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CHRISTIAN THEOLOGY AND THE  
MODERN SCIENCES

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## CHAPTER ONE

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# The Genesis Creation Accounts

J. RICHARD MIDDLETON

The Bible opens with a majestic, wide-angle view of cosmic creation in Gen 1:1–2:3, and then zooms in telescopically to focus on the creation of humans in the context of their earthly environment (beginning in Gen 2:4). Despite the differences between these two creation accounts, their canonical placement as the introduction to Scripture suggests their paradigmatic function for thinking about the cosmos, including the role of humans vis-à-vis other creatures and their Creator. This essay will explore Genesis 1 and 2, along with related biblical texts, in order to clarify the cosmic and ecological vision of these paradigmatic creation accounts. The focus will be on the intrinsic (emic) conceptuality of these texts, how they envision the world, and the place of humans in it. But this will require some reflection on how the vision of these ancient texts might relate to modern conceptions of the world.

### THE COSMIC VISION OF GENESIS 1

“Space,” says *The Hitchhiker’s Guide to the Galaxy*, “is big. Really big. You just won’t believe how vastly, hugely, mind-bogglingly big it is.”<sup>1</sup> Just how big *is* space? The distance from the Earth to the sun is 93 million miles. Neptune, the furthest planet from the sun in our solar system (now that Pluto is no longer formally a planet), is just under 3,000 million miles from the sun.<sup>2</sup>

The Milky Way galaxy (of which our solar system is a part) contains minimally 100 billion stars, and possibly up to 400 billion, depending on our assumptions about the average star density of the galaxy. But the Milky Way is just one galaxy in a universe that contains an estimated 20 billion trillion stars, and the farthest stars in any direction are 46 billion light years away, which makes the observable universe 92 billion light years across. So, “mind-bogglingly big” might even be an understatement.

And not only is the universe big, it is also old.

The Earth itself (along with our solar system) was formed some 4.6 billion years ago, whereas the universe originated in the big bang 13.8 billion years ago. If it seems contradictory that the most distant stars are 46 billion light years away while the universe

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<sup>1</sup>Douglas Adams, *The Hitchhiker’s Guide to the Galaxy* (New York: Del Rey, 1979), from the start of chapter 8.

<sup>2</sup>More precisely, the distance is 2,798,700,000 miles.

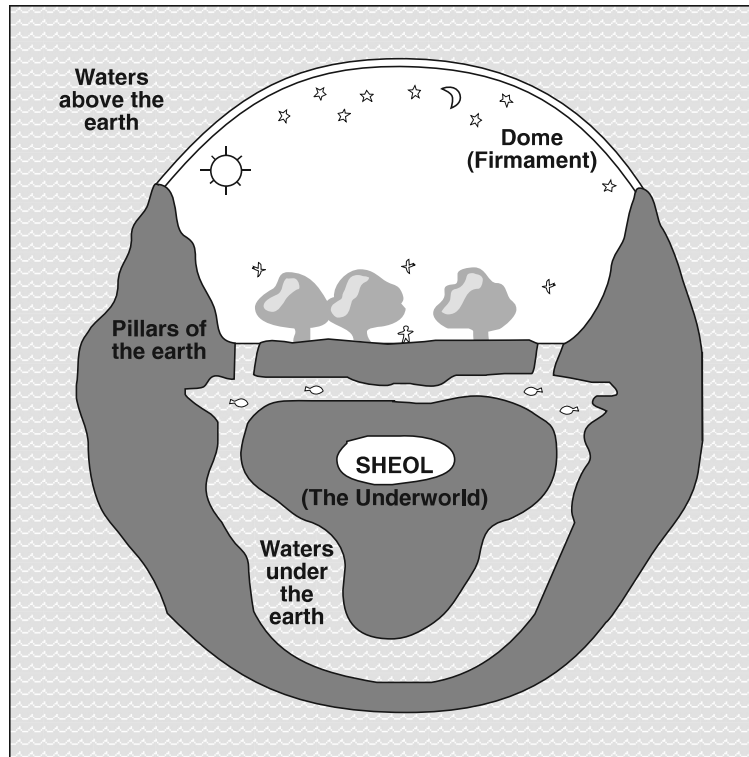


FIGURE 1: The Biblical Cosmos.<sup>3</sup>

is only 13.8 billion years old, this can be resolved by realizing that the universe is expanding at an exponential rate.

So the universe is really, really big and very, very old.

At first glance, it looks like our modern scientific picture of a universe of immense size and age must be in tension with the biblical picture of the world, especially as found in Genesis 1. After all, this text claims that God created “the heavens and the earth” (i.e., the cosmos) in six days (then rested on the seventh); and by some calculations (using the genealogies in Genesis), this took place no more than six to ten thousand years ago.

But going beyond the assumed contradiction in time scale, there are the widely differing understandings of the size and structure of the cosmos when we compare the Bible with modern science (Figure 1). The world picture that we find both in Genesis 1 and in many other biblical texts seems to assume a flat earth founded upon the waters, with the netherworld somewhere “down there,” either *in* or *below* the subterranean waters.<sup>4</sup> At the extremities of the earth were the distant mountains that extended down into the underworld waters and up into the heavens or sky. These mountains were thought of as the “pillars” that supported the dome (or “firmament”) of the heavens, envisioned as a sort of roof over the earth, which held back the cosmic waters above.

<sup>3</sup>From Barry L. Bandstra, *Reading the Old Testament: Introduction to the Hebrew Bible*, 4th ed. (Boston, MA: Cengage Learning, 2009), 40. Used by permission of the author.

<sup>4</sup>Note that *Earth* (capitalized) is the name of a planet in our solar system, whereas the *earth* (lower case) in the ancient world picture is simply equivalent to *land* (both are translations of Heb. *'eres*).

So long as we don't take this world picture as overly literal (it is more a phenomenological portrait of the world), this makes perfect sense as a nonscientific way of describing the human environment.

### *World Picture versus Worldview*

Here it is helpful to distinguish the *world picture* (German *Weltbild*) or cosmology or "cosmic geography" (a favorite term of scholars) that the Bible assumes from its normative *worldview* (German *Weltanschauung*), the distinctive and abiding theological vision revealed precisely *through* this ancient world picture. The biblical writers were not *teaching* this ancient world picture (this way of seeing the world was simply the common understanding of ancient Near Eastern cultures); rather, they were using this world picture to communicate a distinctive vision of the *meaning* of this world.

Christians in earlier ages transferred the abiding values of this ancient theological vision from the original picture of a flat earth with heaven overhead to the medieval conception (learned from the Greeks) of the Earth as a sphere, with seven concentric crystalline spheres around it, in which were embedded the moon, Mercury, Venus, the sun, Mars, Jupiter, and Saturn, in that order.<sup>5</sup> This theological vision was again transferred to the heliocentric universe of modern times, with the various planets orbiting the sun (and the moon orbiting the Earth). Today most Christians intuitively read the creation account in Genesis 1 in ways that assume the earth is a planet, something no biblical author ever thought.

### *The Literary Structure of Genesis 1*

Without denying our modern conceptions of the world, this essay will attend to the intrinsic theological claims of Genesis 1 and 2 as ancient texts, beginning with the cosmic vision of Genesis 1, technically 1:1–2:3. This will clarify how the world picture of the text, which the Bible largely shares with the ancient Near East, conveys an important theological vision or normative worldview that is relevant to any cosmology.

As is widely recognized, Genesis 1 uses a literary framework of six days of creation, organized into two parallel panels, after which God rests (Figure 2). Whereas the first panel of days 1–3 consists in God providing cosmic structure by separating or differentiating realms of existence, the second panel of days 4–6 consists in God filling these structured realms with mobile creatures appropriate to them. The days of the first panel thus provide the conceptual foundation for the days of the second panel.

First, in the pre-creation preamble, the earth is pictured as covered with water and darkness. On Day 1, God separates the realms of light and dark, thus bringing into being the temporal alternation of day and night. This provides the foundation for the creation of the luminaries, the light-giving bodies, on Day 4, which more specifically govern times and seasons.

On Day 2, God opens up an air space in the midst of the waters by means of a firmament or dome (named "sky" or "heaven"; Hebrew *šamayim*). This provides the foundation for God's creation of flying and swimming creatures on Day 5, which inhabit the realms of sky and waters below.

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<sup>5</sup>The shift from the ancient Near Eastern world picture to the medieval conception (via Greek cosmology), including the hybrid picture found in Second Temple Judaism and the Patristic era, is lucidly traced in J. Edward Wright, *The Early History of Heaven* (Oxford: Oxford University Press, 2000).

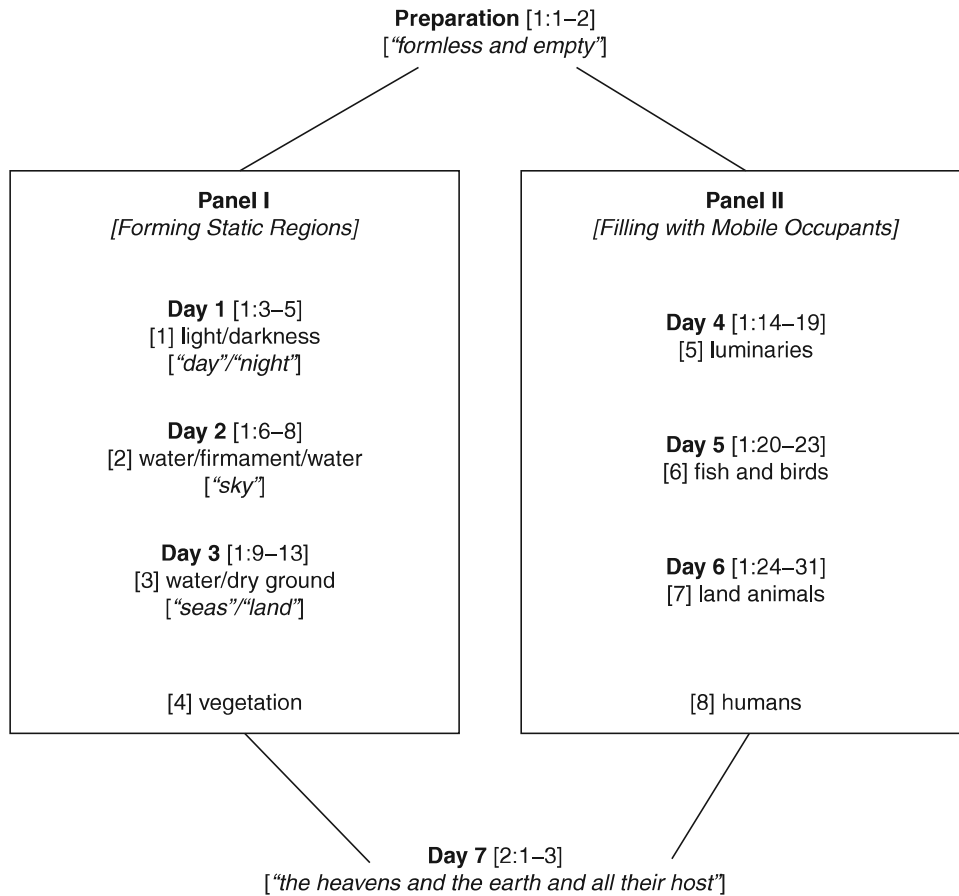


FIGURE 2: The Literary Structure of Genesis 1.

On Day 3, God separates the waters below from dry land. This provides the foundation for God’s creation of various types of land animals, including humans, on Day 6. Finally, the creation of vegetation on Day 3 provides the foundation for God’s assignment of food for living creatures on Day 6.

In the preface to the six days of creation, we find the statement (Gen 1:2) that the earth was initially “formless and empty” (Heb. *tohû wābobû*). At one level this phrase is onomatopoeic (like “hurly burly” or “helter skelter”), portraying a world that is not yet productive or habitable.<sup>6</sup> But the phrase may also function as a double entendre, representing the initial state of the two panels before God structured and filled the world: “formless” (*tohû*) referring to the lack of differentiation between realms and “empty” (*bobû*) referring to the lack of creatures inhabiting these realms. The creation account thus appropriately concludes (Gen 2:1) by noting that “the heavens and the earth” (panel 1) were completed, along with “all their host” (panel 2) (Figure 2).<sup>7</sup>

<sup>6</sup>The traditional term “chaos,” often used by biblical scholars to characterize *tohû wābobû*, imports connotations of resistance to God, which are not present in the text. The core idea is that the earth was not yet functional or conducive to life.

<sup>7</sup>Note that Isa 45:18 states that God did not create the world a *tohû*, but formed it to be inhabited.

This is clearly not a scientific account of the cosmos.<sup>8</sup> Rather, Genesis 1 portrays an architectonic scheme of a wisely ordered and well-planned world, which provides an appropriate habitation or dwelling for a variety of creatures (both human and nonhuman). In other words, the cosmos is likened to a house.

### *The Cosmos as a Building*

In both the Bible and other cultures of the ancient Near East (Sumer, Babylon, Assyria, Egypt, etc.), the world was thought of as a building, a habitable space for humans and other creatures to live in.<sup>9</sup> This is why God’s creation of the world and the building of a house are described in similar terms in the book of Proverbs.<sup>10</sup>

By wisdom a house is built,  
and by understanding it is established;  
by knowledge the rooms are filled  
with all precious and pleasant riches. (Prov 24:3–4)

A few chapters earlier we find this description of how God created:

The LORD by wisdom founded the earth;  
by understanding he established the heavens;  
by his knowledge the deeps broke open,  
and the clouds drop down the dew. (Prov 3:19–20)

Not only do both texts speak of a well-designed building—using the overlapping terms “wisdom” (*ḥokmâ*), “understanding” (*těbûnâ*), and “knowledge” (*da’at*)—but they replicate the two panels of Genesis 1. First, the structure is described; then the provisioning of the house is mentioned.<sup>11</sup> Further, verbs like “founded” (*yāsad*) and “established” (*kûn*) are architectural terms. Even the New Testament retains language of “the foundation of the world” (Matt 13:35; Luke 11:50; John 17:24; Eph 1:4; Heb 9:26), although some modern translations like the NIV treat this as a dead metaphor and render it as the “creation” or “beginning” of the world. But the metaphor was very much alive in the Old Testament. So, when God questions Job, his description of creation draws on architectural imagery.

<sup>8</sup>Although it is sometimes claimed that this world picture (which the Bible largely shares with the ancient Near East) represents “ancient science,” this is not accurate. Francesca Rochberg’s detailed study of what we might call ancient science in Mesopotamia (the interpretive framework of cuneiform knowledge) makes it clear that this was not an ancient attempt to describe the same reality that concerns modern science (i.e., the realm of nature or physical reality). Not only did Assyrian and Babylonian science ignore much of the so-called natural world, it included a great deal of esoteric knowledge organized according to principles and schemata very different from those of modern science. See Francesca Rochberg, *Before Nature: Cuneiform Knowledge and the History of Science* (Chicago: University of Chicago Press, 2016). My thanks to John Walton for pointing me to this study.

<sup>9</sup>For a fuller account of the biblical understanding of the cosmos as a building, see J. Richard Middleton, *The Liberating Image: The Imago Dei in Genesis 1* (Grand Rapids, MI: Brazos, 2005), 77–81; also Raymond C. Van Leeuwen, “Cosmos, Temple, House: Building and Wisdom in Ancient Mesopotamia and Israel,” in *From the Foundations to the Crenellations: Essays on Temple Building in the Ancient Near East and Hebrew Bible*, ed. Mark J. Boda and Jamie Novotny (Alter Orient und Altes Testament 366; Münster: Ugarit-Verlag, 2010), 421.

<sup>10</sup>From here on, all biblical references are NRSV unless otherwise noted. Scripture quotations marked NRSV are from New Revised Standard Version Bible, copyright © 1989 National Council of the Churches of Christ in the United States of America. Used by permission. All rights reserved worldwide.

<sup>11</sup>Indeed, Van Leeuwen states, “In the Bible, house building and filling is the fundamental metaphoric domain for divine creation” (“Cosmos, Temple, House,” 404).

Where were you when I laid the foundation of the earth?  
 Tell me, if you have understanding.  
 Who determined its measurements—surely you know!  
 Or who stretched the line upon it?  
 On what were its bases sunk,  
 or who laid its cornerstone  
 when the morning stars sang together  
 and all the heavenly beings shouted for joy? (Job 38:4–7)

Although this ancient picture of the world as a building may seem strange to modern people—aware as we are of the vast expanses of space—it conveys an important theological claim that is directly relevant to our contemporary scientific understanding of the universe.

### *The Significance of Sevens in Genesis 1*

To fully appreciate this theological claim, it will be helpful to consider the significance of sevens, which permeate the Genesis 1 creation account. Besides the explicit seven-day literary structure (6+1), there are seven summary execution reports in the text that “it was so” (Gen 1:3, 7, 9, 11, 14, 15, 24) and seven evaluation reports that God saw that it was “good” (Gen 1:4, 10, 12, 18, 21, 25, 31).<sup>12</sup> When we probe beneath the surface we find multiples of seven for certain Hebrew words and also for the number of Hebrew words in some sections of text. Someone clearly went to a lot of trouble in composing this creation account. The following are occurrences of sevens in Gen 1:1–2:3 that have been noted:<sup>13</sup>

- “God” = 35 (7 × 5)
- “Earth” = 21 (7 × 3)
- Number of words in Gen 1:1–2 (the pre-creation preamble) = 21 (7 × 3)
- Number of words in verse 1 = 7
- Number of words in verse 2 = 14 (7 × 2)
- Number of words in Gen 2:1–3 (the seventh day) = 35 (7 × 5)
- Total number of words in Gen 1:1–2:3 = 469 (7 × 67)

The significance of these sevens becomes clear when we realize that seven is a number widely associated with worship and temples in the ancient world and also in the Bible. There are references to ancient temple dedication ceremonies that took seven days, including Baal’s temple in the Ugaritic myth (after his defeat of the god Yam) and the

<sup>12</sup>The first of the summary execution reports (1:3) is a variant, naming the item that came to be (“and there was light”; the Hebrew for “it was” and “there was” is identical). Likewise, the first of the evaluation reports (1:4) also names the light (“God saw that the light was good”), while the last such statement (1:31) is also a variant (“And God saw all that he had made and, behold, it was very good”). Further, since there are seven of each of these two reports spread over God’s eight creative acts, there is necessarily one omission of each report at some point in Genesis 1. Thus, “it was good” (the evaluation report) is missing from Day 2 and “it was so” (the summary execution report) is missing from Day 5. For a fuller account of variations in the literary pattern of Genesis 1, and their possible significance, see Middleton, *The Liberating Image*, 278–87.

<sup>13</sup>On the sevens in Genesis 1, see Umberto Cassuto, *A Commentary on the Book of Genesis*, Vol. 1: *From Adam to Noah*, trans. Israel Abraham (Jerusalem: Magnes, 1961), 12–15.



Lagash temple built by Gudea, a Sumerian king in the twenty-second century BCE.<sup>14</sup> In the biblical account, Solomon built the Jerusalem temple in seven years (1 Kgs 6:38), dedicated it in the seven-day feast of Tabernacles in the seventh month (1 Kgs 8:2), and followed it up with seven more days of celebration (1 Kgs 8:65).<sup>15</sup> Solomon's temple dedication speech is also structured as seven specific petitions to God (1 Kgs 8:31–53).<sup>16</sup>

Then there are the sevens in the Exodus account of the construction of the wilderness tabernacle, which preceded the Jerusalem temple. Not only are there seven speeches of God's instructions to Moses (each beginning with "And YHWH said to Moses"), but there are also fourteen (7 × 2) summaries of Moses doing what God instructed ("just as YHWH commanded Moses").<sup>17</sup> The fourteen summaries have a similar function to the seven statements in Genesis 1 that "it was so"; both sets of statements affirm that construction was accomplished in accordance with God's design.

### *The Cosmos as a Temple*

The connection of the number seven with temples and worship in the Bible suggests that we need to go beyond the picture of creation as a building to ask: What *sort* of building is God constructing in Genesis 1? The answer is that God is constructing a temple, a cosmic sanctuary for the Creator to inhabit along with creatures. Indeed, the patterned, liturgical feel of the text might be intended to evoke a seven-day dedication ceremony for the temple of creation.<sup>18</sup>

The Bible thus understands the world as God's "house" or temple (Figure 3).<sup>19</sup> In this picture, heaven corresponds to the Holy of Holies, where God's presence is concentrated. Much of the Old Testament thus treats God's presence in the Jerusalem temple as the earthly correlate of YHWH reigning from heaven.<sup>20</sup> However, Isaiah 66 stands out in challenging those rebuilding the temple after the exile. Since creation (heaven and earth) is already God's dwelling, God has no need for a humanly constructed "house."

Thus says YHWH:  
Heaven is my throne  
and the earth is my footstool;

<sup>14</sup>For Gudea's temple, see Gudea Cylinder B.18.19 and Gudea Statue B.7.30; English translation in George A. Barton, *The Royal Inscriptions of Sumer and Akkad* (New Haven, CT: Yale University Press, 1929), 253, 187. For Baal's temple, see Tablet 4, column 6; English translation in Michael D. Coogan and Mark S. Smith, ed. and trans., *Stories from Ancient Canaan*, 2nd ed. (Louisville, KY: Westminster John Knox, 2012), 134–5.

<sup>15</sup>The parallel account in 2 Chronicles mentions a seven-day dedication of the altar in the temple (2 Chron 7:9).

<sup>16</sup>1 Kgs 8:31–32, 33–34, 35–37a; 37b–40, 41–43; 44–45, 46–53.

<sup>17</sup>"And YHWH said to Moses": Exod 25:1–30:10; 30:11–16; 30:17–21; 30:22–33; 30:34–37; 31:1–11; 32:12–17. "Just as YHWH commanded Moses": Exod 39:1, 5, 7, 21, 26, 29, 31; 40:19, 21, 23, 25, 27, 29, 32.

<sup>18</sup>The liturgical significance of seven is seen also in the story of Jericho, which is conquered by seven priests marching around the city for seven days, seven times on the seventh day, blowing shofars, in front of the ark of the covenant (Josh 6:3–15). John H. Walton is the most prominent scholar to suggest that the sevens of Genesis 1 portray a temple dedication ceremony. See Walton, "Creation in Genesis 1:1–2:3 and the Ancient Near East: Order out of Disorder after *Chaoskampf*," *Calvin Theological Journal* 43 (2008): 48–63, here 61. Walton describes Genesis 1 as the "inauguration" of the functions of the cosmic temple in *The Lost World of Genesis One: Ancient Cosmology and the Origins Debate* (Downers Grove, IL: IVP Academic, 2009), 88–92.

<sup>19</sup>Although in the ancient Near East earthly temples were thought of as the houses of the gods and, as Van Leeuwen puts it, there was "an easy symbolic interaction of house as dwelling place ... and as cosmic realm" ("Cosmos, Temple, House," 402), it does not seem that this led to the explicit identification of the cosmos as a temple.

<sup>20</sup>For further on cosmos as temple in the Bible, see Middleton, *The Liberating Image*, 81–8.

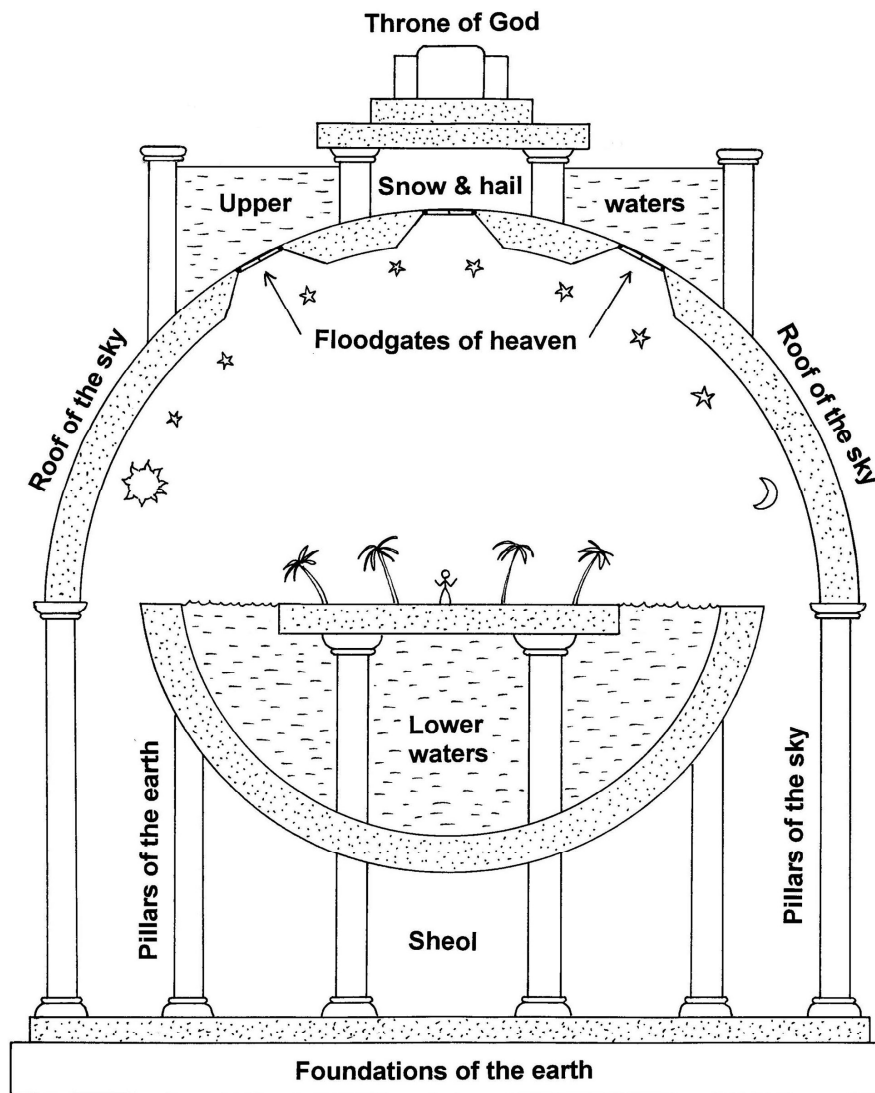


FIGURE 3: The Cosmos as Temple.<sup>21</sup>

what is the house that you could build for me,  
and what is my resting place?  
All these things my hand has made,  
and so they all came into being,  
says YHWH. (Isa 66:1–2a; author’s translation)

The correspondence between creation and the tabernacle (as macrocosmos and microcosmos) is evident beyond the occurrences of sevens in both accounts. It can be seen also in God’s appointment of Bezalel to oversee construction of the tabernacle. To this

<sup>21</sup>From Alan P. Dicken, *On a Faraway Day ...: A New View of Genesis in Ancient Mesopotamia* (Columbus, GA: Brentwood Christian Press, 2002), 122. Used by permission of the author.

end, he is filled with wisdom, understanding, and knowledge (Exod 31:1–5; 35:30–33), the same triad of terms by which God created the cosmos in Proverbs 3.

Through these endowments Bezalel is “to devise artistic designs, to work in gold, silver, and bronze, in cutting stones for setting, and in carving wood, in every kind of craft” (Exod 31:2–5). Bezalel’s work in “every kind of craft” (Exod 31:3, 5) reflects God’s completing “all his work” of creation (Gen 2:2, 3). Despite the differences in translation, the Hebrew wording is almost identical.

Further, Bezalel is filled with “the Spirit of God,” which echoes the presence of the Spirit hovering over the initially formless and empty world (Gen 1:2). Just as the Spirit of God is present in Bezalel, directing construction of the sanctuary, so the Spirit at the start of Genesis 1 suggests the presence of God’s wisdom in guiding the construction of the cosmos. And since the *Shekinah* glory of YHWH filled the tabernacle and the temple after their completion (Exod 40:34–35; 1 Kgs 8:10–11), the mention of the Spirit of God in Gen 1:2 suggests that the Creator was getting ready to breathe the divine presence into the cosmos. Yet when world construction in Genesis 1 is complete there is no reference (as might be expected in Gen 2:1–3) to God inhabiting the cosmic sanctuary.

#### The *Imago Dei* as Mediation of Divine Presence

Instead, God creates human beings to be his own image and likeness on earth, granted a delegated rule over the earth and its creatures (Gen 1:26–28). Crucial to understanding the phrase “image of God” (Hebrew *selem ’elohim*) is the way *images* were viewed in the ancient world in which Israel lived. The image of a god was a statue placed in a temple, and people believed that the deity they worshipped somehow channeled his or her power and presence through the statue to the worshippers. The primary function of an image, therefore, is *mediation*.<sup>22</sup> This means that humans are the authorized mediators of God’s presence in the cosmic temple. In the vision of Genesis 1, it is the human task to fill the earth not just with progeny but ultimately with God’s presence, a task accomplished by faithful representation of the divine King, who rules from heaven.

In the following creation account God breathes the divine presence into a human being, formed from the dust of the ground, causing the human to become alive (Gen 2:7). While this text has often been identified in the history of interpretation as the correlate in Genesis 2 of the creation of humanity as *imago Dei* in Genesis 1, only recently have studies showed that the divine inbreathing in the garden (Gen 2:7) reflects dedication ceremonies for cult statues known from the ancient Near East. These ceremonies imagine the spirit of the deity entering the statue with the result that it becomes the living image of deity, which is then placed in that deity’s temple and is understood as mediating divine presence from heaven to earth.<sup>23</sup>

In different ways, then, Genesis 1 and 2 affirm that humanity is the authorized image of God in the cosmic temple, charged with the royal-priestly vocation of representing,

<sup>22</sup>It is precisely because they were viewed as mediating divine presence that kings and priests were described as an image or likeness of a particular deity in ancient Egypt and Mesopotamia. On this, see Middleton, *The Liberating Image*, 108–22.

<sup>23</sup>For a lucid study of the so-called “mouth washing” or “mouth opening” ritual in Mesopotamia and Egypt, see Catherine L. McDowell, *The Image of God in the Garden of Eden: The Creation of Humankind in Genesis 2:5–3:24 in Light of the mīs pī pīt pī and wpt-r Rituals of Mesopotamia and Ancient Egypt* (Siphut: Literature and Theology of the Hebrew Scriptures 15; Winona Lake, IN: Eisenbrauns, 2015).

and thus mediating, the divine presence from heaven to the earthly realm. The filling of the cosmic temple with God's presence in Genesis 1 is thus not intended to be automatic but missional. It is furthered or hindered by how humans exercise power and agency on behalf of the King of the universe.<sup>24</sup>

Earth is thus not strictly speaking “secular” or “profane,” but is equivalent to the holy place in the cosmic sanctuary, such that ordinary earthly life is meant to be priestly service to the Creator. The earth, as God's intended holy place, may be desecrated; but earthly life is never simply “secular.”

The understanding of the cosmos as sacred space, along with the role of humans as *imago Dei*, makes sense not only of the six-day framework of creation in Genesis 1, but also of God's rest on the seventh day.<sup>25</sup> As ancient Near Eastern literature makes clear, “rest” refers to the deity taking up residence in his temple, sitting on his throne. So the point of God's “rest” in Genesis 1 is that, having constructed the cosmos as his “house” or temple, and delegated rule to humanity, the divine King has now taken up residence in his throne room (heaven), reigning as Lord of the universe.

So the 6+1 timeframe of the Genesis 1 creation account has nothing to do with scientific calculations of how the universe came into being. Indeed, if we read it as a scientific account we will miss the main point—that this world is God's intended dwelling, a sacred cosmos meant to be sanctified with the divine presence.

### *The Expanding Universe as God's Temple*

Now that we have moved beyond the world picture of ancient times and come to understand our sun as just one among many stars in an expanding universe of billions of galaxies that have developed over deep time, the question is whether we can see this universe with the eyes of faith as the cosmic temple that God wants to inhabit with humanity and other creatures.

When the biblical writers spoke of God reigning from heaven (Ps 11:4; 14:2), this was intended as a symbol of divine transcendence, implying that God is far *above* and *beyond* us (after all, we don't have access to heaven). Yet since “heaven and earth” is how the Bible describes creation, God dwelling in heaven is also a symbol of divine *immanence*; God has condescended to inhabit part of the created order.<sup>26</sup>

When Solomon pondered God's further condescension to inhabit the Holy of Holies, he asked in amazement, “But will God indeed dwell on the earth? Even heaven and the highest heaven cannot contain you, much less this house that I have built!” (1 Kgs 8:27) We, who have a much clearer understanding of just how immense “the heavens” are, can appreciate Solomon's words in a new way. Even a universe *92 billion light years across* cannot contain God! Yet God has condescended not just to dwell in heaven or in the Holy

<sup>24</sup>For my own exposition of this sacramental understanding of the *imago Dei*, see J. Richard Middleton, “The Role of Human Beings in the Cosmic Temple: The Intersection of Worldviews in Psalms 8 and 104,” *Canadian Theological Review* 2, no. 1 (2013): 44–58; “Image of God,” in *The Oxford Encyclopedia of the Bible and Theology*, vol. 2, ed. Samuel E. Ballentine et al. (Oxford and New York: Oxford University Press, 2015), 516–23; *A New Heaven and a New Earth: Reclaiming Biblical Eschatology* (Grand Rapids, MI: Baker Academic, 2014), chapter 2 (esp. 37–50) and chapter 8 (esp. 163–76); and *The Liberating Image*, chapter 2 (esp. 74–90).

<sup>25</sup>While Gen 2:2–3 uses the verb for God ceasing (*šābat*) from the work of creating, Exod 20:11 speaks of God resting (*nūah*) on the seventh day.

<sup>26</sup>On this point, see Terence E. Fretheim, *The Suffering of God* (Overtures to Biblical Theology; Philadelphia, PA: Fortress Press, 1984), 37; also Fretheim, *God and World in the Old Testament: A Relational Theology of Creation* (Nashville, TN: Abingdon, 2005), 26.

of Holies of the tabernacle and temple. It is the Christian confession that the Creator became incarnate in Jesus of Nazareth, the Word made flesh (John 1:14), and is even willing to indwell the church, described in the New Testament as the temple of the Holy Spirit (1 Cor 3:16–17; 6:19; 2 Cor 6:16; Eph 2:21).

## THE ECOLOGICAL VISION OF GENESIS 1–2

Attending to the ancient cosmology or world picture of Genesis 1 allows us to discern the powerful theological vision or worldview of the text, which might be missed if we ignored this cosmology. This theological vision is able to provide us with a lens through which we may view a universe of billions of galaxies that have developed through deep time.

More problematic, however, is the question of how to relate the picture of humanity in the early chapters of Genesis to what the sciences are telling us about human evolutionary origins and our kinship with other creatures. Not only does the descent of all people from an original couple (Genesis 2) contradict the large population group scientists think is needed to explain human evolution, but the idea of the radical uniqueness of humans vis-à-vis other creatures, which is often taken to be implied by the “image of God,” is in tension with the evolutionary kinship of humans with other living organisms.<sup>27</sup> The remainder of this essay will explore the ecological vision of Genesis 2 (with some reference to Genesis 1) by addressing these *prima facie* contradictions head on. It turns out that the vision of being human in these chapters is remarkably resonant with what the modern sciences are telling us about the place of humans among other living creatures.

### *An Initial Human Pair or a Large Population Group?*

Evolutionary change occurs only gradually in a population over time. The best current estimate is that *Homo sapiens* emerged in their present form about three hundred thousand years ago, and, to date, all population genetics calculations result in an estimate of several thousand ancestors needed to account for present genetic diversity.

Yet Genesis 2 recounts God’s creation of an initial human pair (Adam and Eve), not a large population group, with no reference to earlier human ancestors. How are we to understand the relationship between the claims of the ancient text and those of modern science?

Although we often think of the first human pair in Genesis 2 as “Adam and Eve,” the text originally designates them as “the human” (*ha’ādām*) and “the woman” (*ha’iššâ*). “Adam” does not clearly become a proper name until the genealogy of Genesis 5 and “Eve” is the name given to the woman in 3:20.<sup>28</sup> What are we to make of the fact that

<sup>27</sup>A third issue, which we will not have space to address in this essay, is the idea that “death” is a consequence of human sin (according to the Eden story), which seems incompatible with the scientific assumption of mortality for all living organisms, including those that predate humans. But it is not at all clear that “death” in Genesis 2–3 is to be equated with mortality. For an argument that the Eden story assumes original human mortality, see J. Richard Middleton, “Humans Created Mortal, with the Possibility of Eternal Life,” *Sapientia*, May 17, 2018, <https://henrycenter.tiu.edu/2018/05/humans-created-mortal-with-the-possibility-of-eternal-life/>; and Middleton, “Reading Genesis 3 Attentive to Human Evolution: Beyond Concordism and Non-Overlapping Magisteria,” chapter 4 in *Evolution and the Fall*, ed. William T. Cavanaugh and James K. A. Smith (Grand Rapids, MI: Eerdmans, 2017), 67–97.

<sup>28</sup>There are four places in Genesis 2–3 where *’ādām* appears without the definite article, but none of these is indisputably a proper name (2:5, 20; 3:17, 21). Gen 4:25 is the first use of *’ādām* without the definite article that could be taken as a proper name (“Adam knew his wife again”). Yet the first mention of the man knowing his wife in Gen 4:2 has *ha’ādām*. Even the genealogy of Genesis 5, which clearly uses *’ādām* as a proper name (5:1, 3–5), contains two uses of *’ādām* to refer to humanity (5:1–2).

the name of the first man is “Human” (*’ādām*) and the name of the first woman (*ḥawwā*) sounds like the Hebrew word for “Life”? And who would name their son Abel (*hebel*), meaning “Vapor” or “Futility,” the same word that recurs as a theme in Ecclesiastes?

These names are clearly a function of the story. For example, Abel’s life is soon snuffed out. Given the symbolic meaning of the names “Adam” and “Eve,” we may understand the first couple in Genesis 2 as archetypal or representative of all humanity. That is, what is said of “the human” (*ḥa’ādām*) is meant to be true of all people; and the description of “the woman” (*ḥa’iššā*) is meant to represent all women. So while the text *also* understands the human and the woman (Adam and Eve) to be the progenitors of the human race, which contradicts an evolutionary account, it does not do so to the exclusion of an archetypal interpretation.<sup>29</sup>

An archetypal interpretation of the first couple in Genesis 2 maps well onto the *different* account of human origins in Genesis 1.<sup>30</sup> There God creates not individuals but population groups to fill various niches, including flying creatures in the sky, swimming things in the water, and then animals on the land, and also humans, designated by the collective noun *’ādām*, on the land. When Christians read the account of human creation in Genesis 1 as an original couple, they do this by retrojecting the account from Genesis 2 back into chapter 1. But we need to respect the different portrayals of creation in each account.

The differences between Genesis 1 and 2 go beyond the initial population size of the human race. Whereas Genesis 1 begins with the earth inundated with water (Gen 1:2) so that God has to separate the waters for dry land to appear (Gen 1:9), in Genesis 2 the earth is originally a dry wilderness so that plants are not able to grow (Gen 2:5) until a mist rises to water the ground (Gen 2:6). There is also a different order of creative events in each chapter. In Genesis 2, the order is: dry land, water, a human (*’ādām*, later specified as a man), then plants, animals, and a woman. In Genesis 1, the order of these same items is: water, dry land, plants, animals, humans (*’ādām*, consisting in male and female together).

Neither account is teaching science, for then we would need to ask *which* account is scientifically true. Rather, both accounts teach an ultimately coherent and harmonious *theological* vision of being human.

### The *Imago Dei* as Earthly Vocation or Calling

This theological vision is centered on the creation of humanity as God’s image and likeness (*imago Dei*). But doesn’t this idea, with its implication of human uniqueness, contradict human kinship with other animals?

An evolutionary account understands modern *Homo sapiens* as one species in a larger family of the genus *Homo*, and part of an even larger grouping of hominins (including the Australopithecines), to whom we are genetically related. These hominins are, in turn,

<sup>29</sup>Indeed, sermons on the garden story tend to focus on the archetypal significance of the characters, helping us to understand our lives under the rubrics of the first couple. One of my students recently preached at the funeral of his father, who had started out as a bus driver and ended up managing a fleet of buses. The core of the sermon compared Adam’s vocation in tending the garden with his father’s vocation of working with buses—a wonderful archetypal reading.

<sup>30</sup>The tensions between the creation accounts in Genesis 1 and 2, along with suggestions for conceptualizing their relationship, are explored in J. Richard Middleton, “What Is the Relationship between the Creation Accounts in Genesis 1 and 2?” *BioLogos*, January 3, 2018, <https://biologos.org/blogs/guest/what-is-the-relationship-between-the-creation-accounts-in-genesis-1-and-2>.

descended from prior hominids, from which both humans and great apes are descended, and ultimately all living things are part of a complex, branching “bush” of evolutionary development, going back to the hypothesized Living Universal Common Ancestor (LUCA). Although the precise lineage of *Homo sapiens* is a matter of speculation, analysis of the human genome decisively shows our kinship with, and in some cases descent from, other living creatures.

Whereas many Christians through the ages have taken the *imago Dei* in Genesis 1 to mean that humans are unique among creatures, especially that we are radically distinct from animals, this is not the primary point of the image. Most contemporary Old Testament scholars understand the *imago Dei* not as certain capacities or features that distinguish humans from other animals but as a calling or vocation, which involves representing and manifesting God’s presence and rule on earth by the way we live, particularly by the way that we exercise power or agency in the world.<sup>31</sup>

This calling is unpacked in quite mundane or earthly ways in the Bible. It involves the task of agriculture, described in Genesis 2 as working and protecting the garden (Gen 2:15) and in Genesis 1 as subduing the earth (Gen 1:28), thus bringing it into productivity.<sup>32</sup> Psalm 104 gives more specificity in describing the human ability to turn grapes, olives, and wheat into wine, oil, and bread, for our own enjoyment and sustenance (Ps 104:14–15).

The human calling also includes animal domestication and possibly fishing (Ps 8:8 [MT 8:9]), described using the ancient metaphor of rule or dominion (Gen 1:26, 28; Ps 8:5–8 [MT 8:6–9]), since kings in the ancient Near East were often thought to be masters of animals. Even in Genesis 2 the human task comes to include animal husbandry, evident in the episode of the naming of animals. This naming results in a new category of living creature, called “livestock” or “cattle” (*bēhēmā*; Gen 2:20), not mentioned among the animals God brought to the human (Gen 2:19).<sup>33</sup> And in Genesis 4 we find, in the second generation, not only Cain working the ground (horticulture) but also Abel keeping flocks (animal husbandry), in fulfillment of this new dimension of the human task in the world (Gen 4:3–4).

The image of God is thus fundamentally an earthly, cultural vocation, which involves human interaction with the earth via agriculture and animal domestication, and comes to include city building, music, and metallurgy (Gen 4:17, 20–22), to name just a few examples of what humans develop in the early chapters of Genesis. Ultimately, this biblical trajectory suggests that humans image God when they live in conformity to God’s will in all their earthly life, as stewards of this world that God has entrusted to them. Humans,

<sup>31</sup>Although the explicit statement that we are created in God’s image occurs only a few times in the Bible, these statements crystallize a pervasive underlying biblical theme concerning human agency in God’s world. The Bible’s coherent understanding of what it means to be human may be likened to an underground river flowing beneath the surface that is often hidden from view; but there are a few places where the river comes to the surface and the powerful flow of water becomes clear. The explicit references to the *image of God* are those places where the river bubbles most clearly to the surface.

<sup>32</sup>Theodore Hiebert notes that the strenuous language in Genesis 1 of subduing and having dominion would have meant no more for preindustrial Israel than “the human domestication and use of animals and plants and the human struggle to make the soil serve its farmers.” Hiebert, “Re-Imaging Nature: Shifts in Biblical Interpretation,” *Interpretation* 50 (1996): 36–46; here 42.

<sup>33</sup>Although the collective noun *bēhēmā* can mean simply “animals,” its usage in the early chapters of Genesis designates the sort of herd animals that humans typically domesticate, hence the translation “livestock” or “cattle.”

we could say, are to be God's *prism* in the world, refracting the concentrated light of the Creator into a rainbow of cultural activities that scintillate with God's glory.<sup>34</sup>

Of course, humans would need to have certain capacities or faculties (including rationality, symbolic language, joint intentionality, etc.) in order to be able to fulfill the calling to image God.<sup>35</sup> And the Bible does, in fact, distinguish humans from other animals in a fairly commonsense way. Not only are humans granted dominion over animal life and not vice versa, but animals simply cannot meet the deepest human needs for interpersonal fellowship (Gen 2:20).

### *Human Commonality with Other Animals in the Bible*

Nevertheless, the Bible presents a picture of significant continuity between humans and other animals, indeed, between humans and the earth itself. Thus in Genesis 2 the human (*ha'ādām*) is created from the ground or soil (*ha'ādāmā*), which is an intentional pun in Hebrew, signifying the human's status as a groundling or earth creature. An equivalent English pun would be the *human* made from the *humus*. But Genesis 2 goes on to tell us that animals are *also* created from the ground, thus testifying to a fundamental human-animal commonality or kinship.

Further, both humans and other animals are described by the identical phrase *nepeš hayyā* (Gen 2:7, 19), which means something like a "living organism." Although the phrase *nepeš hayyā* is used of both humans and other animals in Genesis 2, many translations (such as the NRSV and NIV) render it somewhat differently when it is used of humans in 2:7 ("living being") and of animals in 2:19 ("living creature"), which seems to be an attempt to distinguish humans from animals.<sup>36</sup> But this betrays a misunderstanding of the biblical assumption of a fundamental commonality between humans and other animals.<sup>37</sup> Indeed, not only humans (Gen 2:7) but "all flesh," a term that contextually includes all animals (Gen 6:17; 7:15, 22), possess the "breath of life" from their Creator.

Congruent with Genesis, Psalm 104 notes that when God takes away the breath/spirit (*rūah*) of living creatures they die, but the infusion of God's own breath/spirit (*rūah*) results in their creation or renewal (Ps 104:29–30). Possessing divine breath/spirit is not something distinctive to humanity in the Bible.<sup>38</sup> Psalm 104, further, never mentions humans without pairing them with some form of animal life, whether cattle (104:14), lions (104:21 and 23), or Leviathan, the sea serpent (104:26). And this psalm tells us that God "formed" Leviathan (104:26), the very same Hebrew verb (*yāsar*) used for God's creation of the first human in Gen 2:7. Leviathan and humans are kin, which happens to

<sup>34</sup>I have been using this metaphor since the 1980s in my teaching; it first appears in print in J. Richard Middleton, "The Liberating Image? Interpreting the *Imago Dei* in Context," *Christian Scholar's Review* 24 (1994): 8–25, here 24–5.

<sup>35</sup>"Joint intentionality" is a term famously used by anthropologist/psychologist Michael Tomasello to refer to the unique human ability of two or more individuals to have a shared perception of an action and its goal, as well as the role of each toward the shared goal. This ability does not seem to be extant among other primates. Note that "human" for Tomasello may go back to *Homo heidelbergensis*.

<sup>36</sup>The phrase *nepeš hayyāb* is used for animals also in Gen 1:20, 24, and 30. The NRSV and NIV render it "living creature" in 1:20 and 24, but "beast of the earth" in 1:30.

<sup>37</sup>Even Genesis 1 doesn't give humans their own unique day of creation, but portrays humans and land animals as created on the same day (day 6), thus assuming a certain commonality between them.

<sup>38</sup>Humans, however, are distinctive in that the narrative of Genesis portrays God as directly breathing into them (Gen 2:7). A further differentiation may be that whereas "breath of life" in Gen 2:7 translates *nišmat hayyīm*, in 6:17 and 7:15 it translates *rūah hayyīm* (different words for "breath" are used). Yet Gen 7:22 contains the hybrid expression *nišmat-rūah hayyīm*.



be part of the point God makes to Job in his second speech from the whirlwind. God also tells Job about his similarity with a creature named Behemoth, which is a plural of majesty of the usual collective noun for animals or beasts (*bēhēmā*): “Look at Behemoth [= the mega-beast], which I made *with* you” (Job 40:15).<sup>39</sup>

### *Glimpses of the Image of God in Other Creatures*

Even the idea of being created in God’s image does not imply an absolute distinction between humans and other creatures. True, only humans are explicitly *said* to be created in God’s image and likeness (Gen 1:26–27). However, a careful reader of Genesis 1 would notice that various nonhuman creatures are rhetorically *portrayed* as similar to God (a case of showing rather than telling).

Given that God engages in acts of *separation* on the first three days in Genesis 1 (separating light from dark; waters above from waters below; waters below from dry land), it is significant that the purpose of the firmament (*rāqîa’*) on day 2 is to *separate* the waters above from the waters below (Gen 1:6). The firmament’s function thus images and continues God’s own creative activity. Also, one of the purposes of the sun and moon on Day 4 is to *separate* light from dark and day from night (Gen 1:14, 18), thus imaging and continuing God’s creative work of separating light from dark on Day 1.

Likewise, given that God engages in acts of *filling* on Days 4 through 6 (filling the heavens with luminaries; the waters with fish; the air with birds; the land with animals), it is significant that God grants fertility to creatures that live in the air and water and calls them (just as he does humans) to multiply and *fill* the world (Gen 1:22, 28); thus, both humans and animals image God’s own creative activity.

Finally, it isn’t only humans who are like God (the ultimate Ruler of the cosmos) in being given dominion. The sun and moon are also granted *rule* over day and night (Gen 1:16). True, the verb for rule here (*māšal*) is different from the verb used for human dominion in Gen 1:26 and 28 (*rādā*), yet *māšal* is used for human rule in Ps 8:6 (MT 8:7). There seems to be a parallel: whereas the luminaries represent God’s dominion in the heavens, humans represent God’s dominion in the earthly realm.

Might not these elements of the rhetorical portrayal of nonhuman creatures in Scripture—along with biblical texts that portray the commonality, indeed, the kinship, of humans with a variety of other animals—provide an opening for thinking about the deep connection (even continuity) of humans with animals and even with the rest of the created order? Such texts, which are certainly not meant to *teach* science, can prime us theologically—in terms of our worldview—to be open to what ecological and evolutionary science tells us about ourselves. Paying attention to the Bible might thus help us make *theological* sense of human kinship with other creatures.<sup>40</sup>

<sup>39</sup>I have argued for the intended similarity between Job, on the one hand, and both Behemoth and Leviathan, on the other, in J. Richard Middleton, “Does God Come to Bury Job or to Praise Him? The Significance of YHWH’s Second Speech from the Whirlwind,” *St. Mark’s Review* no. 239 (March 2017): 1–27.

<sup>40</sup>This still leaves open the question of exactly how we might relate the biblical picture of humanity to what we are coming to know from evolutionary science. Anatomically modern humans have been around for at least three hundred thousand years, but archeology suggests that there was an explosion of human cultural development much later, the so-called Great Leap Forward, somewhere around one hundred thousand years ago. Could *that* be correlated with the origin of the *imago Dei*? This is, of course, only speculation. But it makes sense to think of God providently superintending the evolutionary process until hominins recognizable as *Homo sapiens* emerged and stabilized as a species. Then, at some point in their development, God entered into a unique relationship with a representative population of these hominins, calling them to the ethical vocation of *imago Dei*, to live as his

### *Human Distinctiveness in an Ecological Cosmos*

That such texts are found side by side with an emphasis on human distinctiveness, even uniqueness, testifies to the realism of Scripture about human agency in the world. Although the ancient writers could not have understood the full implications of their portrayal of genuine human power vis-à-vis our earthly environment, we today are brutally aware of the devastating impact that humanity is having on the biosphere. In particular, our participation (as the primary cause) in the sixth global extinction event bears unbidden witness to the Bible's vision of the significant role of humanity vis-à-vis the earth—for good or ill.

The biblical understanding of humans as fundamentally earth creatures, made not only *from* the earth (Gen 2:7) but also *for* the earth (Gen 2:5, 15), implies that humanity and the natural world are inextricably intertwined—what affects one invariably affects the other. This is why Genesis not only describes the normative human calling as working the ground (Gen 2:5, 15), but also portrays human sin as causing the ground to be cursed, such that its fruitfulness is affected (Gen 3:17).

This ecological vision is articulated in great detail in Israel's covenantal and prophetic literature, which describes the consequences of positive and negative human action. The Torah and the Prophets challenge Israel in terms of two ways of life, one leading to blessing and fruitfulness, the other leading to curse and destruction—a choice, fundamentally, between Life and Death (see Deut 30:15–20). In many of these texts, the consequences of human action affect the land, its vegetation, and animal life; and these consequences rebound on people, due to the inextricable bond between humans and the ground.<sup>41</sup>

### *The Renewal of All Things*

But the prophetic literature also envisions a day in which humanity, the earth, and its panoply of creatures are restored to harmony and flourishing. This vision continues into the New Testament, which speaks of the lifting of the curse from the earth (Rev 22:3) and the liberation of creation from its bondage to corruption (Rom 8:19–21), leading to a new heaven and new earth, in which righteousness dwells (Rev 21:1; 2 Pet 3:13).<sup>42</sup> This cosmic vision of the redemption of “all things” (Eph 1:19; Col 1:20) is grounded fundamentally in the ecological vision of the early chapters of Genesis, where humans and their earthly environment are intrinsically intertwined—so that human salvation is unthinkable without the renewal of the world.

This renewal is fundamentally linked to the sacramental understanding of the world as God's temple. While the Earth does not currently experience the fullness of God's presence (due to human sin), the Bible promises that even this small portion of the cosmic

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image in the world. Might a scenario like this account for what seems to be a significant transformation of human behavior, as found in the archeological record?

<sup>41</sup>For a fuller exploration of this ecological vision in the Torah and Prophets, see Middleton, *A New Heaven and a New Earth*, chapter 5: “Earthly Flourishing in Law, Wisdom, and Prophecy.”

<sup>42</sup>Many translations of Rom 8:21 (NIV; NLT; ESV; NRSV) speak of creation's bondage to “decay” (*phthora*), from which it will be liberated. The term “decay” suggests organic death or even entropy and is often understood as teaching that these ordinary processes were initiated by human sin in the garden. However, *phthora* does not refer in either the New Testament or the LXX to what we normally mean by decay. Indeed, the LXX of Gen 6:11–13 uses verbal forms of *phthora* to describe the corruption or destruction of the earth due to the violence that filled it. Thus Rom 8:21 it is better translated as bondage to “corruption” (KJV; NAB; NASB; NJB), which suggests something much more disruptive and dysfunctional than “decay.”

temple will ultimately be filled with the glory of God, as the waters cover the sea (Num 14:21; Isa 11:9; Hab 2:14). When evil has been vanquished and the world becomes the kingdom of God (Rev 11:15), such that God's will is done on earth as it is in heaven (Matt 6:10), then God's throne (pervasively pictured in the Old Testament as being in heaven) will shift decisively to the midst of earthly life (Rev 22:3), leading to the ultimate goal of a cosmos permeated with God's presence. To use Pauline language, Christ will then "fill all things" (Eph 4:10) and God will be "all in all" (1 Cor 15:28).