnation of divine love. Following Deane-Drummond, however, it is first necessary to consider some theological objections to aspects of Teilhard’s thought.

4.2.2 Critique of Teilhard's evolutionary Christology

As noted above, Deane-Drummond summarises the theological critique of Teilhard’s thought as centred on his subordination of Christ to created reality, his disconnection of the doctrine of Christ from the historical Jesus, weakening of the doctrine of evil and naïve faith in scientific progress. In this section I will comment on these issues, beginning with the two that concern Teilhard’s Christology, then dealing with the problem of evil and suffering and finally Teilhard’s optimism.

As Deane-Drummond notes, Teilhard’s Christology runs the risk of ‘embedding’ the cosmic Christ within creation as a natural process. This is accentuated by his ‘Christomonism’, or separation of the cosmic Christ from the historical Jesus. These shortcomings relate to the lack of a trinitarian structure in Teilhard’s thought. Teilhard’s 'Christomonism' stems not only from his neglect of the historical Jesus, highlighted by his preference for the
'Alexandrian Logos' over the Jesus of the Synoptics, but also from his attempt to interpose the cosmic Christ in creation without a rigorous trinitarian model which underpins a theology of creation and incarnation. The first of these omissions could be addressed by paying attention to the Wisdom Christology of Matthew and Luke, through which by reference to the Hebrew and Hellenistic Wisdom traditions the connection between the Synoptic Gospels and the ‘Alexandrian Logos’ that Teilhard identifies with the Johannine and Pauline Christ may be strengthened. Although Teilhard’s thought reveals an implicit Wisdom orientation, for example in his assumption that christification involves noetic expansion, his writing predates the retrieval of Wisdom theology from the 1970s. Teilhard’s thought may thus benefit from being read within an explicit Wisdom frame.

The second omission that leads to a 'Christomonism' is the absence of an explicit trinitarian doctrine. Teilhard addresses the Trinity briefly in Christianity and Evolution, commenting that the doctrine 'can only strengthen our idea of divine oneness, by giving it the structure ... which is the mark of all living unity'. Teilhard acknowledges the risk of embedding the cosmic Christ in creation by remarking that apart from the triune nature, God could not create 'without totally immersing himself in the world he brings into being'. I also note in the following chapter the moment of 'trinitisation' that Teilhard suggests as providing the massive energy needed for the initial production of the 'multiple'. Nevertheless, Teilhard does not explicitly develop or connect his Christology with a trinitarian doctrine, and his cosmic

662 Edwards, Jesus the Wisdom of God, 40–41; See however Deane-Drummond, Christ and Evolution, 101–2, who notes the strong “Son of God” Christology in Matthew and cautions against finding a universal Wisdom Christology. Deane-Drummond also notes that the variety of pre-Christian interpretations of Wisdom need to be taken into account.

663 Teilhard de Chardin, Christianity and Evolution, 157.

664 Ibid., 158.

665 See s. 5.1.2.
Christ is surprisingly underdeveloped in every aspect other than that of being the physical centre and point of convergence. For example, the comparison with Origen demonstrates that Teilhard’s doctrine of Christ as the physical centre of creation is an implicit extension of the doctrine of Incarnation. However, in the absence of a clear trinitarian framework, this is lacking in explicatory power.

The absence of an overt trinitarian structure also means that Teilhard’s Christ cannot be completed in unification other than within the convergent cosmos, and so as Deane-Drummond remarks is embedded within created reality. It should be noted that Bonaventure encounters no such difficulty, despite his doctrine of creation that begins with the Dionysian diffusion of the good, because the most perfect diffusion and self-giving is accomplished within the immanent Trinity.

Both of the Christological critiques of Teilhard’s model ultimately reflect the unsystematic nature of his thought. Given the connections between Teilhard’s cosmological vision and that of Bonaventure it is possible to address these issues by understanding Teilhard’s proposal of Christ as the centre of creation in terms of Bonaventure’s more rigorous trinitarian theology. At the same time, Teilhard’s view of human evolutionary development as noogenesis and ultimately christification suggests a connection with Bonaventure’s doctrine of spiritual process into union with Christ outlined in his *Itinerarium Mentis in Deum*. The elaboration of this connection will require moving beyond Teilhard’s vision to develop a view of human development within the context of the more-than-human ecology. The

666 See s. 4.1.2.
668 See s. 1.2.2.
669 See s. 4.1.4.
two remaining criticisms, regarding Teilhard’s treatment of evil and suffering and his attitude towards scientific progress, are also relevant to the possible application of Teilhard’s thought to ecotheology.

The criticism that Teilhard too easily dismisses the seriousness of evil and suffering as an evolutionary byproduct is particularly problematic from an ecotheological perspective. As Deane-Drummond points out, Teilhard’s ‘naturalisation’ of evil as the suffering and stress of an evolving universe runs the risk of excusing human evil as an unavoidable aspect of progress. While agreeing with this point, I argue following Grumett that Teilhard offers a nuanced extension of the doctrine of evil and suffering.

In *Christianity and Evolution*, Teilhard describes evil as a ‘shadow of the creative act’ because of the tendency of ‘the multiple’ to resist the pull towards unification.\(^{670}\) He describes the passage of creation from the primal chaos (the 'multiple') towards coherence as a struggle, and links this struggle and its associated suffering with the cross. Within the dialectic of resistance and desire for unification that is evolution, Teilhard claims the cross as a divine act by which Christ reconciles that which is alienated. Thus, the Crucified One ‘bears the pain of evolutionary becoming, predation, suffering and death as the concomitant of evolutionary process’. Created reality, with its dialectic between flourishing and growth, competition and suffering, is cruciform. Teilhard notes that this understanding of redemption does not supplant the traditional notion of expiation for moral sin, but augments it with the sense of overcoming resistance to unification.\(^{671}\) As David Grumett notes, this substitutes a view of original sin as atemporal and indigenous to the created state for the aetiological account in Genesis chapter three of sin

\(^{670}\) Teilhard de Chardin, *Christianity and Evolution*, 84.

\(^{671}\) Ibid., 85.
as an irruption into human history. On this interpretation, sin is not the result of the misuse of human free will but a state of alienation or separation, and the origin of sin actually becomes 'a condition for temporality'. For Teilhard, the primal creation is the 'multiple', which ipso facto is the state of maximal alienation from the 'One'. Thus, as Grumett suggests, 'history is itself contingent on sin', and this makes redemption and the cross necessary from the outset, rather than a response to historical circumstances. He notes:

The alternatives are not sin or freedom but sin and freedom on the one hand, and non-existence on the other. The transgression of Adam continually presents humanity with the option of accepting its liberty to assent to the absolute spiritual principle which will redeem and consummate the world, and which makes possible the action and passion of human existence.

What this means, if Teilhard is to be allowed his initial premise of the 'multiple' as the primal created state, is that the initial chaos at the beginning of creation is necessarily the state of most extreme alienation, or structural sin. In this interpretation, the myth of the Fall means that from the dawn of human awareness men and women have recognised the yearning and the struggle towards integration. Teilhard suggests this view of sin is more helpful for a modern evolutionary understanding that can no longer take literally the Biblical narrative of descent from an original couple in a pristine paradise. In addition, Teilhard's wider interpretation of sin is also applicable to natural suffering. While in the traditional theological

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672 Grumett, Teilhard de Chardin: Theology, Humanity, and Cosmos, 24; citing Teilhard de Chardin, Christianity and Evolution, 188–89.
673 Teilhard de Chardin, Christianity and Evolution, 84.
674 Grumett, Teilhard de Chardin: Theology, Humanity, and Cosmos, 24.
675 Ibid., 25.
676 Teilhard de Chardin, Christianity and Evolution, 51.
677 Ibid., 36.
understanding of sin as the result of human disobedience, nothing can be said about the suffering of the non-human creation before the appearance of humanity, Teilhard includes this as a part of the structural sin that is the cost of creation.

Nevertheless, from an ecotheological perspective, it is difficult to accept Teilhard's understanding of the suffering of the more-than-human creation as simply the unavoidable price to be paid for evolutionary progress. As noted above Teilhard builds a universe-long narrative of redemption by relocating sin as the 'systems error' of creation, and the cross at the heart of a more-than-human creation struggling toward evolutionary fulfilment. This interpretation carries the difficult connotation that God created sin as an inescapable concomitant of creation. This highlights a major point of difference between Teilhard’s ‘within’ and Bonaventure’s exemplary metaphysics, which I shall attempt to resolve in the following chapter. A more immediate problem is that Teilhard’s solution requires the recognition of creation as a site both of sin and redemption.

Teilhard’s identification of natural suffering with the suffering of Christ is echoed by later writers, including Holmes Rolston.678 Like Teilhard, Rolston reflects on the inadequacy of the Genesis account of the origin of sin to account for the natural evil that afflicts creation.679 His comment that it is unclear whether the non-human creation stands in need of redemption reflects the difference that he has not, like Teilhard, attempted a relocation of the doctrine of original sin.680 Ultimately, Rolston's identification of the suffering of creation as 'cruciform' is dangerous, for the same reason as it is

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679 Ibid.
680 Ibid., 215.
dangerous in Teilhard. Both writers suggest the suffering of creation is redeemed by evolutionary success - implicitly viewing evolution as a sort of ladder and humanity as its top rung. As Deane-Drummond points out, this overlooks human responsibility and makes the suffering of the non-human world inevitable.\textsuperscript{681} It can only be consistent to call creation 'cruciform' or relate the suffering of the natural world to the suffering of Christ if there is also an ecological language for redemption of the more-than-human community. That is, if the suffering of creation is the suffering of Christ, then we must articulate a theology that provides a warrant for the transformation or renovation of the whole of creation in Christ. This suggests the need for an ecological eschatology, and I shall suggest a model for this in chapter 6.

The final criticism of Teilhard’s thought in Deane-Drummond’s list is that he shows a naïve faith in technological progress. This is related to his tendency to minimise suffering by interpreting it as instrumental to progress. For example, in the essay ‘The Promised Land’, which Teilhard wrote in early 1919, he refers to the suffering and sacrifice of war as a struggle toward something good: ‘we thought, did we not, that we could distinguish the first outlines of a new organisation of mankind taking shape - what one could almost call the birth of a soul. The war was a crisis of growth’.\textsuperscript{682} Similarly, Teilhard celebrates the first atomic bomb test in Arizona as ‘an impending cosmic birth’ and evidence that the human intellect could now probe the secrets and harness the hidden power of the universe reveals a faith in the fruits of technology that many would find naïve.\textsuperscript{683} More generally, Teilhard uncritically equates industrialisation with progress, without any real

\textsuperscript{681} Deane-Drummond, \textit{Christ and Evolution}, 187.
\textsuperscript{682} Teilhard de Chardin, \textit{Writings in Time of War}, 281.
\textsuperscript{683} Teilhard de Chardin, \textit{Human Energy}, 133–42, “Some reflections on the spiritual repercussions of the atom bomb”.

consideration either of whether it adds to the sum of human happiness or whether its benefits outweigh its costs across the whole interconnected ecological system. By implication, Teilhard equates progress with the extension of human capacity, and so overlooks the complexity of ecological systems.

Related to his technological naivety is the difficulty that Teilhard’s evolutionary and Christological system is too monolithic to be applicable to a local ecological perspective. Writing in the 1940s, Teilhard is aware that the universe involves vast scales of time and distance, and he refers to the disquietingly expanded perspective forced upon us by the ‘enormities’ of space, duration and number in a universe ‘formed of galaxies whose distance apart runs into hundreds of thousands of light years’. 684 Teilhard believes that his schema of noogenesis and convergence alone can address the existential anxiety of a humanity contemplating its place within such a universe. 685 In this, he commits a category error. Viewed as a cosmological model, Teilhard’s system is paradoxically rendered trivial in relation both to human life and to ecological systems that endure for a cosmological instant and yet constitute the real context of concern. For this reason, any ecotheological development of Teilhard’s model must address his insight of life as matter and spirit struggling towards inter-relationship and complexity within a framework applicable to local ecological systems. The theological critiques of Teilhard’s thought enumerated by Deane-Drummond are thus sustained. In discussing these critiques, I have argued that Teilhard’s thought may be assisted by Bonaventure’s strikingly similar Christocentric cosmology which is developed within a coherent trinitarian framework. In

685 Ibid., 251.
relation to Teilhard’s doctrine of evil and technological optimism, Deane-
Drummond’s theological critique points to the ways in which Teilhard’s
evolutionary Christology needs to be reviewed in order to contribute to a
contemporary ecotheology, and this will be the principal focus of the
following chapter.

In addition to my review of the theological critique of Teilhard’s
thought, in this section I have discussed his model of evolutionary process in
the light of recent scientific developments. I argued that evolutionary science
has moved away from the strict mechanistic perspective of the modern
synthesis view. Although Teilhard’s strongly teleological model is not
supported, there is general support for a weak teleology in evolutionary
thought, and a focus both on noetic complexity and the agency of living
organisms themselves. This suggests the possibility of finding a middle
ground in suggesting a model for natural process that recognises both the
autonomy of living organisms and convergent processes.

4.3 Conclusion

In this chapter I have sketched out Teilhard's principal ideas in relation
to evolution, human development and the cosmic Christ, and evaluated
these in relation to contemporary developments in biology as well as
contemporary theological critique. I have pointed out the connections
between Teilhard's model and the Christocentric theology of Bonaventure,
and indicated some areas in which Teilhard's thought needs to be challenged
from an ecotheological perspective.

Teilhard proposes an incarnational Christology in which Christ as the
'physical' centre of creation correlates to a material universe in which matter
is imbued with spirit, and processes through the radial energy of evolution
which brings disconnected elements into creative union. Evolution thus proceeds in the direction of complexity-consciousness leading to the emergence of hominised self-awareness, thence through noogenesis to a shared noetic layer transcending individual awareness that Teilhard names the noosphere. The evolutionary development of humanity towards super-awareness through the attraction of Christ as the cosmic centre, or Christ-Omega, becomes a movement of christogenesis, or cosmic convergence into union with Christ. This emphasis on Christ as the cosmic centre and the ground of created reality echoes Bonaventure’s Christocentric doctrine of creation.

Other parallels to Bonaventure include a similarity in the structure of Teilhard’s model of evolutionary convergence on Christ-Omega with Bonaventure's spiritual journey of the *Itinerarium Mentis in Deum*. This connection is strengthened by the implicit Wisdom orientation that I have noted in Teilhard’s thought and in particular in his emphasis on noetic complexity and unification. Teilhard’s evolutionary model is based on a view of the universe as being in process, both spiritually and physically. While Bonaventure's medieval worldview precludes an understanding of physical process, there is nevertheless a parallel between Teilhard's Christ-Omega and the divine ideas of Bonaventure's exemplarity as both provide models of final causation.

Teilhard's model is an important foundation for a contemporary ecotheology, because the underlying paradigm of evolution emphasises the common basis and interdependency of all life. Evolutionary models also direct attention to the role of the living systems of the earth, the interaction between organisms and the environment, and competition between organisms, that are crucial to any ecological modelling. Teilhard's evolutionary model also explicitly proposes complexification, or creative
union, as the underlying tendency of all life. This draws attention to wider questions of interdependency or inter-relationship between species in an ecology, and suggests the dynamic of mutual interdependence as the basis for an ecotheology.

Teilhard's construct of the noosphere as a transcendent noetic layer is problematic for several reasons. Firstly, it is without scientific basis and contradicts Teilhard’s own metaphysical premise that the ‘within’ is inseparable from physical reality. From the perspective of ecotheology, the noosphere is doubly problematic as it separates human development and destiny from its ecological context. Because of his focus on the vertical dimension of convergence with Christ-Omega, Teilhard misses the importance and the complexity of horizontal interdependence. Nevertheless, Teilhard’s noosphere construct suggests a line of enquiry in relation to the more-than-human ecology as a noetic system, and will provide the key resource in developing an ecotheological extension of Teilhard’s thought in the following chapter.

I have discussed limitations in Teilhard’s thought, both in relation to his model of evolutionary process and his Christology and doctrine of evil. Teilhard’s model also reveals a clear anthropocentric bias, and his strongly teleological model of convergence is both deterministic and too monolithic to be applied to local ecological systems. My review of current scientific models of evolution finds support for a weak teleology, an emphasis on noetic complexity that is compatible with Teilhard’s model of evolutionary process, and an emphasis on the agency of living organisms that suggests how Teilhard’s model may be augmented. My consideration of theological critiques of Teilhard’s thought also suggests some directions for an ecotheological application of his model and the need for a redemptive model of the more-than-human ecology.
The chapter has contributed to my overall argument by bringing together the theological theme of the centrality of Christ with the ecological concern for natural process. Teilhard’s methodological contribution most importantly includes the commitment to exposing Christological reflection to scientific models of reality, and conversely the insistence on a metaphysical basis for scientific reasoning. Although Teilhard’s thought predates current environmental and ecological concern, analysis of its limitations has suggested that it may provide the foundation for a process ecological model. Within the following chapter I will bring the metaphysical systems of Teilhard and Bonaventure into direct conversation, and will extend Teilhard’s understanding of creative process to show that the noosphere can provide a viable model for the more-than-human ecology.
5 Exemplarity, creative process and the noosphere

Over previous chapters I have introduced the trinitarian theology of Bonaventure and described Teilhard’s evolutionary Christology within the context of the development of evolutionary thought. While Bonaventure’s Franciscan thought offers a view of creation and of both human and non-human life that clearly suggests an application to ecotheology, my evaluation of Teilhard’s thought in the previous chapter concurred with criticisms levelled at his thought from an ecotheological perspective. Despite this, I argue that taken into conversation with Bonaventure’s theology Teilhard’s thought can provide a valuable foundation for ecotheology and model for the more-than-human ecology that facilitates a deep conversation between theology and ecological science.

In this chapter I begin the task of creating a synthesis from the thought of Bonaventure and Teilhard by bringing their thought into conversation and suggesting ways in which each may be corrected by the other. In the first major section of the chapter I focus on the metaphysical systems of exemplarity (Bonaventure) and the within (Teilhard), noting both the parallels and the differences between them. I argue that Teilhard’s emphasis on natural process provides a necessary corrective to Bonaventure’s exemplary system, but that Bonaventure’s exemplarity provides a trinitarian rigour that better connects the life of creation with the divine life. I conclude this section with a defence of the divine ideas for a contemporary ecotheology.

In the second section of the chapter I engage with Teilhard’s model of noogenesis and convergence, extending his system to provide a model for the more-than-human ecology that has both scientific and theological utility. Teilhard’s emphasis on noesis as an underlying driver of evolution finds
application in the description of ecological systems, and as I will argue in the following chapter also provides a new interpretation of Teilhard’s concept of christification because of the connection it makes with Wisdom theology.

It is the task of this chapter to provide a theological model for the more-than-human ecology that reflects Teilhard’s emphasis on process both towards complexity-consciousness and unification, within the exemplary framework of Bonaventure’s trinitarian theology. In the following chapter I will explore the eschatological implications of the extended noosphere model, relating this to Bonaventure’s theology of history and his eschatological vision based on the life of St Francis.

5.1 Exemplarity and Ecotheology

In the previous chapter I introduced Teilhard’s panpsychist construct of the ‘within’, noting that while he receives this from Leibniz it ultimately draws on the ideas of Middle Platonism given Christological content by Origen. I briefly noted the parallel between Teilhard’s within and Bonaventure’s exemplary metaphysics, commenting that while for Bonaventure created reality is grounded in the Word as initial cause, for Teilhard the within connects created reality to Christ Omega as final cause. In this section I will compare the two systems more closely, paying attention to the the assumptions of each regarding the autonomy of created entities and the interaction between natural processes and the divine initiative in creation.

I begin by exploring the parallels between Teilhard’s metaphysical system based on the within, and Bonaventure’s exemplary metaphysics.

686 See s. 4.1.3.
Both thinkers see created reality as centred on Christ, and Teilhard’s model of convergence which proposes Christ-Omega as the final cause of created reality is structurally similar to Bonaventure’s model of the divine ideas which understands Christ as both initial and final cause. Nevertheless there are some significant distinctions, and in this section I shall propose ways in which each needs to be extended.

Both Bonaventure’s exemplarity and Teilhard’s within offer a dipolar view of created reality, meaning that even at the simplest level created entities have an inward as well as an outer aspect. For Bonaventure the inner aspect follows from his exemplary metaphysics as every created entity is ontologically grounded in the Exemplar. In Teilhard’s system created dipolarity is made explicit in the concept of the within, which ultimately also connects created reality with Christ since it is through radial energy associated with the within that creation is drawn into union with Christ. The implication in both systems is that while created entities possess autonomy while being grounded in God’s own life.

Although as a medieval thinker Bonaventure does not share a process understanding of the natural world, I suggest an extension to his exemplary metaphysics that accommodates Teilhard’s observation that created reality tends towards complexity-consciousness. I argue in this section that Bonaventure’s exemplary metaphysics provides a better description than Teilhard’s system of created reality grounded in the trinitarian divine life, and conclude the section by defending an exemplary model for a contemporary ecotheology.

**5.1.1 Creative process, radial energy and exemplarity**

Notwithstanding the parallel between Bonaventure’s and Teilhard’s Christocentric metaphysics, an important difference is that Teilhard is
describing a natural world that is not static but in process. The system that Teilhard develops in relation to his project of explicating evolution as process towards Christ Omega provides a metaphysical underpinning both for the drive towards complexity-consciousness and for unire, the tendency towards unification or relationality. Due to the 13th century ignorance of evolutionary change this developmental emphasis is absent from Bonaventure’s exemplary metaphysics, which as I argue below benefits from being into conversation with Teilhard’s evolutionary system.

I begin with an analysis of Teilhard’s concept of the within, which with the associated concept of radial energy he develops specifically to account for biological systems that tend toward complexity-consciousness. As Harold Morowitz suggests, Teilhard’s doctrine of radial energy associated with the within may have been intended to address a problem many biologists of his time failed to recognise. This was the apparent contradiction between two great 19th-century scientific discoveries: the theory of evolution, which suggested the universe was tending towards greater organisation, and the Second Law of Thermodynamics, which suggested that the universe was tending towards greater disorganisation.687 A review of Teilhard’s development of the concept of radial energy suggests an awareness of this problem as he relates radial energy with the noetic or informational structure of living organisms.

Teilhard’s conception of radial energy changed significantly over the last decade of his life. In *The Phenomenon of Man*, he characterises both radial and tangential (physical) energy as essentially psychic in origin and

687 Harold J. Morowitz, Nicole Schmitz-Moormann, and James F. Salmon, “Teilhard’s Two Energies,” *Zygon* 40, no. 3 (2005): 721–32. See also my discussion of radial energy in s. 4.1.3.
possibly interchangeable.\textsuperscript{688} However, in his essay 'Centrology', written four years after the final draft of \textit{The Phenomenon of Man}, Teilhard differentiates radial and tangential energy as 'psychic' and 'physical' respectively.\textsuperscript{689} In the 1954 essay 'The Singularities of the Human Species' Teilhard goes further, describing radial energy as 'escaping from' and tangential energy as complying with the laws of thermodynamics.\textsuperscript{690} In this final conception of the two forms of energy, Teilhard concludes they 'operate at different levels', and for this reason are not directly interchangeable.\textsuperscript{691}

Morowitz argues Teilhard's final conception of radial energy incorporated a suggestion made by Norbert Wiener in his 1951 work, \textit{Cybernetics}, in which he describes information as an energetic component of the evolutionary process. On this assumption, the fundamental distinction expressed by Teilhard's 'two energies' theory received empirical support later in that decade when the total energy absorbed by a biochemical system was experimentally found to have two components, one of which was calorimetric and the other informational, 'bordering on the noetic'.\textsuperscript{692} It is this informational energy that is available to the system to sustain and increase its level of organisation.

Teilhard's ultimate conception of the within is thus not solely related to the question of subjectivity, but also to that of structural complexity which has an informational or noetic component. As noted in the previous chapter, recent studies focus on the autonomy of living cells in relation to evolutionary process.\textsuperscript{693} Although Teilhard does not propose a view of evolutionary

\textsuperscript{688} Teilhard de Chardin, \textit{The Phenomenon of Man}, 70.
\textsuperscript{690} Teilhard de Chardin, \textit{The Appearance of Man}, 208ff.
\textsuperscript{691} Teilhard de Chardin, \textit{Activation of Energy}, 393.
\textsuperscript{692} Morowitz, Schmitz-Moormann, and Salmon, "Teilhard's Two Energies," 730.
\textsuperscript{693} See s. 4.2.1.
process that emphasises such a level of autonomy at the biological level, his final conception of radial energy appears to be compatible with this. In addition, Teilhard’s mature conception of the ‘within’, because it is freed from a simple association with subjective awareness, is more amenable to generalisation in relation to all biological systems. That is, radial energy viewed from an informatics perspective may be conceptualised as a driver of autonomous biological process.

This sharply distinguishes Teilhard’s metaphysical system from Bonaventure’s exemplarity which does not suggest any underlying tendency towards complexification. Although all creatures are related to the Word through exemplarity, and oriented towards their fulfilment in the divine ideas as final cause, as a medieval thinker Bonaventure does not recognise the implication that the whole of the created order must be dynamic. Thus, in the Breviloquium, Bonaventure writes that the non-human creation does not possess the power of perpetual life and so can only be preserved through the renovation and fulfilment of humanity ‘who is kin to creatures of every species’.694

A primary difficulty is that Bonaventure’s medieval exemplary system cannot take account of the complexity of real entities. As noted above, Bonaventure rejects the view of creation in pagan neo-Platonic exemplarism as a hierarchy ordered by the extent of participation in divine being. Following Augustine, he recognises every individual creature as the expression of a unique rationes seminale or germinal idea in the divine Word.695 Thus, while neo-Platonism recognises the idea of a horse as a fixed species, Bonaventure can speak of the idea of this individual horse. From

694 Bonaventure, Brev., VII, 4.7.
695 See my discussion in s. 1.2.2.
the perspective of a 21st century ecotheology it is possible to extend Bonaventure’s exemplary system by recognising that the horse is in fact a composite society of actual entities, and so the idea of the horse subsumes the idea of this somatic cell or of that hair follicle or intestinal parasite. Other organisms such as ants, while clearly individuals, exhibit a collective behaviour. A contemporary exemplarity must also recognise relationships between species, for example lichen as a symbiotic relationship between a fungus and alga or cyanobacterium. Whole ecologies may be considered as societies in which the individual participants receive benefits in the form of food or shelter from the ecological cycle.

Bonaventure’s exemplary system may thus be extended by suggesting that not only individual creatures but the ecological system as a whole is grounded by exemplarity in the divine life. Rather than locating the divine ideas only at the individual level or only at the collective level, it is possible to speak of the idea of the cell and of the person; of the ant as well as the colony. Such an extension of Bonaventure’s system can then incorporate Teilhard’s emphasis on process towards complexity-consciousness and the energetic savings in cooperation, which can be theologically accommodated as the emergence of the image in creation of God’s own trinitarian life. In the following section, I argue that Bonaventure’s exemplary metaphysics reflects more fully than Teilhard’s metaphysics of the within the fact that each creature is able individually yo participate in the being of God.

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5.1.2 Trinitisation, the multiple and exemplarity

A second major distinction between the two systems is that, while Bonaventure’s exemplary metaphysics connects each created entity with the divine Word through its unique *rationes seminale* or germinal idea, Teilhard’s within is conceived less as an individual attribute of every created object of living creature than as a generalised property of matter. For this reason, the within functions at a more general level, drawing the life of creation toward hominisation and ultimately christification. Convergence with the cosmic Christ is a function of the increasing concentration of the within associated with complex living structures. This implies that inanimate entities and simpler forms of life remain imperfectly connected with the divine life. The consequences of this are reflected in Teilhard’s problematic conception of sin as the structural resistance to unification, and I argue that the ultimate source of this problem lies in his flawed trinitarian account of creation.

For Bonaventure, created things have their truest existence in their representation in the divine Exemplar. In other words, the fullest truth about a created being is not in its external manifestation but at the level of the *rationes aeternae* in the divine Word where it has its ground and *telos*.\footnote{Cousins, *Bonaventure and the Coincidence of Opposites*, 116–17.} Thus Bonaventure writes:

\begin{quote}
But truth is found more fully in the thing itself than in its likeness. Therefore, if God’s knowledge is the most perfect knowledge, such knowledge of creatures must be had, not by means of their likenesses, but by means of their essences.\footnote{Bonaventure, *Sc. Chr.*, s. 9.2.}
\end{quote}

Thus, for Bonaventure, all created things participate individually in the dynamism of the inner-trinitarian life by being oriented towards their truest identity in the Word as divine Exemplar. In Teilhard’s system, by contrast, the
initial multiple is characterised by chaos and disintegration, and for this reason is entirely alienated from the divine life. The multiple has only the potential for integration, as the within is ubiquitous even in the dissociated elements or monads that comprise the multiple. Because the primal multiple is entirely alienated from Christ, inanimate and simpler forms of matter are weakly and imperfectly related to Christ, and only when living structures achieve the level of hominisation or self-reflexive awareness does the trajectory of union with the cosmic Christ become inevitable.\(^{699}\) Thus, while in Bonaventure’s system all created entities are known and valued in the exemplar, in Teilhard’s system the orientation of creation to Christ only emerges as a function of increasing complexity. This is unhelpful for an ecotheology that sees the entire creation as loved and intended by God.

The most problematic consequence of Teilhard’s metaphysical system that sees created reality emerging into relationship with the divine life as a function of evolutionary complexity, is his understanding of sin as resistance to unification. As Grumett notes, this makes sin a structural concomitant of the creative act.\(^{700}\) Such an understanding of sin flows from Teilhard’s metaphysical assumption that the initial state of creation is entirely other than and utterly differentiated from the trinitarian life of God. For Teilhard to define as sin the structural resistance to overcoming the initial state of separation from the divine life may be logical given his premise, but the unacceptable conclusion is that sin is created by God. The fact that in Teilhard’s system sin predates the emergence of humanity and includes

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\(^{699}\) As noted in s. 4.1.4, Teilhard accepts some ‘wastage’ of the natural world which never converges to union with Christ.

\(^{700}\) Grumett, *Teilhard de Chardin: Theology, Humanity, and Cosmos*, 25. See my discussion s. 4.2.2.
natural animate and inanimate phenomena also makes this extension most unhelpful for ecotheology.

Ultimately, Teilhard’s metaphysical system is hampered by his failure to develop his Christology within a coherent trinitarian framework. For Teilhard, given the rather generic nature of the within the lure of divine leading operates at the cosmic rather than individual level, through the influence of radial energy leading to unification and complexity-consciousness. This draws all things into new and more complex relations with one another, and eventually into union with the cosmic Christ. This evolutionary metaphysics runs the risk of stranding the cosmic Christ within creation, disconnected both from the historical Jesus of Nazareth and from the God of faith precisely because of the lack of a trinitarian context.

Teilhard is aware of the necessity for an inner divine distinction to avoid embedding the cosmic Christ in creation.701 He also knows that his evolutionary Christology must in turn have implications for trinitarian theology.702 In Christianity and Evolution, Teilhard develops his doctrine of creative transformation by which God transforms the world from an initial state described as the ‘multiple’, an undifferentiated state of ‘diffuse potentiality’ characterised by maximal separation.703 Creation, for Teilhard, is primarily the act of creative union which takes place throughout the life of the cosmos and especially in the evolutionary process. However, he also offers a brief account of the initial act of creation in trinitarian terms in a 1948 essay entitled ‘Comment je vois’ (‘My fundamental vision’).704

701 Teilhard de Chardin, Christianity and Evolution, 157–58. See my earlier discussion s. 4.2.2.  
702 Ibid., 181–82.  
703 Ibid., 84.  
704 Barbour, “Teilhard’s Process Metaphysics,” 148 cites the then-unpublished essay “Comment je vois”; also cited by Mooney, Teilhard de Chardin and the Mystery of Christ,
In this essay Teilhard distinguishes four (non-temporal) 'moments' in the act of creation. The first consists of a 'self-sufficient First Being' and the second 'moment' of creation sees 'a movement of internal diversity and union in the divine life' which Teilhard refers to as 'trinitisation'. For Teilhard, the third moment of creation occurs because the movement of 'trinitisation' or paradoxical union of differentiation within the divine Being 'causes another type of opposition to arise, not within himself but at his antipodes'. In other words, a field is created by the powerful force of divine unification at one pole of reality, so that at the opposite pole the opposing phenomenon of pure multiplicity is formed. He refers to this as a 'creatable void'.

Teilhard suggests this moment occurs as though by necessity: 'Now everything takes place as if God had not been able to resist this appeal; for at such depths our intelligence can no longer distinguish at all between supreme necessity and supreme freedom'. The generation of multiplicity leads to Teilhard's fourth 'moment', in which the First Cause acts upon the Multiple is the universe-long process of creative transformation, the metaphysics of *unire* which, for Teilhard, is the underlying driver of evolution. He comments, '... in such a metaphysics, I say, the creative act takes on a very well defined significance and structure ... To create is to unite.'

Although Teilhard does not cite G. W. F. Hegel, his trinitarian proposal adheres fairly closely to and perhaps follows Hegel's dialectic system in which God 'in and for Godself' undergoes an internal movement of differentiation while 'keeping the difference within itself in such a way that it


706 Ibid.
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does not disturb the universality’.\textsuperscript{707} This is followed by a second movement of differentiation by which the divine idea becomes represented in the realm of finite as pure difference: ‘the separation of what in itself is identical but is maintained in separation … it is the God who differentiates Godself but remains identical with Godself in the process’.\textsuperscript{708} Finally, within phenomenal reality the universe-long movement of reconciliation is consequent on the dialectic of creative differentiation.\textsuperscript{709} Thus for Hegel creation initially must be characterised as that which is other than and wholly different from God. In Teilhard’s system this is the ‘multiple’ which throughout the life of the cosmos is gradually transformed through the creative action of radial energy into complex physical structures associated with an increasing affinity with the divine life through the growth of consciousness or the within.

The consequence of Teilhard’s dialectical account both of trinitisation and the generation of the multiple is that in its earliest phase creation is wholly other than and absolutely differentiated from God. It is only through the gradual process of creative transformation and the development of complexity-consciousness in the created order that the hominised component of the cosmos develops in affinity and proximity to the divine life. By contrast, within Bonaventure’s trinitarian account of creation that focuses not on difference but on self-donation every created entity is grounded individually through the divine ideas in the Word as Exemplar, and even the simplest created object represents the trinitarian life as a ‘trace or vestige’.\textsuperscript{710}

It is significant that Teilhard’s view of the initial state as a primal chaotic ‘multiple’ describes better the ‘steady state’ view of the universe

\textsuperscript{708} Ibid., 229–30.
\textsuperscript{709} Ibid., 236.
\textsuperscript{710} See s. 1.2.2.
widely held during his lifetime, rather than the Big Bang theory which although first proposed in 1931 by Belgian Catholic priest Georges Lemaître gained widespread acceptance only after Teilhard’s lifetime.\footnote{Simon Singh, \textit{Big Bang: The Origin of the Universe}, Kindle (New York, NY: Fourth Estate, 2004), loc. 2187 of 7611.} That is, Teilhard’s system describes created reality including matter and energy as developing over aeons from an initial undifferentiated state rather than exploding instantaneously into being. Within the ‘Big Bang’ model, although the cosmos develops through generations of galaxy and star formation the matter and energy that explodes into being at the singularity cannot at any point be considered chaotic or unstructured in the sense of Teilhard’s ‘creatable void’.

The essential difference between Bonaventure’s and Teilhard’s trinitarian models is that Bonaventure consistently sees the created order as intimately related and analogous to the trinitarian life of God. By contrast, Teilhard sees the created order in its primal state as utterly other than and at the antipodes to the divine life. I shall return shortly to examine this distinction in arguing that an exemplary metaphysics remains viable and helpful for a contemporary ecotheology.\footnote{See s. 5.1.4.} At this point it is sufficient to conclude that Bonaventure’s system reflects better than Teilhard’s the ecotheological intuition that all creation is loved by God and equally close to God.

Although Teilhard’s and Bonaventure’s metaphysical systems both locate the ground and centre of created reality in Christ, a close examination shows that while Bonaventure lacks the developmental focus of Teilhard’s system his trinitarian exemplarity accounts better for the individual grounding of all things in the divine life. Neither system can adequately provide a
complete metaphysical grounding for ecotheology, but mutually correct and extend each other. The usefulness of a close comparison of the two metaphysical systems becomes even more apparent in considering how they account for process and creative transformation in an evolving system, and it is this to which I now turn.

5.1.3 Exemplarity and creaturely autonomy

I argued above that Teilhard’s notion of the within provides a metaphysical basis for phenomenal reality that parallels Bonaventure’s formal system of exemplarity. Bonaventure’s system is extended by Teilhard’s awareness of natural process, while Teilhard’s evolutionary metaphysics benefits from Bonaventure’s more precise connection of every created entity with the life of the Trinity. I now continue the comparison of Teilhard’s and Bonaventure’s metaphysical systems by focussing on the question of creative process and the autonomy of created entities. I begin with an examination of Teilhard’s model of creative transformation, which like Bonaventure’s exemplary model recognises the autonomous participation of created entities in divine creativity.

In introducing Teilhard’s strongly teleological model of convergence in the previous chapter, I noted the deterministic implications of his assumption that evolution proceeds in a unidirectional and irreversible fashion.\(^{713}\) While recent developments in the biological sciences support weakly teleological processes connected with noetic processes and the interaction of organisms with their environment, this appears to be better described by Bergson’s model. I noted however that Teilhard’s unidirectional model of evolutionary process is substantially modified by his development of the concept of

\(^{713}\) See s. 4.1.3.
‘groping’, suggesting that this may reflect the influence of Bergson on Teilhard’s thought. Like Bergson’s *élan vital*, Teilhard’s model of groping recognises the role of living organisms interacting with their environment. The idea of groping is related to the within, as it suggests a drive related to the organism’s own needs. Groping includes purposeful behaviours and choices that serve the immediate needs of organisms, and as noted in the previous chapter has a complex relation with chance processes in affecting evolutionary outcomes. This means that radial energy does not propel evolution forward in a straight line but through myriad behaviours of organisms directed at the fundamentals of survival and reproduction. Nevertheless, through what he terms the ‘law of large numbers’, Teilhard suggests the groping of individual organisms also serves the macroscopic process of cosmic convergence on Christ Omega.

The first mention by Teilhard of the mechanism of groping occurs in his mature work, *The Phenomenon of Man*.714 Although he continues to represent the overall direction of evolution as being toward increasing complexity-consciousness, he argues that the overall direction of evolution emerges from uncountable attempts that may appear random. This caveat is often disregarded in discussions of Teilhard’s evolutionary theory, and Teilhard himself does not fully heed or explore its implications. Nevertheless, it suggests a model of evolutionary process that is indeterminate within biological timeframes and dependent on the interaction of living organisms with random environmental factors.

As noted in the previous chapter, an essential difference between Teilhard’s groping and Bergson’s *élan vital* is that groping relates to Teilhard’s metaphysical system based on the within. This means that the

714 Teilhard de Chardin, *The Phenomenon of Man*, 121.
purposeful activity of all living organisms participates in divine creativity through the final cause of unification with the cosmic Christ. As noted above, Teilhard’s model of the within suggests that the extent to which a created entity is related to Christ depends on the extent of its evolutionary complexity. With the concept of groping, however, the smallest and least of created entities participate through their autonomous behaviours in the process of christification.

For Teilhard, all real entities are radically interdependent: 'every element of the cosmos is woven from all others'. The primary mode of divine creativity is thus described as ‘creative transformation’, or the transformation through radial energy of existing structures in the direction of greater complexity-consciousness. Central to Teilhard’s metaphysics of creative transformation is centration as the drive towards unification, relationality, complexity and coherence through which the universe proceeds from the primitive 'multiple' to convergence in the cosmic Christ, or Christ-Omega, which is the completion both of creation and of Christ. The concept of groping significantly extends this by clarifying that creative transformation is not just a deterministic and teleologically ‘vertical’ process of final causation, but operates through the creative autonomy of living organisms themselves.

For Teilhard the whole of the created order is directed towards its consummation in Christ so that 'fundamentally, one single thing is always and forever being made in creation: the body of Christ'. The implication of this is that the evolution of created reality into Christ-Omega is also the

716 Teilhard de Chardin, Christianity and Evolution, 226.
717 Lyons, The Cosmic Christ in Origen and Teilhard de Chardin, 177, also footnote 173.
completion or evolution of the body of Christ.\textsuperscript{718} With the addition of the concept of groping, Teilhard’s model also recognises created entities as participants in the universe-long task of pleromisation which is the completion both of creation and of Christ.\textsuperscript{719} Thus in relation to creative process, Teilhard’s strongly teleological model of convergence on Christ needs to be corrected by the implications of his own evolutionary theory.

I now turn to the question of creative transformation in Bonaventure. The difficulty in comparing Bonaventure’s model of creative process to that of Teilhard is that Bonaventure does not see the world in terms of change and process. In the medieval understanding species are fixed although individual creatures emerge, develop and pass away. As noted above, for the purposes of a contemporary ecotheology Bonaventure’s exemplary model may be extended to take account of complex entities as ‘societies’, and this extension allows the exemplary model to account for process towards complexity-consciousness.

Bonaventure is aware of novelty in creation and of human creativity, and concludes that finite creatures are capable of real creativity through participation in the creative life of the Trinity. As Cousins observes, Bonaventure’s metaphysics recognises the transformation of created entities as grounded in Christ, and the autonomous creative work of human beings as grounded through participation in the divine ideas.\textsuperscript{720} Thus Bonaventure, like Teilhard, recognises the autonomy and freedom of created entities as grounded in Christ.

For Bonaventure, created entities participate in the absolute creativity of the Trinity in a relative and limited sense. The absolute creativity of the

\textsuperscript{718} Teilhard de Chardin, \textit{Christianity and Evolution}, 71, 73.
\textsuperscript{719} See s. 4.1.2.
\textsuperscript{720} Cousins, \textit{Bonaventure and the Coincidence of Opposites}, 243–44.
Godhead is grounded in the movement of self-emptying love from the Father as *fontalis plenitudo* to the Son as the *ars aeternae* and Exemplar. However Bonaventure's exemplarism goes further in revealing both the relationship between created entities and their existential foundation in the Exemplar, as well as the link between the creativity of temporal process and the primordial ground of creativity in the dynamic flow of the Trinity.\footnote{Bonaventure, *Hex.*, ss. 12.12-13.} This is elaborated in Bonaventure's *de Reductione Artium ad Theologiam*, where he makes clear that the artisan in creating something novel is participating in the primordial creativity of the Father, since the object that is created is grounded in its own eternal archetype in the Son.\footnote{Bonaventure, *Red. Art.*, paras. 11-14.} Thus, by locating the absolute ground of creativity in the Trinity, Bonaventure is able also to affirm the real freedom and creativity of temporal process. By implication, as the creative activity and becoming of real entities affects the eternal Exemplar, the ground of mutability and contingency is also located within the immanent Trinity.

The importance of this move can hardly be overstated, since by grounding the creative freedom of real entities in divine creativity through exemplarity Bonaventure removes any basis for regarding the divine ideas as a deterministic device for rendering apparent novelty as divine predestination. I shall consider in more detail below the utility of the divine ideas for a contemporary metaphysics, arguing that an exemplary metaphysics connects the creative autonomy of real entities with the Godhead in a way that preserves the freedom of both.\footnote{See s. 5.1.4.} At this point, it is sufficient to note that in Bonaventure’s system the creative freedom of real entities is real for the very reason that it is grounded in the Trinity. While Teilhard’s model also reveals the creative autonomy of real entities to be
grounded in Christ as final cause, Bonaventure’s system further locates the ground of creative freedom in the dynamic flow of love that is the life of the immanent Trinity.

Moreover, by allowing real entities genuine creative participation in the Trinity Bonaventure concedes that novelty in temporal process affects God’s own life at the deepest level. Within the Godhead, creativity is perfectly expressed in the generation of the Son and the spiration of the Spirit, preserving divine self-sufficiency. However, within temporal process the echoes of God’s perfection are elaborated over time through creaturely participation in the divine creativity. This extends my argument in Chapter 1 for divine aseity in Bonaventure’s model based on the perfect self-diffusion of God within the immanent Trinity. While divine creativity is perfectly expressed within the immanent Trinity, as Cousins expresses it:

Something new is added to the perfection of the world through the creativity actualised in time: and since the world manifests unique aspects of God, then we can say that God is enriched in his external manifestations both by his initial act of creation and by the creativity actualised within space and time by his creatures.

Creaturely participation in divine creativity is not limited to the question of human artifice discussed by Bonaventure in his example of the craftsman. Within the context of an ecotheology, the rise and fall of living systems and the evolution of new forms are aspects of the participation of creation in the Trinity as the source of all creativity. While he does not consider the wider question of autonomy and creativity in the natural world, Bonaventure’s argument in the relation to the craftsman is capable of extension to the more-than-human ecology.

724 See s. 1.2.2.
725 Cousins, *Bonaventure and the Coincidence of Opposites*, 245.
In this review of the metaphysical implications of Teilhard’s within and Bonaventure’s exemplarity I have noted differences as well as similarities, and argued that the two systems mutually challenge and extend one another. Teilhard’s doctrine of convergence and the within emerges from an evolutionary perspective that Bonaventure’s system lacks, while Bonaventure’s trinitarian framework and exemplarism reveals the grounding of all real entities in the dynamic of love that is the Trinity. Teilhard’s impersonal construct of the within is corrected by Bonaventure’s location of every created entity in the divine Word as Exemplar. Both systems reveal Christ as the centre of created reality and the ground of creaturely autonomy and creativity, and both Bonaventure and Teilhard recognise the complex interaction of real entities and divine creativity. To complete this section I shall argue more generally that an exemplary metaphysics based on Bonaventure’s system provides a sound basis for a contemporary ecotheology.

5.1.4 Re-imagining the eternal ideas

In the previous chapter I noted the parallel between the metaphysical systems of Bonaventure and Teilhard which both recognise Christ as the centre of created reality. From this foundation Bonaventure sees every created entity as reflecting the Trinity as a ‘trace, an image and a likeness’, while Teilhard describes created reality as ‘diaphanous’ with spirit. In this chapter I have compared the two systems more closely, suggesting that while Bonaventure’s exemplary model brought a needed trinitarian focus and better connects each individual created entity to the divine life it does need to be corrected by Teilhard’s processual view of created reality. I briefly

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726 See ss. 1.2.2 and 4.1.2.
suggested an extension of Bonaventure’s system that could make his exemplary system the basis for a contemporary ecotheology. This raises the wider question of whether the medieval doctrine of the divine ideas can be retrieved for a contemporary theology, and in this section I argue that a contemporary exemplarity is both viable and useful for ecotheology.

I begin by reviewing the arguments for and against the divine ideas, supporting Hans Urs von Balthasar’s argument that creation must be in a relation of analogy to God. For Balthasar, analogy mediates between doctrines of creation as pure difference (creation wholly other than God) or as divine identity (creation being the same as God) as the necessary conjunction of difference and identity. I complete this section with a discussion of the grounds for retaining a version of the divine ideas for ecotheology, arguing that while it is important to guard against formulations of the ideas that impose a deterministic form of finalism or that foreclose on either the freedom of creatures of the transcendence of God the ideas connect creation with the life of God in a way that is indispensable.

Mark Mcintosh suggests modern theology has retreated from the eternal ideas to its detriment, because in the history of Christian theology the ideas were a crucial vehicle for expressing the soteriological significance of the Incarnation, and the ways in which human beings could come to experience most fully our created identity through contemplation of the divine Word. Mcintosh notes that the uniquely Christian reception of the divine ideas in thinkers such as Origen and Augustine cemented the connection between the Wisdom tradition and Christian neo-Platonism. This point is of particular importance for an ecotheology, as the Hebrew wisdom tradition

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727 McIntosh, “The Maker’s Meaning.”
728 Ibid., 368–70. See also s. 1.1.2.
highlights God’s providential care of creation and understands divine wisdom as the creative template for creation, contextualising human life and connecting human spirituality with the natural world.\textsuperscript{729} Retrieved as an essential aspect of reflection on Christ in the New Testament, Wisdom Christology provides a central reason for understanding all created things as originating in the creative ideas of God, and for locating the fullness of that creative ideation in the Son described by Bonaventure as \textit{ars suprema} and \textit{espressio in summo} of the Father.\textsuperscript{730}

McIntosh argues from Augustine's doctrine of illumination that the reasons for creation grounded in the divine Word also perform the soteriological function of inviting the contemplative to seek the mind of God through contemplating God's creatures not just in themselves but as they are in God. McIntosh cites as an example Anselm of Canterbury (1033 - 1109) who writes that 'not only are all things life and truth in the supreme spirit's Word, they are also, likewise, life and truth in its knowledge'.\textsuperscript{731} McIntosh’s point is also applicable to Bonaventure, who bases his own theory of illumination on Augustine. The entire structure of the \textit{Itinerarium} (as three stages covered in six chapters) is based on the procession between reflecting firstly on creation as it is in itself and then as it is in God.\textsuperscript{732}

Finally, McIntosh highlights the soteriological function of the divine ideas, developed in John Eriugena who claims that the exemplary grounding of all created things in Christ is also the saving possibility of their restoration to their true identity. McIntosh cites Eriugena's \textit{On the Division of Nature}: '...


\textsuperscript{730} Bonaventure, 1 Sent. d31, a2, 2c, concl; Bonaventure, Sc. Chr., 4c.

\textsuperscript{731} McIntosh, “The Maker's Meaning,” 377., quoting Anslem, \textit{Monologian}, ch. 35.

\textsuperscript{732} See s. 2.2.1.
they themselves by no means look towards the things that are below them, but eternally contemplate their form which is above them, so that they do not cease to be eternally formed by it'.\textsuperscript{733} Eruigena understands the soteriological meaning of the Incarnation as being that human creatures not only encounter and are restored by the truth of their own selves in the divine Word, but that in the Incarnation there is 'a taking by the Word to himself of humanity, and thus a drawing of humanity into the fullness of its authentic life and truth'.\textsuperscript{734} This makes human life dynamic, drawn forward towards its fulfilment and its true identity in Christ.

McIntosh suggests that the ideas connect creation, Incarnation and redemption, giving a meaning to the Incarnation that makes the whole of creation the body of Christ. His argument clarifies the central role of the ideas in making creation coherent by giving it a narrative connected to the narrative of salvation. The understanding of created identity as grounded in and growing towards its fulfilment in Christ is congruent with the modern understanding of human life that recognises identity as formed within a network of relationships. In the most general sense, the ideas might be considered a way of connecting creaturely existence with both its end and its beginning, as well as giving meaning to what lies in between as participation in the drama of creation.

A contrary argument is advanced by Pannenberg, who in his \textit{Systematic Theology} argues that the neo-Platonic notion of divine ideas is incompatible with the Biblical witness to a creation that is both fully historical and contingent upon God's creative action.\textsuperscript{735} Pannenberg traces the history

\begin{footnotes}
\footnote{733} McIntosh, “The Maker’s Meaning,” 376., quoting John Eruigena \textit{On the Division of Nature}, 547C-547D.
\footnote{734} Ibid., 377.
\end{footnotes}
of the neo-Platonic ideas through Augustine and St Thomas Aquinas, arguing that in medieval scholasticism the doctrine of ideas is primarily linked to the unity of the divine essence, because God's knowledge of creatures is based on God's perfect knowledge of Godself. This leads, Pannenberg suggests, to an undifferentiated trinitarian model in which 'the ancient confession of the mediatorship of Christ in creation, while not denied, is stripped of all function'. In the following paragraphs I shall evaluate Pannenberg's critique of the ideas and alternative approach to a theology of creation.

Firstly, Pannenberg does not directly consider Bonaventure's trinitarian model or his development of the divine ideas. For this reason, he does not consider Bonaventure's unique synthesis of neo-Platonic thought with a Cappadocian trinitarian model, which distinguishes between the divine Persons according to their relations of origin and provides a central role for the Word as the persona media of creation. For Bonaventure, following in the tradition of Christian neo-Platonism grounded in Biblical Wisdom themes and developed by thinkers such as Origen and Augustine, the divine ideas not only provide a connection between divine unity and created multiplicity but fundamentally relate creation to the Incarnation. More generally, Pannenberg's analysis does not take account of the emphasis in the Wisdom tradition on the historical specificity of creation as the locus of divine revelation in the Incarnation, or of the role of the ideas in making the person of Christ central in mediating between creation and the triune life of God. For these reasons, his critique cannot be applied to Bonaventure's model of exemplarity.

736 Ibid., 2:26. 
737 See s. 1.2.1. 
738 See my discussion of early Christian neo-Platonism in s. 1.1.2.
Pannenberg's critique does however highlight the basic objection that the doctrine of ideas appears deterministic. To echo Bergson, a rigid teleological finalism imposes a determinism ‘from above’ that is ultimately as deterministic as scientific mechanism.739 As noted in chapter 3, Bergson’s own ‘inadequate finalism’ is in turn critiqued by Etienne Gilson, who suggests that the substantial form (ie. the ideas) should be able to be formulated in a way that accommodates both creative freedom and final cause.740 As I have argued above, Bonaventure's model of creation based on the divine ideas succeeds in explicating the indeterminacy and openness of a creation in which real entities are able to participate in the creative life of God.741

Arguing that the problematic consequences of the doctrine of ideas have left modern theology unable to explicate the function of the Son as the Logos of creation, Pannenberg suggests an alternative approach, based on Hegelian dialectical metaphysics.742 In Pannenberg’s model, the divine ideas are discarded for a principle of differentiation, in which within the Trinity the Son becomes the ground of Otherness.743 Within the Trinity itself, self-distinction between thePersons is a condition of their mutuality, so there is an inner-trinitarian dialectic of Otherness and One-ness.744

Up to this point Pannenberg's model resembles Teilhard's trinitarian model of creation which as I noted above also appears to reflect the Hegelian dialectic.745 However in Pannenberg’s model the uncreated Word then becomes both source and principle of creaturely distinctiveness, and the

739 See my discussion of Bergson in s. 3.2.3.
740 Gilson, From Aristotle to Darwin and Back Again, 120. See also my discussion of Bergson’s evolutionary model at s. 3.2.3.
741 See s. 5.1.3.
742 Pannenberg, Systematic Theology, 2:27.
743 Ibid., 2:28.
744 Ibid., 2:28–29.
745 See s. 5.1.2.
persona media between divine unity and created multiplicity that brings all creatures together in existential unity. It is in the related movements of Creation and Incarnation that the Son establishes the principle of differentiation as the ground of creaturely existence. For Pannenberg, Otherness thus becomes the primary creative principle of phenomenal reality characterised by multiplicity and otherness from God. Otherness, or difference, also becomes the productive principle for the emergence of ever newer forms of life. The essential distinction between this and Teilhard’s trinitarian model is that for Teilhard the antipodean impulse is concentrated at the initial point of the production of the multiple which represents the farthest possible point from the divine life but thereafter responds to the attraction of Christ as the final cause cosmic centre of creation. That is, following the production of the multiple, for Teilhard creation thereafter obeys the impulse not of differentiation but of unification.

In Pannenberg’s model the movement of re-integration is interpreted pneumatologically. As the Person of the Holy Spirit is the expression and principle of unity within the Trinity, so too does the Spirit work within creation as the principle ‘not merely of the distinction of the creatures but also of their inter-relation in the order of creation’.\(^{746}\) Pannenberg’s model thus defines creation as that which is wholly other than God but able to be brought into relationship with God through the agency of the Holy Spirit.

Essentially, Pannenberg characterises creation as defined by its separation from God, but being able to be retrieved into relationship with God through the action of the Holy Spirit. This focus on the agency of the Holy Spirit is entirely lacking in Teilhard and not prominent in Bonaventure’s theology. Absent from Pannenberg’s model, however, is an understanding of

\(^{746}\) Pannenberg, *Systematic Theology*, 2:32.
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Christ as the metaphysical centre of creation. To use the terminology coined by Junius Johnson in his discussion of Balthasar’s metaphysics, Pannenberg is proposing a ‘pure difference’ model – a metaphysical approach that understands creation as wholly other than (but able to be reconciled with) God. The alternatives to this are an ‘identity’ model in which creation mirrors God exactly, and the ‘analogy model’ which proposes that creation resembles God in some respects and so bears a relationship of analogy to God. Johnson argues that Balthasar’s theology of creation rejects both the ‘identity’ and the ‘pure difference’ approaches and affirms the ‘analogy model’. Over the following paragraphs I shall explore Balthasar’s argument using Johnson’s discussion as a guide.

Firstly, Balthasar rejects both ‘pure difference’ (creation as wholly other than God) and ‘identity’ (creation as identical to God) approaches ultimately on the grounds of Christology. For Balthasar ‘pure difference’ approaches render impossible the Incarnation because if creation is utterly other than God it would not be able to bear the divine image. That is, under a ‘pure difference’ approach, the created person of the historical Jesus could not be fully divine. Conversely, ‘identity’ approaches (for example pantheism or neo-Platonic emanationist models) are rejected for the opposite reason that they render human nature divine from the outset. That is, if created reality is simply God wholly transposed into materiality then the human and divine natures of Christ coincide and so the ‘dual natures’ claim of Christology collapses into triviality.

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747 Johnson, Christ and Analogy, 32.
748 Ibid., 59, 80.
749 Ibid., 80., citing Balthasar, Theodramatik (Freiburg, Johannes Verlag Einsiedeln, 1985), vol. 1, 531.
Following Bonaventure, Balthasar sees Christ as the metaphysical midpoint and the first principle of creation.\textsuperscript{750} He thus affirms the ‘analogy model’ (creation as analogous to God) and ultimately a relationship of exemplarity between God and creation because of his Christological priority, arguing that ‘the created world expresses God because at the origin God expresses himself and because, when he reveals himself outwardly he wishes to make for himself a perfect expression in the God-man Jesus Christ’.\textsuperscript{751}

Balthasar follows Irenaeus’ argument that there must be an archetypal relationship between God and creation because of the fact of the Incarnation. Referring to Irenaeus’ notion of Deum portare, or the power of creation to bear the burden of representing the Word of God, Balthasar argues that there must be a divine affinity within creation. This reaches its pinnacle in the human form which for Irenaeus does not bear the image of God only in the soul but ‘the whole man, made up of body and soul, is created as the image and likeness of God’.\textsuperscript{752} Irenaeus argued that if the human nature could bear the Incarnation then not only must the human person be created in the divine image but the archetype of the human person must be God.\textsuperscript{753} As Junius Johnson notes in relation to Balthasar’s Christology, the divine likeness in humanity must be ontological rather than ‘merely moral or epistemological’ if it is to bear the Incarnation.\textsuperscript{754}

Secondly, Balthasar follows Augustine’s argument that the absolute being of God is also absolute unity, concluding that ‘if being consists in unity, then creaturely participation in being also consists in a graduated

\textsuperscript{750} Ibid., 33, 35.
\textsuperscript{752} Ibid., 2:56, 65.
\textsuperscript{753} Ibid., 2:71–72.
\textsuperscript{754} Johnson, Christ and Analogy, 42.
participation in unity’. Johnson points out that the fullness of God’s unity makes God not only absolutely unified but ‘the fullness of unity … not just the One but the One and Only’. For Augustine (in Balthasar’s reading), creaturely participation in this unity can only be achieved ‘from the forms which reside in God and are identical with him’. The forms then relate the divine unity with the multiplicity of creation in such a way that creatures may strive toward and participate in divine unity. Balthasar comments that for this reason ‘number is the pluralisation of unity which originated in unity and is explicable only in and through unity’.

In his reading of Bonaventure, Balthasar firstly notes the implications of Bonaventure’s adherence to the Cappadocian order of processions that differentiates his model from that of Augustine, commenting, ‘this means nothing less than the grounding of the act of creation in the act of generation of the Godhead’. As the Father is fully expressed in the Son (as the ars aeterna) so the generation of the Son is an inner-divine kenosis or self-emptying. This establishes the character of creation itself as a divine outpouring by which God opens Godself to give to that which is not-God something of Godself. For Bonaventure, the Word is Exemplar of all things outside God for the reason that first and foremost the Word is ‘absolute expression’ and so also the Sophia of God ‘who bears in her womb the eternal thoughts of God’. Given that it is the Word who is absolute

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756 Johnson, Christ and Analogy, 45.  
758 See s. 1.1.2.  
760 Ibid., 2:291.  
761 Ibid., 2:293, 295; citing Bonaventure, Hex., s. 20.5.
expression, the creature is true only ‘when they are as they are in arte aeterna or as they find expression there’.  

Balthasar offers the important caveat that for Bonaventure the analogy of creation is such that the dissimilarity is thus always greater than the similarity. The Word, as total expression of God, is necessarily archetypal because of the perfection of that expression and because in the Incarnation the Word is projected into creation in outward form while retaining its relation to the Father in the Spirit. As Bonaventure regards the divine diffusion in the act of creation as less than perfect, the creature can only be an imperfect copy of that which is expressed most fully in the Word.

Johnson concludes that the central reason Balthasar rules out the ‘pure difference’ hypothesis (creation as wholly other than God) is that God ‘must be manifest’ in the world that God creates. Although a ‘pure difference’ model remains possible, it can lead only to an apophatic theology as ultimately nothing that can be expressed within the world can reveal the character of God. I follow Balthasar in concluding that this is problematic for any theology of Incarnation. It is also problematic for any theology that seeks to explicate an affinity between God and creation or to assert that in the non-human sphere there is anything of ultimate (eternal) value. This does not rule out the possibility of articulating an analogical model other than

764 Balthasar, The Glory of the Lord, 1984, 2:300; citing Bonaventure, 1 Sent. d27, a2, q4, concl.
766 Johnson, Christ and Analogy, 54–60.
that of the divine ideas; and in relation to this Pannenberg’s stronger articulation of the role of the Holy Spirit may suggest a helpful direction for further consideration. Nevertheless, the ideas as developed by Bonaventure are coherent with a Christ-centred model of the Trinity and of creation, and flexible enough to ground the participation of created reality in divine unity without foreclosing on the contingency and freedom of creation itself.

For Bonaventure, the ideas represent a grounding in the creative Word which draws all things together into the coincidentia oppositorum of their true end in Christ. Bonaventure’s model of the ideas function both as effective and final causes, so that the divine ideas of created reality function for Bonaventure like Teilhard’s Christ-Omega as a future attractor. The ideas in Bonaventure also function to connect divine unity with created multiplicity in the same way as Teilhard’s construct of Christ-Omega. The ideas also establish the central propositions of an ecotheology: the grounding of all things in the Word and Wisdom of God, a relational yardstick for the more-than-human ecology in the triune God, a model for the kinship of creation and an orientation toward process that anticipates the resurrection promise of shalom.

Firstly, the divine ideas make explicit the ontological grounding of the whole created order in the Word and Wisdom of God as the Eternal Art and Exemplar. This means that all created things, animate or inanimate, reflect the beauty of the divine life and are intended and loved by God. It also means that the creative Word of God is the centre of creation and is intimately present to all created things. This gives to the whole created order the intimate character of Wisdom as God’s amon – the creative beloved child of Prov. 8.30 – and of the Son who reveals the heart of God in self-emptying

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767 See s. 4.1.2.
love. For Bonaventure, every created entity refracts uniquely the light of God as through a stained-glass window – for Teilhard the fundamental particles and tiniest organisms reflect the triune life of God by responding creatively in the ubiquitous weaving of complexity and union. The human creature has the dignity and responsibility of bearing the divine likeness, and as that part of creation made self-aware, to become the *logos* that recognises and articulates the Word within its created context. Grounded in the wisdom of God, humanity is given the vocation to make concrete God’s providential care for the created order. This is the genealogy of created reality, which ecotheology articulates as the assertion that the non-human creation has value and integrity and beauty and purpose to God because the Word as the self-expressive communication of God indwells the entire created order.

Secondly, a metaphysics based on the ideas implies that the deepest truth of all created identity is in God, and that the creature itself is inauthentic to the extent that its phenomenal life is dissonant with the divine intent.768 This assertion reflects the reality that through sin the human creature is deformed and in various ways fails to develop in a true trajectory reflecting the divine image. The importance of this implication lies both in the ubiquity of failure in the moral and spiritual life of human beings, and within the ecological relations that make up the created world. As the essential concomitant of evolution is predation and suffering, so species and ecologies flourish only to fall victim to environmental catastrophe, competition or human over-exploitation. To claim that the truth of a created entity or of an ecology is in God is to claim that creation has a divinely-intended character. I will identify this character in the following chapter as the eschatological promise of shalom, and in the final chapter will draw the connection between

shalom and resurrection. The soteriological implication is that even when shalom is broken, the divine intention for shalom remains.

The third implication of the ideas is the affirmation of an ontological kinship between human beings and the non-human creation. The telos or destiny of human life is not separate from the telos of creation, as with all created things humanity can only find its true end 'in Christ'. This means that creation can no longer be viewed from a purely instrumental perspective, and that the true purpose of existence can only be revealed in and through the network of relationships that define our creaturely context. A creation ontologically grounded in the Word as Exemplar becomes an expression both of unity and multiplicity, which means the ideal life of the more-than-human ecology is the dialectic of unity and self-donation that is the Trinity.

An orientation towards process and change is fundamental to an exemplary model that understands created reality as grounded in the trinitarian life of God. This is made explicit by extending Bonaventure’s exemplary system to take account of complex structures as societies of actual entities. Such an extension emphasises the relationality and interdependence of natural systems and allows the tendency towards complexity-consciousness to be seen as an icon of the Trinity. As I will argue in the second half of this chapter, extending Bonaventure’s model of exemplarity in this way completes the link with the noosphere construct as a unified model of the more-than-human ecology.

5.2 Noosphere and ecological process

In the first section of this chapter I have proposed a contemporary exemplary model for ecotheology based on a comparison of Teilhard’s and Bonaventure’s systems, noting ways in which the assumptions of each need
to be corrected. My focus has been on the metaphysical basis of created process, and I have suggested that the extended exemplary system can account for creaturely autonomy as well as divine leading, and the ubiquitous tendency towards complexity-consciousness in evolution and inter-relationship in the more-than-human ecology. In this discussion, while supporting Teilhard’s claim that natural process tends towards complexity-consciousness, I have not engaged with his ultimate claim of convergence of Christ-Omega as the metaphysical centre of creation. In chapter 4, I concurred with contemporary critique of this aspect of Teilhard’s thought as deterministic. I noted the pitfalls in Teilhard’s central construct of the noosphere as a significant ‘way station’ on the path of cosmic convergence but concluded with the suggestion that the noosphere could nevertheless become an important aspect of an ecotheology constructed on Teilhard’s thought.

In this section I shall develop a model for the more-than-human ecology based on the noosphere. The noosphere concept was not developed solely by Teilhard, but in conversation between Teilhard, the French philosopher Edouard Le Roy and Russian geochemist Vladimir Vernadsky. While Teilhard’s version of the noosphere tailored towards his proposal of human evolution neglects the inter-dependence of human and non-human life, Vernadsky’s model of the noosphere recognises the interaction of noosphere and biosphere.

I shall begin by considering the definition of the noosphere proposed by Vernadsky, who understood it not as a separate sphere of human ideation but as the transformation of the biosphere by human consciousness. Thereafter, I shall explore a perspective from process ecology, arguing that the noosphere provides a way of understanding the totality of biosemiotic feedback loops within an ecological system subject to human management.
My overall proposal in this section is that while ecological systems display a noetic aspect that optimises the evolutionary outcomes for participating organisms and deals with external changes in ways that privilege novel solutions, the health of the more-than-human ecology also requires an intentional human praxis based on valuing of non-human partners as subjects.

5.2.1 Re-imaging the noosphere

In the previous chapter, I introduced Teilhard's construct of the noosphere, concluding that as a reification of a globalised human awareness the noosphere is unhelpfully utopian and misses the true complexity of human social and cultural interaction.\(^{769}\) The noosphere also marks the point at which Teilhard's vision departs from the understanding of human life as emerging from and enmeshed within both a cultural and biological context. Having situated Teilhard's argument within the broader theme of process, I propose to return to the noosphere concept as its basic insight of a systemic noetic web that is more than the sum of its individual elements makes a connection with current ecological approaches.

The concept of a noosphere was not Teilhard's sole idea, but arose from discussion in Paris during the 1920s among Teilhard, Vernadsky and Le Roy. All three subsequently used the term, 'noosphere', to describe related but not identical ideas.\(^{770}\) Teilhard, as described in the previous chapter, intends the noosphere to refer to a 'sphere' of human awareness, compressed and unified by the growth both in human technology and population, global in extent and operating as a unified and unifying collective realm of knowledge and communication. This noosphere is overlaid on the

\(^{769}\) See s. 4.1.4.

existing natural layers of the earth: the barysphere, geosphere, hydrosphere, atmosphere and biosphere. For Le Roy, the noosphere is the new, collective force of human intelligence that arises out of the biosphere but ultimately separates from it with both positive and negative consequences.\footnote{Ibid., 5., citing Le Roy 1928, \textit{Les Origines humaines et l'évolution de l'intelligence}.}

Connected as it is with his evolutionary Christology, Teilhard’s model is both more theologically loaded and more reified than Le Roy's metaphoric construct. Both, however, use the term to represent the sphere of human awareness.

By contrast, for Vernadsky the noosphere is envisaged as always connected with the biosphere, representing the transformation of the living systems of the earth by human intelligence and technology. The biosphere, Vernadsky writes, 'seems to also become transformed by the scientific thought of \textit{homo sapiens} and to pass to its new state - noosphere'.\footnote{Ibid., 6., citing Vernadsky, 1998, \textit{The Biosphere}.} This conception of the noosphere recognises both the inescapable biological context of human society and the growth of human awareness to become a powerful force in the shaping of the natural systems of the earth, while like Le Roy's usage remaining metaphorical. All three conceptions of the noosphere are anthropocentric, as Felice Wyndham points out, and all attempt to navigate the transition between individual human cognition and the informatic processes of the human aggregate.\footnote{Felice Sea Wyndham, “The Sphere of the Mind: Reviving the Noosphere Concept for Ecological Anthropology,” \textit{Journal of Ecological Anthropology} 4, no. 87 (2000): 5.} For Vernadsky, the fundamental driver of the noosphere is science.\footnote{E. P. Semenyuk, “Role of Informatics in the Ecologization of Society,” \textit{Scientific and Technical Information Processing} 39, no. 1 (2012): 9.}

Vernadsky's noosphere also recognises the inevitable if unintended effects of human technological changes and cultural shifts on other species.
and living systems, and serves as a useful reminder that humanity inescapably shares the resources of the earth's natural systems and productive capacity with a household of species. Vernadsky's noosphere has been recognised as a useful construct by ecologists, including the brothers E.P. and H. T. Odum, each of whom recognise that it contains a warning of natural systems overwhelmed by the power of human technology and will to power. Vernadsky's use of the noosphere, like Teilhard's, recognises the enormous capacity of human technology, but unlike Teilhard's has both an optimistic and a pessimistic sense, suggesting that human technology carries risks unless it is sensitive to the needs and limitations of natural systems.

Recent use of the noosphere concept in Ukraine and Russia has focussed on its contribution to the process of 'ecologisation' of society in the fields of economics, education and science. Semanyuk draws attention to the dangers inherent in systems of production and economics that fail to recognise the fundamental reality that 'the primary source of life and productive activities is just nature'. The priority given to human economic systems is one of the root causes of damage and destruction to the environment and the earth's living systems, and can only be addressed by an ecologisation of economic systems. By this, Semanyuk denotes the restructuring of economic and financial systems so that human demands are constrained by the consideration of natural resource limitations and the need for preservation of natural systems, considering the true cost of environmental damage. Semenyuk points out that current economic

775 Samson and Pitt, *The Biosphere and Noosphere Reader*, 8; The recognition of the noosphere concept by ecologists is also noted by Wyndham, "The Sphere of the Mind: Reviving the Noosphere Concept for Ecological Anthropology."

decisions by powerful institutions that ignore the destruction of habitat and
damage to natural systems levy an unspecified cost against future
generations as well as 'plundering the vast majority of people' who bear the
cost of a depleted environment at the current time. Semenyuk calls for the
development of an ecological philosophy, pointing out that prior to the
second half of the 20th century there was no systematic study of the
relationship between humanity and nature. This leads him to argue the need
for an ecological psychology and an ecologisation of the various fields of
knowledge; including the social sciences and religion. He argues that issues
of economic and ecological awareness are intrinsically linked with the
'spiritual life of society' as expressed not only in religion but in art, law and
politics. While in Teilhard's terms the noosphere as a stage-point in human
development marks an emergence from dependence on materiality,
Vernadsky's definition of the noosphere as a process and a set of
interrelationships constitutes the 'rationalisation of man's interaction with
nature'.

Vernadsky's insistence that the noosphere is related to scientific
advance points both to the problem and the solution. While the multiplication
of human power through science and technology lies behind human failure
to recognise our interconnection with natural systems that impact negatively
on the biosphere; it is also through scientific reflection that the reconciliation
of human and natural systems can occur. Likewise the challenge of the
noosphere requires the intentional development of a more inclusive
economics, as well as political and social systems that recognise the
interdependence of human life within a more-than-human ecology. Although

777 Ibid., 5.
778 Ibid., 8.
779 Ibid., 9.
both Vernadsky and Teilhard suggest the noosphere is a nascent reality, it is more useful to recognise noospherisation as a process that has been occurring throughout the whole of human civilisation: for example, from the dawn of agriculture the evolution of natural strains of grasses and the distribution of animal species has become subject to human intervention. Since the beginning of the modern era the pace and reach of human technology has grown so enormously that most natural ecological systems have become subject to some degree of human management, and thus the noosphere has entered a phase of rapid expansion. This poses great dangers to both natural systems and the human species, but at the same time creates the conditions for a new phase in human growth in awareness and self-reflection.

Finally, Vernadsky’s noosphere construct also differs from Teilhard’s version in that it represents not a reified structure or stable point but a rapidly changing and possibly unstable process with implications both for human life and natural systems. While the noosphere points to the vulnerability of natural systems, it also recommends urgent and fundamental changes to human institutions which must engage in a new and more inclusive way with ecological systems. The (Vernadskian) noosphere must for this reason be a primary nexus in the engagement between Teilhard’s evolutionary Christology and the concerns of ecotheology.

5.2.2 The noosphere and ecological systems

The emphasis in Vernadsky’s noosphere model on inter-dependency makes it well-suited to facilitating the description of ecological process in natural systems, and I turn to this now before considering the interaction between human and non-human participants in the wider ecology.
Writing from a process perspective, Robert Ulanowicz points out the difficulties associated with the reductionist agenda of applying the assumptions and methods of the science of non-living materials to the study of biological systems, as well as the danger of top-down approaches that attribute human processes to ecological systems. Developing a 'bottom up' narrative of ecological process, Ulanowicz describes biosemiotic systems comprising the interaction of chance processes with autocatalytic feedback (the control of a catalysing ecological system through information exchanges between participants) leading to non-random outcomes. This approach recognises the importance of informatic systems both in achieving stable systems and responding creatively to chance environmental events. I will argue that Ulanowicz's description of biosemiosis and autocatalytic processes in ecological systems affirms the importance Teilhard places on the within, radial energy and the tendency towards complexity. This description of process within ecological systems will pave the way for a final step, which is the consideration of social-ecological systems, for which the noosphere is an appropriate construct.

Ulanowicz points out the anomaly that while the mechanistic premises of Newtonian physics accepted since the early 18th century have generally been discarded in the physical sciences, they are still strongly adhered to in the neo-Darwinian modern synthesis model. These include the axiom of closure that precludes any but mechanical and material causation, atomistic reduction that proposes outcomes at the level of evolutionary systems are fully explicable by reference to molecular biology, and a belief that random

781 Ibid., 391.
processes mask a deeper level of mechanistic determinacy.\textsuperscript{782} Ulanowicz disputes each of these in turn, arguing that the science of living systems requires a process perspective. In order to examine the emergence of order in living systems, it is necessary to give priority, not to physical structures, but to how random events interact with system constraints in such a way as to produce non-random outcomes.\textsuperscript{783}

Ulanowicz suggests that the phenomenon of order in ecological systems can be explained by natural processes, describing an autocatalytic process as a feedback loop involving three or more species in which the nett effect of every transaction on its downstream neighbour is beneficial. For example, the carnivorous plant \textit{Utricularia} provides a benefit by hosting an algal growth called periphyton. The algae attract zooplankton who feed on them, in turn themselves becoming prey for the \textit{utricularia}. As each participant in the cycle receives a nett reinforcement, Ulanowicz describes this as an example of centripality, meaning that each stage reinforces the integrity of the whole system. Any change in behaviour of any of the participants that improves its ability to catalyse its downstream member will be rewarded, and such changes bring additional energy into the system. Ulanowicz's language here recalls Teilhard's remarks that an increase in complexity is associated with additional radial (centripetal) energy. Ulanowicz notes a connection with Bergson, pointing out the link between centripality and 'striving', and arguing that this is a prerequisite for ecological adaptation.\textsuperscript{784} Where Teilhard and Bergson each use centripality to refer to the evolutionary impetus, Ulanowicz applies the concept to an ecological

\footnotesize{\textsuperscript{782} Ibid., 394–95.\textsuperscript{783} Ibid., 397.\textsuperscript{784} Ibid., 399.}
system, simultaneously explaining the stability of a system and proposing a mechanism for the emergence of novelty.

Two important observations are, firstly, that autocatalytic processes not only contribute to the stability of ecological systems but also enable a system to develop in novel ways in response to chance natural events. Secondly, autocatalysis enables a system to influence its own structure in relation with other systems or processes.\textsuperscript{785} Observation confirms that autocatalytic systems tend to converge on a 'coherence domain', in which all participants are contributing towards and receiving benefits from the stability of the whole structure. This is sustained by information flows throughout the system, comprising the semiotic elements of signification and interpretation using stimuli such as touch, light or olfaction. Effective biosemiotic systems are observed to be rapid in relation to the 'primary reward lag'.\textsuperscript{786} For the purposes of my argument, it can be concluded that Ulanowicz establishes a noetic basis of ecological systems, both in relation to internal feedback and creative response to external stimuli. This is largely affirming of Teilhard's proposal for radial energy and the 'within' as the basis of evolutionary change, but presents a more precise picture of these concepts for the more complex reality of ecological systems.

A major difference between the extended noosphere model and Teilhard’s version is that the locus of the tendency towards complexity-consciousness is no longer seen as the individual organism or species but as the complex of ecological relationships with its network of semiotic exchange. This addresses an important criticism of Teilhard’s metaphysics of the within, which attributes proximity to Christ as the centre of created reality

\textsuperscript{785} Ibid., 401.
\textsuperscript{786} Ibid., 404.
to more complex structures and by implication regards simpler organisms as more remote from God. In the extended noosphere model where attention is directed to the energetics and noetic exchanges that lead to increased radial energy of the whole system, then proximity to the trinitarian life of God is also to be seen in the relational pathways of the more-than-human ecology.

The primary focus of concern for ecotheology is not a simple ecological system but the 'mixed economy' of human and non-human populations which I refer to as the 'more-than-human' community or ecology. Within such systems, human activity may not only cause changes in external conditions such as temperature, water quality or habitat, but also interrupt established autocatalytic processes, for example by reducing one of the participating populations, or by introducing another population that catalyses a process more effectively. Thus, in relation to the dynamics of ecological processes, the noosphere perspective emphasises the importance of understanding the interaction between natural and human systems, and of learning to value natural systems for their own sake and living in a way that limits the footprint of human activity. This is the process Semenyuk refers to as the ecologisation of human institutions, meaning a widening of human self-understanding and the self-limitation of human activity based on a valuing of non-human systems from an anthropocentric perspective.

The extended noosphere model following Vernadsky provides a good way of conceptualising the more-than-human ecological system in which the biosemiotic feedback network responsible for stability and novel responses to changed environmental circumstances is impacted by human activity. Using this model, human cultural systems that ascribe differential value, such as economics, politics, art and religion, may all be described as
semiotic systems.\textsuperscript{787} Thus the noosphere may be thought of as an interchange in which the semiosis of natural systems is subject to interference from that of human systems. The advantage of this approach is that it emphasises process, and the importance of human culture in attributing value in ways that may either support or damage natural systems.

For example, current economic systems generally ascribe the cost of producing a good or service without reference to damage to environmental systems such as groundwater or habitat. Given that damage to these systems reduces the health of the entire ecological system within which human life is also bound and so within an economic model they may be considered as goods. If price signals attach no value to these goods then there will be no disincentive to exploitation. The noosphere perspective thus emphasises a careful management of natural systems within a holistic framework in which value is attached both to the whole system and its constituent parts.

Teilhard introduces the noosphere as the point in human evolution at which human intellect achieves a ‘critical mass’ through unification and so begins to reflect and move towards union with Christ-Omega. As already noted, this concept reveals an implicit orientation towards a Wisdom Christology, and rests on the assumption that the human quest for wisdom reflects and seeks union with divine Wisdom. Conversely, Vernadsky proposes a practical model of the noosphere which recognises that the sphere of human intellect remains necessarily connected with the wider biosphere. Vernadsky’s noosphere model also recognises the heightening of

both risk and opportunity brought about by the growth of human intellect and technology. With this correction, the noosphere provides a metaphor for the more-than-human ecology, and it is in this extended sense that I shall continue to use the term. This however raises the question of whether the extended noosphere model connects adequately with Teilhard’s Christological model, and I turn to this consideration in the following chapter, reflecting on the noosphere as a site of redemption and eschatological fulfilment.

5.3 Conclusion

In this chapter I have developed an exemplary model for ecotheology by bringing Teilhard’s and Bonaventure’s metaphysical systems into close conversation. The two systems are parallel in some important respects, each seeing creation as ontologically grounded in Christ and recognising an internal as well as external aspect to all created entities. Bonaventure’s exemplary metaphysics grounds each created entity individually in the divine life, and reveals the trinitarian structure of creation as an expressive Word of God, and so provides a more rigorous foundation for ecotheology than Teilhard’s concept of the within and vision of creation in process towards union with Christ.

Teilhard’s system constructed around an understanding of natural process tending towards complexity-consciousness better describes a universe of change. I have suggested an extension of Bonaventure’s exemplary model that by recognising complex structures as societies of real entities can take account of the processes of complexification and unification within a trinitarian framework.
Conversely, Teilhard’s concept of the within makes relationship with the divine life dependent on the degree of complexity of a created structure or organism. While even the chaotic state of the primal multiple is oriented towards unification and complexification, and so responds to the attraction of Christ as the cosmic centre, there is also a systemic resistance to unification that Teilhard conceptualises as sin. In Teilhard’s system there is thus the suggestion that less developed entities or living things are also less perfectly connected to the divine life, and that only with the advent of hominisation do living things come to reflect Christ. Bonaventure’s exemplary system better clarifies the direct relationship in which all created things stand to the Exemplar. I concluded this section by arguing that an exemplary metaphysics that sees creation as analogous to God is of continued application in a contemporary ecotheology.

In the second half of the chapter I engaged with Teilhard’s emphasis on noesis as a driver of evolution and his construct of the noosphere. I adopted the definition of the noosphere proposed by Teilhard’s colleague, the Russian geophysicist Vernadsky who suggested the noosphere as the intersection between the biosphere and human intelligence and technology. Vernadsky’s definition of the noosphere includes Teilhard’s emphasis on the growth of human culture and intellect without losing sight of the importance of the interaction between human systems and the non-human world. I showed how the noosphere provides a useful construct for explanations of ecological systems that focus on noetic processes, and the ways in which it suggests both risk and opportunity in the more-than-human ecology.

This chapter contributes to my argument by providing a language to describe natural processes which both respects the autonomy of created entities and the grounding of ecological interaction in the trinitarian life of God. The noosphere construct describes both natural processes in the
ecology and human interactions with the natural world in terms which emphasise that human life is embedded within a natural context but is differentiated from the natural world by the ability to construct meaning that either reinforces or diminishes natural systems.

Ultimately ecotheology raises the question of the value of natural systems and raises the eschatological question of the redemption of the earth. I will turn to this in the following chapter, arguing that Teilhard’s construct of convergence with Christ-Omega can be better understood in terms of Incarnation. I will also explore Bonaventure’s Franciscan theology of history and eschatological vision based on the life of St Francis. Both of these eschatological visions may be related to the Biblical image of shalom.
6 Towards an Ecotheological Eschatology

In the previous chapter I undertook a detailed comparison of the metaphysical basis of Teilhard’s and Bonaventure’s doctrines of creation. The comparison demonstrates that despite the parallels noted in chapter 4, Bonaventure’s exemplary system reveals more strongly the grounding of every created entity in the trinitarian life of God. I also argued following Balthasar that the language of exemplarity retains a utility for a contemporary ecotheology. Nevertheless, Bonaventure’s medieval system does not incorporate an understanding of natural process and Teilhard’s evolutionary system provides this necessary correction. I suggested an extension of Bonaventure’s exemplary model based on a view of complex real entities as societies, and argued that this allows the exemplary model to recognise the tendency to complexity-consciousness and inter-relationship.

In the second half of the chapter I extended Teilhard’s model of the noosphere as a model of the more-than-human ecology, demonstrating the congruence of this model with process ecology. I noted that this extension relocates the emergence of complexity-consciousness to the wider ecological system, and thus reveals the participation of all living systems in the divine mind.

In this chapter I continue the parallel exploration of Teilhard’s and Bonaventure’s doctrines, focussing on their eschatological assumptions. As the grounding of Christian hope for creation in the remembered promise of resurrection, an eschatological framework for ecotheology must offer a concrete vision for the earth that is integrally connected with the fundamental kerygma of faith. I begin by re-evaluating the utility of Teilhard’s doctrine of cosmic convergence on Christ-Omega, arguing that the Wisdom orientation that informs Teilhard’s thought is more strongly reflected in the extended noosphere model than in his original version. While noting the possibility of
ecological collapse I identify the possible emergence of intersubjectivity within the noosphere as participation in divine Wisdom. Teilhard’s ambiguity in relation to the material creation is resolved by reframing his doctrine of cosmic convergence as the claim that Christ as the metaphysical centre of creation is incarnate within the inter-relationships of the more-than-human ecology. The eschatological doctrine that emerges out of my critique of Teilhard provides a strong model for ecotheology because it builds a link between theological and ecological perspectives, and points to a human praxis based in divine Wisdom.

In the second half of the chapter I turn to Bonaventure’s theology of history, and his eschatological vision based on the exegesis of the life of St Francis. I note parallels between the noosphere model and Bonaventure’s eschatological doctrine, which while not expressed in terms that are directly accessible to ecotheology, also emphasises peace within creation as participation in divine Wisdom. In addition, in both Bonaventure’s eschatological doctrine and the noosphere model relations of peace within creation are ultimately related to the common grounding of all creatures in Christ. The two models will be brought together more closely in the final chapter through reflection on the Biblical theme of shalom.

6.1 Process, noogenesis and Omega

In the previous chapter I adopted Vernadsky’s more ecological model of the noosphere as a model for representing the more-than-human ecology, noting its congruence with process ecological models that emphasise semiotic systems and interdependence. This raises the question of whether Teilhard’s Christological interpretation can be supported from an ecotheological perspective. Put simply, using my extended model of the
noosphere, is it possible to speak coherently of convergence on Christ-Omega, and if so how does this provide a narrative of hope for the more-than-human ecology?

As I concluded in the previous chapter the extended noosphere model suggests human systems of meaning and value may either stabilise and reinforce, or destabilise and disrupt non-human systems. In this chapter I turn to the eschatological question of whether the Biblical hope of restoration and peace extends to the natural as well as the human order, and if so how this promise might affect the human vocation. I begin by arguing that Teilhard’s focus on noesis as the path to christification reveals an implicit Wisdom orientation. The extended (Vernadskian) model of the noosphere is better suited to a Wisdom interpretation than Teilhard’s own version, as it reflects both the concern of the Hebrew Wisdom tradition for the non-human world, and the priority for relationality and humble listening. The noosphere also reflects the concern of New Testament Wisdom texts for solidarity in the experience of vulnerable suffering.

To complete the section I discuss the eschatological implications of the noosphere, arguing that within the extended model of the noosphere the notion of convergence on Christ-Omega is seen more clearly as the promise that the risen Christ as the metaphysical centre of created may become incarnate within the more-than-human ecology. The human vocation of participation in divine Wisdom implies a praxis of intersubjectivity, or humble attentiveness to the non-human Other as subject rather than object, and ultimately this is identified as the incarnation of the inner-trinitarian relations of love.
6.1.1 Noosphere and intersubjectivity

In this section I discuss the noosphere as a site of divine Wisdom structured by relations of intersubjectivity. That is, the structure of the noosphere itself reveals a human praxis that participates in divine Wisdom by engaging with the non-human creation as subject rather than object. This leads to a Christological interpretation of relations within the noosphere, which ultimately form the basis of eschatological hope. I begin by discussing the implicit Wisdom orientation of Teilhard’s system.

Teilhard's version of the noosphere as the realm of human intellect claims a connection between the growth of human cultural-linguistic systems and christification or growth towards unification with Christ-Omega. This claim follows from Teilhard’s initial premise that growth towards complexity-consciousness is associated with increasing relationality or ‘amorisation’ (love). Although Teilhard develops this claim mainly in relation to his evolutionary theory in which he associates an increase of radial energy with the formation of more complex organisms, his noosphere model also shows the same connection (at a human level) between unire and increasing complexity-consciousness. Thus Teilhard’s noosphere, as a reification of human noesis, represents a milestone toward unification and ultimately christification.

There is a parallel between Teilhard’s claim for the noosphere as a site of unified human consciousness characterised by synergy or amorisation, and the extended (Vernadskian) model of the noosphere as a noetic space within which human systems of meaning and value intersect with natural systems of communication and adaptation. That is, Teilhard’s claim for amorisation in the human sphere can also be meaningfully

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expressed as a possibility for the extended noosphere as the whole of the more-than-human ecology.

In order to support this claim it is necessary to expand on the suggestion made in chapter 4 that Teilhard's entire model including the noosphere reveals a congruence with Hebrew Wisdom theology. The fact that in Teilhard's system humanity approaches Christ-Omega through the long path of evolution towards complexity-consciousness, suggests that the pattern and template for created life is specifically the divine Word as the self-expression and wisdom of God. As previously noted, Teilhard's Christology is related to that of Origen, who explicitly links the divine ideas to the Wisdom of God. In the same way that Hebrew and Hellenistic Wisdom theologies link human and divine wisdom, so Teilhard's noosphere represents the quest for wisdom in human life as participation in divine Wisdom. Similarly, Teilhard's ontological grounding of all created entities in Christ echoes the linking in early Christian neo-Platonism of created existence with participation in the divine ideas in Christ. It is the implicit Wisdom orientation of Teilhard's thought that justifies its ecological extension, and as I shall show below this is becomes more clear when Teilhard's flawed model of the noosphere is replaced with that of Vernadsky.

In the previous chapter I demonstrated the congruence between the extended noosphere model and process models of ecology that emphasise interdependence and semiosis. This emphasis on relationality is also at the heart of the Wisdom tradition in the Hebrew Bible. The Wisdom tradition notes God's providential care for and counsels humble attention to the non-

789 See ss. 4.1.2 to 4.1.4.
790 See s. 4.1.2.
791 For example Prov 8.2-3 and Wis 7.22-24 in relation to human sociality.
human world. As Eleanor Rae points out, in wisdom literature there is no dualistic separation of the world from God, or of the human from the natural worlds. Human life is immersed both in the world and in God, and wisdom literature exhorts humans to observe and learn from the non-human creation, and to respect the limitations of human existence. The emphasis on humility, respect of the natural world and openness to learning is absent from Teilhard’s version but a prominent aspect of the extended noosphere model, and for this reason the model of the noosphere I have adopted not only provides a more realistic model for the more-than-human ecology but also better reflects the theological claim for noesis and amorisation as the created reflection of divine Wisdom.

One important parallel with the Wisdom tradition is that the extended noosphere reflects the reality that human intellect and technology may lead either to disaster or to fulfilment in a more-than-human ecology; echoing the warning in the Hebrew Bible against the dangerous similarity of Wisdom and Folly. In Proverbs chapter 9, the personified Lady Wisdom offers a feast and calls to the simple to enter her house and eat and drink: ‘Lay aside immaturity and live, and walk in the way of insight’ (Prov. 9.6). Later in the same chapter, Lady Folly offers a feast and calls to the simple to enter her house and eat and drink: ‘Stolen water is sweet, and bread eaten in secret is pleasant’ (Prov. 9.17). Although the allure of Lady Folly is deceptively similar to that of Wisdom, the good she apparently offers is spurious and leads not to life but to death. Raymond van Leeuwen comments that Wisdom and Folly occupy the same terrain in human life and appeal to the same desires - for example food and drink are always good, but consumption can be

792 Job 12.7-8, Prov 30.24-28.
disordered or deny needed sustenance to others. Folly's invitation appears to put within human grasp what is desired, but it turns out to be disordered and unsustainable.

The implications of this for the noosphere are, firstly, that the power of human intellect and technology is also the point of greatest danger. Wisdom is holistic, deriving its lessons from the humble study of that which is small and insignificant (eg. Job 12.7-8, Prov. 30.24-28), and testing the truth of its intuitions by whether they are relational and hospitable (Sir. 18.13). Paradoxically, it requires wisdom to choose wisdom over folly, and this suggests that the quest for human wisdom must depend on the initiative and leading of divine Wisdom. The practical lesson is that despite its power and subtlety, human technology has led to the unsustainable exploitation of the natural world to the point of posing an existential risk not only to the non-human world but to human civilisation itself. The Hebrew wisdom tradition serves as a reminder that self-serving cleverness collapses all too easily into folly.

A further point is that the noosphere places humanity in the same relation to the natural world as the Wisdom or incarnate Word of God. As Celia Deane-Drummond remarks, Biblical wisdom is what aligns human intention and action with God's intention. In the New Testament, the Wisdom theme is further deepened by the understanding that it includes suffering, and thus becomes the wisdom of the cross. Thus, wisdom includes identification with the suffering of others, or as Deane-Drummond expresses it, a spirituality that is not afraid to face weakness, suffering and evil.

795 Deane-Drummond, Wonder and Wisdom, 89.
796 Ibid., 113.
Reflecting on Paul's exposition of the wisdom of Christ crucified in 1 Cor 1.18-25, Deane-Drummond notes in particular God's priority for the 'foolish' and the 'weak' in order to humble those whom the world considers wise.\textsuperscript{797}

In relation to the noosphere, where human discourses of value and meaning impact the biosphere, this suggests the need to extend the Wisdom theology of relationality and humility to an intentional identification with the vulnerability of the natural world. The key to this is the recognition that the noosphere, as the space in which human and non-human voices intersect, can be a site either of oppression or of a true intersubjectivity. I shall demonstrate the potential for this by reference to the work of Martin Buber, who explores the implications of encountering the Other not as an object but as a subject, noting firstly the emphasis that has already been established on relationality within the noosphere.

In the previous chapter I identified ways in which ecological systems depend on biosemiosis or networks of communication between populations within an ecology.\textsuperscript{798} I related this to the concept of human informational systems, and proposed the need for a sensitive awareness of the ways in which human systems of value and meaning impact on non-human ecological systems. The emphasis of the noosphere model is thus shifted onto relationality, with the root cause of environmental damage revealed as human objectification of the natural world. This points towards the role of intersubjectivity in sustaining both natural systems and a more-than-human ecology. To put it simply, when human systems of allocating value build in a view of the non-human as object, then humanity becomes deaf to the

\textsuperscript{797} Ibid., 118.

\textsuperscript{798} See s. 5.2.2.
communication of the natural world. The objectification of non-human systems and creatures leads to a view both that they are entirely instrumental to human purposes, and that they lack agency, being passive effects subject to larger environmental factors and human choices. If we assume non-human life is dumb then we become deaf to what it is telling us, to our own detriment.

The alternative possibility, of human relating to the non-human world as a responsive subject, is adumbrated by Martin Buber in his seminal work, *I and Thou*. For Buber the true meeting between subjects, the 'I and thou' is spontaneous and reciprocal, the 'essential act of pure relationship in three dimensions' that empowers both parties. If this is the relationality that Teilhard speaks of in his model of the noosphere, the reification of human awareness that he proposes may be better conceptualised as a lived awareness of interdependence and intersubjectivity. Alternatively, as Denis Edwards argues, Buber’s intersubjectivity describes the relational mutuality that is at the heart of the Trinity. This suggests that relations within the noosphere may reflect the inner-trinitarian relations as an incarnation of divine love.

Buber believes that relationships which eschew power over the other can also occur between human and non-human subjects so that one may be open and present to the unique self of, in his example, a tree. Buber remarks, 'the tree is no impression, no play of my imagination, no aspect of a mood; it confronts me bodily and has to deal with me as I must deal with it - only differently. One should not try to dilute the meaning of the relation:

relation is reciprocity. In his interpretation of Buber's work, Kenneth Kramer remarks that an 'I and Thou' relation with a tree would include intentional immersion in the environment of the tree's own life, being fully present to the 'direct unmediated relationship with another'. Walsh, Karsh and Ansell concede that in this example Buber's language may sound 'alien ... even infantile', but point out that it is not far removed from the way Scripture talks about trees or other living creatures, citing 1 Chron. 16.33 or Ps. 96.12 ('the trees of the forest will sing'), or Ezekiel's covenantal shalom in which the trees yield their fruit as part of the response and joy of creation (34.27; 36.30). Walsh et al suggest that dismissing such language as 'only' metaphor actually keeps trees and humans in an 'I-It' relationship – but that the metaphor may become reality if it is recognised that it describes a real aspect of the life of the non-human and an underlying intersubjectivity. The authors describe aspects of the ecological relationships within which trees and other creatures of the forest communicate and live, their sensitivity to environmental conditions and the contribution they make to the health of the whole system. The emerging view of non-human systems as responsive and agential in that they interact with their environment and with other species, and actively exchange and process information, is consistent with the informatic approach to evolutionary science which I explored in the previous chapter. In the authors' view, this challenges forestry practices that implicitly regard trees as indifferent objects to be managed. What is called for, they argue, is a new paradigm of listening and involvement; in short, of

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802 Buber and Kaufmann, I and Thou, 58.
803 Kramer and Gawlick, Martin Buber’s I and Thou, loc. 849 of 3055.
805 Ibid., 153.
806 See s. 4.2.1.
intersubjectivity. The essence of this is to recognise trees not only as living creatures but as responsive agents with something important to communicate - about their own well-being and that of the wider environment.

Plant neurobiologist Stefano Mancuso goes even further, detailing evidence for sensory capabilities, communication, problem-solving, protective and social behaviours and even the ability to deceive within the plant kingdom. Mancuso argues that it is possible to speak of plant intelligence despite the lack of a central nervous system, noting that Charles Darwin was similarly impressed by the abilities of plants. Mancuso notes that the Abrahamic religions have implicitly failed to recognise plants as living beings with the result that they are generally treated as inanimate objects. Mancuso presents a view of plant life as truly agential in terms of the ability to interact with both living and non-living aspects of the environment in order to achieve certain ends. Mancuso also suggests that human relationships with the plant world need to take better account of their capacity for responsiveness.

A similar argument is made by Peter Wohlleben in relation to the care and management of forests. Like Mancuso, Wohlleben sometimes uses language that is lyrical or anthropomorphic in describing plant systems that enable communication both within a tree and across a forest, repel predators or allow an adult tree to protect adjacent immature seedlings. Nevertheless it

808 Ibid., 158–59.
810 Ibid., 118, 126.
811 Ibid., 4.
812 Peter Wohlleben, Hidden Life of Trees: What They Feel, How They Communicate - Discoveries from a Secret World., Kindle (Carlton, Vic.: Black Inc, 2016).
is clear that plant systems are sufficiently analogous to neural networks in animals that it is possible to speak at least metaphorically of a humble listening to their conversation.

A true intersubjectivity, in which human systems of meaning and value are opened to listening and involvement with the conversation of the natural world, or an 'I-Thou' relationship with nature, would reorganise the noosphere so that one part (the human) was no longer deaf to the communication of the whole. This would inevitably require repentance and lead to reconciliation, as the natural world bears witness to the suffering caused by humanity’s exploitation and mismanagement. Such an intersubjectivity can be realised through a fundamental reconsideration of what it means to be human, and of how human values and concerns intersect with those of the non-human world. This is an extension of the wisdom of the cross proposed by Deane-Drummond, who as noted above suggests the need for an intentional openness to the vulnerability and suffering of the Other.

Such a praxis of intersubjectivity may already be emerging, for example in the management of marine reef systems at risk from climate change. The importance of healthy coral reefs to the entire marine ecosystem is accentuated by long-term studies that reveal one third of marine species are dependent on reef ecologies at some point of their development. Because of their extreme sensitivity to minute changes in water temperature, bleaching and die-back is affecting many of the world’s coral reefs. Although true recovery of a damaged reef may be impossible

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over the time-frame of a single century, scientists are closely studying reefs in the Indian Ocean in particular that are proving more resilient to coral bleaching. Some success has been reported in stabilising coral fragments and transplanting certain more resilient species. A recent study found a complex interaction between the resilience of coral reefs to dieback and human factors including proximity of urban centres, high use of marine resources and protective cultural norms that limit human impact.

In this example, intersubjectivity means both the ‘deep listening’ of scientific research to understand the dynamics of ecological systems and recognition that the reef is not only instrumental to human purposes but has an integral value within the whole ecology. The example also demonstrates that through patient observation, human technologies and behaviours may assist in sustaining the whole system in ways that support both human and non-human life. The argument for intersubjectivity in the noosphere also suggests that the attitude of mutuality needs to prevail not just at the limited level of scientific research or ecological repair, but across all human institutions including, for example, the limitation of industrial emissions that create the risk to ecological systems in the first place. Crucially, the required change must also take place within cultural, religious, economic and political institutions that create and sustain human conceptions of meaning and value.

As my reflection on the noosphere suggests, the problem and its solution both lie not solely within either the natural world or the human world, but in how humanity is conceived in relation to the natural world. This is the

liminal space defined by the noosphere, because of its primary emphasis on the intersection of human and non-human communication systems. As a model and a metaphor for the more-than-human ecology, the practice of intersubjectivity within the noosphere echoes Hebrew Wisdom spirituality in directing attention to humility, relationality and the willingness to attend deeply to the natural world. This points the way to a Christological resolution, just as Teilhard’s original conception of the noosphere based on *unire* points to the ultimate convergence on Christ-Omega. The extended noosphere realistically holds open the possibilities both of ecological collapse and the ideal of human management of the more-than-human ecology based on the ethical praxis of intersubjectivity. The question that remains, is whether the noosphere permits of an eschatological framework that offers hope for the whole creation.

6.1.2 Eschatology and the noosphere

To complete this section, I turn to the question of eschatology as the basis of hope for a more-than-human ecology. In the previous chapter, I extended Teilhard’s noosphere as a metaphor for the more-than-human ecology, and in this chapter have argued suggesting that the focus on intersubjectivity within the more-than-human ecology provides a redemptive outlook. The question that remains is whether my ecological extension of the noosphere ultimately offers an eschatological perspective that provides hope for the natural world. In order to address this, I return to Teilhard’s eschatological motif of convergence on Christ-Omega, suggesting that this may be understood within the extended noosphere as the claim that relations within the more-than-human ecology may become an incarnation of the inner-trinitarian relations of love.
Given the reification of human intellect in his noosphere construct, Teilhard’s claim of convergence on Christ-Omega suggests that hominised life evolves away from its created context. As I shall show, there is considerable ambiguity in Teilhard’s own writing both as to what part of the created order converges on Christ and as to whether such convergence constitutes completion of or escape from the material creation. This mirrors an ambiguity both within Biblical eschatological texts and subsequent dogmatic development as to the fate of the non-human creation in the eschaton which I shall firstly explore following Douglas Moo and Jürgen Moltmann.

A connection between the prophetic promises of blessing and restoration in the Old Testament and the resurrection faith of the New Testament is noted by Moo, who argues that despite the ‘heavily anthropocentric’ character of the New Testament the universal promise of restoration that includes the whole creation is not set aside or spiritualised. Moo comments that his own perspective is that of ‘inaugurated eschatology’, which distinguishes between the ‘already’ of fulfilled promise and the ‘not yet’ of consummation. This suggests a tension between present and future, resolvable only by confidence in the reliability of salvation history as a guide to God’s promises.

Moo locates the beginning of eschatological hope in Israel’s covenant theology, the Old Testament’s themes of the land as gift, Israel’s faithlessness and exile, the prophetic promises of restoration and the promises of blessing exemplified in the fruitfulness of the land. He notes

817 Ibid., 26.
that the New Testament begins from the perception that post-exilic Israel has not yet received the fullness of its promised blessings, and posits the resurrection of Jesus the Messiah as a ‘true return from exile’. Despite acknowledging the primary soteriological and anthropological implications of the ‘new creation’ that this initiates, Moo is primarily concerned in this paper to discuss the role of the non-human creation in New Testament eschatology.

In relation to eschatology as future expectation, Moo notes that the most widely-quoted New Testament text on the environment is Rom 8.19-20, which most commentators agree refers to the non-human creation. Here, Paul refers to Gen 3.17-19 in commenting that creation has been frustrated and made subject to decay. The verse also apparently alludes to Isa 24.1-13 which describes the effects of human sinfullness on the non-human creation: ‘The earth is also polluted by its inhabitants …’ (v. 5). Moo notes that because of the sin of the first humans, creation has been fundamentally altered and diverted from its original purpose. Yet if creation has been affected by human sinfulness, Isa 24-27 suggests it may also participate in the redemption of humanity.818

In relation to eschatology as the ‘already’ of Christian experience, Moo suggests the principal text is Col 1.20, in which ‘all things’ are reconciled to Christ. Moo comments that ‘all things’ occurs five times in the wider passage Col 1.15-20, consistently referring to the whole cosmos.819 For Moo, while it is not possible to speak of a universal salvation, Col 1.20 also suggests the cosmic restoration of the originally intended shalom that is the theme of Isa chs. 24-27.

818 Ibid., 28–30.
819 Ibid., 36.
Moltmann similarly notes the development of eschatological themes between the Old Testament promise of creation restored and the New Testament promise of a new creation participating in the resurrection of Christ. He notes in relation to eschatological hope that ‘the end’ is the beginning as the new creation of all things. Commenting that the basis of Christian hope in the future is always ‘the remembered hope’ of the crucified and resurrected Christ, Moltmann insists that the eschatological claim that the future is in the hands of God is also the claim that ‘the end will become the beginning, and the true creation is still to come’. The eschaton, he claims, ‘is neither the future of time nor timeless eternity’. However eschatology fundamentally involves the expectation of the novum, God’s new thing that transforms time. Moltmann distinguishes between ‘future’ as what will be, and ‘advent’ as what is coming. The former connotes a sort of deterministic unfolding with no possibility of a novum and no fundamental category of hope. The Latin adventus is a translation of the Greek parousia, and so ‘advent’ is the expectation of time transformed by the irruption of God. Moltmann suggests that God’s power to create the novum adventus is the ‘source of all time’, and yet the novum must also be utterly consistent with the past experience of God’s faithfulness.

Both Moltmann and Moo note the disagreement between modern interpreters who suggest the earth is annihilated in the eschaton (based on passages such as 2 Pet 3 and Rev 20-21) and those who believe it is transformed. Moltmann notes that transformation was the unanimous view following Irenaeus, and continues to be held in modern Catholic dogmatics.

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821 Ibid., 22.
822 Ibid., 26.
Within the Reformed tradition, 17th century Lutheranism developed the doctrine of the annihilation of creation, while Calvinism followed the classical doctrine of transformation.\footnote{Ibid., 268.} Moltmann critiques both perspectives, finding of *annihilatio mundi* that this doctrine is actually grounded in the anticipated transformation of this world into a new creation – and of *transformatio mundi* that the anticipated transformation must be so fundamental that God’s very relationship to the world is altered in the new creation.\footnote{Ibid., 271–272.} Ultimately, he suggests the *reductio in nihilum* and the *elevatio ad Deum* ‘belong together and are mutually complementary’.\footnote{Ibid., 274.} That is, if the old creation passes away then the ‘new creation’ is in some sense still continuous with it. Conversely, if the earth is transformed into a new creation, then it has become radically other. Moltmann’s argument for a complementarity of opposites acknowledges that each image contains an aspect of an eschatological anticipation that ultimately is inexpressible. This, however, suggests the need for a closer examination of Teilhard’s own assumptions in relation to the ‘end’.

Teilhard’s view of the fate of the non-human world at the ‘parousia’ of human convergence with Christ-Omega is not easy to ascertain. Although his model begins with a high estimation of matter as ‘diaphanous’ with spirit, his primary interest is with human development, and after he reaches the point of hominisation in his evolutionary narrative he offers no systematic analysis of the future of the non-human world. As noted in Chapter 4 Teilhard accepts a ‘wastage’ as some portions of the created world resist unification. The trajectory of the noosphere in Teilhard’s thought suggests convergence with Christ-Omega is only a possibility for hominised life. Based on this
Mooney argues Teilhard has in mind an end to the material world as the hominised part of creation is united with Christ-Omega.  

Teilhard is usually read as suggesting that human (or post-human) consciousness will eventually evolve beyond the material plane. For example, his stages of ‘noogenesis’ and ‘planetisation’ outlined in the Phenomenon of Man point to the development of a supra-personal collective consciousness that can no longer be conceived in normal biological terms; and Teilhard remarks that humanity ‘in the last resort is definable only as a mind’. Elsewhere in the Phenomenon, however, Teilhard appears to suggest the alternative view that ‘ultra-hominised’ consciousness or ‘super-reflexion’ may come to be a generalised property of the cosmos itself in a late stage of its evolution. Here, rather than arguing that human intelligence will transcend materiality, Teilhard remarks that ‘time and space become truly humanised - or rather super-humanised’. This presents the possibility that, rather than humanity escaping the corporeal, the whole cosmos may evolve towards super-consciousness. In addition, given Teilhard’s view that the risen and glorified Christ constitutes the centre of created reality, there is a further ambiguity as to whether convergence with Christ-Omega represents a fulfilment within or beyond creation. Teilhard's ultimate focus on what amounts to a cosmological end of the whole universe as the absorption of created reality into Christ-Omega is so long-range as to render his doctrine unhelpful for any Christian anthropology. Nevertheless, the eschatological tension within Teilhard’s doctrine of cosmic convergence reflects what Moo and Moltmann have identified as a tension within the wider tradition as to the fate of the natural world.

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826 Mooney, Teilhard de Chardin and the Mystery of Christ, 185.
828 Ibid., 284–85.
The extended model of the noosphere I have developed arising from my critique of Teilhard reflects the reality that human life is not only inextricably relational, but also necessarily embedded within its created and more-than-human context. Temporally, the extended noosphere also focuses attention on human and historical time-frames. This is important as the 'end' for an ecotheological eschatology must focus on the hope for a more-than-human ecology on this earth. As Moltmann expresses it, eschatological expectation is necessarily connected with the locus of God's faithful presence in history, which means the eschatological focus is articulated within a historically specific context.\(^{829}\) The noosphere model similarly contextualises eschatological expectation within the more-than-human ecology as it stands at the current moment in history.

Writing from the perspective of process theology, Marc Kolden comments that Teilhard's model suggests the eschaton is based on the 'reliability of the created order'.\(^{830}\) Teilhard's central claim is that as Christ is incarnated as the centre of creation the future unfolds as the self-disclosure of Christ.\(^{831}\) The horizon of eschatological hope and its unfolding takes place within the evolutionary development of human consciousness. I have modified and broadened Teilhard's developmental model within the extended noosphere so that the eschatological horizon becomes the more-than-human ecology. However, the focus of eschatological hope remains the development of human self-awareness and the vocation of intersubjectivity.

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\(^{831}\) Ibid.
or wisdom, and I commented above that a true intersubjectivity would be the incarnation of the inner-trinitarian relations of love.832

In view of my focus on the noosphere as the ecotheological locus, it is at this level that an eschatological language needs to be articulated. The extended noosphere resolves Teilhard’s ambiguity in relation to the detachment from material reality in the far distant development of humanity: human life is only possible and only comprehensible within the network of relationships that is the more-than-human ecology and human exceptionalism is implicated both in ecological disaster and existential risk. Nevertheless, the noosphere context carries its own ambiguity. If Christ-Omega as the Incarnation of the trinitarian relations of love is the point of convergence for the more-than-human ecology then this would represent a creation so transfigured as to be utterly new.

As Moltmann’s analysis suggests, it is possible to claim this as the paradox of a new creation that is both *transformatio* and *annihilatio*. In addition, the frame of eschatology must be the proclamation of future hope ‘in history’s midst’; and thus the *novum* of the Omega-event must be the focus of present hope in every historical circumstance. This means that that while the horizon of eschatological anticipation *may* be extended as Teilhard does to the ‘end’ of the whole universe, it *must* be brought closer to the temporal and spatial geography of the more-than-human ecology that is the current locus both of risk and of promise. An ecotheological eschatology following Teilhard thus goes beyond Teilhard in two important ways: firstly, in recognising the Omega-event as the valuation and the fulfilment of created reality rather than its transcendence, and secondly, in recognising the noosphere as a more proximate frame for eschatological concern.

832 See s. 0.
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In terms of the noosphere, the claim that Christ as the centre of created reality is also the basis of eschatological hope that relations within the noosphere may be so transformed as to be a ‘new creation’. Such a transformation may be considered the completion of Teilhard’s extension of the doctrine of the Incarnation, as created reality becomes an icon of the Trinity and embodies the trinitarian relations. As the *novum adventus*, this eschatological claim thus mirrors Teilhard’s own statement of universal convergence on Christ-Omega. The same conclusion is also implied by Santmire, who re-imagines Teilhard’s Christ-Omega as Omega World: the more-than-human ecology transformed by relations that constitute the body of the risen Christ.  

As noted above, the noosphere connotes both danger and hope, but examples of human life characterised by loving openness and listening to the voices of the non-human creation are also a present reality. Ultimately, the noosphere can become an incarnation of the divine trinitarian relations only if human life is reconceived in a way that is contextual, relational and dialogic.  

I have characterised this human praxis above in terms of the Biblical theme of Wisdom, and in the second half of this chapter will argue that the eschatological fulfillment of this is contained in the Biblical notion of shalom as God’s original hope for creation and its true end. As I shall claim in the final chapter, the eschatological transformation of creation ultimately requires the fulfilment of the human vocation through radical identification with the suffering of Christ in creation.

As I have shown above, eschatological hope is based in the ‘remembered forward’ hope of the resurrection. This highlights a remaining

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834 See s. 0.
shortcoming in the noosphere model, which flows from what Deane-
Drummond refers to as Teilhard’s ‘Christomonism’ or focus on the glorified
Christ in isolation from a rigorous trinitarian framework or well-developed
doctrine of the Incarnation. For the noosphere model to adequately articulate
eschatological hope this needs to be addressed. In the remainder of this
chapter I shall do so through an exploration of Bonaventure’s theology of
history, and in the final chapter I shall bring the two models together through
the Biblical image of shalom.

6.2 History, eschatology and the age of shalom

Although I have demonstrated in the previous chapter the openness
to novelty and creativity in Bonaventure’s theology of creation, his
understanding of the natural world is not developmental. In addition, as a
medieval theologian Bonaventure lacks a modern appreciation of ecology
and the vulnerability of the natural world. In this section, I argue that
Bonaventure has a developmental theology of history, and bases both his
spiritual theology and eschatology on the model of St Francis. In his writings
in these areas Bonaventure’s emphasis on themes of wisdom and piety
supports a vision of human existence within the created context that echoes
the Biblical image of shalom, and for this reason is accessible to a
contemporary ecotheology. I argue that Bonaventure’s Franciscan vision of
shalom in creation is congruent with the image developed the first section of
this chapter of the noosphere as a site of redemption and divine indwelling.

I begin by exploring Bonaventure’s theology of history, which builds
on Augustine but diverges in understanding the final stage of eschatological
peace as being with created history. Here, Bonaventure follows the
eschatological vision of his contemporary, Joachim of Fiore, in suggesting
that history finds its culmination in union with Christ. Bonaventure suggests that the initiating event and the model for the seventh age of eschatological peace is the life of St Francis. I argue that Bonaventure’s model of history is processual, and that by recognising themes related to St Francis in Bonaventure’s spiritual theology the expectation of eschatological peace within creation can be applied to a contemporary ecotheology.

Finally, I consider Bonaventure’s use of Wisdom themes and reflection on the life of St Francis as the one who models the way of wisdom and piety. Bonaventure’s exegesis of St Francis suggests a broadly ecological vision of human life that is congruent with the Biblical image of shalom. I note at this point the connection with the noosphere, which I interpreted in the last chapter through the lens of Wisdom.

6.2.1 Eschatology in Bonaventure's theology of history

In Bonaventure’s theology of history the whole of creation centred in Christ is ultimately brought together in Christ. Whereas for Teilhard, evolution provides the engine and paradigm for cosmic convergence in Christ-Omega, in Bonaventure’s schema the arena for process is history. For both Bonaventure and Teilhard, Christ is depicted as the centre of a cycle of exitus and reeditus, the Alpha and Omega.

The similarity between the itineraria of Bonaventure and Teilhard is noted by Ewert Cousins, who comments that to see the mystery of Christ as the centre and culmination of history is not quite the same thing as seeing the whole of the created order centred and converging on Christ. The former option, Cousins notes, suggests primarily human liberation while the latter has implications for ecological hope. Nevertheless, in ecological terms

\[835\] Cousins, Bonaventure and the Coincidence of Opposites, 261–62.
human life is so interwoven with its more-than-human context the two are not easily separated, and as noted above the temporal horizon of eschatological hope must always be within the human time-frame.

The seminal work on Bonaventure's theology of history was contributed by Joseph Ratzinger in his 1971 work, *The Theology of History in St Bonaventure*.836 Noting that St Augustine's great theology of history, *De Civitate Dei*, was written during a period of existential crisis for the Roman Empire, Ratzinger begins his work with the claim that the theology of history outlined in Bonaventure's *Hexaëmeron* may be regarded as the second high point in Christian reflection on history. Ratzinger notes that Bonaventure's theology of history reflects the influences of Augustine, and of the eschatological prophecies of Joachim of Fiore, but suggests that it is primarily founded in reflection on Francis of Assisi.837 Ilia Delio makes a similar point, noting that Bonaventure only revised his original dismissal of Joachim as 'ignorant and simple' towards the end of his career when he was obliged to defend Franciscan eschatology against the secular masters at the University of Paris around 1257.838 I will firstly explore the connections with Augustine and Joachim, before turning to the Franciscan underpinnings of Bonaventure's theology of history.

Bernard McGinn notes that Bonaventure follows St Augustine in basing his theology of history on the six days of creation (*hexaëmeron*).839 The six-fold division is a feature of the schema originally proposed by St Augustine. As McGinn notes, Augustine correlates the six days of creation

837 Ibid., Foreword, v.
839 McGinn, “The Significance of Bonaventure’s Theology of History.”
with the six ages of the world, culminating in a seventh age realised in eternity. Briefly, Bonaventure also posits six ages in the history of the world, but sees the Francis-event as closing the sixth age and inaugurating a seventh age of Christ within history. Thus, Bonaventure departs from Augustine in holding that the seventh day is realised within creation itself as an age of eschatological peace.

The essential reason Bonaventure departs from Augustine on this point is that he follows Peter Lombard in rejecting Augustine's doctrine of simultaneous creation, insisting on a literal hexaëmeral order of creation. Because of his doctrine of simultaneous creation, Augustine regards the unfolding of history as the unfolding within creation of God's plan for salvation which is eternal, or as J. van Oort summarises the argument: 'what is happening now is simply a temporal unfolding of a pre-temporal concept'. For Augustine, the 'end of time' is accomplished by the death and resurrection of Christ, which ushers in the sixth age of creation. The sixth 'day' is of indefinite duration and its closing (with the second coming of Christ) is not dependent on human action or able to be predicted: 'In vain, then, do we attempt to compute definitely the years that may remain to this world, when we may hear from the mouth of the Truth that it is not for us to know this'. Central to Augustine's eschatology is that all things come to

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842 Augustine of Hippo, The Literal Meaning of Genesis, Book Four, ch. 26; Bonaventure, Brev., II, 2.5 See also editor’s footnote no. 17. See my discussions of Augustine’s theology of time and simultaneous creation in s. 1.1.2 and Bonaventure’s exemplary metaphysics in s. 1.2.2.


844 Augustine of Hippo, The City of God, 600–601, XVIII, paras. 53-54.
their true end in and through Christ whose return will usher in the final judgment.\textsuperscript{845} However this seventh and final age is also interpreted by Augustine not as a literal period within history, but as the eschatological peace of eternity.

In \textit{De Civate Dei} (City of God), Augustine rejects a literal reading of the 'thousand years' of Revelation 20.3-5 because it may be thought a period of 'carnal enjoyment' and therefore such an interpretation can only be held by the carnally inclined.\textsuperscript{846} Thus with the descent of the New Jerusalem, the earthly 'city' is subsumed within the heavenly and becomes no longer subject to time and decay: 'that no vestige of what is old shall remain; for even our bodies shall pass from their old corruption and mortality to new incorruption and immortality.'\textsuperscript{847} Apart from the reason given by Augustine above, the deferral of the seventh day until eternity is also consistent with Augustine's insistence on the atemporality of God and the simultaneity of creation. Bonaventure's preference for an eschatological fulfilment within history is likewise consistent with his insistence on an unfolding creation in time.

Bernard McGinn comments on the influence of Joachim of Fiore on Bonaventure's theology of history, pointing out that the way Bonaventure establishes the 'six days' through the making of precise comparisons between the Old and New Testaments follows the exegetical method of Joachim of Fiore.\textsuperscript{848} Ilia Delio agrees with McGinn as to the influence of Joachite eschatology on Bonaventure's theology of history, commenting that Joachim's work 'enabled Bonaventure to elucidate a distinctly Franciscan eschatology closer to his own christocentric position'.\textsuperscript{849} Both Augustine and

\begin{itemize}
\item \textsuperscript{845} Ibid., 641ff., XX, para. 1.
\item \textsuperscript{846} Ibid., 649, XX, para. 7.
\item \textsuperscript{847} Ibid., 664, XX, para. 17.
\item \textsuperscript{848} McGinn, “The Significance of Bonaventure’s Theology of History,” 66–69.
\item \textsuperscript{849} Delio, “From Prophecy to Mysticism,” 154.
\end{itemize}
Christ and Creation: a model for ecotheology

Joachim claimed the Church was currently living in the sixth age, and that the seventh age of eschatological peace would be ushered in after a time of tribulation.\textsuperscript{850} It was Joachim who first expressed the apocalyptic view that the seventh age of peace would come, not as Augustine thought, in eternity, but within history. Bonaventure followed Joachim in holding that the seventh age of contemplative peace would be contemporaneous with the sixth age of the Incarnation and passion of Christ.\textsuperscript{851} For Bonaventure the progress of history must be shaped by its ultimate consummation in Christ, ‘since Christ is the centre of scripture, time and history’.\textsuperscript{852} Because humankind was created on the sixth day, then the Incarnation by which humankind is restored must correspond to the sixth historical age.\textsuperscript{853}

Bonaventure’s main point of departure from Joachim is that while Joachim predicted an age of the Holy Spirit in which the Gospel itself would be superseded, Bonaventure insists in the Hexaëmeron that Christ is both the source of all knowledge and the centre and culmination of history. Thus in relation to his Christocentric view of history, Bonaventure is closer to Augustine than to Joachim; but he departs from Augustine in his vision of history’s apotheosis in Christ that is both apocalyptic and optimistic.\textsuperscript{854} Just as Bonaventure earlier in his career described creation as unfolding from its ontological foundation in Christ, so in this final period of his life he sees history as processing towards its ultimate fulfilment in Christ.\textsuperscript{855} Taken together, these movements describe a cycle of \textit{exitus} and \textit{reditus} in all

\textsuperscript{850} Bonaventure, \textit{Brev.}, Prologue, 2.2-3; Bonaventure, \textit{Hex.}, s. 15.12-18.
\textsuperscript{851} Delio, “From Prophecy to Mysticism,” 155; Bonaventure, \textit{Hex.}, s. 15.12.
\textsuperscript{852} Bonaventure, \textit{Hex.}, s. 1.11; cited by Delio, “From Prophecy to Mysticism,” 159; see also Ratzinger, \textit{The Theology of History in St Bonaventure}, 118. St
\textsuperscript{853} Delio, “From Prophecy to Mysticism,” 159; Bonaventure, \textit{Brev.}, IV, 4.4.
\textsuperscript{854} McGinn, “The Significance of Bonaventure’s Theology of History,” 77.
\textsuperscript{855} Bonaventure, \textit{Brev.}, IV, 4.4; Bonaventure, \textit{Hex.}, s. 1.11.
things; or as Cullen expresses it, 'the story of a journey, an odyssey, of how all things come forth from God and will return back to their source'.

While Bonaventure's theology of history is the subject of the lectures of the *Hexaëmeron*, Delio argues that it is in the *Itinerarium*, written twenty years earlier, that we find the key to its interpretation. The *Hexaëmeron*, as a scribal transcription of disputations given at the University of Paris in the context of Bonaventure's debates with the Averroists, is both unsystematic and unfinished, interrupted during the discussion of the fourth day of creation by Bonaventure's untimely death in 1274. Delio suggests the earlier work reveals the general pattern of what may have become Bonaventure's mature theology of creation. Specifically, Delio suggests the six stages of spiritual progress in the *Itinerarium* recapitulate Bonaventure's six ages of history. Delio notes that for Bonaventure and in the tradition of Christian neo-Platonism, 'the soul is a microcosm of the world'. In the *Hexaëmeron* Bonaventure notes: 'the soul is great, the universe may be described in it', and 'the soul has within itself that which the Church has within many'. Arguably, Bonaventure would hold that the microcosm of the soul's journey may provide a template for the progress of history. For this reason, the *Itinerarium* may provide the key to the interpretation of Bonaventure's theology of history.

In the *Itinerarium*, the first five chapters describe the soul's progress through the external world of signs to the sixth chapter which is the encounter with the mystery of Christ at the centre of the Trinity, of creation

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856 Cullen, *Bonaventure*, 178.
857 Delio, “From Prophecy to Mysticism,” 160., citing Daniel "Defender of Franciscan Eschatology".
858 Ibid.
and the human soul. This is the apotheosis of revelation, which gives way in the seventh chapter of the *Itinerarium* to the unknowing of ecstatic union with the Father, and the summit of love. Delio notes:

As the six wings of the seraph correspond to the six levels of illumination that lead to the seventh stage of mystical peace, so too history follows a sixfold course that is to terminate in a seventh age of mystical peace. ... As the soul moves towards Christ, so history and time move toward their fulfilment in the sixth age, the age of the Incarnation. ... As the fullness of time, Christ is the centre of time, summing up in himself all that preceded him and all that would come after him.

Bonaventure's theology of history rests on an exegesis of the *theoriae*, or inner spiritual meanings to be found in the scriptures, which undergird a series of correspondences between the Old and New Testaments. The methodology described by McGinn is inaccessible to modern appreciation, and Delio does not attempt a precise mapping of Bonaventure's first five ages against the first five stages of the soul's journey in the *Itinerarium*. The force of the comparison is rather in its conclusion, as the final transcendence of knowledge by love in the *Itinerarium* is also the key to Bonaventure's historical process. Just as in the *Itinerarium* when the soul approaches the sixth stage it encounters the two cherubim gazing on the mercy seat which is Christ, so also in the Hexäemeron 'the two cherubim are the two Testaments whose gaze is directed upon Christ'. Thus the end of the spiritual *itinerarium* is Christ just as the progress of history finds its culmination in Christ.

860 See my discussion at s. 2.2.1.
862 Ibid., 160–61.
863 Bonaventure describes his exegetical methodology at Hex., ss. 15.22-28. The *theoriae* are described in the 16th Collation.
864 Bonaventure, *Itin.*, s. 6.4; Bonaventure, Hex., s. 3.11.
The key to Bonaventure's theology of history, and to the argument that Bonaventure offers a process model of history that adumbrates Teilhard's cosmic process, is that the seventh age of eschatological peace is entered through union with Christ. At this point Bonaventure most clearly offers an exegesis of the ecstatic vision of Francis on Mt Alverna. Delio notes that Joachim considered the transition into the seventh age of peace would come after a time of tribulation in which two religious orders, the *viri spirituales*, would triumph over evil. Bonaventure accordingly bases his claim for the Franciscan Order as one of Joachim's *viri spirituales* by identifying Francis himself as one of the angels of the vision of St John of Patmos. This emphasis first emerges in Bonaventure’s description of Francis in the *Legenda*, completed in 1263, becoming integral to his eschatology in the lectures of the *Hexäemeron* delivered shortly before the end of his life in 1274.

In the *Legenda*, Bonaventure describes Francis as a ‘hierarchic man’, meaning that through the triple way of purgation, illumination and contemplation he has attained the perfection of the angelic hierarchy and the seventh stage of mystical peace. In this work, Francis is also identified as the angel of the sixth seal (conflating Rev 6.12 and 7.2), on the basis that he bears the seal in the form of the ‘mark of the Tau’. Bonaventure here interprets Francis's stigmatisation following his ecstatic vision of the six-winged seraph on Mt Alverna two years before his death as the 'seal of the living God' (Rev 7.2).

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865 Delio, “From Prophecy to Mysticism,” 163.
Similarly, in the 16th collation of *Hexämeron*, referring to Francis obliquely as the ‘angel of Philadelphia, who was the sixth’, Bonaventure describes him as having the ‘key of David’ which ‘opens and no one shuts’. That is, through this angel a door has been opened and a great revelation would be given. In the 22nd collation, Francis is identified by Bonaventure with the order of Seraphs, ‘who attend to God by means of elevation, that is, through ecstasy and rapture’, but that Francis uniquely has attained this rank ‘through hardships’. Finally, in the 23rd Collation, Bonaventure claims that the sixth angel, ‘that of Philadelphia’, bearing the ‘seal of the living God’ which is the ‘seal of love’ appears at the conclusion of the sixth age at which time ‘Jerusalem was shown as standing in heaven’.

In Revelation chapter seven it is this angel who seals the 144,000, as a result of which the ‘great multitude’ who have ‘come through the great ordeal’ are enabled to enter into eschatological peace with the Lamb ‘at the centre of the throne’ as their shepherd. The description of the homecoming in Rev 7.16-17 includes promises of freedom from hunger and thirst, shelter from the heat of the sun, access to the springs of the water of life and an end to mourning. As Christopher Rowland notes, this echoes the promises made in Isaiah 49.10 to the homecoming exiles from Babylon. These verses also look forward to the eschatological vision of Rev 21.4 with its promise of an end to mourning and tears. Each of these passages articulates the great theme of peace restored within creation.

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867 Bonaventure, *Hex.*, s. 16.29. An editor’s note at this point indicates that the text is unclear, possibly because the reporter did not remember or fully understand the intended meaning. See also Delio, “From Prophecy to Mysticism,” 163.
868 Bonaventure, *Hex.*, s. 22.22.
869 Ibid., ss. 23.3, 23.14.
Francis' ecstatic encounter with the Crucified One resulting in his reception of the stigmata (referred to as the mark of the Tau) thus becomes the sign for Bonaventure that the event had ushered in the transition to the seventh age of mystical peace within history. Bonaventure’s identification of Francis with the ‘sixth angel’ of Revelation also suggests that the age of eschatological peace in his theology of history can be interpreted as the shalom of a reconciled creation. Support for this interpretation is indicated by Bonaventure's own insistence that the seventh age of peace is not a goal only to be realised in eternity but an age to be entered within history itself.

Finally, this reading of Bonaventure’s theology of history is consistent with my reading in Chapter 2 of the Itinerarium as ending, not in the silence of apophasis but in the sleep of Holy Saturday.\textsuperscript{871} In the Hexæmeron Bonaventure reminds the reader that there is also an eighth age corresponding to a new creation: ‘But it should be noted that as God created the world in six days and rested on the seventh, so also the mystical body of Christ has six ages, and a seventh that runs concurrently with the sixth, and an eighth.\textsuperscript{872} This is the age corresponding to the resurrection, ‘... and it is a return to the first, for after the seventh day, there is a return to the first.’\textsuperscript{873} In my reflection on the Itinerarium I noted the implication that the goal of the journey is not the darkness of the soul but the awakening to a new creation, and Bonaventure here similarly associates the day of resurrection with creation restored. The passages in Revelation that speak of creation renewed (eg. 7.16-18, 21.1-4) make the same connection between resurrection and the restoration of creation that is shalom.

\textsuperscript{871} See s. 2.2.2.
\textsuperscript{872} Bonaventure, Hex., s. 15.12.
\textsuperscript{873} Ibid., s. 15.18; Bonaventure, Brev., Prologue, 2.1.
Bonaventure thus sees history as culminating in an age of eschatological peace within creation centred on Christ (‘in the centre of the throne’). This age is ushered in by the appearance of Francis, whose attainment of the beatific vision of Christ marks him with the seal of the living God. The explicit identification of Francis with the ‘sixth angel’ of Revelation chapter seven suggests that the content of Bonaventure’s vision for the age of peace might similarly echo the vision of Revelation chapter seven. As noted above, this chapter of Revelation prefigures the vision of Revelation 21.1-4 in which the home of God ‘is among mortals’, and recalls the vision of shalom as the eschatological renewal of creation described in Isaiah chapter 49. Thus, by his interpretation of Francis’ beatific vision in terms that reference Revelation chapter seven, it can be seen that Bonaventure’s conception of the age of eschatological peace connects with the theme of shalom in creation. His use of the ‘8th day’ imagery also clarifies that this restoration of creation is brought about by the eschatological union of the created order with the risen and glorified Christ. Because Bonaventure’s eschatological fulfilment within history is inaugurated by the beatific vision of St Francis, the specific content of this age of shalom may be further clarified by a consideration of Bonaventure’s exegesis of Francis’ life, and it is this to which I now turn.

6.2.2 Francis as a model of wisdom and piety

As I have shown above, Bonaventure sees history as culminating in an age of eschatological peace centred on Christ and initiated by the example of St Francis. This means that in addition to a shared emphasis on Christ as the metaphysical centre in relation to creation, Incarnation and redemption, there is also a striking similarity at a structural level between Teilhard’s vision of a cosmos converging on Christ-Omega and
Bonaventure’s eschatological vision of creation restored in union with Christ. This parallel is strengthened if, as I argued above, Teilhard’s vision of convergence is adjusted to describe the whole of the more-than-human ecology converging into an Omega state which incarnates in its relations the trinitarian life of God. The vision of eschatological peace in the noosphere described earlier in this chapter is characterised by a humanity that has learned a relational and dialogic way of living in the context of the natural world, and a more-than-human ecology in which the constituent noetic systems are calibrated for interdependence and mutuality. Such life-giving and mutually reinforcing ecological systems become the incarnation of divine Wisdom.

Bonaventure similarly stresses that the age of eschatological peace takes place within history rather than in a state beyond history. As I showed above, for Bonaventure it is specifically the Francis-event that initiates the eschatological age of shalom. Bonaventure’s language in relation to this is frankly mythological, and inaccessible to a contemporary ecotheology. However, given that for Bonaventure it is Francis who opens the way to the age of eschatological peace, then the content of this vision of shalom may also be explicated by the model of Francis. In this section, then, I explore Bonaventure’s understanding of the meaning of Francis’ life, and his own application of Franciscan exegesis, in order to give specific form and content to his vision of the seventh age.

I begin by examining Bonaventure’s orientation towards Wisdom themes and methodology, following Robert Karris who finds that Bonaventure uses a Biblical hermeneutic that draws on the attitude towards the natural world displayed in Hebrew Wisdom texts. Bonaventure also applies a Wisdom Christology in commenting on the life and teaching of Jesus. I argue that the ways in which Jesus resembles a Wisdom sage are
predominantly also the ways in which the Francis resembles Jesus in Bonaventure’s *Life of Saint Francis.*

Following this, I consider the evidence of Francis’ life contained in his own writings, as well as the *Legenda,* noting Ratzinger’s claim, repeated by Jan Boersema, that Francis re-enacts the Gospel with a particular focus on the Sermon on the Mount. I also note Boersema’s argument that Francis’ life points to the restoration of Edenic relations within creation. Boersema suggests that the stories that connect Francis with the natural world in the *Legenda* do not provide any special teaching or theology but show Francis as squarely within the tradition of other medieval saints who also display mastery over the natural world. Boersema observes that Francis does not in fact model an ecological egalitarianism, and that his relationships with birds and animals are oriented towards distinctly anthropocentric ends. He suggests the primary value and purpose of these legends is to show Francis as enacting a return to an Edenic state in which humans exercise an authority of care for the whole creation.

While Boersema is examining the portrait of Francis that emerges from the biographies of both Bonaventure and Thomas of Celano, my own object is to understand the meaning of Francis as interpreted by Bonaventure in order to give content to Bonaventure’s eschatological vision. While Bonaventure’s *Legenda* is a primary document for this, it is also necessary to seek connections with other aspects of Bonaventure’s own thought. While agreeing with many of Boersema’s conclusions, I argue that for Bonaventure, Francis does provide a teaching about the natural world because the grace of piety or the recognition of radical kinship with creation that he ascribes to Francis is grounded in the logic of exemplarity. The

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874 Bonaventure, *Legenda.*
picture emerging from Bonaventure’s understanding of Francis is thus of human life in a relation to the natural world characterised by the Biblical models of wisdom and shalom.

Bonaventure’s characteristically Franciscan mode of exegesis can be demonstrated by his commentary on St Luke’s Gospel. In this work, Bonaventure uses a hermeneutic method that draws heavily on the themes of Hebrew Wisdom literature such as the Book of Job. The importance of this is that the ways in which St Francis most resembles Jesus in Bonaventure’s *Life of St Francis* is as a Wisdom sage. Robert Karris also describes Bonaventure’s approach as typically Franciscan in its emphases on creation and Christ.\(^{875}\) Karris notes that Bonaventure frequently intersperses learned exegesis with colourful and imaginative examples, presumably for the benefit of Franciscan friars using his commentary for sermon preparation. He suggests Bonaventure is writing with the aid of a bestiary, a moralising medieval collection of descriptions of real and mythical animals. For example in his exegesis of Lk. 12.24 (‘consider the ravens’), Bonaventure’s aphoristic comment that the raven ‘does not feed her young in the beginning, because it does not think they are hers until it sees they are black’ appears to have been sourced from a bestiary.\(^{876}\) This is paired with a theological observation based on Job 38.41, noting God’s providential care even for scavengers: ‘Who provides for the raven its prey, when its young ones cry to God, and wander about for lack of food?’\(^{877}\)

By use of a bestiary, Bonaventure offers interpretative elaborations on the entire menagerie of the third Gospel, including: sheep, turtledoves,

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\(^{876}\) Ibid., 161, footnote 9, citing similar comments in Hugh of St Victor and another unnamed medieval bestiary.

\(^{877}\) Ibid.
doves, fish, pigs, lambs, wolves, serpents, scorpions, foxes, a fatted calf, serpents, eagles, an ass and its colt. Bonaventure also includes creatures not mentioned in the Gospel, referencing Seneca for the generosity of the bee and possibly Aesop’s Fables for the glorying of the crow. Karris concludes from these examples not only that Bonaventure enjoys finding illustrations in nature, but that he follows St Francis in regarding the natural world as a valid source of knowledge to complement the revelation of scripture.

Bonaventure also reveals an explicit Wisdom Christology in his exegesis of Jesus’ teaching and praxis. Some of his connections are fairly oblique; for example referring to Luke 23.31 (‘if they do this when the wood is green…?’), Bonaventure writes that the green wood, living and fruitful, represents Christ. Bonaventure remarks: ‘So Proverbs 3.18 reads, “She is the tree of life to those who take hold of her”. This is said of Wisdom…’. In commenting on Jesus’ table hospitality, and in particular his practice of dining with Pharisees, Bonaventure draws a parallel with Lady Wisdom who sets a banquet and invites passers-by to eat and drink with her, approving the Pharisee as a wise person who invites Wisdom to ‘live with me, knowing that she will share with me her good things’ (Wis 8.9). In his exegesis of Lk. 18.18 (Jesus as ‘good teacher’), Karris dryly observes that Bonaventure ‘pulls out all the stops’, quoting wisdom teachings from Jeremiah, Tobit, the Song of Songs, Ecclesiastes, Isaiah, 1 Corinthians as well as the Gospel of Matthew.

878 Ibid., 176.
879 Ibid., 185.
880 Ibid., 186.
881 Ibid., 187.
Thus, following a Wisdom methodology, Bonaventure explicitly identifies Jesus as divine Wisdom. Bonaventure’s wisdom hermeneutic mirrors the ways that Jesus himself understands and inhabits the natural world as a Wisdom sage. Jesus’ stories and his actions suggest he understood the whole created world to be alive and in relationship with him. He uses examples drawn from the natural world: the yields of farmers and fishermen, the husbandry of grape-vines and fruit trees, the care of a shepherd. He points to the beauty of wildflowers and the vulnerability of sparrows as evidence of God’s compassion and creative goodness. He borrows a coin from the mouth of a fish, speaks to storms, walks on water and curses trees. Jesus also exemplifies a Wisdom sage by his table praxis and extension of hospitality, eating with sinners and Pharisees, changing water into wine, providing food and drink in the desert, referring to his own body and blood as a feast. He is peripatetic, epitomising the vocation of Wisdom to travel throughout the created order seeking a home (Sir. 24.5-11).

In Francis’ own writings, as well as in Bonaventure’s *Legenda*, Francis bears a distinct resemblance to Jesus as a Wisdom sage. As noted by Ratzinger, Francis’ praxis may be understood first and foremost as an attempt to live the Gospel, and in particular the Sermon on the Mount:

Francis had dared to make the unheard of attempt to translate the word of the Sermon on the Mount into the living work of his own life, and to make the spirit of Jesus Christ and the immediate demand of the gospel into the only norm for Christian living. His rule was intended to be nothing but a summary of the Sermon on the Mount, a summary of the central elements of the gospel.\(^882\)

In his own Testament, Francis writes that when he was first joined by his brothers ‘the Most High himself revealed to me that I should live

\(^{882}\) Ratzinger, *The Theology of History in St Bonaventure*, 78.
according to the form of the Holy Gospel’. For this reason, many of the stories that surround the saint’s own life can be interpreted as lived expositions of the life and ministry of Jesus. For example, where Jesus commands his disciples to take no additional coat or sandals on their first missionary trip (Matt 10.10, Luke 22.35), Francis strips naked in front of the bishop at the commencement of his own mission. Where Jesus recommends that we consider the ‘birds of the air’ and not to ‘worry about tomorrow’ (Matt 6. 26, 34), Francis preaches to the birds and neglects his own body. The ways in which Francis most resembles Jesus, moreover, are specifically those in which his behaviour is that of a Wisdom sage. For example, in the *Legenda*, Bonaventure includes multiple examples of Francis seeking moral or theological instruction from the natural world, such as the story of the falcon who instructs the saint in discipline and prayer, shows compassion when he is ill, and prophesies that Francis would be graced with a final ‘seraphic’ vision. Embracing poverty, Francis instructs his friars to beg for their dinner and accepts hospitality from all, but when invited to dinner at a well-to-do house first begs some pieces of bread from the poor. As a wandering mendicant eschewing all forms of material security, Francis epitomises the wisdom of God that is foolishness in the estimation of the world.

A more detailed analysis of the legends connecting Francis with nature is provided by Jan Boersema, who agrees with Ratzinger that Francis’ life is primarily a lived exposition on the Gospel but argues there is no

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884 Bonaventure, *Legenda*, s. 2.4.
885 Ugolino, *Little Flowers of St Francis (Fioretti)*, 2014.
887 Ibid., s. 7.10.
evidence Francis communicated any special teaching or beliefs about the natural world. Boersema’s argument provides a salutary warning against any temptation to over-romanticise Francis as a nature mystic. Boersema points out that many medieval saints exhibited mastery over the natural world, and cites as examples Abba Bes and the hippopotamus, St Anthony and the lion, and St Cuthbert and the ravens. Francis fits into this tradition well, showing a similar authority over animals who respond to his command.

Referring to the story of the wolf of Gubbio dissuaded by Francis from eating the livestock of villagers, Boersema points out that Francis often uses this authority for the benefit not of the animal but of nearby people. This story is notable also in that the wolf is required to forgo its natural predatory instincts. Another common theme is that of animals engaging in selfish or destructive behaviour, which is corrected by the saint – an example is the evil sow of Gubbio cursed by Francis who subsequently dies. Animals and birds are also used by Francis (as in the Wisdom tradition) as sources of instruction for human beings. For example the wolf of Gubbio teaches forgiveness and forbearance, and demonstrates that even ‘wolfish’ individuals are capable of repentance. Above all, the animal stories carry the theme of universal praise, and Boersema notes that it is only in the capacity of praise that Francis demonstrates the equality of the entire natural order.

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888 Jan Boersema, “Why Is Francis of Assisi the Patron Saint of Ecologists?,” Science and Christian Belief 14, no. 1 (2002): 51–77. Note Boersema considers all sources and in particular the Lives of Thomas of Celano, while for my purposes it is Bonaventure’s writings on Francis that are of primary interest.
889 Ibid., 68.
890 Ibid., 70; Ugolino, Little Flowers of St Francis (Fioretti). The story of the wolf of Gubbio is not found in Bonaventure’s Legenda.
891 Bonaventure, Legenda, s. 8.6.
Boersema argues that the praxis of Francis shows most clearly not a desire to elevate the world of nature but the desire to live the Gospel by following in the footsteps of Christ and practising radical discipleship in his characteristic way of poverty.\textsuperscript{892} Certainly Francis learns to see the face of Christ in all creatures, and this underlies his embrace of the lepers just as it does his preaching to the birds. Boersema disputes Lynn White’s suggestion that these show Francis treating animals as equals despite his addressing them as ‘brother’ and ‘sister’.\textsuperscript{893} He points out that Francis’ treatment of living creatures is distinctly anthropocentric, with humans at the apex of his concern, followed by useful, domesticated or tame animals and then a ‘tapering series’ of creatures that closely resembles the classical \textit{scala natura}.\textsuperscript{894} Similarly, the noosphere model acknowledges human primacy and leadership within the more-than-human ecology, and I suggest this is an important caveat for ecotheology. Although Boersema is correct in arguing that Francis’ nature-praxis does not demonstrate an equality of living creatures, neither can ecotheology support such an equality. Notwithstanding this, as I shall argue below, Francis’ naming of living creatures as ‘sister’ and ‘brother’ is of great significance.

The primary value of Boersema’s analysis, in my opinion, lies in his observation that many of the animal stories mirror Biblical narratives. For example, the story of the lamb killed by the sow of Gubbio recalls in Bonaventure’s \textit{Legenda} the death of the ‘Lamb without stain’.\textsuperscript{895} Francis is greeted by another flock of sheep, and keeps a lamb as a pet in a way that

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\textsuperscript{892} Boersema, “Why Is Francis of Assisi the Patron Saint of Ecologists?,” 64, 71.
\textsuperscript{893} Ibid., 62, 65; White, “The Historical Roots of Our Ecological Crisis.”
\textsuperscript{894} Boersema, “Why Is Francis of Assisi the Patron Saint of Ecologists?,” 71.
\textsuperscript{895} Bonaventure, \textit{Legenda}, s. 8.6.
\end{flushright}
recalls Jesus’ teaching on the Good Shepherd. Much of Francis’ praxis in the *Legenda* appears mimetic, which is to say a lived sermon on the life of Jesus. Boersema argues in this vein that Francis’ relations with animals is by way of enacting the ‘harmony of God’s original creation’. Similarly, Delio notes in relation to the *Legenda* that Francis models an ‘Edenic’ relationship with creation. Francis points to the human vocation as a life transformed into the likeness of Christ that is also opened to the truth of creation’s intended orientation to God and its reflection of divine beauty. Delio argues that the animal stories in the *Legenda* thus represent the restoration of shalom, or the divinely-intended natural order that conformity to Christ as the centre of the soul and of creation makes possible. This would include an enactment of the authority and care humans were commanded to exercise over the creatures in Eden. If this explanation is accepted then what Francis is modelling (in Bonaventure’s interpretation) is precisely the image of shalom characterised by human leadership and care for the natural order depicted for example in the vision of creation restored in Isaiah 11.1-6. This image is also congruent with the model of the noosphere as a site of human dialogue and care for creation that I proposed in the previous chapter, for the reason that it does not imply a simple equality of all creatures but a human vocation of leadership and care.

Notwithstanding Boersema’s argument, Francis’ praxis of kinship with all creatures is associated by Bonaventure with a teaching about the natural

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899 See s. 5.2.2.
world. This praxis, which Bonaventure describes as piety, is crucially reflected in Bonaventure’s own metaphysics of exemplarity.

In his *Collations on the Gifts of the Holy Spirit*, Bonaventure includes piety as one of the fruits of uncreated wisdom. In this work Bonaventure makes clear that he intends the word in its true sense as the awareness of filiation or kinship with others. Bonaventure notes that ‘piety is found to exist within every nature ... the root sends to the branches everything it receives ... Likewise in animals, piety is seen in the relationship between parents and offspring.’ The ‘original principle’ of piety is that response which arises from awareness of filiation in the Holy Trinity. Bonaventure writes: ‘you are an image of God ... therefore if you are truly a copy of God you ought to configure yourself to God in piety’. Through the awareness of filial relationship with the uncreated Trinity flow mercy and compassion; without these attributes the soul is like a dried-up spring that is disconnected from its Source. Piety in this sense is related to exemplarity, as it is through exemplarity that all things find their true identity in the uncreated Word. It is also through exemplarity that all creatures are related as kin, because they share a common origin in the Exemplar.

Bonaventure considers that the grace of piety is exemplified by Francis. In chapter eight of the *Legenda*, entitled 'Of the kindly impulses of his piety', Bonaventure remarks:

It was this piety that, through devotion, uplifted him toward God; through compassion, transformed him into the likeness of Christ; through condescension, inclined him unto his neighbour, and,

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903 Bonaventure, *Collations on the Seven Gifts of the Holy Spirit*, s. 3.11; Bonaventure, *Hex.*, s. 21.7.
through his all-embracing love for every creature, set forth a new picture of man's estate before the Fall. 904

Bonaventure writes of Francis' filial love for his brothers, and for the poor in whom 'he - himself the most Christ-like of all men - beheld the image of Christ'. 905 Under the same heading of piety, Bonaventure goes on to write:

When he bethought him of the first beginning of all things, he was filled with a yet more overflowing charity, and would call the dumb animals, howsoever small, by the names of brother and sister, forasmuch as he recognised in them the same origin as himself. 906

In this chapter, Bonaventure goes on to detail Francis's filial love for sheep, a leveret, rabbits, fish, birds, a cicada, a falcon and the famous wolf of Gubbio. Bonaventure concludes the chapter: 'For of a truth it is this piety which, allying all creatures unto himself, is profitable unto all things, having promise of the life that now is, and is to come'. 907

As Boersema argues, Francis' concern for the natural world does not stem from a belief that all creatures are equal. Similarly, Bonaventure does not conflate filial piety with equality, seeing a fundamental distinction between 'rational creatures' as an image, and lower creatures as a trace or vestige of the Trinity. 908 Thus the rational creature stands in a special relationship between the divine and created world as an image of the Creator. 909 Bonaventure writes that 'vegetative and insensate beings do not have the power of perpetual life and eternal duration which belongs to the higher state', but that 'all things will be made new and in a certain sense

904 Bonaventure, Legenda, s. 8.1.
905 Ibid., s. 8.5.
906 Ibid., s. 8.6.
907 Ibid., s. 8.11.
908 See s. 1.2.2.
rewarded in the renovation and glorification of humanity’. Nevertheless, by naming all creatures as kin Francis is recognising that all creatures are related as icons of Christ. This means that in his practice of poverty, through which he refuses to regard created things as instrumental to his own purposes, Francis paradoxically is filled with the image of Christ which he sees reflected in all things. As all created things are, like himself, grounded in Christ, Francis understands himself to be in relation to all creatures as sister or brother. In Buber’s terms this means that Francis considers creatures as subjects rather than objects, and that his relation to created things is as ‘I’ and ‘Thou’ rather than ‘me’ and ‘it’. This is the quality of interrelationship to which I have previously referred to as intersubjectivity.

Following Edwards, I noted in the previous chapter that intersubjectivity in the more-than-human ecology may be thought of as the incarnation of the inner-trinitarian relations. In the praxis of St Francis and in Bonaventure’s exemplary metaphysics and trinitarian theology based on the example of Francis the Christological ground for intersubjectivity becomes explicit. Because the natural world reflects the fullness of Christ, Francis understands his own place within it in terms of inter-relationships that are fundamental to the foundation of his own identity in Christ.

In this section, I have shown that Bonaventure develops a process model of history which he sees as culminating in an age of eschatological peace. Through an examination of Bonaventure’s exegesis of St Francis, this age can now be understood as creation restored to its originally intended (Edenic) relation of shalom. Furthermore, Francis models a relation to the natural world that finds an echo in the model of the noosphere as an image

\[910\] Ibid., VII, 4.7.
\[911\] See s. 0.
\[912\] Edwards, Jesus the Wisdom of God, 105.
of the more-than-human ecology explicitly envisaged as the incarnation of the inner-trinitarian relations of love. By demonstrating the fundamental coherence of Bonaventure’s Franciscan eschatology with the noosphere model it now becomes possible to see the noosphere in explicitly trinitarian terms and the goal of Omega as the promise of a new creation made explicit in the resurrection of Christ. As I will show in the final chapter, it also becomes possible to speak of the suffering of the created order as cruciform, because the warrant for its redemption is the same act of divine love that is the salvation of human creatures.

6.3 Conclusion

In this chapter I have developed an eschatological model for the more-than-human ecology out of my critique of Teilhard, using the extended model of the noosphere I proposed in chapter 5. In Teilhard’s proposal the noosphere as the reified realm of human awareness would continue its development until it ultimately converged with Christ-Omega. I noted that the fate of the non-human realm in this proposal is unclear, but the apparent separation of intellect from material reality is both a reversal of Teilhard’s initial commitment to a metaphysics of dipolarity and deeply unhelpful to the perspective of ecotheology. In proposing Vernadsky’s model of the noosphere as a model for the more-than-human ecology I argued that it reflected better than Teilhard’s version the Wisdom orientation that is implicit in his thought. I also argued that in the extended noosphere model the tendency Teilhard notes towards complexity-consciousness is a feature of the whole system, which means that it is not only in the longitudinal development of humanity but in the complex of inter-relationships within the whole ecology that Wisdom is found. I proposed that an intentional
participation in divine Wisdom would lead to inter-relationships within the noosphere that eschew objectification and may be characterised as intersubjectivity. Following Edwards I suggested that intersubjectivity in the more-than-human ecology is revealed as an image of the inner-trinitarian relationships.

This provides the key to a re-evaluation of Teilhard’s doctrine of convergence, and the reframing of eschatological hope as the incarnation of divine love within the more-than-human ecology. Just as in Teilhard (following Origen) the doctrine of creation is interwoven with Incarnation, so too is eschatological hope best understood not as a departure from created reality but its fulfillment. Noting the tension in eschatological thought between *annihilatio mundi* and *transformatio mundi* which is mirrored by the ambiguity in Teilhard’s own doctrine of convergence, I followed Moltmann in arguing that the natural world characterised by relations of intersubjectivity would be so transformed as to be utterly new.

In the second half of the chapter I explored Bonaventure’s theology of history, and his eschatological doctrine based on the model of St Francis. Unlike the noosphere model, Bonaventure explicitly connects his vision of eschatological peace with the primal state of Eden, and Francis functions in his schema as the 7th angel of the apocalypse who ushers in the age of shalom. Bonaventure departs from Augustine in believing that the realm of eschatological peace is encountered not in eternity but within history, and suggests the stigmatisation of Francis has ushered in an age of shalom. His eschatological vision, like the noosphere model I have developed, forsees a human praxis based on the intentional participation in divine Wisdom. Like the noosphere model, Bonaventure’s vision also recognises the basis for eschatological peace as the common grounding of all created entities in Christ. In the previous chapter I explored the metaphysical assumptions of
Teilhard’s and Bonaventure’s thought, proposing that an extended exemplary system could be adopted for ecotheology, so in this sense both systems regard all created entities as grounded in the divine ideas. Where in the noosphere model I explore relations of intersubjectivity, Bonaventure describes Francis’ praxis as piety or the recognition of consanguinity.

This chapter has contributed to the argument of my thesis by articulating a vision of hope for the more-than-human ecology, while recognising the dangers that are inherent in failure to recognise the human vocation to participate in divine Wisdom. The noosphere model provides a bridge between theological and ecological discourses, while Bonaventure’s thought presents a vision of shalom in creation that is grounded in Franciscan spirituality. Bonaventure also makes an important move that is not made by Teilhard in his doctrine of convergence, and that is also absent from my noosphere model: the warrant for shalom in the created order is specifically connected with the saving death and resurrection of Christ. In the final chapter, I bring the two visions of creation at peace into closer connection through a reflection on the Biblical image of shalom.
7 Shalom and the hope of the earth

In the previous chapter I explored two congruent visions of creation at peace. The first is that of the noosphere, which I have developed out of my critique of Teilhard, and the second emerges from Bonaventure’s theology of creation and history. These models are congruent in that each of them understands created reality as ontologically related to Christ as the centre and eschatological completion of creation. The eschatological hope articulated by each of these models depends on the ‘remembered hope’ of resurrection, yet each also articulates a vision of human life characterised by attentiveness to the wider context of creation. In the noosphere model this is best described as intersubjectivity, or a dialogic relationship with the non-human creation. In Bonaventure’s model that arises from reflection on the life of St Francis, the relation between the human and non-human world is based on kinship and mirrors the primal model of Eden. Both models make a strong connection with wisdom traditions in the Old and New Testaments.

The primary argument of my thesis is that the confluence of these models provides a resource for ecotheology to articulate both the risks and the hope for a more-than-human ecology. The trinitarian structure of Bonaventure’s model provides the theological framework for this vision.

I argued in the previous chapter that Bonaventure’s theology of history that culminates in an age of peace initiated by the example of St Francis can be given content by examining Bonaventure’s interpretation of St Francis’ life. In the *Legenda* Francis is depicted as a wisdom sage after the model of Jesus, exhibiting piety or an awareness of kinship in his relationship with the natural world, which Bonaventure refers to as Edenic. In the *Hexæmeron* Bonaventure refers to Francis as the ‘sixth angel’ of Revelation who is to initiate the eschatological age of peace. The *Commentary on Luke* provides examples of his view that creation itself leads
human life towards its destination in God, as does his spiritual treatise, the *Itinerarium in Mentis Deum*, which is explicitly modelled on the example of Francis. From this I concluded that the eschatological vision of Bonaventure provides a holistic vision of creation at peace that coincides with the noosphere model.

In this final chapter I complete my argument by showing that the eschatological models of the noosphere and Bonaventure’s theology of history each represent the Biblical image of shalom as God’s priority for the life of creation expressed in the Genesis account of Eden. Following Terry McGonigal I argue that after the breaking of shalom in the Fall, the history of God’s saving activity is centred on the restoration of shalom. This promise is exemplified in the Isaianic vision of shalom as creation restored, and I connect this with the model of the noosphere developed in chapter 5. In the New Testament, the image of shalom is primarily associated with the narrative of resurrection. In the fourth Gospel, the narrative of the passion and resurrection contains allusions to Eden that suggest a connection between resurrection and the restoration of creation, and I explore the parallel between this and the account of the sixth, seventh and eight days in Bonaventure’s *Itinerarium*. This scriptural connection supports my reading of the eschatological models of the noosphere and Bonaventure’s theology of history.

I begin by exploring the theme of shalom, showing the persistence of God’s vision for creation throughout the Hebrew Bible. As a motif for the theme of shalom, I explore connections between the image of Eden in the second chapter of Genesis and the more-than-human community depicted in the eleventh chapter of Isaiah. The theme of shalom provides a way of speaking about the human vocation within a more-than-human ecology that is helpful for a contemporary ecotheology. The human vocation that emerges
from the Biblical image of shalom is consistent with the praxis of intersubjectivity and dialogic relationship with the non-human world that emerges from my analysis of the noosphere in chapter 6.

Finally, I trace the theme of shalom through the narrative of resurrection in the fourth Gospel and in Revelation. Because of Teilhard’s underdeveloped trinitarian theology the noosphere model does not fully express an eschatological confidence in the renewal of creation. Building on the argument that an ecotheological eschatology is the anticipation of creation restored made both possible and imperative by the resurrection, I argue that resurrection itself may be read as the instigation of a new creation. This narrative is especially consistent with Bonaventure’s age of shalom initiated by Francis’ mystical identification with the crucifixion of Christ, and so I shall conclude that the noosphere model is complemented by Bonaventure’s trinitarian theology. This brings a trinitarian structure to the noosphere model, and clarifies that the Omega state is the eschatological completion of creation made possible by the death and resurrection of Christ.

7.1 Covenant and shalom

In my discussions of the eschatological implications of the noosphere and Bonaventure’s theology of history both wisdom and theme of shalom have emerged as common factors. If wisdom is both the characteristic way in which God works within creation and the way in which the life of the more-than-human ecology is drawn into creative partnership with God, then God’s primal dream for creation is shalom. The Biblical image of shalom reveals God’s intention for a more-than-human ecology and carries implications for human life and spirituality. In the following paragraphs I explore the theme of
shalom as it is developed in Genesis and Isaiah, following Terry McGonigal in arguing that it represents God’s original and ultimate purpose for creation.

McGonigal explores the Biblical concept of shalom as peace within diversity or 'the way God designed the universe to be'. He traces the major themes of shalom from the divine act of creation in which the prerequisites are: 'order, relationships, stewardship, beauty and rhythm'. The pattern of creation sets everything in its proper place and relationship, establishing humankind in an interdependent relationship with the non-human creation, and mutually completing relations between male and female. Human creatures are placed in a special relationship through their imaging of the divine, establishing a balance between human autonomy and dependence on the creator. The response of the man and woman to each other is intended to reflect 'God's own nature in shalom relationships'. Human responsibility for creation is contained in two instructions, with the command to subdue and dominate in Gen 1.28-30 being balanced by the instruction in 2.15 to till (ebed) and to keep (shamar). The Hebrew verbs in Gen 2.15 carry additional connotations: to work or serve (ebed) and to guard or protect (shamar). The relational context for human life implied by the instruction in Gen 2.15 is further expanded in vv. 19-20 as the living creatures are brought by God to the first human to be named. McGonigal comments that the humans are intended to 'partner with the Creator ... to

914 Ibid., 3.
915 Note that the primacy of humans is established in the Genesis account as no animal is found that could be partner to the man, see Gen 2.18-20.
916 McGonigal, “If You Only Knew What Would Bring Peace,” 3. This is consistent with Bonaventure’s view, see s. 6.2.2.
watch over creation like parents watch over, guard and protect their newborn child’.

Themes of beauty are made explicit in God's rejoicing at the outcome of the creative task (Gen 1.31). McGonigal comments: 'According to God's design, each and every part of creation is distinct, interconnected and interdependent. God's separating-binding process results in creation's distinctiveness and connection: shalom beauty'.\(^{918}\) The emphasis here is on harmony, pattern and interconnection. The rhythms of creation are set by the creation of time and the separation into the natural rhythms of day and night. All this is what McGonigal describes as a 'webbing together' of God's own life with the life of creation in a mutual rhythm of 'justice, fulfilment and delight'. Shalom, he concludes, is simply 'the way things are meant to be'.\(^{919}\)

For McGonigal, what happens next is the breaking of shalom and the distortion of the web of creation, and the painful process of restoration that depends on God's capacity to transform human evil and separation.\(^{920}\) McGonigal describes the breaking of shalom as a five-step process: the divine shalom decree is questioned and distorted (Gen 3.1), contradicted (3.4); the distinction between creation and the Creator is transgressed (3.5), and finally God's shalom commandment is disobeyed (3.6). In their exercise of free will the man and woman experience evil, 'the antonym of shalom, the antithesis of all that God desired and still intends for creation'.\(^{921}\) The immediate effects are that the couple know shame and try to hide from God and from one another, they are afraid and blame one another. The breaking of shalom distorts their relationship and diminishes their humanity, and

\(^{919}\) Ibid.  
\(^{920}\) Ibid., 7.  
\(^{921}\) Ibid., 5.
McGonigal notes the tearing of shalom breaks every divinely instituted relationship: between the human beings themselves, between humanity and God, and between humanity and the non-human creation.922

McGonigal describes the repercussions in the first murder which leads to habitual violence and competitiveness so that God sees that 'the wickedness of humankind was great in the earth, and that the inclination of their hearts was only evil continually' (Gen 6.5). Through the Flood, God acts to wipe away the epidemic of evil by allowing the chaotic waters of precreation to roll back in to destroy every living thing, but deciding almost as an afterthought to preserve a remnant of people and a breeding population of domestic and wild creatures.

In relation to the Flood, McGonigal only notes that the waters are a 'breach' of the separation of waters on the second and third days of creation, which is to say an undoing of creation itself.923 From an ecotheological perspective, it is worth reflecting further on the Flood story as although the evil that God wishes to destroy is specific to humanity the inundation is intended to destroy all life. As Fretheim notes, the Yahwistic prologue to the Flood at 6.5-9 more specifically identifies the root cause as human sin, while the Priestly rationale at 6.12 indicates the cosmic effects in an earth corrupted and filled with violence.924 The violence and corruption may involve or affect the whole of creation, although sin is specifically a human condition.

Although God originally intends the Flood to reset creation to a new beginning, it remains unreformed. Paradoxically, the evil of humanity which

922 Ibid., 6.
923 Ibid.
was the very reason for the Flood becomes the ground of God's promise never again to destroy the earth: 'I will never again curse the ground because of humankind, for the inclination of the human heart is evil from youth' (Gen 8.20). Noah now becomes in a sense a new Adam, though as Fretheim observes, 'the world is no new Eden'.

Conceding the intransigence of human violence, God notes the whole of creation will live in 'fear and dread' of humankind, and gives every living thing into the hands of humankind for food (Gen 9.2-3). And yet, God makes a unilateral covenant, not just with humankind but 'with every living creature that is with you, the birds, the domestic animals, and every animal of the earth with you, as many as came out of the ark.' (Gen 9.10). By this covenant, God commits Godself to the whole of creation at the same time as recognising the reality that the primal dream of shalom remains marred.

Taking up the theme following the Flood, McGonigal describes a sort of see-sawing contest between the destructive ethnocentricity of humans who test the limits of their created condition, and God's efforts to restore the web of shalom relationships. McGonigal traces the contest between divine shalom and human self-centredness through the narratives of Exodus and the history of the monarchy. In the prophets, particularly Isaiah, the theme of shalom is developed as God's original creative template and an eschatological hope for the restoration of both land and people.

The book of Isaiah contains nearly half of all the instances of shalom and its cognates in the prophetic literature. Isaiah warns of the moral and military precipice upon which Israel teeters, but also extends the alternative

925 Ibid., 398.
928 Ibid., s. 2b.
promise of shalom that he emphasises can only be received as a gift from God, not created by human choice. Nevertheless, the people must live in a way that is congruent with God’s intention. One of the most striking images of shalom in Isaiah is the vision of the peaceful kingdom in chapter 11 in which opposites are reconciled, wild and domesticated animals, predator and prey all live together in peace and are led by a small child (Isa 11.6-9). This image provides a useful metaphor for the noosphere model of the more-than-human ecology.

Firstly, the pericope depicts the human population as fulfilling the original vocation given to the first humans in Eden. This is indicated by the child playing over the snake-hole, who exhibits casual superiority over the usurper of Eden, protecting as well as leading and exercising a husbandry that leads to flourishing and peace. In this context it is important to note the tension between the divine commands to the first humans to subdue and dominate (Gen 1) and serve and protect (Gen 2). As Anne Elvey suggests, the apparent contradiction may be elucidated by the disciples’ question in Lk. 22.24-27: ‘but who is the greatest?’ The disciples’ dispute is resolved by Jesus who models the wisdom of leadership as self-giving love. Likewise, Elvey suggests, the composite human vocation conferred in the first two chapters of Genesis is to lead the non-human world in loving service – as I have suggested in relation to the noosphere this must involve attending deeply to the non-human world as a conversational subject rather than as object. The Isaianic vision of shalom is no return to Eden, but the peace of reconciliation on the other side of judgement. This is a vision, in other words, not of an original ideal creation but of creation and human life restored to its true vocation. The echoes of Eden are there, but this is the peace not of

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naïve innocence but of reconciliation. The human curators model the virtues of restraint and self-limitation. It is an ecological rather than an individualistic image of human life. This is precisely the human vocation that emerges from my discussion of the noosphere in chapter 6. 

Secondly, in the Isaianic vision both natural and human interests are being served. The pairs of animals described represent both wild and domestic populations in balance and at peace under human and divine protection. As Gene Tucker observes, the pericope is not a vision of nature but of a natural world made safe for human beings, as the emphasis is on the safety of the domesticated animals and it is the predators who must change their ways. The absence of birds and fish from the new order, and the fact that even the most vulnerable of humans is able to lead and control the animals makes clear that this is a pastoral scene, rather than a natural landscape. In relation to the noosphere model I similarly observed the need for the intentional human management of biosphere systems given that the sheer power of human technology and cultural systems renders the natural ecological balance of even wild places precarious. While this must be an engagement based on attentive intersubjectivity which precludes the relationship of ‘dominion’, it implies a pastoral care over both the domestic and wild landscape.

The related issues of natural violence and predation are suggested in the pericope by the fact that the animals are all vegetarian, with lions eating straw and wolves and lambs lying peacefully together. This is of course a fanciful image in a natural world where, as Rolston points out, for animals to

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930 See s. 0.
be animals, 'ecological harmony includes the violence of eating and being eaten'.\textsuperscript{932} However predation in the natural world is invariably sustainable, and the noosphere model suggests it must also be finely balanced within the more-than-human ecology. The pericope does not indicate whether the vegetarianism of the animals also extends to the human curators, although it is implied that human needs are met through husbandry of the natural world. The Isaianic image depicts a peaceful pastoral relation between human and non-human creatures, and so like the noosphere model indicts the unsustainable violence inflicted on the natural world through human activities such as habitat destruction, over-fishing, pollution of natural systems and unmitigated climate change.

Another important point regarding this passage, as Tucker observes, is that it is part of a longer pericope spanning Isaiah 11.1-9, the first five verses of which present a vision of shalom in the sociopolitical sphere characterised by a ruler with practical wisdom, diplomacy and reverence. Although the use of this sort of language does not necessarily mark the passage as Wisdom writing, it is nevertheless intriguing that the characteristics of the idealised ruler here are precisely those of the sage. What connects this with the vision of natural predators at peace in vv. 6-9, Tucker points out, is the single word that does not actually appear at all in Isaiah 11.1-9: \textit{shalom}: 'The rule of justice in human society is followed or paralleled by a transformation in the relationship among animals and between animals and human beings'.\textsuperscript{933} Here again the intriguing connection between wisdom and shalom becomes apparent: if shalom is God's priority and promise for creation then wisdom is the human choice that is congruent

\textsuperscript{932} Rolston, "Does Nature Need to Be Redeemed," 207.

\textsuperscript{933} Tucker, "Isaiah 1-39," 141.
with God's promise. If shalom is the eschaton and God's original intention for the earth, then wisdom is the vocation of a transformed humanity.

The above discussion has demonstrated the richness of the concept of shalom and its congruence with the model for the more-than-human ecology that emerges from my exploration of the noosphere. Given my argument in chapter 6 that the eschatological hope of creation restored is fundamentally connected with resurrection faith, the remaining task is to explore the theme of shalom in the New Testament narrative of resurrection. As I noted in that chapter, following both Moltmann and Moo, the content of eschatological expectation initially derives from the promises of restoration in the Old Testament, but is completed in the New Testament with the kerygmatic claim that it is specifically in the saving death and resurrection of Jesus Christ that all things are made new. 934 Similarly, while the theme of shalom is grounded in the narrative of creation in Genesis, and focusses the prophetic announcement of restoration in Isaiah, it is in the Johannine tradition of the New Testament that the vision of shalom is connected with a Christian eschatological expectation of the renewal of creation. I shall therefore conclude the chapter, and the argument of my thesis, by demonstrating the connection between resurrection and the theme of new creation represented in the fourth Gospel and Revelation.

7.2 Resurrection and shalom

Over the last two chapters I have argued that the construct of the noosphere developed out of my critique of Teilhard provides a helpful theological model for reflecting on the more-than-human ecology as a site

934 See s. 6.1.2.
both of suffering and of redemption. In my discussion above I have traced the theme of shalom through the Hebrew scriptures, arguing that the Biblical image of shalom as a metaphor for creation at peace under human leadership modelled on the original Edenic vocation is consistent with the model of the noosphere derived from Teilhard’s thought. In this final section of my thesis I will argue that the themes of shalom and creation restored are also central to the narrative of resurrection in the fourth Gospel, and that this finds a parallel in the eschatological vision of Bonaventure.

This is a crucial move for ecotheology because it underlies the basis for hope in the future of the earth. The Christocentric doctrine of creation articulated by Bonaventure and Teilhard provides a view of creation as ontologically grounded in the Word, and Bonaventure further argues that created beings are able to participate in the creative life of the Trinity. This supports the premise of ecotheology that it is the whole of creation, rather than the human creation alone, that matters to God. However, as I argued in chapter 6, the ultimate basis for hope in the preservation and renewal of the earth is the eschatological anticipation of transformation that has as its warrant the remembered hope of God’s faithfulness demonstrated in the resurrection. This means the ecotheological claim that the earth matters to God must articulate into the soteriological claim that the renewal of the earth also matters to God. In the context of the historical moment in which ecotheology has emerged, that claim must be understood literally and interpreted eschatologically. The restoration of the earth, which as I argued above is God’s original intention of shalom, finds its necessary and sufficient warrant in the resurrection.

This move is not made by Teilhard, whose Christology is insufficiently connected either to the life of the historical Jesus or the fundamental
Christ and Creation: a model for ecotheology

soteriological claim of the resurrection.935 While my connection of the noosphere with a wisdom Christology partially addresses this, the noosphere model as it stands is still soteriologically inadequate. Conversely, Bonaventure, through his reflection on Francis, makes identification with the crucified and resurrected Christ central both in his spiritual theology and his theology of history. Specifically, it is the stigmatised Francis who passes over into the abyss with Christ in the seventh chapter of the *Itinerarium*, and in the *Hexäemeron* as the sixth angel of the apocalypse bears the seal of the crucified and risen Lamb.936 While I have argued that the noosphere construct is congruent with Bonaventure’s vision of shalom, it is in the latter that the crucial connection with resurrection is made.

Bonaventure’s Franciscan exegesis also suggests that the eschatological transformation of creation awaits the coming to maturity of the Christian vocation of radical identification with the crucifixion of Christ experienced within the suffering of creation. This can be elucidated through an examination of the narrative of the crucifixion and resurrection in the fourth Gospel. As Mary Coloe argues, the final chapters of John echo the iconography of the second chapter of Genesis and so the Gospel ends as it begins with references to the Genesis accounts of creation. In this way, John symbolically places the passion and resurrection within the primal garden of creation.937 Thus echoes of Eden and the theme of shalom are interwoven within the resurrection narrative in the fourth Gospel.

Only John identifies the place of Jesus’ burial as a garden ‘in the place where he was crucified’ (John 19.41). Notwithstanding the fact that there is nothing in the text to suggest the garden of arrest ‘across the Kidron’

935 See s. 4.2.2.
936 See ss. 2.2.2 and 6.2.1.
937 Coloe, “Theological Reflections on Creation in the Gospel of John.”
and the garden of burial are the same location, Mary Coloe notes that for John, the entire scene of Jesus’ suffering, death and resurrection is in this way framed in a garden that echoes Eden, with the Cross as its centre suggesting the Tree of Life which God plants ‘in the midst of the garden’ (Gen 2.9).\textsuperscript{938} This symbolism is also identified by Mariusz Rosik, who points out the associations in ancient Near Eastern mythology for a garden as a place associated with immortality and hence a popular setting for burials.\textsuperscript{939} Coloe identifies a further echo of Eden in the positioning of the beloved disciple and Jesus' mother (who is referred to only as 'the woman' or 'mother') at the foot of the cross. This is evocative of the naming of the first woman, 'She shall be called Woman' (Gen 2.23). As Coloe points out, Jesus final act is to recreate the couple by giving to them a new relationship.\textsuperscript{940}

In this interpretation the garden of betrayal and the place of crucifixion on the sixth day of Jesus’ final week are brought together as a representation of Eden on the ‘sixth day’ of creation. The Johannine narrative can be understood in relation to Bonaventure’s schema in the \textit{Itinerarium}, where he similarly conflates the sixth day of Jesus’ final week with the sixth day of creation. The garden of the new tomb and of resurrection will represent the seventh day of creation, and is followed by the eighth day which as Bonaventure notes is also the first.\textsuperscript{941}

This sequence may be compared with the final two chapters of the \textit{Itinerarium}, which similarly compares the sixth and seventh days of creation with the sixth and seventh days of Jesus' final week.\textsuperscript{942} In chapter six of the \textit{Itinerarium}, Bonaventure brings the two sequences together by remarking,

\begin{itemize}
\item \textsuperscript{938} Ibid., 5.
\item \textsuperscript{939} Rosik, "Discovering the Secrets of God’s Gardens," 82.
\item \textsuperscript{940} Coloe, “Theological Reflections on Creation in the Gospel of John,” 6.
\item \textsuperscript{941} See s. 6.2.1.
\item \textsuperscript{942} See my discussion at s. 2.2.2.
\end{itemize}
'on the sixth day it sees man made to the image of God ... when our mind contemplates in Christ the Son of God, who is by nature the image of the invisible God, our humanity so wonderfully exalted ...'.\textsuperscript{943} In the \textit{Itinerarium} the sixth day connotes not the temptation of the first humans in the garden but the creation of humankind as the completion of creation, for the precise reason that the human form is to become the vehicle for the Incarnation. Thus the sixth day corresponds to the contemplation of the Trinity by its highest name, which is the Good, and the Incarnation of the Word as the pinnacle of creation: 'face toward the mercy-seat and be amazed that in Christ a personal unity coexists with a Trinity of substances and a duality of natures; that an entire accord coexists with a plurality of wills ...'.\textsuperscript{944} Christ is thus identified as the new Adam, and the noble perfection of humanity.

In the sequence of Jesus’ final week, the sixth day ends with the crucifixion. Although in the \textit{Itinerarium} Chapter Six is devoid of any reflection on the suffering of Christ, Bonaventure notes that Francis’ vision on Mt Alverna was of a seraph fastened to a cross. In the final chapter, the passover of Christ on the cross becomes the model of Francis’ own Passover, who receiving the same assurance given to the thief crucified with Christ, ‘passed over to God in a transport of contemplation’.\textsuperscript{945} As Delio points out, it is significant that Francis receives the vision of the crucified seraph at the point at which he himself receives the wounds of the stigmata,\textsuperscript{946} and so in his identification with the suffering and dying Christ Francis also exemplifies the suffering of the created order which is taken into the heart of the Trinity. Thus the sixth day which represents both the

\begin{flushright}
\textsuperscript{943} Bonaventure, \textit{Itin.}, s. 6.7. \\
\textsuperscript{944} Ibid., s. 6.6. \\
\textsuperscript{945} Ibid., ss. 7.2-3. \\
\end{flushright}
completion of creation and divine identification with its suffering ends in the
death of the Exemplar and the beginning of the seventh day.

The second garden for the fourth Gospel is the garden of the new
tomb in which Joseph of Arimathea and Nicodemus inter the body of Jesus
late on the day before the seventh day commences at sundown. In John's
time scheme this Sabbath is also the Day of Preparation for the Passover
(John 19.41). On the Sabbath the tomb is undisturbed – a place of silence
and rest for Holy Saturday on which the creative Word of God is so hidden in
death that the mind falters in imagining how creation ontologically grounded
in the divine Exemplar could continue to exist.

In his earlier writing, Bonaventure does not attribute non-existence or
even loss of power to the divine Word on the death of the incarnate Word:
'Therefore, when he died, even though his soul was separated from his body,
the oneness of his person remained, and thus neither soul nor body was
separated from his Godhead'. The earthly Jesus may be dead, but the
persona media of the Trinity is undiminished. Bonaventure writes in the
Breviloquium that on his death, the soul of Christ descends into limbo. Christ makes this descent not of necessity but in divine will and power, and
for the purpose of leading out the souls of the just.

This very active view in Bonaventure’s earlier writing contrasts with
the syllogistic doctrine of atonement contained in the Hexäemerons. In this
‘deceiving the devil’ narrative, Christ defeats the devil by reversing the
effects of the devil’s own deceit in Eden. Where the devil had promised life

947 Bonaventure, Brev., IV, s. 9.8.
948 Ibid., IV, s. 10.1. see also Cullen, Bonaventure, 147.
949 Bonaventure, Commentary on the Sentences of Peter Lombard (Vol. 2), Translation of Selected Texts Following the Quaracchi Critical Edition, Online Version at Http://franciscan-Archive.org/bonaventura/sent.html (St. Bonaventure, NY: Franciscan Institute, 2003), d22, a1, q4; Cullen, Bonaventure, 147.
950 See s. 2.1.2.
but delivered death, so Christ as the exemplary ground of created existence had to embrace the human extremes that lead to death, in order to restore life.  

951 This more passive image is consistent with the final chapter of the Itinerarium, which concludes with the exhortation: ‘Let us then die and enter into this darkness. With Christ crucified let us pass out of this world to the Father’.  

952 This is the seventh day of creation, the day on which God rests. Bonaventure in this mature doctrine finds it necessary to insist that in solidarity with sinful human beings, Christ shares the absoluteness of death. A contemporary narrative of the death of Christ and the descent into hell which articulates with Bonaventure’s syllogistic narrative and with the sense of the seventh day of the Itinerarium is offered by Hans Urs von Balthasar. I will elaborate this over the following paragraphs, arguing that what is achieved in the drama of Holy Saturday is nothing less than the fulfilment of the Noahide promise of divine commitment to creation.

Ultimately, the most stunning implication of the crucifixion of Christ is not that Jesus could accept the cup of suffering or remain faithful and forgiving throughout the agony of abandonment on the cross, but the paradox that the Word of God, through whom all things are created and in whom all things come to their fulfilment, could enter the abyss of non-existence. Because creation is ontologically grounded by exemplarity in Christ, the death of Christ implies the undoing of creation itself. Balthasar begins with this shocking reality, insisting that if the Incarnate Word truly assumes the human condition then the death of Christ on the cross must be absolute.  

953 Balthasar begins with this paradox in Mysterium Paschale:

951 See s. 2.1.2.
952 Bonaventure, Itin., s. 7.6.
Death, entering the world through sin, tears apart the being of man as God intended it ... The shattered image can only be restored by God, by the Second Adam who ‘is from heaven’. And the mid-point of this restorative action is necessarily the place of the original rupture: death, Hades, lostness from God.\textsuperscript{954}

Thus, just as the \textit{coincidentia oppositorum} of the Incarnation in which the divine Exemplar takes on the limitations of created flesh in order to become the completion of creation,\textsuperscript{955} so human alienation from that which gives life can only be reversed by the death of the divine Exemplar as the source of all life. For each of these propositions, the point is that by entering into the contradictions of our created condition, the Exemplar incorporates them into the triune life of God.

For Balthasar, the dying Jesus experiences divine rejection and godlessness as if he were a sinner, anxiety and pain and the absoluteness of death as one fully human. Through solidarity with sinful humanity and taking on himself the death that is the consequence of sin, Christ reverses the impact of that death: ‘The descent of one alone into the abyss became the ascent of all from the same depths’.\textsuperscript{956} The drama continues, with the descent into Sheol which, for Balthasar, is the utter abnegation, silence and non-relationality of non-being.\textsuperscript{957} Paralleling Bonaventure’s mature doctrine, this is not a triumphant encounter with the powers of hell but the utter desolation and solitariness of death which completes the identification of God with creation.\textsuperscript{958}

Balthasar insists that Christ’s ‘going to the dead’ has soteriological significance. He rejects both the patristic insistence that Christ could not

\textsuperscript{954} Ibid., 12.
\textsuperscript{955} See s. 2.1.2.
\textsuperscript{956} Balthasar, \textit{Mysterium Paschale}, 53.
\textsuperscript{957} Ibid., 160–68.
\textsuperscript{958} See s. 2.1.2.
bring salvation to the deepest pit of ‘hell properly so called’, and the opposing view that Christ’s occupation of hell emptied it out so that none before or since need fear damnation.\textsuperscript{959} For Balthasar it is Christ’s tenancy of the realm of the dead (Sheol, or Hades) that inaugurates the Christian Hell:

In rising from the dead, Christ leaves behind him Hades, that is, the state in which humanity is cut off from access to God. But by virtue of his deepest trinitarian experience, he takes ‘Hell’ with him, as the expression of his power to dispose, as judge, the everlasting salvation or everlasting loss of man.\textsuperscript{960}

As noted above, the death of the divine Exemplar incorporates the non-existence of all created beings; however, it also destroys the silence and non-relationality of death (or Sheol) by making it a condition that is not alienated from the Trinity. If, as Balthasar avers, the occupation of Sheol by Christ in death makes Hell the prerogative of Christ or a ‘function of the Christ event’,\textsuperscript{961} then at the least it can be claimed that not even the wilful choice of utter alienation by the human creature can be a condition to which God is absent.

To extend Balthasar’s soteriological argument, I suggest the absolute death of the divine Word on Holy Saturday renders the absolute alienation of creation from the divine Word impossible. As Deane-Drummond suggests, Balthasar thus connects the doctrine of Incarnation with his narrative of the death of Christ as an act of solidarity with all that dies.\textsuperscript{962} Balthasar’s move is based in the implication of Bonaventure’s exemplary model that it is not just human life but the whole of creation that is grounded in Christ as Exemplar. Thus, what is delivered on in the death of the divine Exemplar is the

\textsuperscript{959} Balthasar, \textit{Mysterium Paschale}, 176–77. \\
\textsuperscript{960} Ibid., 177. \\
\textsuperscript{961} Ibid., 172. \\
\textsuperscript{962} Deane-Drummond, \textit{Christ and Evolution}, 190.
covenant made with Noah: the creative Word is submerged beneath the waters of uncreation on Holy Saturday in order that creation may never again be submerged. Thus, the death of Christ is in solidarity with all that lives. The remarkable implication is that the whole of creation is submerged with Christ in his death, and in Christ’s resurrection creation is also restored. This point finds a parallel in the Johannine narrative, as the paradoxical silence of the seventh day gives way to the first day of a new week.

The fourth Evangelist’s second garden, which is the garden of the new tomb, becomes the garden of resurrection as the night of the seventh day draws to its close and a new cycle begins. The first day of the week, which in the Hebrew calendar corresponds to the first day of creation, becomes the day of resurrection. As Coloe remarks, the day of the week in itself thus suggests the correspondence the Evangelist is proposing between resurrection and creation. In John’s account, Mary of Magdala comes to the tomb ‘early on the first day of the week, while it was still dark’ (John 20.1). The time of day reminds the reader of Eden’s location ‘in the east’, which is to say, where the sun rises.

The scene that unfolds in the garden contains several clues that reinforce a connection between the drama of resurrection and the primal story of Eden. The first is the identity of the gardener, who in Genesis ch. 2 is God who ‘plants a garden’ and in the garden of resurrection is the risen Jesus. This means that while on one level Mary mistakes Jesus for the gardener, on a symbolic level she is correct as he is indeed the one who has renewed the garden of creation. Secondly, Mary’s search for Jesus recalls

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964 Ibid., 7; Rosik, “Discovering the Secrets of God’s Gardens,” 86.
God's search for the humans in Eden after their act of disobedience, and their desire to hide from God and from each other's gaze (Gen 3.8-20). 966 Thirdly, the angelic beings who guard the tomb recall the angel who stands guard at the east of the garden after the humans have been expelled. 967 The conclusion from this is simply that the man and the woman in this garden represent a new creation, both recalling and transcending the shalom of Eden. As Coloe notes, by locating the narrative of crucifixion and resurrection within the primal narrative of creation and proposing the meaning of resurrection as eschatological recreation, the Gospel 'proposes a soteriological perspective that focuses on life and its fullness'. 968 This is not to suggest that the fourth Gospel proposes a soteriology that includes the non-human world, but that it echoes the original intention for creation of shalom. As noted in the Introduction, the Edenic motif of the garden also underlies Garcia-Rivera’s reflection that connects Teilhard’s model of convergence with Bonaventure’s trinitarian theology through an extended comparison with Augustine’s City of God. 969 In my own argument, it is the theme of shalom that connects Eden and the restored creation.

The theme of shalom in the fourth Gospel is further examined by Josephine Ford, who argues that for the fourth Gospel shalom is tightly associated with the passion narrative. Ford notes that the Greek cognate eirene does not appear until the farewell discourses, with two references to the gift of eschatological peace in the farewell discourses at 14.27-28 and 16.33. As a greeting, eirene is not used until after the resurrection. Ford

967 Ibid., 91.
summarises the Johannine teaching on the peace that will be experienced by the disciples as:

The relationship of covenantal hesed emanating from God, mediated through Jesus Christ through his death and resurrection and activated in the disciples through the Paraclete or Spirit of Truth; and in consequence their unity or the harmonious relationships of the partners of the implicit covenant. 970

This, then, is a threefold relationship of peace that emanates from the Trinity and incorporates the disciples, whose inclusion in the trinitarian flow of shalom is explained by Jesus using the metaphor of the vine. 971 This shalom will come under attack in the world and must be borne witness to by the community of shalom as well as the Holy Spirit. The inbreaking of the Holy Spirit and the resultant shalom is contingent on the death of Jesus, as for this Gospel there can be no peace without strife. 972

For Luke, Matthew and John the resurrection appearances of Jesus focus on the restoration of the community of the disciples. The risen Jesus speaks words of forgiveness, touches and allows himself to be touched, lights a fire on a beach, eats with his friends. If the crucified Jesus conjoins the opposites of hatred and forgiveness, death and life, suffering and love, then the Risen One opens the way to a possible future with the single word: shalom. Coloe points out that the Hebrew word, shalom, is derived from shalem, to be completed. Thus, with Jesus' first word to his disciples after the resurrection, eirene (John 20.19), there is a continuity between the new relationship inaugurated by the resurrection and the old relationship

971 Ibid.
972 Ibid., 83.
completed with Jesus last word on the cross, _tetelestai_ ('it is finished', John 19.30).  

Following the resurrection Jesus greets his disciples with the words, 'peace be with you' (_eirene humin_). This restores God's primal intent for creation, as men and women are reincorporated into the trinitarian relation of shalom. In this way, the community of shalom is created on the first day. Following his greeting to the traumatised disciples the risen Christ breathes on them, saying 'receive the Holy Spirit' (John 20.22). This breath recalls the wind of God that hovers over the chaos of precreation on the first day in Gen 1.2. In both cases, as Ford notes, we are witness to the primal creative Word of God. Jesus' act of breathing on the disciples confers new life just as God breathes life into the nostrils of the first human in Gen 2.7. In conferring the breath of the Holy Spirit the risen Jesus draws the community of _shalom_ into the triune life of God. The shalom of the new creation, or the eighth day of creation, like the shalom of the Isaianic vision of ch. 11, is an image not of the original creation but of creation reconciled and restored.

The motif of creation that weaves throughout the narrative of resurrection in the fourth Gospel is of importance for two reasons. Firstly, it reiterates that creation is the locus of God's salvific activity and indeed of God's own life. The association of the soteriological narrative of resurrection with the restoration of shalom within creation connects the Christian kerygma with the primary eschatological motif of the Hebrew Bible. Secondly, the framing of the resurrection within the cosmic story of creation reiterates that God's loving concern is not just for human beings but for all that God has

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974 See my discussion in s. 7.1.
made. This reveals the narrative of resurrection as the promise of life for all creation, beginning with God’s people as the community of shalom.

The Johannine narrative that I have described is congruent with the eschatological anticipation of the renewal of creation which as Moltmann insists is inseparable from the ‘remembered hope’ of resurrection.\textsuperscript{976} It also echoes the image of the eschatological age of peace in Bonaventure’s theology of history, initiated by St Francis who bears the marks of the crucified Christ and culminating in the vision of creation at peace (Rev 7.16-18, 21.1-4).\textsuperscript{977} The suggestion in the resurrection narrative that God’s people must live towards the eschatological vision of shalom also clarifies the Omega-state envisaged in the extended noosphere model.

In this section, I have traced the theme of shalom through the Genesis accounts of creation and Fall and the prophetic imagery of Isaiah, and its Christological completion in the Johannine narrative of resurrection. The Isaianic vision of shalom finds an echo in the noosphere model, while Bonaventure’s eschatological vision is closely aligned with the Johannine narrative. Recognition of the common theme of shalom completes the parallel between Bonaventure’s Franciscan eschatology and the noosphere model based on Teilhard’s thought. Through this connection it has been possible to retrieve a soteriological focus on resurrection which is underdeveloped in the noosphere model.

The connection I have identified between the Biblical themes of shalom, creation and resurrection is the final move necessary to achieve the ecotheological goal of articulating the link between creation and Incarnation. In the previous chapter I brought together the noosphere with Bonaventure’s

\textsuperscript{976} See s. 6.1.2.

\textsuperscript{977} See s. 6.2.1.
Franciscan vision of shalom, arguing that the praxis of Francis and the ‘I and thou’ of intersubjectivity pointed to the Omega state of the noosphere as the incarnation of the inner-trinitarian relations of love. In Bonaventure’s vision the eschaton is explicitly identified in terms of resurrection following Francis’ passover into identification with the crucified Christ and the ‘eighth day’ of new creation. The Christological basis of intersubjectivity in the noosphere was inferred from the parallel with Bonaventure’s Franciscan vision, however my reflection in this chapter has established resurrection as the both warrant and the inauguration of the community of shalom that is the down-payment on a new creation.

7.3 Conclusion

This chapter has completed my extended parallel between the medieval scholastic theology of St Bonaventure and the evolutionary Christology of Teilhard de Chardin, and fulfils my aim of articulating a model for ecotheology that reveals the relationship between God and creation and provides a theological basis for hope in creation restored.

The chapter also reinforces the validity of the extended parallel between Teilhard’s evolutionary Christology and Bonaventure’s trinitarian theology. I have explored the theme of shalom in the Hebrew and Christian scriptures, and demonstrated a connection between the narratives of creation and resurrection in the fourth Gospel. This completes the arguments advanced in the previous chapter in which I linked the eschatological hope of a ‘new creation’ with the resurrection as the remembered hope of God’s saving action, and demonstrated the parallel between the Omega state of the noosphere and Bonaventure’s Franciscan vision of shalom by noting that
Francis’ relationship with the natural world provides an explicitly Christological basis for the concept of intersubjectivity.

Where Bonaventure’s model explicitly points to the resurrection as the warrant for creation restored, the connection between eschatology and resurrection is at best implicit in the noosphere model. In the current chapter this has been reinforced by bringing together in an overarching narrative the Biblical themes of shalom, creation and resurrection. While the Old Testament narrative of shalom articulates best with the noosphere model, the fourth Gospel narrative of resurrection and creation finds a more direct parallel in Bonaventure’s system. In bringing the two models together, the claim that the Omega state of intersubjectivity in the more-than-human ecology is the incarnation of the trinitarian relations of love, and thus the coincidence of creation and Christ, is substantiated because it is in the resurrection that the restoration of shalom in creation is both promised and inaugurated. Thus, in the noosphere model the doctrines of creation and incarnation are brought together in the fullest sense.

The reflection on the link between resurrection and new creation also points to the role of the Church as the community of shalom which is called to enact the new relations that characterise a transformed creation. The importance of the shared model that emerges from the thought of Bonaventure and Teilhard is that it makes creation central to the fundamental categories of Christian theology: Incarnation, the Trinity, resurrection, soteriology and eschatology. It also develops a Christian anthropology in a way that recognises the unique nature of human existence as the divine image and the human responsibility and vocation to care for creation, and a view of the whole creation as participating in and reflecting the trinitarian life of God. At the same time, this model reveals that the hope for the more-than-
human ecology rests ultimately on the new creation inaugurated by the resurrection.

The association of resurrection and creation in St John’s Gospel does not make resurrection ‘about’ creation but it does mean that soteriology cannot be disconnected from God’s intention for shalom in creation. In this Gospel the resurrection of Jesus is associated with the completion of an old creation and the establishment of a new creation in which all living things are incorporated into the exemplary community of God’s triune life. The Christian community thus becomes the promise of a restored creation, which is witnessed to by the Holy Spirit and by the community of shalom. This narrative also supports the reading of the previous two chapters, that while the eschatological hope of creation restored is the promise of resurrection, it is also necessarily associated with a Christian spirituality that recognises the fundamental kinship of creation. That is, while the eschatological completion of creation is the divine initiative revealed and promised in the resurrection, it also depends on the completion of the human vocation of radical identification with the suffering of Christ that is at the heart of creation.

The ecotheological model I have presented offers theological grounds for hope that in recognising its responsibility and vocation to enter more intentionally into its conversation humanity may restore the flourishing of the more-than-human ecology. However, the current environmental crisis represents a grave and possibly existential threat to many species on the planet, including our own. The argument of this chapter substantiates the claim advanced by Teilhard as well as Rolston that creation may be recognised as cruciform, because it depends for its redemption ultimately on the resurrection of Christ.\(^{978}\) By framing ecological hope in the language of

\(^{978}\) See s. 4.2.2.
eschatology, it becomes possible to articulate both the dangers of the current environmental crisis and the ground of future hope within a powerful theological narrative.
Conclusion

I concluded the final chapter with a reflection on the parallel between the gardens in the fourth Gospel and the theme of shalom that connects the eschatological vision of Bonaventure with the noosphere model. As a transposition of the primal shalom of Eden, the garden of resurrection carries with it the dawn of a restored creation. Viewed through the lens of Bonaventure’s Franciscan theology and the noosphere model that emerges from Teilhard’s evolutionary Christology, the image of the garden reveals the soteriological implication that the relations of shalom which characterise God’s intention for the life of creation include the whole of the more-than-human ecology.

In this thesis I have presented a Christological model for ecotheology based on the thought of St Bonaventure and Teilhard de Chardin. My research has provided a model and a language which facilitates the theological conversation with scientific perspectives on ecology and the environment. In addition, I have significantly contributed to the comparative study of Bonaventure and Teilhard first adverted to by Ewert Cousins.

Building on the connections previously noted between Teilhard’s thought and that of Bonaventure, I have brought together Teilhard’s model of creation in process toward Christ with Bonaventure’s theology of history and eschatological vision of an age of shalom initiated by St Francis’ identification with the crucified Christ. Amending Teilhard’s central construct of the noosphere to make it more amenable to an ecological perspective, I have identified an underlying coherence that enables the noosphere model to be developed within Bonaventure’s rigorous trinitarian doctrine of creation. The noosphere as a shared noetic space facilitates reflection on complex interactions and feedback within the more-than-human ecology as a whole, suggesting a human praxis of intersubjectivity and connecting theologically
with Teilhard’s central proposal of cosmic convergence through a Wisdom Christology. Like Bonaventure’s trinitarian theology of creation, the noosphere model emphasises that all created things are ontologically grounded in Christ, and recognises created reality as the locus of identification with Christ. Bonaventure’s exemplary metaphysics and trinitarian theology of creation are more systematic, and make a better connection than Teilhard’s system with the fundamental kerygmatic claim of resurrection. Using the Biblical theme of shalom to connect Teilhard’s model with that of Bonaventure, I have identified the noosphere primarily with the Old Testament theme of shalom, and Bonaventure’s eschatological vision with the Johannine narrative of resurrection as shalom restored.

The first two chapters of my thesis explored Bonaventure’s trinitarian theology and doctrine of creation and spiritual ascent. I argued Bonaventure’s emphasis on exemplarity, and his trinitarian theology based on self-donation, underlie a vision of creation as a self-expressive Word of God that is congruent with a contemporary ecotheology. This view of creation as ontologically connected with the triune life of God through the Word or Exemplar of creation is complemented by a spiritual theology that emphasises both the external and internal worlds of created phenomena, and identification with Incarnation and crucifixion as the noble perfection of creation. I argued against interpretations that regard Bonaventure’s spiritual theology as inconsistent with his theology of creation.

In chapters three and four I traced the development of evolutionary thought through the 17th to early 20th centuries, locating the evolutionary Christology of Teilhard de Chardin within the context of the philosophical and scientific debates of this period. The primary contest was between teleological and mechanistic models of development, both heavily deterministic. Other models including that of Lamarck and Bergson
emphasised the agency of living organisms themselves and the interaction between organisms and the environment. Teilhard’s proposal for evolution tending towards complexity-consciousness includes elements of both Darwin’s stochastic model and Lamarck’s behaviourist model, driven ultimately by his theological commitment to universal convergence on Christ as the centre of creation. I evaluated scientific and theological critique of Teilhard’s model, noting that he foreshadows some current trends in evolutionary research but agreeing that his thought needs to be corrected from its anthropocentric bias.

I brought Teilhard’s and Bonaventure’s thought into closer comparison in chapter five, proposing some extensions to develop a metaphysical foundation and a model for the more-than-human ecology. While noting that Bonaventure’s exemplary metaphysics better connects the life of every creature with the trinitarian life of God, I proposed an extension that recognises complex real structures as societies of simpler entities. Bonaventure’s system is thereby enabled to reflect the tendency of natural systems to develop in the direction of complexity-consciousness. I noted that Teilhard’s strongly teleological model of convergence on Christ-Omega requires modification by his own concept of ‘groping’, or the autonomous choices of living organisms. A parallel is found in Bonaventure’s exemplary model which recognises the creative autonomy of real entities as participation in the trinitarian life of God.

I argued that the perspective of ecotheology requires an understanding of creation as analogical to God’s own life, and that the metaphysics of exemplarity retains a utility for contemporary thought. The divine ideas are specifically appropriate for ecotheology because of the historical connection of Christian neo-Platonism and Wisdom Christology, the implication that all creatures are related as kin because they share a
common ontological foundation in Christ, an orientation toward process that anticipates the resurrection promise of shalom and the implication that the yearning and becoming of all things is also the yearning and becoming of God.

In the second section of this chapter I proposed an extension of Teilhard’s noosphere construct by adopting an alternative proposal made by Teilhard’s contemporary, the Russian scientist Vladimir Vernadsky who suggested the noosphere as the intersection between the biosphere and human culture and technology. This model of the noosphere is more suitable as a metaphor for the functioning of the more-than-human ecology. In addition, the extended noosphere reflects the reality of noetic systems that connect organisms and species and so focuses on the inter-dependency of all life. I argued that the extended noosphere makes a strong connection with systems and process ecology as well as a Wisdom Christology.

In chapter six I explored the eschatological implications of the noosphere to develop a narrative of hope for the more-than-human ecology. I noted that the extended noosphere model corrects Teilhard’s anthropocentrism, and provides an appropriate local space for eschatological reflection. Because the noosphere presents the interaction between human and non-human noetic systems in terms both of risk and suffering, and harmony and growth, I proposed the noosphere not only as cruciform but also as a site of redemptive potential, and suggested that Teilhard’s narrative of convergence on Christ-Omega may be reframed as the promise of the incarnation of trinitarian relations of love within the more-than-human ecology.

In the second section of this chapter I explored Bonaventure’s theology of history and eschatological vision of shalom in creation. Bonaventure’s vision of creation at peace within human history is based on
his exegesis of St Francis’ lived spirituality as a re-enactment both of Eden and of Jesus’ wisdom praxis. Bonaventure understands Francis as the sixth angel of the apocalypse who bears the seal (the sign of the stigmata), and initiates the eschaton ushering in an age of shalom. I argued that the content of Bonaventure’s age of shalom can be understood as based on Francis’ life, and for this reason describes the more-than-human creation in terms equivalent to the model of the noosphere. I proposed that both models may be described in terms of the Biblical image of shalom.

A reflection on the theme of shalom that connects the two models for the more-than-human ecology comprised the final chapter of my thesis. The theme of shalom in the Old Testament that progresses from the original intention of God that is shattered in Eden to the prophetic vision of Isaiah best matches the noosphere model, while the Johannine narrative of resurrection as the renewal and the promise of shalom finds its closest parallel in the model derived from Bonaventure.

My thesis addresses the lack of a systematic Christological foundation for ecotheology. The robustness of the argument derives from its foundation both in patristic and scholastic theology, and in Teilhard’s evolutionary model that can accommodate scientific perspectives. The argument makes a connection to Franciscan spirituality which may be an important avenue for further study. The Christological focus of my argument opens the way for an ecotheological approach to the foundational areas of Christian theology including suffering and evil, resurrection and eschatology. Integration of the ecotheological perspective into the central kerygmatic claims of Christianity is necessary if environmental concern is to be seen as a central rather than peripheral or optional aspect of Christian spirituality. Only if ecotheology can provide a distinctive and consequential perspective on the central theological claims of the Christian faith can it help to shape the Church of the future,
with an ethics, spirituality, liturgy and ecclesiology shaped by a care for God’s creation.

A second implication of my research flows from its methodological commitment to dialogue between theology and science, and an epistemology that recognises the truth-claims of each. This typically Franciscan perspective follows from Bonaventure’s metaphysics of exemplarity and is also the underlying premise of Teilhard’s thought. Coupled with a strong Christology, this dual epistemology means that Christian theology is able to fully engage with scientific models and findings without losing its soteriological focus, and articulate a creation spirituality that resonates both with broader community concerns for the environment and the core kerygma of faith.

Because in my thesis I have engaged with two major thinkers separated by many centuries, the scope of my argument is very broad and thus opens a variety of avenues for further research. For example, while noting that the finalism of Teilhard’s doctrine of convergence fulfils the same function as Bonaventure’s exemplary metaphysics, and arguing that the divine ideas are of value in a contemporary ecotheology, the scope of my study has not permitted the detailed development of a contemporary exemplarity which could complete the noosphere model. Similarly, while I have demonstrated that the process model of the noosphere is congruent with contemporary eschatological approaches, further research is required in relation to convergence on an Omega state. While I have suggested that Teilhard’s notion of convergence can be reframed in terms of a doctrine of Incarnation by noting that the Omega-state of shalom, or intersubjectivity, implies convergence on the exemplary relations within the triune life of God, this would need a more systematic explication.
Teilhard’s own doctrine of convergence does not make an adequate theological argument, and in particular his eschatological model of convergence does not carry the fundamental kerygmatic claim that the eschaton as future hope depends on the ‘remembered hope’ of the crucifixion and resurrection of Christ. I have however shown that the noosphere model articulates with the resources of a Wisdom Christology, and is congruent with Bonaventure’s trinitarian theology of creation and Franciscan eschatology. This has allowed the linkage of the noosphere model with the soteriological narrative of resurrection. However, a more systematic synthesis may require further development of a contemporary exemplary metaphysics and the systematic integration of the noosphere model with trinitarian doctrine.

Additionally, my exploration of Bonaventure’s eschatological theology of history with its anticipation of creation at peace requires further explication. From the standpoint of Franciscan studies it would be useful to bring this into conversation both with Francis’ own writings such as his final work *The Canticle of Brother Sun*, and with later Franciscan writers. Although Bonaventure’s identification of Francis with the sixth angel of the apocalypse may now be of little more than historical interest, the implications of my model for a spirituality based on mutuality and kinship with all creation resonates with contemporary Franciscan experience, and this suggests a further avenue for enquiry.

A notable feature of Bonaventure’s Christocentric doctrine of creation is that the mission of the Holy Spirit is not prominent. The need for further reflection in this area was noted in chapter five in relation to Pannenburg’s pneumatological model of creation, which transfers to the Holy Spirit the role of inherence and the connection of creation to the divine life. Further research to develop a pneumatology that is compatible with the incarnational
emphasis of the two models I have explored would provide a useful resource for engaging with this suggestion.

Finally, while the eschatological perspective allows for the articulation of hope, and in particular connects the hope of creation restored with the promise of God’s faithfulness made tangible in the crucifixion and resurrection of Christ, sober analysis of the impact of human activity on the living systems of the earth concludes that we stand at a time of grave risk. The realities of unsustainable resource extraction, damage to land, water and atmospheric systems, loss of natural habitat, unprecedented rates of extinction of both marine and terrestrial organisms, especially vertebrates, as well as climate change and rising ocean levels already impacting the poorest human communities represent an imminent and possibly existential threat to human civilisation and the living community of the earth itself. The perspective of apocalyptic provides a necessary corrective to attitudes of naïve optimism and the unreasonable hope that God will act to restore the earth despite human refusal to obey the divine command to care for and protect God’s creation. The perspective of apocalyptic is vital in connecting eschatological hope based on the history of God’s faithfulness with a clear-headed call for God’s people to be faithful in the present and to live as agents of God’s promise. For this reason an important avenue for further research is the articulation of an apocalyptic appropriate to the noosphere model.

My research offers a systematic connection for ecotheology with the fundamental categories of Christian thought, and proposes a theoretical model in the noosphere which bridges the divide between ecological and theological discourse. Because it articulates with contemporary systems and process ecological models and focusses attention on a praxis that recognises the need both for scientific understanding and the transformation
of human systems of creating meaning and value, the noosphere offers a space for theological reflection that is scientifically literate. The congruence of the noosphere with Bonaventure’s Franciscan eschatology means that this reflection is able to engage with the fundamental categories of Christian thought, and the central kerygmatic claim of the resurrection. It offers the scope for ecotheology to offer a reforming critique across the scope of theological reflection, and also within the life of the Church.

The urgency of sustained ecotheological reflection in the current situation of an ecological crisis which also affects human communities through disruption of hydrological systems, agriculture and marine environments as well as through the destructive power of extreme weather events can hardly be overstated if the Church is to provide a realistic narrative of challenge and hope. As Ernst Conradie and Celia Deane-Drummond have noted, ecotheology must reframe the central theological categories of Christianity, building a reflection on creation and the more-than-human into the great themes of Christology, soteriology and eschatology. My model based on the thought of Teilhard and Bonaventure achieves this goal and is thus able to reframe soteriology as the hope of the earth within which the salvation of men and women finds its true context. The model I have proposed derives its explicatory power from its commitment to a trinitarian framework and exploration of the great theme of creation in the Bible and early Christian thought. Conradie’s point that ecotheology must provide a ‘double critique’ of the world and of the Church itself means that ecotheology must provide a language for Christians to understand the mission of the Church in new ways. My research is of relevance to this project because it fundamentally reorients not only theology but anthropology, introducing a praxis (intersubjectivity) and indicating the dimensions both of hope and of risk.
The current research has thus contributed both a coherent language for ecotheological reflection, and a perspective that facilitates engagement with the challenges of the current environmental crisis. The retrieval of Bonaventure’s Christocentric theology of creation makes it possible to directly relate reflection on Christ to the more-than-human ecology. His synthesis of a Franciscan spirituality with a trinitarian theology of creation challenges Christian approaches to spirituality that seek to withdraw from engagement with the non-human world. The eschatological vision of shalom that flows from Bonaventure’s understanding of St Francis’ life offers a simple narrative that builds hope and purpose. By bringing these resources together with the model of the noosphere, a coherent conceptual space is created in which to reflect on the more-than-human ecology which emphasises the realities of both risk and hope. Finally, the soteriological claim for resurrection as the restoration of shalom and the renewal of creation offers an urgent challenge and opportunity to the Church to incarnate in its own life the praxis of intersubjectivity and care for God’s creation.
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