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# Astrotheology as a prophetic wormhole that relates space-time to eschatological transformation

## ABSTRACT

*One of the peculiarities that comes to the fore in reflecting on Scripture and the behaviour of fundamentals in the natural world is the way space and time mutually interact and the scriptural testimony about the essence of the resurrected Christ relating to time and space as found in 1 John 1:2. In this article, the author intends to investigate if this likeness could assist astrotheology in fulfilling its prophetic purpose, by clarifying the all-encompassing cosmic agency of the triune God en route to the eschaton and steering clear of a pantheistic narrative. The author argues that astrotheology is well equipped to be a prophetic wormhole that relates space-time to eschatological transformation. We live in an entangled cosmos in which a relational Christ dwells, purposely at work towards transforming the universe. In this article, the author intends to explore these attributes further as well as the embedded nature of the incarnation and its cosmic fruits.*



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## 1. INTRODUCTION

What is the driving force behind humanity's obsession with the cosmos, and more specifically, in our age of space exploration? The answer to this question may depend on whom you ask and in which era the question is posed. Current explanations might include the ecological crisis on earth or geopolitical ambitions. However, the author believes that, ultimately, the reason originates in

our collective desire as a species. In harmony with the ancients, we struggle with the quest to belong.<sup>1</sup> Where do we fit into the grand scheme of things? Why are we on this earth? Unfortunately, these topics transcend the limits of a scientific inquest into the nature of reality. However, these ultimate questions are continuously mixed up with the real essence of scientific investigation over the past few decades. Thus, as a conscious deliberation about the scriptural significance of the nature and exploration of space, astrotheology might enlighten the natural sciences in their pursuit of knowledge. This quest stems from this innate yearning of finding our place in the cosmos. In *Astro theology: Science and theology meet extra-terrestrial life* (Peters [ed.] 2018), different authors argue that conscious life elsewhere in the universe is entirely plausible from scientific and theological perspectives. This article precedes these arguments, by investigating an ontological phenomenon and its possible relevance to the current debate, irrespective of the probability that other intelligent life may be present in the cosmos or not.

One of the peculiarities that comes to the fore in reflecting on Scripture and the behaviour of fundamentals in the natural world is how space and time mutually interact, and the scriptural testimony about the essence of the resurrected Christ relating to time and space in 1 John 1:2. We might ignore and dismiss this oddity because scientific theory and biblical revelation are not only incompatible, but any perceived connection inevitably leads to pantheism. Conversely, the nature of Christ and the essence of space belong to the core fabric of faith and reality. Panentheism<sup>2</sup> is a third possibility when contemplating the ontological relationship between God and space-time and proposes a compromise between theism and pantheism. The author believes that this perceived enigma cannot be ignored and requires more reflection. Christ incarnate revealed himself in this very space and time that we as human beings with our limited insight struggle to comprehend. It is important to note that the complexity of the space/time continuum and the inability of man to truly appreciate the full essence of Christ's nature render any naive association dangerous and fictitious. In addition, Scripture and the confessions are fairly clear about the dissimilarity between the creator and his creation as the author faithfully confirms. In this article, the author intends to investigate if this likeness could assist astrotheology in fulfilling its prophetic purpose, by clarifying the all-encompassing agency of the triune God. This scrutiny

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1 It is well documented how ancient civilisations such as, for example, Egyptians, Babylonians, and Celts structured their entire social and religious life around the presence of celestial objects.

2 Panentheism is multifaceted and could be divided into different types. Towne (2005) elaborates on the diversity of meaning between scientists and theologians. In essence, panentheism wants to communicate that the world/creation is in a sense within God, although God transcends creation.

will potentially highlight the resurrected Christ's providential care within and for the entire physical universe. In addition, it will once more convey to the space sciences the reality of a spiritual dimension when considering natural processes in the cosmos.

Consequently, this article argues that astrotheology is well equipped to be a prophetic wormhole that relates space-time<sup>3</sup> to eschatological transformation. The foundation of this assumption originates within the nature of the cosmic Christ<sup>4</sup> and the connection to his creation. The author conducts this research with a complementary or convergent approach<sup>5</sup> to the sciences in mind. The author accepts that astrotheology is also a type of public theology, but opposes Day's (2017:214) view, which advocates that, within a postmodern context, theological truth should be co-produced by the context and not serve as an authoritative marker that moves society to accept a specific truth. Although Peters' definition of astrotheology<sup>6</sup> is reactive, the author believes that a more proactive function is necessary and possible (Pieterse 2021). In this instance, relating the resurrected Christ's agency to the transfiguration of the cosmos.

The argument is structured as follows. It is essential, first, to clarify what is meant by the term "prophetic wormhole" and, secondly, to explain the significance of space-time, as a specific characteristic of our entangled cosmos. Thirdly, we need to define how the resurrected Christ is related to the physical universe. In conclusion, it will become clear that the entire cosmos necessitates an eschatological transformation facilitated by the agency of the risen Christ. Astrotheology is well equipped to reveal the embedded

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- 3 Space-time, within this context, also serves as a metaphor that includes the possible interconnectedness of the entire cosmos. In recent decades, one of the primary goals in physics was to find an equation that could unify Newton's laws of motion with the laws of quantum mechanics. This quest has definite implications for our understanding of space-time. It necessitates clarity on the nature of space and time and their entwined character. In his book, *The God equation: The quest for a theory of everything*, Kaku (2021) proposes that string theory (where atoms are viewed as vibrating strings within a multidimensional universe) is a plausible contender to construct a theory of everything, although it still lacks sufficient empirical foundation.
  - 4 For a detailed exposition of the extensive nature of Christ's reign and his creative agency revealed through scientific endeavour, see Pieterse (2017).
  - 5 A convergent approach acknowledges the creative gifts bestowed on human beings by God. It accepts the limits of natural science, and the important task of biblical theology. See Pieterse (2015).
  - 6 "Astro theology is that branch of theology which provides a critical analysis of the contemporary space sciences combined with an explication of classic doctrines such as creation and Christology for the purpose of constructing a comprehensive and meaningful understanding of our human situation within an astonishingly immense cosmos." Peters (2016:481).

connection between the supposed opposites and the universe's entangled spiritual and physical properties.

## 2. A PROPHETIC WORMHOLE?

The expression “prophetic wormhole” unites the illuminating nature of prophecy with the spatial/temporal attributes within the cosmos. Prophecy is typically associated with religious texts and has a proleptic spiritual function. In the Old Testament,

the purpose of prophetic saying was to convey the will of Yahweh as it affects the future course of history in consequence of man's present way of life. What is crucial is that what is announced is already on the point of coming to pass. The prophet speaks of the future in order to determine and structure the present in which he lives, which is his task and goal to influence (Fohrer 1984:352).

In recent years, the prophetic calling of astrotheology was highlighted. Losch (2016), for example, regards theology as an important dialogue partner for science, especially in connection with the mythical hope of alien salvation that drives the SETI Institute. Peters (2018:166) reminds us that the natural scientist interprets the world that God is creating and redeeming. This confessional stance leads directly to a theology of nature,<sup>7</sup> as opposed to a type of natural theology where conclusions about a creator are drawn from the fabric of the natural world (Peters 2021:3). The author believes that the prophetic calling of astrotheology embodies more. Concerning the space sciences, astrotheology (as a type of public theology) has the mandate to speak out against the dangers of scientism's reduced perspective on reality and its methodological monopoly. Peters (2021:5, 6) elaborates on this idea, by highlighting the dangers of the ETI myth<sup>8</sup> that gained scholarly momentum but is fundamentally flawed. In addition, as a proper theology of nature, astrotheology's prophetic function should illuminate the significance of the physical properties in the universe concerning its current and future orientation on a spiritual level within, and as part of the Kingdom of God. The peculiarity about space-time and the divine nature of the resurrected Christ is one possible avenue to explore the entangled nature within creation. Scripture paints this creation as infused with

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7 “A theology of nature is informed by science while relying upon special revelation: it relies upon Scripture, tradition, reason, and experience” (Peters 2018:166). With regard to humanity's fascination with the cosmos, astrotheology should develop a theology of nature that is cosmic in both space and time (Peters 2021:2).

8 The ETI myth assumes that evolution is always progressive. Thus, any cosmic civilisation, given enough time, would naturally be more advanced than the human race.

God's presence and agency.<sup>9</sup> This research could assist in propelling science and theology mutually towards an eschatological path of transformation. Where do wormholes fit into the picture?

Wormholes share prophesy's abstract nature, and have a pure physical orientation. In 1916, The Austrian physicist Ludwig Flamm first theorised it as an alternative solution to Einstein's theory of general relativity, whereby a space-time conduit could connect entrances to both black and white holes. In 1935, Einstein and Rosen developed the idea and wormholes as "a hypothetical structure of space-time envisioned as a tunnel connecting points that are separated in space and time" (Redd 2017). The author applies this plausible physical passage as an epistemological funnel to condense the promises of biblical eschatology in and through the fabric of the physical universe. Prophesy and wormholes are two unlikely associates, but their combined orientation could serve as an arrow that points to an eschatological transformation of the cosmos. The universe is indeed peculiar.

### 3. AN ENTANGLED COSMOS

We live in an entangled universe. Scholars from various disciplines appreciate the interrelated nature and balance between different particles, forces, and systems in creation. In addition, the existence of universal constants<sup>10</sup> led to theories about design and the biopic/anthropic principle.<sup>11</sup> The dynamics of the fine structure constant in atoms and the thermodynamic properties within creation, for example, are critical for the formation of life as we know it (Barrow 2007:117, 155). Space and time are the four-dimensional canvas embedded in this complex and braided reality. Space-time is a complex concept that raises specific questions. What is space? What is time? Do they exist independently of the things and processes in them? Or is their existence parasitic on these very things and processes? (Norton 2019).

Newton's mechanics and gravitation theory essentially reigned unchallenged until the 20<sup>th</sup> century and, with that long period of dominance,

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- 9 See Psalm 104:27-30: <sup>27</sup>They all wait for You. To give them their food in its appointed season. <sup>28</sup>You give it to them, they gather it up; You open Your hand, they are filled and satisfied with good [things]. <sup>29</sup>You hide Your face, they are dismayed; You take away their breath, they die, and return to their dust. <sup>30</sup>You send out Your Spirit, they are created; You renew the face of the ground." (Amplified Bible 2021a).
- 10 Universal constants include fine-tuned constants regarding space and time (for example, Planck minimums and the speed of light) (Kärkkäinen 2015:140).
- 11 The biopic/anthropic principle holds that "(we) must be living in that particular domain where the effective forces have just the ratio of strengths that permits the possibility of carbon-based life". (Polkinghorne 2004:70). See also Davies (2007).

this understanding of absolute space became widely accepted. Yet, the concept of absolute space continuously provoked philosophical unease. Neumann (1870) and Lange (1885) developed more concrete definitions of the reference frames in which Newton's laws hold (Huggett *et al.* 2021). With the advent of general relativity,<sup>12</sup> it became clear that a new locus is needed to comprehend the essence of space and time.

What is space-time? It is a single concept that recognises the union of space and time, first proposed by the mathematician Hermann Minkowski in 1908 as a way to reformulate Einstein's special theory of relativity (1905)<sup>13</sup> (*Encyclopedia Britannica* 2018b). Essentially, "[m]atter tells space-time how to bend; space-time tells matter how to move" Gribbin (2003:595). Gravity is a product of the bending of space and time. It is the result of the curvature or bend in space-time. When a small planet, for example, comes closer to a bigger object, it curves in the direction of the more massive object. The notion of space-time has complicated mathematical origins, and scholars continue to unlock its multidimensional nature. Yet, its ontological status is not clear. Ontology is essentially a philosophical construct. Newton's and Leibnitz's opinions differ between *absolute* conceptions of space, time and motion, as well as *relational* conceptions (Huggett *et al.* 2021). Is space-time an independent entity in which the emergence of the universe unfolds (classical substantivalism), or is it continuously created during the relational interactions between different elements (relationism)?<sup>14</sup> The author believes that, within the premise of this article, both ideas are plausible and beneficial to describe God's enduring providential agency in creation.

It is not within the scope of this article to explain the intricacies of space-time in more detail, although, a few notes on the mystery of time are vital considering the premise of this study. The nature of time is a complex topic. It is entwined with space and challenging to comprehend independently. The

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12 "Einstein's general theory of relativity (1916) again makes use of a four-dimensional space-time, but incorporates gravitational effects. Gravity is no longer thought of as a force, as in the Newtonian system, but as a cause of a 'warping' of space-time, an effect described explicitly by a set of equations formulated by Einstein. The result is a 'curved' space-time, as opposed to the 'flat' Minkowski space-time, where trajectories of particles are straight lines in an inertial coordinate system." (*Encyclopedia Britannica*:2018a).

13 "In essence what relativity (special) says is that time and space is not absolute, but relative to the observer and to the thing observed, and the faster one moves the more pronounced these effects become" (Bryson 2004:164).

14 Dorato (2000:3) proposes a third option, structural spacetime realism, as a possible synthesis between the two possibilities. It recognises the relational nature of spacetime, but also believes that spacetime exists, "at least in part, independently of particular physical objects and events, the degree of 'independence' being given by the extent to which geometrical laws exist 'over and above' physical events exemplifying them."

various publications and studies on the topic confirm that it is worthy of a separate analysis. Therefore, only a few introductory remarks will suffice.

In her important book, *Time and eternity: The question of time in church, science and theology*, Jackelen (2010:2) states that the question of time is important for theology because the conception of time has consequences for important theological themes such as trinity, incarnation, and eschatology. Yet, the concept of time poses particular problems. Barrow (2007:76-78) expands on the problem of time and the philosophical puzzle. Is time an absolute background stage on which events are played out and remain unaffected, or is it a secondary concept derivable from physical processes? If we consider time from a purely physical perspective, the implications of special relativity cannot be ignored. Time slows down the faster we travel. This conundrum has been empirically verified, although the effect is more noticeable closer to the speed of light. The minute variations in time at slower speeds make it possible to construct timepieces on earth that create the illusion that time is uniform in all circumstances. As human beings, we have a sense of chronological time, and construct our lives and history accordingly.

However, time could also be viewed holistically. Ellis (2013:46) suggests that we should view space-time as an evolving block universe,

where the essential difference between the past (it exists) and future (it does not yet exist) generates a time asymmetry in all local physical processes and so creates the direction of time. Space-time starts at the beginning of the universe and then grows steadily until the end of time; this direction then cascades down to determine the arrow of time in local systems.

Ellis believes that time emerges concerning physical objects and agrees that the arrow of time only flows in one direction. This concept of a block universe is not unique to Ellis. It acts as the standard model for the past few decades in proposals about big bang cosmology which serve as an inference to the best explanation.

How are these physical processes related to Christ as the eschatological endorser of God's promises and his providential care for all of creation? The transcendent God chose to reveal himself in Christ incarnate, immanently, within the space and time that he created and continues to uphold.

#### 4. A RELATIONAL CHRIST

The creation narratives in Genesis reveal a relational God. They witness the triune God that chose to unveil himself as the omnipotent creator, independent of creation, yet consciously seeking a special relationship with it. This deliberate

agency culminated in the incarnation of Christ, in whom human beings and the entire cosmos providentially found an eschatological hope. In AD 451, the Council of Chalcedon confirmed the early church's confession about the nature of Christ: one person, but two natures (*vere Deus, vere homo*).<sup>15</sup> This unique attribute is the foundation of Christ's mediating and restorative work in all of creation. The unique nature of Christ is further expounded in the Johannine literature. The premise of this article revolves around these revelations and Christ's ensuing agency in the natural world. In 1 John 1:2, we read

and the Life [an aspect of his being] was manifested, and we have seen [it as eyewitnesses] and testify and declare to you [the life], the eternal Life<sup>16</sup> who was [already existing] with the Father and was [actually] made visible to us [his followers] (Amplified Bible 2021b.)

The text unveils the incarnated Christ as the personification of eternal life, a revelation that John 17:3 accentuates. Hoeksema (1976:867) points out that "Christ is the life (John 14:6)". This belief matures in time and culminates in eschatological hope (Groenewald 1980:345), which witnesses a cosmic transformation. John's disclosure about Christ's likeness to eternal life naturally leads to questions about space and time.

This inquest is not unique. What is God's relation to his creation? This was always one of the fundamental questions in theology. If we ponder about space and time, naive logic might be that space and time belong to the essence of creation. Likewise, the apostle John conveys that space (his enduring presence in creation) and time (the cosmic Christ's temporal incarnation) culminate within the incarnated Christ. Therefore, Christ and creation share specific attributes; creation is thus naturally godlike. From this elementary deduction, the heresy of pantheism<sup>17</sup> is a distinct possibility. In his article, *Kenotic trinitarian panentheism*, Clayton tries to clarify this conundrum,

15 For a short summary of the heresies in the early church concerning the nature of Christ, see Hoeksema (1976:342).

16 "2222 zōé – life (physical and spiritual). All life (2222/zōé), throughout the universe, is derived – i.e., it always (only) comes from and is sustained by God's self-existent life. The Lord intimately shares His gift of life with people, creating each in His image which gives all the capacity to know His eternal life (Helps Ministries 2011a): "Eternal (166/aiónios) life operates simultaneously outside of time, inside of time, and beyond time – i.e., what gives time its everlasting meaning for the believer through faith, yet is also time-independent. See 165 (aiōn)". (Helps Ministries:2011b).

17 Berkouwer (1979:316) warns against the dangers of pantheism: "When we profess that God reveals Himself in the works of His hands, then this in no respect implies a deification of nature or of anything in created reality. Pantheism in all its forms identifies nature with divine revelation and thus it does violence to the Christian profession of the personal sovereignty and freedom of God."

by seeking common ground between process theology and orthodoxy. He argues that it is possible to harmonise the perichoretic relationship of the Trinity with the philosophical challenges of panentheism. Regrettably, this proposition surrenders the aseity and immutability of God (Clayton 2005:253) as confessed by classical theism. Conversely, the author believes that a conventional theistic approach is not only possible, but also resonates with a confessional theology.

There is a distinct differentiation within Reformed theology between God's general revelation (in creation) and his special revelation (through the incarnation of Christ). Hoeksema (1976:175) points out that, although the whole of creation is a revelation of God (Ps. 19:1, 2), it is not perfect. It yearns for transformation. This transformation occurs when God's providential care in Christ touches the finite substance of creation. The Holy Spirit speaks the Word continuously, which causes it to be, until its eschatological renewal. This is the difference between theism and pantheism. The former distinguishes between God's infinite being and the substance of creation, while the latter accepts only one substance, the being of God (Hoeksema 1976:234). Edwards (2010:93) reminds us that it is not possible to ponder over the triune God's transcendence and his immanence in creation without grasping the essence of the resurrection:

The resurrection is not only the culmination of the life and death of Jesus, but also the inner meaning of creation. It is the central expression in our history of the self-giving love of God.

This relationship with nature is neither deistic nor pantheistic.

How does Christ relate to time and space? The author believes that Paul's<sup>18</sup> exposition of Christ's pre-eminence and providential care within creation (Col. 1:15-20) is essential. This comprehensive embracing of all of creation by the triune God is not a new concept. It comes to the fore in both the prophetic literature and the wisdom texts of the Old Testament. (Pieterse 2017:354). In his noted work, *The spirit of life: A universal affirmation*, Moltmann (1992) develops a holistic pneumatology that involves an all-encompassing agency of the Spirit in the natural world. Contemporary scholars such as Conradie (2009:7) and Gunton (2002:193) endorse this idea and relate the triune God's interaction with creation not only to a spiritual domain, but also through a physical presence in and through the physical substance of the created order. What does this mean? There is a specific relationship between Christ and the fabric of the cosmos. This presence of God in creation should not be confused

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18 The Pauline origin of the Epistle is not unanimously accepted. Lohse (1986:4-7) elaborates on the different scenarios.

with the pantheistic paradigm where creator and creation are intertwined so that creation itself becomes divine.

Bavinck (1978:136) reminds us that

[h]e is eternal in that He transcends time and yet penetrates every moment of time with His eternity (Psalm 90:2). And He is omnipresent in that He transcends all space and yet bears upon every point of space by His almighty and ever-present strength.

Časni (2015:197) develops these notions further and connects them to the significance of Christ as the Logos within Johannine literature. The incarnation is indeed a cosmological revelation of God's presence and care. Unfortunately, there is a possibility that this revelation could be tied up in philosophical jargon and the depth of God's agency concealed.

It is clear that time and space are integral elements in Christ's incarnation, not only in a spiritual sense, but also in a physical way. Harris III (2004) points out that, in 1 John 1:1-4, the term "life" rather than "Word" refers to Jesus as he revealed himself in his earthly mission. Life signified his person, words, works, death, and resurrection. It is worth considering that the phrase *Life* has a *temporal* (the words, works, death, and resurrection) and a *spatial* (the pre-existent logos, the physical Jesus before his resurrection, and the resurrected Christ transcends the physical-spatial continuum) aspect embedded. Van der Merwe (2018) reiterates this connection between Christ, time, and space when he states that John refers to Jesus as "eternal life", for he *is* from eternity and has incarnated *into* time, space, and history.

Given the above, significant questions develop. If time and space are essential to John's testimony about the essence of Christ, and are at the core of modern theories about the nature of the cosmos, what is Christ's relationship to the fabric of the universe. A pantheistic proposal was rejected. Conversely, if a theistic account is proposed, is it possible to speak of Christ and the cosmos in the same breath without sacrilege? The author believes that at best an analogical<sup>19</sup> association of Christ to space-time is possible, although any rational depiction may still be insufficient. The likeness of Christ to space and time is present in his ubiquitous pre-existence and his *temporal* incarnation into the *finite* space and time that he created. The unlikeness of Christ to space and time originates from his immutable nature as the pre-existent Son of God and as the resurrected one, in which space and time are *infinite*.

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19 Collins (2021) defines analogy as "an agreement or similarity, especially in a certain limited number of features or details".

This deliberation about the theological implications of finitude and infinity is not unique. Halvorson and Kragh (2019) refer to Johannes Philoponus<sup>20</sup> and the church fathers who pondered over the meaning of an infinite universe in the 6<sup>th</sup> century. Their conclusion echoed the notions of many contemporary scholars that an infinite universe is philosophically absurd and theologically heretical. The finitude of the universe, as opposed to an infinite creator, is from a scriptural point of view eschatologically sound, and from a scientific perspective, plausible.<sup>21</sup>

If eternity<sup>22</sup> is synonymous with Christ, what is its relationship to time<sup>23</sup> and space? In his analysis of Moltmann's understanding of time, space, and eternity, Hausoul (2013:139, 40) points out that he held a comprehensive theology of creation where *creatio originalis*, *creatio continua*, and *creatio nova* are all directed as a process towards the eschaton. Moltmann followed Augustine in his belief that time started with creation. Historical, transient time, which he called *chronos*, is characterised by change: a past, a present, and a future. Because something changes, we recognise that there is time. This feature sets it apart from eternity's aeonic time (not transient) that would set in, from our perspective, with the advent of the eschaton when historical time disappears. Space, like time, is limited and finite (Hausoul 2013:146), embedded within historical time *en route* to the eschaton. Moltmann (1992:34) wrestles with the complexities of space and time, and its relationship with God. He uses the term "immanent transcendence" to describe that creation's space is detached from God, but that it is also *in* God through his enduring providential care and the kenosis of the incarnated Christ. A pantheistic proposal should not confuse this specific relationship between God and space and time, although this creational pneumatology may hover on the brink of pantheism.

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20 John Philoponus, Christian philosopher, scientist, and theologian, who lived approximately from 490 to 570 CE, is also known as John the Grammarian or John of Alexandria (Wildberg 2018).

21 "Ultimately the whole universe is condemned to a final futility, either as a result of the bang of collapse back into the Big Crunch or as the result of the whimper of decay into low grade radiation, expanding and cooling for ever." (Polkinghorne 2004:144). In addition, the multiverse hypothesis, as an extension of quantum chaology theory, proposes infinite universes that potentially come into being and then disappear.

22 Deng (2018) provides an overview of some key positions on God and time and discusses arguments for and against divine timelessness. Any conception of how God relates to time is a defining element in our perception of God.

23 The concept of time is an enigma. Since antiquity, various theories have attempted to explain what time is and how it is perceived. "Time is not definable by any other concepts. Time, in its fullness, is unique and sui generis ... No attempt to clarify the concept of time is claimed to be more than an accentuation of some aspects of time at the expense of others." (Øhrstrom 2003:896).

Transcendence and immanence are theological propositions that endeavour to describe the indescribable, how God outside<sup>24</sup> of time and space (in correlation with the astro-physical concept of a block universe?) chose to embrace the very time and space that he created through the incarnation of Christ. If we hold a limited view of the sciences and fall prey to the dangers of reductionism, relativity theory and an immanent God are not reconcilable, as Leftow (1991:272) proposed. But if we appreciate the theological depth of the cosmic Christ who engages with the whole of creation and empowers all the sciences to reveal specks of his brilliance, the concept of a transcendent/immanent God is not only conceivable, but also fairly natural.

This confession about the cosmic significance of Christ incarnate inherently leads to an important question about the efficacy of the incarnation on a cosmic scale. Within the context of this article, a few introductory remarks suffice. Peters (2016:481) captures the conundrum when he asks:

Does the cosmos have one history, or many? Does God's redemption require one Incarnation, or many? In essence, was God's all-encompassing redemptive work on earth through the life, work, death, and resurrection of Christ sufficient on a cosmic scale?

Scholars are divided between two possibilities, one incarnation on earth, or multiple incarnations, one on each planet. Both options are subject to criticism.<sup>25</sup> In accordance with Pannenberg (1991-1998, 2:76) and Nesteruk (2018:6), the author believes that one incarnation was appropriate. Pannenberg endorses this universal efficacy of Jesus' atoning work, the reason being that he is the universal Logos, the creator who sustains the entire cosmos. Nesturuk (2018) instead argues that

the actual historical Incarnation happens in the midst of the human subset of the universe, (and) its proper sense can be directly related to the constitution and meaning of the cosmos.

Thus, the concept of incarnation predetermines the existence of other exoplanets and possible life forms because God inspired it before the ages. Therefore, Christ's death and resurrection encapsulate every possible scenario and life form in an evolving cosmos.

Consequently, within an entangled cosmos, we find a relational Christ. His attributes of eternity and space are immutable, although he blessed

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24 Pretorius (2007:198) affirms that "God is outside time, that is, time does not control God. He is an eternally self-existing, self-defining, living Being. Since He created time, one can think of past, present, and future as eternally present before His eyes."

25 For example, if we believe that one incarnation was adequate, the question about geocentrism/homo-centrism should be addressed.

creation with lesser, temporal qualities. They portray glimpses of his majesty. Time has a starting point and space is not infinite.<sup>26</sup> He incarnated into the very time and space he continuously upholds from the very beginning. Christ is indeed the prophetic wormhole that connects space and time with eschatological restoration, and astrotheology is the vehicle that delivers this truth to the sciences.

## 5. THE ESCHATOLOGICAL TRANSFORMATION OF THE COSMOS

The universe is constantly in flux. In nebulae, stars are born and the massive ones end up as a supernova, showering space with valuable heavy elements. Seemingly endless cycles that are finely tuned to create novelty, oblivious to human endeavour and biblical promises. The sceptic may ask: Does a dynamic cosmos need to transform, and if so, transform to what?

The natural sciences have clear answers to this question. The transformation of the cosmos is inevitable. Halvorson and Kragh (2019) refer to studies conducted since the 1970s primarily concerned with the state of the universe in the distant future, based on extrapolations of cosmological models and the assumption that the presently known laws of physics will remain indefinitely valid. This so-called physical eschatology (a term borrowed from theology) identified possible scenarios of the future cosmos:

The favoured scenario is the open ever-expanding universe where extrapolations typically result in an ultimate future (at about  $10^{100}$  years from now!) in which the universe consists of nothing but an exceedingly thin electron-positron plasma immersed in a cold radiation of neutrinos and photons. Other studies presume a closed universe collapsing in a big crunch (Halvorson & Kragh 2019).

Polkinghorne (2004:144) believes that the futility of the universe emphasises the need for a new cosmology. It was, therefore, not unexpected that, over the past few decades, different scholars,<sup>27</sup> exploring the relationship between the sciences, began to realise that Christian eschatology has the ability to bring hope to an assumed barren cosmic future. Not only physical realities paint a bleak future for our planet, but the current commercialisation of space,

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26 The finitude of spacetime is, from a theological point of view, eschatologically sound, and, from a scientific perspective, plausible, irrespective of our choice between classical substantialism or relationism as physical origins of spacetime.

27 Moo (2006:465-469), for example, reflects on what the future holds for creation. He argues that Romans 8 speaks of a renewal and radical transformation, rather than destruction of creation. The nature of the resurrected body of Christ signifies God's continual path with creation.

which includes the hazards of space debris and the ethical conundrums of unsustainable space development, are also causes for concern. Losch (2020) proposes that an eighteenth sustainable development goal, *Space Environment*, should be added to the United Nations development goals for 2030. He points out that the space around the earth is limited (Losch 2020:2) and that humanity needs to become an active steward of planetary boundaries.

This pessimistic expectation about the future of the earth and universe might surprise those devoted to a pantheistic narrative, but from a biblical point of view, it was expected. Yet, there is hope. Isaiah 65 and Romans 8 are clear about a mourning cosmos that groans with the expectation for renewal. Reflecting on Ferreira's article,<sup>28</sup> *Cosmological and biblical eschatologies: Consonance or dissonance* (2003), Pieterse (2017:353-354) points out that Paul's revelation about the cosmic Christ in Colossians 1 was not unique to the New Testament. To the contrary,

Jesus as God incarnated was from the very beginning the focal point of Gods eschatological purpose with the whole of creation.

In addition, the affirmation of a cosmic redemption realised through the efficacy of the triune God accentuates his preservation and the eschatological purpose of the cosmos. Moo (2006:459) states that Romans 8:19-22, along with Colossians 1:20, is the clearest expression of future hope for the physical world in the New Testament. He concludes (as mainstream New Testament exegetes concur) that the word "creation" (κτίσις) refers to the entire created universe. Likewise, John's choice of the word "κοσμος" in John 3:16 expresses God's love not only for the world, but also for creation, in general. In Romans 8, Paul personifies creation to portray its imperfect state and its anticipated glory and renewal.

If Christ then is the eschatological purpose of creation, certain significant questions arise, specifically regarding the search for possible extraterrestrial civilisations' future. For example, what does the incarnation imply for an alien society within this eschatological framework? Is one incarnation sufficient, or are multiple incarnations needed, each on a different planet? These questions tested astrotheological scholars' resolve in recent years. The answer to these questions depends on our view of Christology. Peters (2016:484-485) identifies two types of Christology, namely a *revelatory Christology* and an *atonement-work Christology*. In layman's terms, God's self-communication model and fix-a-broken-creation model. These two possibilities aim to explain God's motive for the incarnation of Christ. These questions might seem strange,

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28 Ferreira (2003) suggests that an initial corporate eschatology in the Old Testament transformed into a cosmic eschatology.

even inappropriate, because the need for the redemption of man and nature (fix-a-broken-creation Christology) is entrenched within the Latin and Byzantine church traditions, theology, and history (Peters 2016:489). In the 13<sup>th</sup> century, the Latin theologian Bonaventure (1221-1274) put forward an alternative motive for Christ's incarnation, God's self-communication. Peters (2016:490) points out that Bonaventure rejected the idea that the incarnation of Christ was some kind of afterthought, a way to fix what was broken. God willed incarnation for its own sake, not for a lesser good. This line of thought is also evident in Orthodox theology (Nesteruk 2018:8). In recent years, scholars roamed between these two options when reflecting on the adequacy of incarnation concerning potential alien civilisations.

However, are these two options rivals, or are they biblically sound and rooted in one another? The author believes so. Christ's incarnation naturally presents creation, not only with the means to fix what is broken, but also communicates the restorer's essence. Christ, the one whose very nature transcends time and space, is also the one who salvific embraced created space-time *en route* to the eschaton. The author concurs with Peters (2016:493) that the atoning work of Christ, brought about by a single earthly incarnation, was sufficient for the entire cosmos.

When God raised Jesus from the dead on the first Easter, this became for us *Homo sapiens* and for all creatures a divine promise for a future resurrection from the dead. Actually, Jesus's Easter resurrection is for us a prolepsis, incarnate anticipation of the promised new creation to come. This future redemption is anticipated in the form of biblical symbols such as Kingdom of God, New Jerusalem, Heaven, or New Creation. Astro Christology delivers a promise that extends well beyond Earth; it includes all the stars and all our space neighbours (Peters 2016:494-495).

What type of restoration are we anticipating if Christ is the prophetic wormhole that relays time and space to the eschaton? Halvorson and Kragh (2019) notice contact between cosmology and theistic religion, given the apocalyptic passages in the Bible that envisage the end of the world and a possible new creation, as opposed to the pessimistic future painted by modern cosmology. Their research identifies diverse interpretations regarding the theological significance of a possible cataclysm. Opinions fluctuate from a complete contradiction between physical and Christian eschatology,<sup>29</sup> to more reconcilable views. Russell (2008) argues that the futility of the cosmos might have been true if God's grace through the incarnation of Christ did not take place. Yong (2011:86) agrees and wraps the future of the cosmos

29 "Pannenberg, Peters, Arthur Peacocke and others tend to think that physical and Christian eschatology are either contradictory or incommensurable" (Halvorson & Kragh 2019).

within the resurrection paradigm of Christ. The recognition that the incarnation incorporated a risen Christ transforms the future of a pointless universe.

It is important to note that Scripture announces a complete transformation, and not only a rejuvenation or restoration of the cosmos. John prophesies in Revelation 21:1; 5:

<sup>1</sup>Then I saw a new heaven and a new earth; for the first heaven and the first earth had passed away (vanished),<sup>30</sup> and there is no longer any sea. <sup>5</sup>And He who sits on the throne said, "Behold, I am making all things new." (Amplified Bible 2021c).

In his commentary on the text, Mounce (1990:369-373) observes that it is not clear precisely how the new heaven and earth are to be understood because John, on a first level, appeals to the spiritual transformation of man. Nevertheless, the entire cosmos is included and will be transformed within context. The transformation that will take place in the lives of believers will have its counterpart on a cosmic scale when a totally new order physically replaces the old. Hoeksema (1976:863) ponders:

What shall be the end of the present cosmos? The undoubted answer of Scripture is that it will not be annihilated, but that its very form shall pass away.

He argues in harmony with Scripture (Rom. 8:19-22; Eph. 1:10; Rev. 21:5) that the whole of creation shall partake in the liberty of the children of God (Hoeksema 1976:862). In their assessment of the current ecological crisis and climate change on earth, Rossing and Buitendag (2020:6-7) choose the word "ecodomy"<sup>31</sup> to signify a specific eschatological vision that humanity should embrace in an attempt to restore the imbalances caused by our unscrupulous behaviour. Could this concept assist us on a more comprehensive cosmic eschatological level? The author believes that it could. An ecodomy approach to the future implies the realisation that we as human beings co-inhabit in a vast cosmos that Christ transforms through the fruits of his incarnation. *En route* to the eschaton, believers transform the earth as their current home into the house it will become when Christ returns. It is important

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30 König (1985:302) observes that, in Revelation 21 and 22, the boundary between heaven and earth seems to get distorted. John speaks about heaven on earth. It seems as if God's presence is now on the new earth/heaven. It is important to remember that John's initial focus was not to create a physical model of the eschaton. Therefore, any critically assessment claiming geo- or homocentrism is unfounded.

31 "Ecodomy is the art of inhabiting instead of dominating the earth. The calling of the church is to become partners in God's ecodomy. It requires the virtues of wisdom, endurance, patience, and solidarity ... Dependent on the life-sustaining breath of God's pneuma." (Conradie 2011:118).

to note that Revelation 21 does not speak of an escape to heaven; it simply confirms that God will come and live among his people on the new earth. Berkouwer (1979:261) elaborates further:

All the tension between the cosmic and the soteriologic is in the prospect of the Apocalypse vanquished by the absoluteness of the new heaven and the new earth.

A critical question might be: Why should there be any tension between the cosmic and soteriologic in the first place, specifically because of the cosmic mandate of the incarnated Christ of Colossians 1? Peters (2016:495) summarises:

[T]he Incarnation is an abbreviated cypher for the entire life, death, and resurrection of Jesus; and it is nested inextricably within God's promise of renewal of all that exists in the creation. Astro Christology delivers a promise that extends well beyond Earth; it includes all the stars and all our space neighbors.

## 6. CONCLUSION

This article aimed to investigate the peculiar way in which space and time mutually interact, and their possible connection to the scriptural testimony about the essence of the resurrected Christ relating to time and space, as found in 1 John 1:2. Through analysis and sound arguments, the author confirmed that it is possible to confess the agency of the triune God as opposed to a pantheistic paradigm. A relational Christ, with immutable attributes of space and time, is actively involved in an entangled cosmos where space and time mutually interact. Astrotheology is the vehicle of choice that connects these two perceived opposites, space-time in the natural world, and the essence of the cosmic Christ. It is a prophetic wormhole that relates physical space-time to the eschatological transformation of creation, proleptic present in the resurrected Christ.

## BIBLIOGRAPHY

### AMPLIFIED BIBLE

2021a. Psalm 104. [Online.] Retrieved from: <https://www.bible.com/af/bible/1588/PSA.104.AMP> [24 August 2021].

2021b. 1 John 1. [Online.] Retrieved from: <https://www.bible.com/af/bible/1588/1JN.1.AMP> [23 September 2021].

2021c. Revelation 21. [Online.] Retrieved from: <https://www.bible.com/af/bible/1588/REV.21.AMP> [17 November 2021].

BARROW, J.

2007. *New theories of everything*. New York: Oxford University Press.

BAVINCK, H.

1978. *Our reasonable faith*. Grand Rapids, MI: Baker Book House.

BERKOUWER, G.C.

1979. *Studies in Dogmatics: General revelation*. Grand Rapids, MI: Wm B. Eerdmans.

BRYSON, B.

2004. *A short history of nearly everything*. London: Transworld Publishers.

ČASNI, D.

2015. Christ: The Logos Incarnate. *KAIROS – Evangelical Journal of Theology* 9(2):187-199.

CLAYTON, P.

2005. Kenotic trinitarian panentheism. *Dialog: A Journal of Theology* 44(3):250-255. <https://doi.org/10.1111/j.0012-2033.2005.00265.x>

COLLINS DICTIONARY

2021. Analogy. [Online.] Retrieved from: <https://www.collinsdictionary.com/dictionary/english/analogy> [15 December 2021].

CONRADIE, E.

2009. Pneumatologiese kantaantekeninge rondom eietydse diskoers oor God se handelinge in die wêreld, gelewer tydens die konferensie van die *Dogmatologiese werksgemeenskap van Suid-Afrika*, 22-26 Junie, Universiteit van Stellenbosch.

2011. *Christianity and earthkeeping: Resources in religion and theology* 16. Stellenbosch: Sun Press.

DAVIS, P.

2007. *The goldilocks enigma*. London: Penguin Books.

DAY, K.

2017. Social cohesion and the common good: Drawing on social science. In: P.G. Ziegler (ed.), *A companion to public theology, Vol. 1* (Brill: Leiden), pp. 211-230. [https://doi.org/10.1163/9789004336063\\_011](https://doi.org/10.1163/9789004336063_011)

DENG, N.

2018. Eternity. [Online.] Retrieved from: <https://plato.stanford.edu/archives/fall2018/entries/eternity/> [4 August 2021].

DORATO, M.

2000. Substantivalism, relationism, and structural space-time realism. *Foundations of Physics* 30:1605-1628. <https://doi.org/10.1023/A:1026442015519>

EDWARDS, D.

2010. *How God acts: Creation, redemption, and special divine action*. Minneapolis, MN: Fortress Press. <https://doi.org/10.2307/j.ctt22nmb3p>

ELLIS, G.F.R.

2013. The arrow of time and the nature of space-time. [Online.] Retrieved from: <https://arxiv.org/abs/1302.7291v2> [13 August 2021].

ENCYCLOPEDIA BRITANNICA

2018a. General relativity. [Online.] Retrieved from: <https://www.britannica.com/science/space-time> [17 August 2021].

2018b. Spacetime. [Online.] Retrieved from: <https://www.britannica.com/science/space-time> [17 August 2021].

FERREIRA, J.

2003. Cosmological and biblical eschatologies: Consonance or dissonance. *Evangelical Review of Theology* 27(4):306-317.

FOHRER, G.

1984. *Introduction to the Old Testament*. Sixth impression. Slough: Hollen Street Press.

GRIBBIN, J.

2003. *Science: A history 1543-2001*. London: Penguin.

GROENEWALD, E.P.

1980. *Die evangelie van Johannes*. Kaapstad: NG Kerk-uitgewers.

GUNTON, C.

2002. The Spirit moved over the face of the waters: The Holy Spirit and the created order. *International Journal of Systematic Theology* July 4(2):190-204. <https://doi.org/10.1111/1463-1652.00080>

HALVORSON, H. & KRAGH, H.

2019. Cosmology and theology. [Online.] Retrieved from: <https://plato.stanford.edu/archives/spr2019/entries/cosmology-theology/> [19 July 2021].

HARRIS III, W.H.

2004. The prologue to 1 John (1:1-4). [Online.] Retrieved from: <https://bible.org/seriespage/prologue-1-john-11-4> [20 September 2021].

HAUSOUL, R.R.

2013. An evaluation of Jurgen Moltmann's concept of time and space in the new creation. *Journal of Reformed Theology* 7:137-159. <https://doi.org/10.1163/15697312-12341292>

## HELPS MINISTRIES

2011a. Life. [Online.] Retrieved from: <https://biblehub.com/greek/2222.htm> [27 September 2021].

2011b. Eternal. [Online.] Retrieved from: <https://biblehub.com/greek/166.htm> [27 September 2021].

## HOEKSEMA, H.

1976. *Reformed dogmatics*. Grand Rapids, MI: Reformed Free Publishing.

## HUGGETT, N., HOEFER, C. &amp; READ, J.

2021. Space-time. [Online.] Retrieved from: <https://plato.stanford.edu/archives/fall2021/entries/spacetime-theories/> [4 August 2021].

## JACKELEN, A.

2010. *Time and eternity: The question of time in church, science and theology*. Philadelphia, PN: Templeton Foundation Press.

## KAKU, M.

2021. *The God equation: The quest for a theory of everything*. New York: Doubleday.

## KÄRKKÄINEN, V.M.

2015. *Creation and humanity: A constructive Christian theology for the pluralistic world*. Grand Rapids, MI: Wm B. Eerdmans.

## KÖNIG, A.

1985. *Jesus die laaste*. Pretoria: NG Kerk-boekhandel.

## LEFTOW, B.

1991. *Time and eternity*. New York: Cornell University Press

## LOHSE, E.

1986. *Hermeneia: Colossians and Philemon*. Philadelphia, PN: Fortress Press.

## LOSCH, A.

2016. Exoplanets, Christian concerns and human hopes. [Online.] Retrieved from: <https://boris.unibe.ch/82005/> [9 July 2021].

2020. Developing our planetary plan with an 18<sup>th</sup> United Nations Sustainable Development Goal: Space Environment. *HTS Teologiese Studies/Theological Studies* 76(1), a5951. <https://doi.org/10.4102/hts.v76i1.5951>

## MOLTMANN, J.

1992. *The spirit of life: A universal affirmation*. Translated by M. Kohl. Minneapolis, MN: Fortress Press.

## MOO, D.J.

2006. Nature in the new creation: New Testament eschatology and the environment. *Journal of the Evangelical Theological Society* 49(3):449-488.

MOUNCE, R.H.

1990. *The book of Revelation*. Grand Rapids, MI: Wm B. Eerdmans.

NESTERUK, A.V.

2018. Incarnation. [Online.] Retrieved from: [https://researchportal.port.ac.uk/portal/files/11872346/INCARNATION\\_2018\\_FIN.pdf](https://researchportal.port.ac.uk/portal/files/11872346/INCARNATION_2018_FIN.pdf) [6 July 2021].

NORTON, J.D.

2019. Space-time. [Online.] Retrieved from: <https://plato.stanford.edu/archives/sum2019/entries/spacetime-holearg/> [4 August 2021].

ØHRSTRØM, P.

2003. Time: Religious and philosophical aspects. In: J.W. van Huyssteen (ed.), *Encyclopedia of science and religion, Vol 2* (New York: Macmillan), pp. 896-901.

PANNENBERG, W.

1991-1998. *Systematic theology*. Translated by G.W. Bromily. 3 volumes. Grand Rapids, MI: Wm B. Eerdmans.

PETERS, T.

2016. *Exoplanets and astro theology: Astrobiology and Astrochristology*. *Zygon* 51(2):480-496. <https://doi.org/10.1111/zygo.12249>

2018b. Public theology: Its pastoral, apologetic, scientific, political, and prophetic tasks. *International Journal of Public Theology* 12:153-177. <https://doi.org/10.1163/15697320-12341533>

2021. Astrotheology's contribution to public theology: From the extraterrestrial intelligence myth to astroethics. *HTS Teologiese Studies/ Theological Studies* 77(3), a6855. <https://doi.org/10.4102/hts.v77i3.6855>

PETERS, T. (Ed.)

2018a. *Astro theology: Science and theology meet extraterrestrial life*. Eugene, OR: Cascades Books.

PIETERSE, A.C.

2015. Ecclesia Reformata semper Reformanda: A convergent approach to science and theology may reinforce scriptural authority. *Verbum et Ecclesia* 36(1), Art. #1420. <http://dx.doi.org/10.4102/ve.v36i1.1420>

2017. A case for consonance between science and theology: The cosmological Christ as the scriptural and confessional focal point for dialogue. *Stellenbosch Theological Journal* 3(1):343-373. <https://doi.org/10.17570/stj.2017.v3n1.a16>

2021. Astrotheology: A proactive contextualization of novelty within space exploration. *Acta Theologica* 41(2):156-175. <https://doi.org/10.18820/23099089/actat.v41i2.9>

POLKINGHORNE, J.C.

2004. *Science and the trinity: The Christian encounter with reality*. New Haven, CT: Yale University Press.

PRETORIUS, M.

2007. Shaping eschatology within science and theology. *Verbum et Ecclesia* 28(1):191-206. <https://doi.org/10.4102/ve.v28i1.103>

REDD, N.T.

2017. Wormholes. [Online.] Retrieved from: <https://www.space.com/20881-wormholes.html> [17 August 2021].

ROSSING, B.R. & BUITENDAG, J.

2020. Life in its fullness: Ecology, eschatology and ecomomy in a time of climate change. *HTS Teologiese Studies/Theological Studies* 76(1):1-9, a6245. <https://doi.org/10.4102/hts.v76i1.6245>

RUSSELL, R.

2008. Cosmology and eschatology. In: J. Walls (ed.), *The Oxford handbook of eschatology* (New York: Oxford University Press), pp. 563-580. <https://doi.org/10.1093/oxfordhb/9780195170498.003.0034>

TOWNE, E.A.

2005. The variety of pantheisms. *Zygon* 40(3):779-86. <https://doi.org/10.1111/j.1467-9744.2005.00704.x>

VAN DER MERWE, D.G.

2018. The author of 1 John uses the multiple references to his 'writing' as a mechanism to establish different affects and effects. [Online.] Retrieved from: <https://hts.org.za/index.php/hts/article/view/5086/12161> [20 September 2021]. <https://doi.org/10.4102/hts.v74i3.5086>

WILDBERG, C.

2018. John Philoponus. [Online.] Retrieved from: <https://plato.stanford.edu/archives/win2018/entries/philoponus/> [21 October 2021].

YONG, A.

2011. *The spirit of creation*. Grand Rapids, Michigan: Eerdemans.

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