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The Swamidass Genealogical Adam & Eve Hypothesis: Rooted in Genre Misidentification, *Ad Hoc* Concordism, and a Biblical Proof-Text

Evangelical Christianity is often characterized by concordism in that it attempts to align the Bible with science. Joshua Swamidass' genealogical Adam and Eve hypothesis stands within this tradition as he tries to match the purported timeline in the early chapters of the Book of Genesis with modern genealogical science. Like many evangelicals, he views the account of Adam and Eve in Genesis 2–4 as a historical record of real people and their activities, instead of an ancient account of origins that features de novo creation and a parable-like story with inerrant spiritual truths. In order to fit genealogical science into the opening chapters of Genesis, Swamidass must extend the standard estimated times of this science back by roughly 2000 years. The paper concludes that his genealogical hypothesis is based upon several mistaken hermeneutical assumptions.

Key words: Joshua Swamidass, genealogical science, Genesis 2-4, Adam, concordism, documentary hypothesis

Introduction

In only a few years, computational biologist and physician S. Joshua Swamidass has become a notable voice in the evangelical science and religion community. His central claim is that 'evolutionary science does not require us to reject the Genesis narrative. Adam and Eve, ancestors of us all, could have lived as recently as six thousand years ago in the Middle East. They could have been *de novo* created, the first "humans" of Scripture, free of death in a sinless environment.'[1]

1 Swamidass, S.J., *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*, Downers Grove, IL: Intervarsity Press (2019), p. 7. Hereafter cited as *GAE*. One of the challenging aspects of Swamidass' writing style is his frequent use of modal language, making it difficult at times to determine what exactly he believes. For example, in the short quotation just cited, he uses the verb 'could' two times. In addition, Swamidass presents his theory as 'a thought experiment,' implying that he may not fully accept it. *Ibid*., pp. 24-25. However, the views of Swamidass are best presented in the summary of his hypothesis entitled, 'The Speculative History of Humankind.' *Ibid*., pp. 175-178. In this account, he uses the indicative mood

Swamidass explains his hypothesis in *The Genealogical Adam and Eve: The Surprising Science of Universal Ancestry*. The following is a summary of the main historical events in his view of human origins:[2]

- God created Adam *de novo* (i.e., quickly and fully formed) from the dust of the ground as recorded in Genesis 2:7. He did not have parents.
- God created Eve *de novo* from the rib/side of Adam as recorded in Genesis 2:21-22. She did not have parents.
- Adam and Eve were created as recently as 6000 years ago in the Middle East.
- Humans existed outside the Garden of Eden at the time of Adam and Eve's *de novo* creation. This group of people were created by God through a providentially governed evolutionary process. Genesis 1 refers to the origin of these humans.
- The events recorded in Genesis 1 happened long before (millions of years) the events recorded in Genesis 2.
- The descendants of Adam and Eve interbred (blended) with the pre-existing humans who lived outside the Garden of Eden.
- In only a few thousand years, everyone on earth became a *genealogical* (*not genetic*) descendant of Adam and Eve. This happened by AD 1, at the latest.

Swamidass must be congratulated for introducing the evangelical science and religion community to the concept that there is a significant difference between genetic ancestry and genealogical ancestry. As he defines it, genetic ancestry 'traces the history of stretches of DNA in our genomes, using recently invented technology.'[3] In contrast, genealogical ancestry 'traces the reproductive origin of people, matching the common use of [the terms] *ancestor*, *descendant*, *parent*, and *child*. . . . In this sense, genealogical ancestry matches an ordinary understanding of ancestry.'[4] By employing genealogical ancestry, Swamidass integrates human evolution with a historical and *de novo* created Adam and Eve.

Swamidass' genealogical Adam and Eve hypothesis is deeply rooted in con-

throughout with only a couple theological speculations introduced by the term 'perhaps.' For example, Swamidass muses, '[P]erhaps the tree [of the knowledge of good and evil] was meant for Eve, and not for Adam.' *Ibid*., p. 177.

2 *Ibid*., pp. 7, 10-11, 24-26, 175-178.

3 *Ibid*., p. 33.

4 *Ibid*., p. 32. Italics original.

cordism.[5] He is attempting to align the Bible and modern science. To be more specific, the moment anyone states that Adam was an actual person in history, he or she is assuming a concordist hermeneutic. This idea does not come from science. It originates in Scripture. Swamidass refers to Adam about 500 times in his book.[6] His assumption that concordism is a feature of the opening chapters of the Book of Genesis leads Swamidass to a God-of-the-gaps view of origins with dramatic divine interventions to create a *de novo* Adam and Eve.[7]

But before anyone attempts to align the Bible with genealogical science, it is crucial to determine the correct interpretation of the Genesis accounts of origins, particularly the chapters dealing with Adam and Eve in Genesis 2–4. Asked incisively, has Swamidass correctly identified the literary genre of these opening chapters? Is his concordist interpretation the proper way to read these accounts? And if Swamidass has misidentified the genre, and if concordism is a mistaken hermeneutical approach, will this undermine his God-of-the-gaps genealogical Adam and Eve hypothesis?

Toward the Literary Genre

The key to understanding any written work begins with the identification of the type or category of literature used by an author. Most Christians throughout history have firmly believed that the *de novo* creation of Adam and Eve and the events described in Genesis 2–4 really happened. But before embracing this traditional interpretation, we need to determine the genre of these accounts. I will suggest that there are features *within* Genesis 2–4 that offer clues. The possibility must be entertained that these biblical chapters are an *ancient* literary genre that is unfamiliar to most of us today.

Genesis 2–4: A Thought Experiment

The critical hermeneutical assumption in Swamidass' genealogical Adam and Eve hypothesis is that Genesis 2–4 is a record of actual historical events. He believes in the existence of Adam and Eve, that they were created *de novo*, and that they originally lived in a real geographical region on earth—a garden

5 In the second part of this paper, I will formally define the term 'concordism.'

6 In this paper, all word counts from Swamidass' book are derived from a word search in the Kindle edition his book.

7 The term 'God-of-the-gaps' refers to the use of dramatic divine interventions in nature to explain physical features. The classic example is God intervening miraculously to cause retrograde planetary motion in a geocentric universe. Swamidass' gap in nature derives from his interpretation of Scripture. He accepts the *de novo* creation of a historical Adam and Eve, and this requires two God-of-the-gaps miraculous interventions for this man and woman to be made quickly and fully formed.

in the land of Eden. Swamidass also believes that their children Cain and Abel were real people, and most importantly for his theory, that other people were living outside this garden at the time when Adam and Eve were created.

Let me propose a thought experiment.[8] Assume for a moment that the account of Adam and Eve in Genesis 2–4 did not exist. Also assume that you have just discovered an ancient account of origins written in Hebrew with the following features:

- *de novo* creation of the heavens and the earth
- *de novo* creation of a garden paradise without suffering and death
- wordplay with a realm and garden named 'Delight'[9]
- *de novo* creation of one man made from the dust of the ground
- *de novo* creation of one woman made from the rib/side of the man
- wordplay with a man (*'ādām*) formed from the ground (*'ădāmâ*)
- wordplay with a woman named 'Life' (*ḥawwāh*) because she would become "the mother of all the living"[10]
- *de novo* creation of a mystical (symbolic/allegorical) tree with fruit that imparts knowledge of good and evil
- *de novo* creation of a mystical (symbolic/allegorical) tree with fruit that imparts eternal life
- *de novo* creation of all birds made from the ground
- *de novo* creation of all land animals made from the ground
- the Creator commands the man not to eat from the tree of knowledge of good and evil, and warns him that disobedience of this command leads to physical death
- a talking snake tempts the woman to disobey the command of the Creator

8 Swamidass refers to this rhetorical technique 22 times in his book to make a point. *GAE*, p. 24.

9 This is the translation of the Hebrew word *ēden* instead of the common transliteration 'Eden' found in most Bibles (NIV, NRSV, NASB, JBS, KJV). All Hebrew translations based on standard lexicons. Brown, F, Driver, S.R. and Briggs, C.A. *Hebrew and English Lexicon of the Old Testament*, Oxford: Clarendon Press, [1906] (1951); Koehler, L. and Baumgartner, W. *The Hebrew and Aramaic Lexicon of the Old Testament*, 5 vols. New York, NY: Brill Academic (1995); Clines, D.J.A., (ed.), *The Dictionary of Classical Hebrew*, 8 vols. Sheffield, UK: Sheffield Academic Press (1996).

10 The Hebrew name *ḥawwāh* is related to the verb *ḥāyâ* that means 'to live.'

- the woman disobeys the Creator and then leads the man to disobey
- when called to accountability by the Creator, the woman blames the snake for her disobedience, the man blames the woman, and then he ultimately blames the Creator for his disobedience because the Creator put the woman in the garden with him!
- the Creator judges the man and woman for their sin of disobedience, and physical suffering and physical death enter the world for the first time
- the Creator casts the man and woman outside the garden
- cherubim—composite mystical creatures with the wings of a bird, body of a lion, and head of a human (cf. the Sphinx in Egypt)—guard the garden
- a flaming sword flashing back and forth also guards the garden
- all people on earth descend from the first man and first woman
- wordplay with the first-born child named 'Spear' (*qayin*) because he murders his brother
- wordplay with the second-born child named 'Breath' (*hebel*) referring to a 'short-lived breath' because his life is cut short
- wordplay with a land named 'Wandering' (*nōd*)[11] where the Creator banishes the murderer to be trembling (*nu'*) and wandering (*nud*)

After reading this account of origins with these twenty-three features, would you immediately conclude that it is a historical record of actual events? Or would you say that these characteristics indicate that this account is a made-up story with spiritual lessons and that it includes ancient science (*de novo* creation), wordplay, and mystical (symbolic/allegorical) aspects? I think most people would say this account of origins is a story somewhat like a parable, but not real and actual history.

Of course, these twenty-three features appear in Genesis 2–4 with the creation of Adam and Eve and the events both inside and outside the Garden of Eden. I believe that if we look beyond traditional concordist interpretations of these chapters, and focus instead on these literary characteristics, they become clues in determining the genre of this biblical account.

For me as an evangelical Christian, Genesis 2–4 is a Holy Spirit-inspired account of origins that includes a story with characteristics that are to a certain extent like the parables of Jesus. And we must remember that about one-third

11 The term 'Wandering' is a translation of the Hebrew word *nōd*, and not the transliteration 'Nod' that appears in most Bibles.

of the Lord's teaching were parables. These are fictional and non-historical stories that He invented to teach spiritual truths. Stated in another way, biblical revelation features made-up accounts from our Saviour. Similarly, Genesis 2-4 offers life-changing, *inerrant* messages of faith. Yet being an imaginative story indicates that the events in these biblical chapters never occurred in the past. Therefore, concordist attempts to align Genesis 2–4 with modern science will inevitably fail.

Let me explain the problem of concordism with an analogy using a familiar fictitious story. Most of us have heard of the story of Jack and the Beanstalk. We all know that it is a made-up story that offers a moral lesson. But imagine if a botanist assumed this account was historical and proposed a concordist reading of it. He might speculate on how wide the trunk of the beanstalk needed to be for it to reach the clouds. This scientist might also calculate the width and depth of the roots of the beanstalk to stop it from falling over in high winds. However, would any botanist attempt such a concordist interpretation of Jack and the Beanstalk? Of course not. And I would suggest that concordist readings of Genesis 2–4 are no different. It is not possible to align modern science and a fictional story with events that never happened.

It must also be pointed out that the accounts of origins in Genesis are like other creation accounts found throughout the ancient world, especially in ancient Near Eastern nations surrounding ancient Israel.[12] These ancient renditions of the origins of the inanimate universe and living creatures are a distinct literary genre. Simply stated, they are *ancient creation accounts*.

This ancient literary genre has two basic characteristics. First, *de novo* creation is the view of origins that appears in most of them. The god/s made the heavens and earth, the plants and animals, and men and women quickly and fully formed. This was the origins science-of-the-day. Second, these ancient creation accounts usually include made-up stories that are somewhat similar to parables. These stories feature the religious and philosophical beliefs of a

12 For a compilation of some ancient creation accounts, see Hallo,W.W., (gen. ed.) *The Context of Scripture: Canonical Compositions from the Biblical World*. vol. 1. Leiden, Netherlands: Brill (2003); Leeming, D.A., *Creation Myths of the World: An Encyclopedia* 2 vols. Santa Barbara, CA: ABC CLIO, (2010). It is worth pointing out that I tend to stay away from the volatile term 'myth' to categorize the accounts of creation in Genesis 1 and 2 because it carries the meaning of something that is untrue and utterly false. In addition, myths are denounced in the Bible. The apostle Paul warns in 2 Timothy 4:3–4, 'For a time will come when men will not put up with sound doctrine. Instead, to suit their own desires, they will gather around them a great number of teachers to say what their itching ears want to hear. They will turn their ears away from the truth and turn aside to myths.' The falsity of myths also appears in 1 Timothy 1:4, 4:7, Titus 1:14, and 2 Peter 1:16. However, the category of myth is a well-accepted literary genre in theology, religious studies, and the study of literature. It refers to a story that primarily conveys the beliefs and values of a community. Defined in this way, Genesis 1 and 2 could be termed a 'creation myth' in that it outlines the foundational spiritual truths of the Hebrews.

community or civilization. In many ways, accounts of origins are a form of wisdom literature.[13] Ancient authors were masterful storytellers and the spiritual truths they told through their well-crafted fictitious stories were critical for holding their society together. This is also the case with the ancient Hebrews. The stories in the opening chapters of Genesis about a holy and powerful Creator who cared for them united their community.

In contrast, our scientific accounts of origins are limited to physical facts and theories, and they never include made-up stories with spiritual truths.[14] This is why reading ancient creation accounts is a challenge for us. It is a literary genre that we are not familiar with. And today there is a tendency to read the biblical creation accounts through our scientific mindset and *to historicize* the parable-like, non-historical story. This is a mistake made by many evangelical Christians, including Joshua Swamidass.

Original Sources in Genesis 1–11 & Authorial Intentionality

A foundational concept for understanding the first chapters of Scripture is that they contain original sources that were combined by an editor, who is often termed the 'Redactor.'[15] Genesis 1–11 has two different versions of origins, written at two different times in the past, by two different authors, commonly referred to as the 'Priestly' and 'Jahwist' writers. More specifically, Genesis 1 is attributed to the P author and Genesis 2–4 to the J author. For readers not familiar with source theory, I have two online supplementary documents that introduce the basic concepts with some biblical evidence supporting it.[16]

13 Peter Enns asserts 'that reading the story of Adam as a wisdom story, as others have done, is compelling in its own right.' Enns, P., *The Evolution of Adam: What the Bible Does and Doesn't Say about Human Origins*. Grand Rapids, MI: Brazos Press (2012), p. 80. Regarding ancient Near Eastern wisdom literature, see Sparks, K.L., *Ancient Texts for the Study of the Hebrew Bible*, Peabody, MA: Hendrickson (2005), pp. 56-83. A common ancient literary technique in these stories was to invent talking animals, which of course points us to the talking snake in Genesis 3.

14 For example, in the dozen scientific papers I have published with my colleagues in the paleontology department at my university, we have never included parable-like stories or our religious and philosophical beliefs.

15 This theory is commonly known as the 'Documentary Hypothesis,' and it attempts to explain the formation of the Pentateuch. In many evangelical circles, it is viewed as controversial and often rejected. But in this paper, I limit my analysis to the opening chapters of Genesis and will simply refer it as 'source theory' and the 'theory of original sources.' For excellent introductions on the Documentary Hypothesis, see Friedman, R.E. *Who Wrote the Bible?* New York, NY: Simon and Schuster (2019); *idem*, *The Bible with Sources Revealed*. New York, NY: Harper, SanFrancisco (2003), pp. 1-31; Feldman, L.M., *The Consuming Fire: The Complete Priestly Source from Creation to Promised Land*. Oakland, CA: University of California Press (2023), pp. 1-52.

16 Supplement A deals with basic principles of source theory: https://sites.ualberta.ca/~dlamoure/asa21a.pdf . Supplement B reveals the sources in the biblical flood account in

A challenging aspect in the interpretation of the Genesis accounts of origins involves determining the authorial intentionality of the Priestly and Jahwist writers. Like all authors, they intended to communicate specific ideas to their audience. In addition, they each chose a specific literary genre to deliver their messages. But the Redactor in combining the P and J sources also had his own intention. I believe it is fair to say that his purpose was to offer a history of both the creation of the world, the first people on earth, and the beginning of the Hebrew community. Therefore, concordists like Joshua Swamidass and Christian anti-evolutionists are quite reasonable to suggest that the first chapters of Genesis are a historical account of origins. Indeed, Genesis 1–11 does give the impression of being a record of real people and real events.

However, this is the question that needs to be answered: Does the authorial intentionality of the Redactor override or cancel the authorial intention of either the Priestly writer or the Jahwist writer? For example, if the J author intended the account of Adam and Eve in Genesis 2–4 to be a parable-like story, does the Redactor's intention to provide a historical account in Genesis 1–11 *transform this fictional and non-historical story into actual history*? I am sure that most would say the answer is 'no.' If this were the case, it would be like someone taking the story of Jack and the Beanstalk and attempting to historicize it by placing it in a historical account. I doubt anyone would try to do this.

It must be acknowledged that the authorial intention of the Priestly author is, for the most part, to offer a record of historical events and people. This writer often places titles at the beginning of accounts in the Book of Genesis, and he uses the formula 'These Are the Generations of [Name of a Person].' For example, Genesis 6:9 states, 'These Are the Generations of Noah.' In the P passages of the Book of Genesis, there are ten of these titles and five of them are found in Genesis 1–11 (Gen. 5:1, 6:9, 10:1, 11:10, 11:27). The term translated 'Generations' is the Hebrew noun *tôlēdôt*. The root of this word is the verb *yālad*, which means 'to give birth' and 'to bring forth children.' Therefore, *tôlēdôt* could be translated, 'This is the family History of [Name of a Person]' or simply 'This is the History of [Name of a Person].'[17]

Now, here is where it gets challenging. As noted above in our thought experiment, Genesis 2–4 features a parable-like story. But the account of Adam and Eve in the Garden of Eden begins with: 'These Are the Generations [or De-

Genesis 6-9: https://sites.ualberta.ca/~dlamoure/asa21b.pdf . A *CiS* reviewer of this paper pointed out that I should distinguish between (1) the literary features in Genesis 2–4, and (2) the speculations regarding the theory of original sources. The former stand on firmer ground, while the latter are less so. I am grateful for this insight, and I concur.

17 See Wenham, G.J., *Genesis 1-15*, vol. 1. Waco, TX: Word Books (1987), p. I:xxii. The noun *tôlēdôt* could also be translated as 'descendants.' Therefore, this title could be translated, 'These Are the Descendants of . . .' See Feldman, *op. cit.* pp. 15, 56 note 10; Carr, D.M., *Genesis 1–11*. Stuttgart, Germany: Kohlammer (2021), p. 93.

scendants] of the Heavens and the Earth' (Gen. 2:4a). There is internal biblical evidence that suggests the Redactor added this title in his attempt to historicize Genesis 2–4.

First, the Jahwist author does not use titles like the Priestly *tôlēdôt* formula to introduce different accounts. Therefore, it is unlikely that the J writer composed Genesis 2:4a. Second, this title refers to the heavens, but not once in this account does it mention the sun, moon, and stars. Third, the Genesis 2:4a heading is illogical. The *tôlēdôt* formula deals with generations/descendants of humans that arise through natural reproduction. But the heavens and earth do not reproduce. Fourth, Genesis 2–4 deals with Adam and Eve and their progeny. However, the Priestly genealogy in Genesis 5:1 already uses the title, 'This Is the Book of the Generations [Descendants] of Adam.' Therefore, the Redactor had to invent a different title for Genesis 2–4 that was not a repetition of the P writer's Genesis 5:1.

There is more internal biblical evidence to indicate that the parable-like story in Genesis 2–4 was historicized. It appears that an unknown editor made additions to these chapters after they had been composed by the Jahwist author. Some biblical scholars refer to this individual as 'Jahwist$^{2'}$ or simply 'J^{2}.'[18] A clear example of such an editorial insertion is the geographical interlude (better: interruption) in Genesis 2:10–14. Stylistically, these five verses are disruptive and clash with the story, adding nothing to the plot. For example, what does knowledge that there is gold, bdellium, and onyx in Havilah have to do with the spiritual message about humans not obeying the Lord in this account? This would be no different than placing a similar geographical interlude in Jesus's Parable of the Prodigal Son (Lk. 15:11–32) after it refers to a 'distant country' in verse 14.[19] It would be stylistically and thematically completely out of place.

In addition, there is a conflict between the geographical interlude and the beginning of Genesis 2. Conflicts and contradictions in an account are some of the best evidence for the existence of different original sources.[20] Verse 6 states that 'a mist came up from the earth and watered the *whole* surface of the ground' (my italics). However, verse 10 asserts that it was a river that watered

18 The main Jahwist author who wrote most of Genesis 2–4 is labelled 'Jahwist^{1}' or 'J^{1}.' See Friedman, *Who Wrote the Bible? Op. cit.* (15), p. 69; Wenham, *op. cit.* (17), pp. 97-98.

19 See footnote 28 for a supplement in which I add the geographical and genealogical intrusions from Genesis 2 and 4 into the Parable of the Prodigal Son.

20 Joel Baden argues, 'The mark of an author is his creation of and adherence to a distinct and definable set of historical claims: who did what, when, where, and how. Where these claims are contradictory, we must consider that a different author is at work; where they are the same, there is no need to pursue any source division.' Baden, J.S., *The Composition of the Pentateuch: Renewing the Documentary Hypothesis.* New Haven, CN: Yale University Press (2012) p. 246.

the garden.[21] Moreover, verse 8 asserts that 'the Lord God planted a garden *in* [Hebrew preposition *bə*] Eden;' but verse 10 of the geographical interlude states, 'Now a river went out *from* [*mē*] Eden to water the garden.'[22] In other words, the former has the garden inside of Eden, while the latter has the garden outside of Eden. These conflicts and contradictions indicate that the geographical interlude in Genesis 2:10–14 is an addition by an unknown editor (J^2) in his attempt to historicize the parable-like story in Genesis 2-4.

This interruptive geographical inclusion has also impacted the translation of Genesis 2–4. Most people are aware of the aphorism, 'lost in translation.' For example, wordplay does not often convert into another language, such as the Hebrew words *'ādām* (man) and *'ădāmâ* (ground) in Genesis 2. There is another similar translation shortcoming: *lost in transliteration*. Genesis 2–4 refers to 'Eden' six times and 'Nod' once. These are transliterations of Hebrew words. It seems that the geographical references in Genesis 2:10–14 influenced translators to move away from the actual meaning of these two terms in a parable-like story and turned them into actual geographical regions on earth.[23] These transliterations further contribute to the traditional historical and concordist interpretation of Genesis 2–4.

However, the Hebrew word *ēden* means 'delight' and 'luxury.' For example, Psalm 36:8 translates, 'You [God] give them drink from your river of delights [*ēden*]' (NIV; cf., NRSV, NASB). And the related noun *nōd* and verb *nud* refer to 'wandering' and 'moving to and fro.' The Lord in 2 Kings 21:8 states, 'I will not again make the feet of the Israelites wander [*nud*] from the land' (NIV; cf., NRSV, NASB). Therefore, if we respect the literary genre of the parable-like story in Genesis 2–4, this is an account about being with the Lord in the symbolic/allegorical Garden of Delight or being alienated from him in the symbolic/allegorical Land of Wandering. These are not real geographical regions on earth, but imaginary realms in a made-up story. Moreover, this account is characteristic of wisdom literature in that it presents two simple choices—wisely obey the Lord and be in his presence, or foolishly disobey God and be alienated for him (cf. Book of Proverbs). The Jahwist author of Genesis 2–4 never intended to teach geography.

21 Gordon Wenham notes regarding Genesis 2:10–14, 'The narrative flow is here *interrupted* with details about rivers in the garden. This break has led most modern commentators to conclude these verses at least reflect a different source from the rest of the chapter.' *Op. cit.* (17), p. I:64. My italics.

22 These are my literal word-for-word translations of the original Hebrew to display the conflict. Of course, modern translations attempt to smooth over this problem.

23 This transliteration problem occurs as early as the Septuagint (Greek translation of the Hebrew Old Testament roughly 250 BC) with the Greek terms '*Edem*' and '*Naid*.' Notably, concordist and historical interpretations of Genesis 2–4 were common by this time. See the apocryphal books associated with the Bible and the pseudepigraphal books. Charlesworth, J.A., *Old Testament Pseudepigrapha*. 2 vols. Peabody, MS: Hendrickson (2010).

There is more evidence for the presence of another passage added to Genesis 2–4. A subtle conflict exists between Abel who 'kept flocks' in Genesis 4:2 and Jabal who 'was the father of those who lived in tents and raised livestock' in Genesis 4:20. Jabal could not be 'the father' or originator of tending livestock because Abel lived six generations before him, as indicated by the genealogy in Genesis 4:17–24. This conflict suggests that the genealogy is a separate source that was inserted at the end of the story of Adam and Eve and their two sons in Genesis 2:4 to 4:16. Again, this seems to be the work of an unknown editor (J^2) in his attempt to historicize this account.

An even more striking contradiction appears in Genesis 4. After Cain murders his brother Abel, the Lord condemns him in verse 12 and declares, 'You will be a drifter (*nu'*) and a wanderer (*nud*) on the earth.' In verse 14, Cain repeats this divine judgment and laments, 'I will be a drifter (*nu'*) and a wanderer (*nud*) on the earth.' Genesis 4:16 then concludes, 'So Cain went out of the Lord's presence and lived in the Land of Wandering [*nōd*], east of [the Land of] Delight.'[24] The wordplay is obvious. It is important to emphasize, there are three different voices repeating this condemnation of Cain to be a wanderer—(1) the Lord, (2) Cain himself, and (3) the narrator of the account.

However, immediately following Genesis 4:16, verse 17 states that Cain married a woman, had a son, and then 'built a city, and named the city after the name of his son Enoch.' So, is Cain a wanderer moving about the earth? Or is he sedentary and the builder of a city in one specific place?[25] This obvious contradiction indicates that the genealogy of Cain in Genesis 4:17–24 is a separate source that was added at the end of the account of Adam and Eve and their two sons in Genesis 2:4 to 4:16. The inclusion of the Cain genealogy appears to be another attempt by the unknown editor (J^2) to historicize this parable-like story.

One of the most important concepts in Swamidass' genealogical Adam and Eve hypothesis is that there was a real geographical region outside the Garden of Eden. In his book, he refers to this area as 'outside the Garden' *246 times*. For his theory to work, Swamidass absolutely requires the existence of a population of humans in this region that interbred with the descendants of Adam

24 As per footnote 22.

25 To suggest that Cain rebelled against God and became a city dweller is unconvincing. There is no indication that God's judgment of Cain was recanted, or for that matter, that divine judgments can be avoided. For example, did Adam sidestep God's condemnation for him to die (Gen. 3:17; 5:5)? Wenham notes that biblical scholars such as A. Dillmann, H. Gunkel, S. Driver, and J. Skinner have recognised this 'glaring' contradiction. Genesis 4:12–16 'make Cain a perpetual wanderer, but according to v. 17 he builds a city.' They argue this is evidence for 'the existence of two sources *within* J.' *Op. cit.* (17), pp. I:97-98. My italics. In addition, it should be pointed out that the Semitic thrice repetition of Cain's condemnation is stylistically appropriate as an ending to the original parable-like story of the Jahwist author in Genesis 2:4 to 4:16.

and Eve. However, Swamidass completely misidentifies the literary genre of Genesis 2–4. This is a made-up story and not a historical record of real people and real events in a real place on earth. And as the next section of this paper argues, this failure to recognize the genre of Genesis 2–4 chains Swamidass to a concordist hermeneutic and a God-of-the-gaps view of divine creative action in these opening chapters of Scripture.

By correctly identifying the literary genre and respecting the existence of sources within Genesis 2–4, we can address two common issues raised by Swamidass and other Christians. First, after murdering his brother Abel and being judged by God, Cain laments that 'whoever finds me will kill me' (Gen. 4:14). Who are these people that Cain feared? In reality, no one. This is a parable-like story that never happened. Genesis 4:14 offers an inerrant wisdom message—murder your brother (or anyone) and you will wander about trembling in fear for the rest of your life. As Proverbs 28:17 states, 'A man tormented by the guilt of murder will be a fugitive (*nus*) till death.' This is a spiritual truth, not a historical truth. This is wisdom literature.

The second issue is very well-known. Where did Cain get his wife? The answer is that the story of Adam and Eve and their sons Abel and Cain in Genesis 2:4 to 4:16 is a distinct literary unit, and *it never refers to Cain having a wife*. The mention of him marrying a woman and fathering a son comes from the genealogy in Genesis 4:17–24, which was later added by the unknown editor (J^2) in his attempt to historicize Genesis 2–4. In other words, the question of where Cain's wife came from is based on an *incidental editorial artifact*. It is an accidental and unintended by-product of placing together not only two different sources, but two different literary genres—a parable-like story (J^1) and a genealogy (J^2).

This artifact is like the contradictory order of God's creative acts in the Priestly Genesis 1 and the Jahwist Genesis 2. The combination of these two sources by the Redactor created incidental conflicts between events that in reality never existed. For example, birds are created *before* the male and female humans in Genesis 1, but they are made *after* Adam and before Eve in Genesis 2. The wife of Cain is not part of the story in Genesis 2:4 to 4:16. The question of her origin cannot be forced into this imaginative parable-like account. An incidental editorial artifact cannot be used to establish the existence of a historical population of people 'outside the garden,' as Swamidass proposes.

In failing to identify the correct literary genre of Genesis 2–4, Swamidass misses an opportunity to savor the masterful storytelling ability of the Jahwist writer. As literary scholar Lisa Cron notes, 'A story is designed, from beginning to end, to answer a single overarching question . . . Stories are our way of making sense of the world so each and every one tells us something about what it

means to be human.'[26] The made-up story in Genesis 2–4 is *everyone's* story. We are all sinners—sinning against God and sinning against other humans—and we even try to rationalize our sins by blaming others . . . and even blaming God! The power of the Holy Spirit-inspired opening chapters of the Word of God is that inerrant messages of faith transcend the incidental historiographical intentions of the Redactor and the unknow editor (J^2).

To appreciate the 'story-ness' of Genesis 2–4, Supplement C attempts to re-create the original Jahwist source by removing the disruptive geographical and genealogical intrusions and using translations instead of transliterations of the Hebrew words 'Eden' and 'Nod.'[27] Supplement D shows how the geographical and genealogical intrusions from Genesis 2–4 can be incorporated into the Parable of the Prodigal Son in an attempt to historicize the made-up story.[28] These editorial additions certainly disrupt the flow and 'story-ness' of the parable in a manner similar to Genesis 2–4, yet the inerrant spiritual truths of this parable are preserved like those in these opening chapters of Scripture.

The Inevitable Failure of Concordism

Concordism is the assumption that the Bible in some way aligns with the facts of modern science. It must be noted that concordism is a reasonable belief. After all, God created the world, and he also inspired the Bible. To expect a harmony, consistency, or alignment between Scripture and science is an assumption that makes sense to most Christians.[29] Concordism continues to be a dominant hermeneutical approach within several evangelical circles, especially in the United States.

A classic example of concordism is the day-age theory presented in James Dana's famous *Manual of Geology*. Figure 1 is a reproduction of his attempt

26 Cron, L., *Wired for Story: The Writer's Guide to Using Brain Science to Hook Readers from the Very First Sentence*. Berkeley, CA: Ten Speed Press (2012) pp. 25, 43.

27 Supplement C: https://sites.ualberta.ca/~dlamoure/asa21c.pdf.

28 Supplement D: https://sites.ualberta.ca/~dlamoure/asa21d.pdf .

29 For a history of concordist interpretations, see Ramm, B., *The Christian View of Science and Scripture*. Grand Rapids, MI: Eerdmans (1954); Jaki, S. *Genesis 1 Through the Ages*. New York, NY: Thomas More Press (1992). Ramm notes that concordism leads to a God-of-the-gaps view of origins. In a section that describes 'moderate concordism' in Genesis 1, he states, 'From time-to-time great creative acts, *de novo*, took place.' Ramm, *Christian View*, p. 155. One of the American Scientific Affiliation reviewers of this paper complained that the term 'concordism' was a 'pejorative.' Not true. For example, I believe that real history in the Bible begins with Abraham around Genesis 12. This makes me a 'historical concordist.' And I embrace without any reservation historical concordism in the New Testament. For an account of my own acceptance of concordism at the beginning of my Christian faith, see Lamoureux, D.O., *Struggling with God & Origins: A Personal Story*. St. Augustine, FL: Best Seller Publishing (2023).

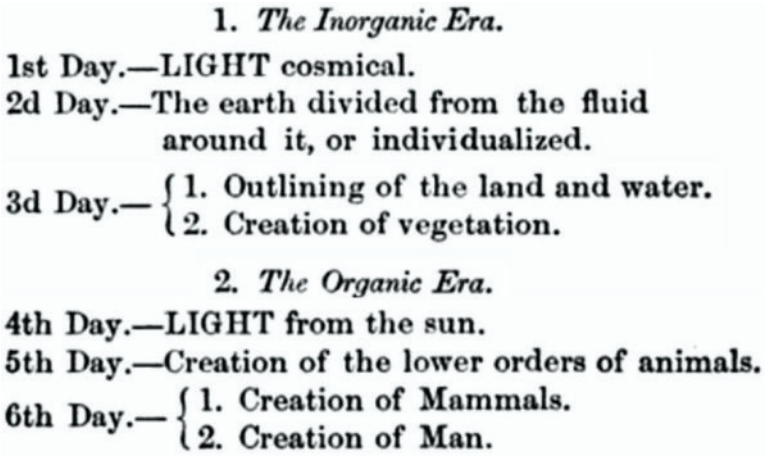

Figure 1. James Dana's Concordist Interpretation of Geology and Genesis 1.

to align geology with Genesis 1.[30] Of course, this concordist interpretation abounds with problems. To mention only a few: Dana claims that 'lower orders of animals' are created on the fifth day (age). However, Scripture states that 'creatures that move along the ground' (this would include lower orders of animals) were made on the sixth day. Moreover, the Bible asserts that God created birds on day five, but they are not 'lower orders of animals.' Scripture also records that sea creatures were made on the fifth day. These marine animals would include whales and other cetaceans, which are mammals, and again not 'lower orders of animals.' But Dana puts the creation of mammals on day six. Finally, the days in Genesis 1 are regular 24-hour days (as I will argue below). They are not millions of years long and do not match up with the geological record. The lesson to be learned from concordists like James Dana is that the Bible and science cannot be aligned or harmonized. Concordism inevitably fails.

Swamidass is aware of the term 'concordism.'[31] He refers to this word twice in his book and casts it in a disapproving light—'the eisegesis of concordism' and 'the negative type of concordism.'[32] In the first chapter of his book, Swa-

30 Dana, J.D., *Manual of Geology*. Philadelphia, PA: Bliss Co. (1863) p. 745.

31 In a 2020 podcast, Swamidass admits, 'I don't think I knew the term "concordism" before I met them [the people at BioLogos around 2014].' Swamidass states that he prefers to be identified as a 'scriptural realist.' However, I see no conceptual difference between this term and concordism. As I will demonstrate, Swamidass is a concordist, but he does not seem to be aware of it. Heiser, M.S., *Naked Bible 356: The Genealogical Adam and Eve Part 1.* 27 December 2020. Retrieved January 8, 2021 from: https://podcasts.apple.com/us/podcast/naked-bible-356-the-genealogical-adam-and-eve-part-1/id961385822?i=1000503723463

32 *GAE*, pp. 166, 204. The latter reference makes me wonder if Swamidass believes there is a

midass makes an impassioned declaration against concordism, 'We are not reading evolution into Scripture . . . I am not reading evolutionary science into Scripture.'[33] Yet in the same paragraph where he attempts to distance himself from concordism, he states, 'In this book, I hypothesize that God created everyone *outside the Garden* through a providentially governed process of common descent, a process legitimately described by *evolutionary science*.'[34] Unwittingly, Swamidass is aligning Scripture ('everyone outside the Garden' from Genesis 4) and science ('evolutionary science').

And in this same paragraph denouncing concordism, Swamidass asserts that his genealogical 'hypothesis *matches* the traditional account of Adam and Eve' and that it is '*consistent* with Scripture.'[35] Swamidass goes so far as to state, 'The genealogical hypothesis (GH) holds three claims together: (1) *de novo* created, (2) recent Adam and Eve, (3) ancestors of us all. *It is very close to a young earth creationist understanding of Adam and Eve*.'[36] As everyone knows, young earth creation is deeply rooted in a strict literal concordism.

Despite his fervent protestations, Swamidass is a concordist. In fact, he embraces two types of *ad hoc* concordism. The first form takes biblical accounts and distinguishes between passages to be understood through a literal concordism from those using a less literal concordism.[37] The second type of *ad hoc* concordism is an inconsistent hermeneutic in that some verses in a biblical account are read with a concordist approach, while others in the same account are completely ignored.[38] With these two versions of *ad hoc* concordism in mind, let us turn to the main biblical chapters that undergird Swamidass' hypothesis of human origins—Genesis 1 and Genesis 2–4.

positive type of concordism. If so, he never mentions it.

33 *Ibid*. p. 10.

34 *Ibid*. My italics.

35 *Ibid*. My italics.

36 *Ibid*., p. 11. My italics.

37 This first form of *ad hoc* concordism appears with Swamidass' inconsistent interpretations of the creation of Adam and the flood of Noah. He affirms the historical *de novo* creation of Adam based on a literal reading of Genesis 2, but steps away from a literal interpretation of the Bible's worldwide flood in Genesis 6–9 (e.g., Ararat Mountains inundated; Gen. 8:4) and proposes the flood was local. As Swamidass states, 'Noah's flood did not destroy the people outside the Garden . . . A unique regional flood might have destroyed all of Adam and Eve's world in a large region, but not the whole globe.' *Ibid*. p. 170.

38 This second form of *ad hoc* concordism is seen when Swamidass attempts to align Genesis 1 with the evolution of living organisms and humans, but then he completely ignores the origin of the inanimate universe (i.e., the firmament, sun, moon, and stars).

Genesis 1: Evolution of Living Creatures & Biological Humans

Swamidass contends that Genesis 1 offers a record of the evolution of living organisms, including what he terms 'biological humans.' These people are found outside the Garden of Eden, and they bear the Image of God. Swamidass asserts:

> In Gen 1, Elohim calls, 'Let there be,' and the 'land' and 'sea' (subject) bring forth (verb) plants and animals (object) of 'many kinds.' The land and sea create under God's providential governance, just as is affirmed in many Christian understandings of evolution . . . In the beginning, Elohim creates *biological humans* in the image of God, through a providentially governed process of common descent [i.e., evolution]. Elohim grants this people an irrevocable gift of freedom. Elohim calls forth all humankind, male and female, created in his image and commissioned to multiply and spread across the Earth (Gen 1:26–27). *Biological humans*, the people outside the Garden, arise *long before* Adam and Eve. Science [i.e., evolutionary science] legitimately tells us the story of how they arose and who they are.[39]

Swamidass' *ad hoc* concordism is displayed in this passage. He disregards the actual meaning of God's verbal commands in Genesis 1, 'Let there be ...' These do not refer to divine providential activity through an evolutionary process over aeons of time. Instead, these are God's *de novo* creative acts that happened quickly to form fully mature creatures. Clearly, Swamidass is 'reading evolution into Scripture' (to use his words). In addition, he completely overlooks the Creator's *de novo* formation of the heavens on creation days two and four. Scripture states unequivocally that God rapidly created a solid firmament to separate a heavenly sea overhead, and then he quickly placed the sun, moon, and stars in this hard dome. Swamidass does not seem to be aware of the significant implications that Genesis 1 and the Bible feature an ancient Near Eastern cosmology (3-tier universe), as shown in Figure 2.[40]

39 *GAE*, p. 165 footnote 6 and 175. My italics. Swamidass uses the word 'Elohim,' which is a transliteration of the Hebrew word for 'God.'

40 The presence of an ancient cosmology in Scripture indicates that God *accommodated* during biblical inspiration to the intellectual level of the writers and their generation. This ancient astronomy and geography imply that the Bible also includes an ancient biology, such as the immutability of living creatures and their *de novo* creation. In this way, the *de novo* creation of Adam and Eve is an accommodation by the Holy Spirit to the biology-of-the-day held by the ancient authors of Scripture. See Lamoureux, D.O., *The Bible and Ancient Science: Principles of Interpretation*. Tullahoma, TN: McGahan Publishing House (2020) pp. 53-58, 98-136.

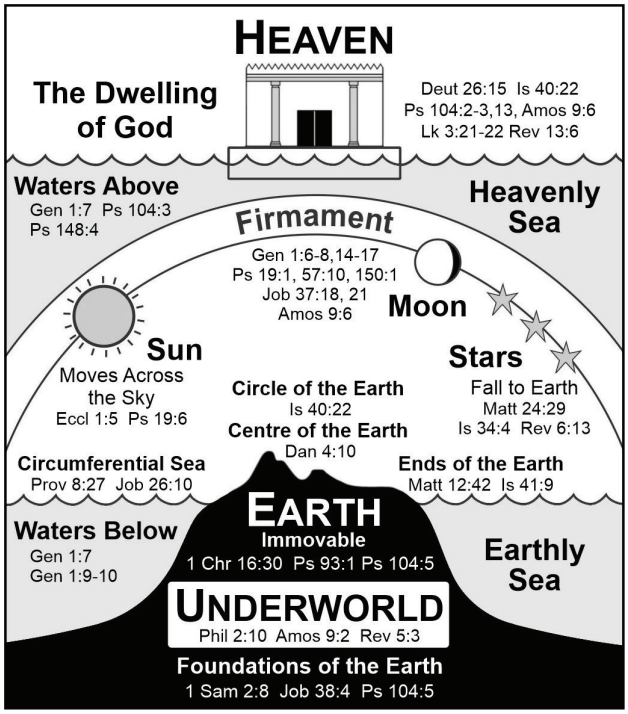

Figure 2. The Ancient Cosmology in Scripture.

Swamidass is also 'reading evolutionary science into Scripture' (to use his words) when he states the creation of land animals in Genesis 1 aligns with 'Christian understandings of evolution.' But he seems unaware that one mechanism of origins in the ancient Near East assumed the gods planted the reproductive seeds of land creatures, and they then grew out of the ground like plants.[41] For example with regard to humans, the *Assur Bilingual Creation Story* claims people 'sprout from the ground like barley.'[42] Similarly, the *Hymn to E'engura* asserts that 'humans broke through the earth's surface like plants.'[43]

41 Ancient people accepted preformatism. This ancient view of reproduction asserts that an entire miniscule animal or person was inside a reproductive seed. From this perspective, it was assumed by some that the gods had seeded the land with animal and human seeds, and these later sprouted and grew into mature creatures. See Needham, J. *A History of Embryology*. New York, NY: Arno Press (1975) p. 44.

42 Clifford, R.J., *Creation Accounts in the Ancient Near East and in the Bible*. Washington, DC: Catholic Biblical Association (1994) p. 30.

43 *Ibid*.

This plant-like mechanism appears to be the creative method described in Genesis 1:24. God commands, 'Let the land produce living creatures according to their kinds: the livestock, the creatures that move along the ground, and the wild animals, each according to its kind.' The Hebrew verb translated 'produce' in this verse is *yāṣā'*, and it is the same verb found in Genesis 1:12 in which 'the land produced vegetation.' Therefore, Genesis 1 is not affirming biological evolution, as Swamidass proposes. Instead, Genesis 1:24 is pointing to an ancient science of origins in which land animals sprouted out of the earth like plants.

In addition, Swamidass overlooks the numerous references to time in Genesis 1. This chapter is limited to God creating over a period of six days. These days are 24-hour periods since each is qualified, 'There was evening and there was morning.' Moreover, whenever the Hebrew word 'day' (*yōm*) appears with a number, it refers to a normal day, as is the case in this chapter. Finally, Genesis 1 is designed to affirm the Fourth Commandment—six 24-hour days to work and one day to rest (Exo. 20:8–11). Therefore, Genesis 1 is not referring to a period that is hundreds of millions of years long with the evolution of living creatures and so-called 'biological humans.' To claim that 'biological humans, the people outside the Garden, arise *long before* Adam and Eve' disregards the clear temporal markers in Genesis 1. Once again, this is evidence of concordism and Swamidass 'reading evolution into Scripture.'

Genesis 2–4: De Novo *Creation of Adam and Eve & Textual Humans*

Several evangelical Christians will undoubtedly be attracted to Swamidass' genealogical hypothesis since he defends the traditional *de novo* creation of a literal and historical Adam and Eve.[44] They will also be drawn by his concordism as he attempts to align the events in Genesis 2–4 with modern science. Swamidass explains,

> Entirely *consistent* with the genetic and archeological evidence, it is possible that Adam was created out of dust, and Eve out of his rib, less than ten thousand years ago. Leaving the Garden, their offspring would have blended with those outside it, biologically identical neighbors [i.e., Swamidass' category of 'biological humans'] from the surrounding area. In a few thousand years, they would become genealogical ancestors of everyone . . . Genesis 1 is about the creation of the people outside the Garden [i.e., 'biological humans' created through evolution], but Genesis 2 onward sits within this larger account, following Adam, Eve, and their descendants, who become all of us . . .

44 In many ways, Swamidass is the Hugh Ross of genealogical science. Ross has assisted Christians to accept the age of the earth. Swamidass will undoubtedly help many of them embrace evolution.

> From this point of view, Adam and Eve are the first *textual humans* on earth, and no *textual humans* lived on earth before them. Every *textual human* in all of history is a direct genealogical descendant of Adam and Eve.[45]

For Swamidass' genealogical theory to work, he needs to radically reinterpret a critical and well-known biblical verse. Genesis 3:20 states, 'Adam named his wife "Eve," because she would become the mother of *all the living*' (my italics).[46] However, this verse is problematic for Swamidass because Eve *cannot* be 'the mother of all the living.' As noted earlier, he claims that 'biologically identical neighbors' bearing the Image of God existed outside the Garden of Eden who did not descend from her, and most of these so-called 'biological humans' lived tens of thousands of years before her. To protect his theory, Swamidass needs to invent another new category of humans—the 'textual humans.' Therefore, according to his theory, the phrase 'the mother of all the living' in Genesis 3:20 refers to 'the mother of all textual humans.' Of course, this category of humans is not found in Scripture, and it has never been part of Christian tradition. It is the fabrication of a modern concordist hermeneutic.

Swamidass' *ad hoc* concordism also appears in his view of God's creative acts in Genesis 2. On the one hand, he accepts the *de novo* creation of Adam and Eve.[47] But on the other hand, Swamidass ignores the fact that God also made plants and animals quickly and fully formed in Genesis 2. In verses 8 and 9, the Creator planted a garden with trees bearing fruit for human consumption and two mystical trees—the tree of life and the tree of the knowledge of good and evil. As well, verse 19 states, 'So out of the ground the Lord God formed *every* animal of the field and *every* bird of the air' (my italics). This situation is like Swamidass' disregard of God creating the heavens *de novo* in Genesis 1. He uses a literal and concordist interpretation for the creation of Adam and Eve, and then completely ignores the *de novo* creation of all other living organisms in Genesis 2.

Akin to his failure in recognizing the ancient plant-like mechanism of the origin of land animals in Genesis 1, Swamidass overlooks the fact that Genesis 2 features a second ancient creative method—the craftsman-like mechanism of forming creatures from clay or earth. In ancient Mesopotamia, the *Epic of Gilgamesh* describes a goddess creating a man from a pinch of clay.[48] The story of *Enki and Ninmah* records an intoxicated goddess using earth to make seven

45 *GAE*, pp. 10, 142, 180. My italics.

46 It is significant that Swamidass refers to Genesis 3:20 only once in his book and never explains it in the context of his hypothesis. *Ibid*. p. 114.

47 The *de novo* creation of Eve would have required some God-of-the-gaps genetic engineering. For example, all the Y-chromosomes in Adam's side/rib needed to be removed and replaced with X-chromosomes in order to make Eve with two X-chromosomes. See footnote 61.

48 *Op. cit.* (42) pp. 48-49.

humans with disabilities.[49] In ancient Egypt, the god Khnum creates people from clay by fashioning them on a potter's wheel, and the goddess Isis then gives life to them.[50] These ancient Near Eastern examples of the *de novo* creation of humans are quite similar to Genesis 2:7. The Lord acts like a craftsman and 'formed a man from the dust of the ground.'[51] And Isis' animation of a clay human is comparable to God who 'breathed into his [the man's] nostrils the breath of life, and the man became a living being.' Clearly, the *de novo* creation of Adam in Genesis 2 is an ancient understanding of human origins.

Swamidass' attempt to date the creation of Adam and Eve offers more evidence of his *ad hoc* concordism. In the block quotation above, he places their origin at 'less than ten thousand years ago.' Yet Swamidass offers a wide range of other dates in his book. In one place, he suggests that Adam and Eve 'could have lived as recently as *six* thousand years ago . . . It is also possible that Adam and Eve were situated more anciently, at *eight*, *ten*, or *fifteen* thousand years ago.'[52] In another place, Swamidass extends the date of Adam and Eve even further back in time. 'If they lived *ten* thousand years ago, or *fifty* thousand years ago, or *five hundred* thousand years ago, they also would be ancestors of everyone from AD 1 onward.'[53] Swamidass' lack of specificity for the date of Adam and Eve does not promote confidence in his theory and only demonstrates his *ad hoc* concordism.

Finally, in the block quote above, Swamidass offers his view of the relationship between Genesis 1 and 2. He states, 'Genesis 1 is about the creation of the people outside the Garden, but Genesis 2 onward *sits within this larger account*, following Adam, Eve, and their descendants, who become all of us.'[54] However, Swamidass seems unaware that these chapters are two entirely different and independent creation accounts that were composed by two different writers at two different times in the past.[55] Standard dates place the Jahwist writer of Genesis 2 in the ninth or tenth century BC, and Priestly author of Genesis 1 in

49 *Ibid*. p. 75.

50 *Ibid*. pp. 105, 107.

51 Notably, the verb translated as 'formed' in this verse (also vv. 8 and 19) is *yāṣār*. It is the root of the noun 'potter.' As Isaiah 64:8 states, 'Yet you, Lord, are our Father. We are the clay, you are the potter [*yāṣār*]; we are the work of your hand.'

52 *GAE*, p. 64.

53 *Ibid*. p. 61. On the range of dates for Adam and Eve see also, *ibid*. p. 78.

54 *Ibid*. p. 142. My italics.

55 It is obvious that Swamidass is not aware of source theory. For example, he states, 'About 4,000 years ago, Genesis is compiled into its *final form*.' *Ibid*. p. 58. My italics. I do not know of a single Old Testament scholar who places the completion of the Book of Genesis at 2000 BC. In fact, the Hebrew language did not appear until the tenth century BC, and the Priestly author most likely wrote his document in the sixth century BC or later. This obviously places the 'final form' of Genesis after this time. See Sanders, S.L., *The Invention of Hebrew*. Urbana, IL: University of Illinois Press (2011) pp. 103-155.

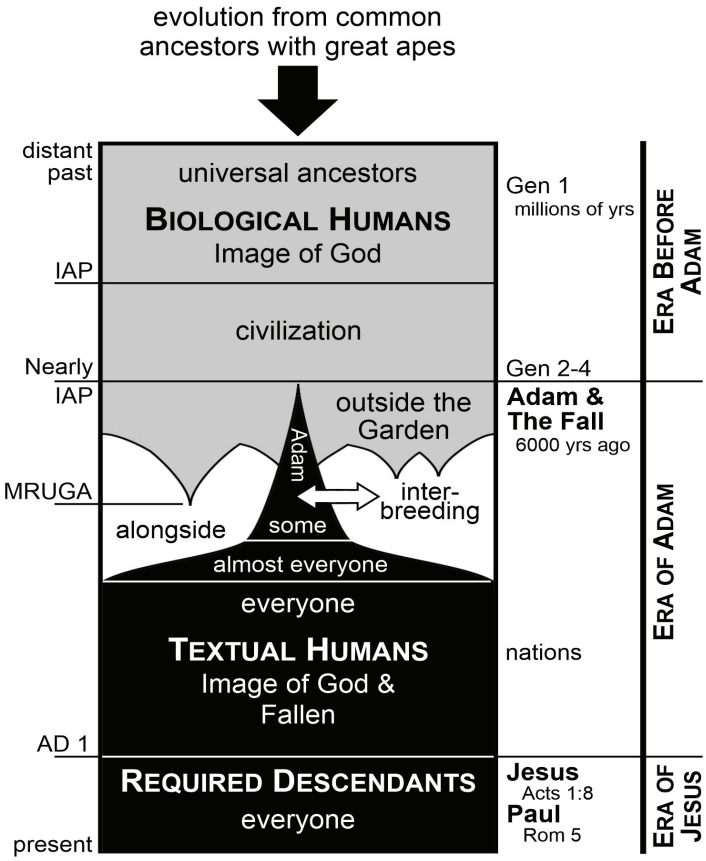

Figure 3. The Swamidass Genealogical Adam and Eve Hypothesis. IAP: Identical Ancestor Point; Nearly IAP: Nearly Identical Ancestor Point; MRUGA: Most Recent Universal Genealogical Ancestor. See text for an explanation of these terms.

fifth or sixth century BC. Therefore, Genesis 1 and 2 cannot be aligned or harmonized into a concordist reading of human origins.

Figure 3 summarizes Joshua Swamidass' genealogical Adam and Eve hypothesis.[56] It is strikingly similar to James Dana's concordist alignment of geology and Genesis 1 in Figure 1. Dana matches the six days of creation on the left side of his diagram next to geological evidence on the right. The Swamidass

56 It is disappointing that Swamidass does not assist his readers by offering a diagram that summarizes his hypothesis. Instead, readers are forced to piece together a series of his different diagrams. Figure 3 is based on *GAE*'s Fig. 5.1, p. 60; Fig. 5.2, p. 62; Fig. 11.1, p. 136; Fig. 17.1, p. 207; Fig. 18.1 p. 218.

summary has genealogical concepts like IAP, Nearly IAP, and MRUGA (to be explained in the next section of this paper) on the left side and biblical books and biblical individuals on the right. There is no doubt that these two concordist theories are referring to actual historical periods since both use the chronological term 'Era.' In fact, Swamidass employs this word 32 times in his book and states, 'Adam ends one era and begins another . . . Jesus ends one era and begins another too.'[57]

Extension of Genealogical Time Estimates Based on a Biblical Proof-Text (Acts 1:8)

Attempting to understand how Swamidass aligns the dates in Scripture with the time estimates offered by the science of genealogical ancestry is a challenge. For example, he conveniently admits, 'The date when Adam lives can be moved more ancient in time *as far as necessary*.'[58] As noted above, Swamidass places Adam anywhere from 6000 to 500,000 years ago. However, the creation of Adam at 6000 years ago (4000 BC) is by far the most common date presented in his book, appearing about 20 times.

This well-known traditional date for the origin of Adam is calculated by assuming the ages in the genealogies of Scripture are literal and historically accurate, especially those found in the Genesis 5 and 11 genealogies.[59] As Swamidass notes, 'A recent Adam and Eve might be consistent with dates ascertained by *adding up* generation times in Genesis.'[60] He also acknowledges the historicity of the longevity of people in the early Genesis genealogies. In appealing to the Genesis 5 genealogy with its average human lifespan of 912 years, he argues that Adam and Cain 'both live long lives, full of years (Gen 5).'[61] And a concordist reading of the chronology in Scripture is obvious when Swamidass states, 'Approximately *matching the timeline of Genesis*, our ancestor's world is totally

57 *Ibid*. p. 181. See also 64.

58 *Ibid*. p. 205. My italics.

59 This traditional date is often attributed to Archbishop James Ussher who calculated the creation of the world to be 22 October 4004 BC. See Barr, J. 'Why the World Was Created in 4004 B.C.: Archbishop Ussher and Biblical Chronology' *Bulletin of the John Rylands Library* (1985), 67, 575-608.

60 *GAE*, p. 166. My italics.

61 *Ibid*. p. 198. Note that the reference to '(Gen 5)' in this quotation is from Swamidass, and it is not my editorial addition. Also note that Cain is not mentioned in Genesis 5 (he appears in the Gen. 4:17-24 genealogy), and Scripture does not give his age. Of course, some God-of-the-gaps genetic engineering would be required to restore the length of telomeres if people lived over 900 years. See footnote 47. In addition, if people lived this long, then the archeological record should show teeth flatten to the gumline because of occlusal attrition, and the remanent pulp chamber occluded by secondary dentine. However, according to my scientific specialty of dental development and evolution, no such physical evidence exists.

reordered with the rise of civilization.'[62] Clearly, Swamidass assumes the Book of Genesis basically provides a sequential chronology of historical events in real time.

In offering a concordist alignment between modern science and 'the timeline of Genesis,' Swamidass takes advantage of discoveries from the science of genealogical ancestry that countless universal ancestors have arisen quite recently, and that they have appeared everywhere throughout the world.[63] *For everyone living today*, the most recent universal genealogical ancestor (MRUGA) emerges only 2000-3000 years ago. The nearly identical ancestor point (Nearly IAP) is where 95-99% of those who leave descendants are also universal ancestors, and it is estimated to be about 3500 years ago. And at the identical ancestor point (IAP) around 5000 years ago, 100% of those who leave descendants are ancestors of everyone today.

Swamidass asks, 'Which of these three points in time [MRUGA, Nearly IAP, IAP] is most important to us?'[64] He answers that it is the Nearly IAP. Swamidass then claims that at this point 'most people in Mesopotamia are universal ancestors. If Adam and Eve lived at this point in time, or anytime more ancient, it would not take luck or miracles for them to be universal ancestors of everyone.'[65] However, these standard genealogical ancestry dates are far too late to be aligned with the 'timeline of Genesis' and the traditional date of the creation of Adam and Eve 6000 years ago at 4000 BC. For example, these scientific time estimates would place Adam and Eve between 2000 years ago (lowest estimate of MRUGA at AD 1) and 5000 years ago (IAP at 3000 BC). And if Swamidass' preferred Nearly IAP is used, it puts the origin of Adam and Eve 3500 years ago in 1500 BC, which according to the Bible is during the time Israel was living in Egypt.

To solve this chronological problem, Swamidass introduces a third new category of humans termed the 'required descendants' (along with his so-called 'biological humans' and 'textual humans').[66] He dates these people around AD 1.[67] His justification is based on only one single Bible verse. In Acts 1:8, Jesus at

62 *Ibid*. p. 184. My italics.

63 This counterintuitive discovery reflects the fact that instead of genealogies expanding in an exponential manner, they actually 'collapse' because related individuals often interbreed. All the genealogical time estimates that follow in this paragraph are from Swamidass' book. *GAE*, pp. 46-50.

64 *Ibid.* p. 59.

65 *Ibid*.

66 *Ibid*. p. 58. Swamidass refers to 'required descendants' 14 times in his book—7 times on p. 58, twice on p. 59, 3 times on p. 60 and twice on p. 61.

67 In a subsection entitled, 'Required Descendants at AD 1,' Swamidass asserts that this date is chosen for 'theological reasons' because 'AD 1 is before the ministry of Jesus, and before Paul writes Romans.' *Ibid*., 58.

his ascension states, 'But you will receive power when the Holy Spirit comes on you; and you will be my witnesses in Jerusalem, and in all Judea and Samaria, and *to the ends of the earth*' (my italics).

According to Swamidass, 'Adam and Eve are genealogical ancestors of everyone to the "ends of the earth" by AD 1, at the latest, but not necessarily our genetic ancestors.'[68] More specifically, he notes, 'The phrase "to the ends of the earth" (Acts 1:8) suggests that Adam and Eve have become ancestors of all humankind by, at latest, the ascension of Jesus, while allowing for people outside the garden in the past.'[69] Similarly, he adds, 'The phrase "to the ends of the earth" (Acts 1:8) . . . gives grounding for inferring universal descent from Adam by, at the latest, the ascension of Jesus.'[70] And in the concluding chapter of his book, Swamidass claims, 'Adam and Eve's lineage began within a larger population and *became* everyone to the "ends of the earth" (Acts 1:8).'[71]

Instead of using people today as a baseline, which is the common practice in the science of genealogical ancestry, Swamidass pushes back the baseline of his hypothesis by 2000 years to AD 1 and his 'required descendants.' In addition, he rounds up the Nearly IAP date from 3500 years to 4000 years.[72] As a result, Swamidass solves the problem of standard genealogical ancestry estimates being far too late for the alignment with the 'timeline of Genesis.' This moves his preferred Nearly IAP back 4000 years from AD 1, and it conveniently matches up with the traditional date for the *de novo* creation of Adam and Eve at 6000 years ago in 4000 BC.

However, in a review of several commentaries on the Book of Acts, I did not find one New Testament scholar who interprets Acts 1:8 as Swamidass' so-called 'required descendants' or any concept equivalent to it.[73] And there is no hint this verse infers the existence of biological humans or textual humans, and

68 *Ibid*. p. 31.

69 *Ibid*. p. 135. The mention of '(Acts 1:8)' in this quotation, and in the next two quotations, are from Swamidass, and not my editorial insertions. Of course, there is a minor inconsistency between these quotations. On one hand, the required date is AD 1, but on the other hand, it is the ascension of Jesus in the AD 30s.

70 *Ibid*. p. 138.

71 *Ibid*. p. 218. Italics original.

72 *Ibid*. p. 60.

73 To mention a few commentaries that I examined: Padilla, O. *The Acts of the Apostles: Interpretation, History and Theology.* Downers Grove, IL: InterVarsity Press (2016) pp. 98-99; Holladay, C.R., *Acts: A Commentary.* Louisville, KT: Westminster John Knox Press (2016) p. 74; Mullins, M., *The Acts of the Apostles: A Commentary*. Dublin, Ireland: Columba Press (2013) pp. 63-65; Schnabel, E.J., *Acts*. Grand Rapids, MI: Zondervan (2012) pp. 77-80; Peterson, D.G., *The Acts of the Apostles*. Grand Rapids, MI: Zondervan (2009) pp. 110-113; Pelikan, J., *Acts*. Grand Rapids, MI: Brazos Press (2005) p. 41; Bock, D.L., *Acts.* Grand Rapids, MI: Baker Academic (2007) pp. 63-67; Bruce, F.F., *The Acts of the Apostles*, 3rd ed. Leicester, England: Eerdmans (1990) p. 103; Willimon, W.H., *Acts*. Atlanta, GA: John Knox Press (1988) pp. 19-21.

that these humans are completely interbred (blended) to become required descendants by AD 1. In Acts 1:8, the Lord Jesus simply reveals that the apostles will be empowered by the Holy Spirit to be his witnesses, starting first in Judea (Jerusalem), then Samaria, and finally throughout the known world, including Asia Minor, Greece, and Italy (Rome) as described in Acts 13-28. This verse has nothing to do with genealogical science.

Swamidass' use of Acts 1:8 is a classic example of a biblical proof-text interpretation. He tears this verse out of its historical and literary context, and then forces into it modern scientific concepts that are completely foreign. Without Swamidass' convenient extension of genealogical time estimates based on a biblical proof-text, the standard dates offered by genealogical science times are far too late to be aligned with the 'timeline of Genesis.'

There is another fatal problem with Swamidass' concordist attempt to match up the biblical timeline with the science of genealogical ancestry. He fails to realize that the ages and time periods recorded in the early Genesis genealogies are sacred/symbolic numbers, and not real chronological numbers.

Figure 4 presents ages and time periods from the Genesis 5 and 11 genealogies of the Hebrew patriarchs. These numbers clearly point away from being historical periods of time. In Genesis 5, 15 of these 20 numbers are multiples of 5. If the sacred/symbolic number 7 is subtracted from the 5 non-multiples of 5, then 5 more multiples of 5 appear. Important individuals are found at positions that are multiples of 5 and 7. Noah is at the 10th location (5×2) and Abram the 20th (5×4). Enoch, who did not die, is at the 7th position (7×1), Eber whose names echoes the noun 'Hebrew' at the 14th (7×2), and the miraculously promised son Isaac at the 21st (7×3). Together, these genealogies with the inclusion of Isaac, total 25 people (5×5). Ancient genealogies were often stylized to deliver theological messages (e.g., the genealogies of Jesus).[74] It may be that this emphasis on the number 5 reflects the Hebrews being the people of the Torah (Law), the Pentateuch, the first five books of Scripture.

74 For example, the Lord's genealogy in Luke 3:23-38 features 77 people, clearly emphasizing the sacred/symbolic number 7, which in the ancient world carried the meaning of completion, fulfillment, and perfection. See 'Numbers: Sacred and Symbolic Usage (and the Number Seven in Particular,' in Bailey, L.R., *Genesis, Creation, and Creationism*. Mahwah, NY: Paulist Press (1993) pp. 157-160.

	Age at Son's Birth	Years Lived after Birth
1. Adam	**130**	**800**
2. Seth	**105**	807
3. Enosh	**90**	**815**
4. Kenan	**70**	**840**
5. Mahalalel	**65**	**830**
6. Jared	162	**800**
7. Enoch	**65**	**300**
8. Mathuselah	187	782
9. Lamech	182	**595**
10. Noah	**500**	**450**
11. Shem / Ham / Japheth		
Shem	**100**	**500**
12. Arpachshad	**35**	403
13. Shelah	**30**	403
14. Eber	34	**430**
15. Peleg	**30**	209
16. Reu	32	207
17. Serug	**30**	**200**
18. Nahor	29	119
19. Terah	**70**	**135**
20. Abram / Nahor / Haran		
Abram	**100**	**75**
21. Isaac	**60**	**120**

Figure 4. Genealogical Framework of Genesis 5 and 11. Genesis 5 is from Adam to Noah; Genesis 11 is Shem to Abram. The inclusion of Isaac results in more multiples of 5 and 7. Multiples of 5 are in bold type.

In sum, the traditional belief in the creation of Adam and Eve 6000 years ago is based on literal and concordist readings of Genesis 5 and 11. But the ages and time periods in these genealogies are sacred/symbolic numbers, and they cannot be used to construct a chronology of historical events. Therefore, in the same way that it is impossible to align the fictional parable-like story in Genesis 2–4 with actual history, concordist attempts at 'matching the timeline of Genesis' to the modern science of genealogical ancestry inevitably fail.

Final Reflections

Joshua Swamidass often repeats, 'There is no evidence for or against the *de novo* creation of Adam and Eve within a larger population.'[75] Yet this is an un-

75 *GAE*, p. 165. Also pp. 12, 26, 46, 80 (twice), 81 (twice), 87, 89.

witting admission that the genealogical Adam and Eve hypothesis is scientifically vacuous. A theory that cannot be tested or falsified is inconsequential to science.[76] If anything, Swamidass has found a loophole in genealogical science where he places a concordist and historical Adam and Eve, and this insulates them from scientific investigation. This also protects his God-of-the-gaps view of the traditional *de novo* creation of Adam and Eve. In addition, Swamidass' hypothesis lacks the precision of science. He can shift the date for Adam and Eve anywhere from 6000 to 500,000 years ago, whatever might be convenient for him at the time. This theory has no scientific value, and it will never be part of science.

Toward the end of his book, Swamidass admits, 'I am not a theologian. I entirely expect that my speculation requires further development, perhaps even correction. I still hope this experiment is received with empathy. Take what works. Reject what does not work.'[77] But Swamidass is playing the role of a theologian. Of the roughly 190 pages of text in *The Genealogical Adam and Eve*, nearly 170 pages are theological musings and biblical misinterpretations.[78] The fact that I have read his book four times indicates that I have seriously considered his theory. Yet from my perspective, it is ultimately rooted in genre misidentification, *ad hoc* concordism, and a biblical proof-text. Therefore, my conclusion is simple: I reject Swamidass' genealogical Adam and Eve hypothesis because it 'does not work.'

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76 As evolutionary biologist Jerry Coyne points out, 'The big advantage of Swamidass's theory (to Swamidass and the Christians he's trying to convert) is that his theory is *untestable*: a speculation that cannot be confirmed or denied by evidence, since there would be no genetic trace of these ancestors in living humans' (my italics). The title of Coyne's blog article on Swamidass' book is revealing: 'Bogus Accommodationism: The Return of Adam and Eve as Real People, as Proposed by a Wonky Quasi-Scientific Theory' (11 October 2019). Accessed January 1, 2021: https://whyevolutionistrue.com/2019/10/11/accommodationism-the-return-of-adam-and-eve-as-real-people-as-proposed-by-a-wonky-quasi-scientific-theory/ . Interestingly, Swamidass comments in his book, 'My personal experience with atheists in science, including Coyne, is that they are fair, tolerant, and intelligent, but fiercely committed to the integrity and honesty of science.' *GAE*, p. 216. I wonder if Swamidass' assessment of Coyne has changed.

77 *GAE*, p. 172.

78 An example of a theological musing is Swamidass' speculation that 'Adam and Eve's original purpose is to bless those outside the Garden . . . His [Adam's] purpose was to put an end to death, without unleashing evil.' *Ibid*. pp. 183, 207. If Swamidass is correct, then this would constitute a major soteriological doctrine. But this conjecture is not in Scripture and has never been part of any Christian creed or systematic theology. Another example of a theological speculation by Swamidass appears at the end of footnote 1.

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