

The Waters Above— A Comparison of Three Models

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Abstract

In Genesis 1:6–8 the Bible reveals to us that, on Day 2 of Creation, God made an expanse, called “Heaven” and separated the waters below the expanse from the waters above it. The nature and location of these “waters above” have been debated for some time. Further complicating the puzzle, the Bible speaks of three heavens. The first step is to define these “heavens.” Then we might know where the waters were located. Three models will be compared—the Vapor Canopy Model, the White Hole Theory model, and the Hartnett-Carmeli model. Each one locates the waters above differently—above the atmosphere, around the universe, and around the outer reaches of the solar system respectively. The strengths and weaknesses of each are compared in an attempt to come closer to the truth.

Introduction

The study of origins, the past, the future, or the purpose and meaning of life all fall outside the domain of science:

Contrary to impressions made by the news media, no one today can start from observed data and build up a cosmology by rigorous scientific deduction. (Humphreys, 1994, p. 53)

Science deals with present processes. The two most basic laws of science, the first and second laws of thermodynamics, are conservative and deteriorative, not

creative and integrative. Consequently, the origin of the universe must be derived from other sources. Most cosmologies are religious.

Christians should use all tools available to discover truth. Our primary source of truth is revelation (Scripture), but it also includes science—theoretical, experimental, observational, historical, forensic, etc., as a secondary source (Reed and Klevberg, 2014a, 2014b). The Bible describes the creation—its duration, date, order, and to a certain

extent, its processes no longer in operation. Several models combining science with scripture have been developed to explain certain phenomena. But creation presents many puzzles. One of them is God’s work on Day 2. Genesis 1:6–8 states that He divided the waters of earth using an “expanse;” some above, some below. The latter are the antediluvian oceans. What were the “waters above”?

Different models have addressed this puzzle in different ways. This paper will compare three of them:

1. The vapor canopy model (VCM) (Whitcomb and Morris, 1961)
2. The white hole cosmology (WHT) (Humphreys, 1994 as modified in 1998)

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3. The Hartnett-Carmeli model (HCM) (Hartnett, 2007)

They all attempt to integrate scientific knowledge with revelation. Each has strengths and weakness, but it is almost impossible to prove (or disprove) any of the models simply because there are so many unknowns, and no one was there to observe the events.

One of the best clues to this puzzle is the Bible's description of three distinct "heavens." Understanding their identity can help us determine the nature and location of "the waters above."

The Heavens: how many and where are they?

To answer this question, it is first beneficial to look at the ideas of the early church and earlier. Apparently, the number of heavens depended upon the "science" or "philosophy" of the day. The early church was heavily influenced by Greek philosophy.

The Greeks believed that the earth was the center of the universe and everything revolved around it. There were four basic elements—earth, water, air, and fire with a possible fifth element of ether (Luther, c. 1536). These were arranged in order by weight with earth the heaviest and fire the lightest. There were also seven spheres or orbits of the planets and some thought as many as ten (Luther, c. 1536). These spheres or "heavens" were apparently crystalline in nature (Strahler, 1987). This philosophy was maintained until the modern Copernican system replaced it.

This philosophy had a tremendous influence on how commentators interpreted "the waters above." Josephus remarked that:

after this, on the second day, he placed the heaven over the whole world, and separated it from the other parts; and he determined it should stand by itself. He also placed a crystalline [firmament] round it, and put together in a manner

agreeable to the earth, and fitted it for giving moisture and rain and for affording the advantage of dews. (Josephus, c. 93 AD, p. 24)

Both Luther (c. 1536) and Calvin (1559) correctly interpreted the Hebrew word *rāqī'* (which is translated as "firmament" in the KJV) as an expanse. Calvin (1559, p. 79) wondered:

I know not why the Greeks have chosen to render the word [*rāqī'*] *stereōma* which the Latins have imitated in the term *firmamentum*; for literally it means expanse.

One possible explanation was that it was considered firm, not by material, but by the Word of God which makes something strong even though by nature it is soft (Luther, c.1536). However, neither could explain what the "waters above" were, as it seemed opposed to common sense (Calvin, 1554–1559).

Luther (c. 1536, p. 30) showed his wisdom:

We Christians must, therefore, be different from the philosophers in the way we think about the cause of these things. And if some are beyond our comprehension (like those before us concerning the waters above the heavens), we must believe them and admit our lack of knowledge rather than either wickedly deny them or presumptuously interpret them in conformity with our understanding.

With this in view, an attempt will be made to define how many heavens and where they are.

In the first chapter of Genesis, God created the heaven and the earth. The Hebrew word for heaven is *shamayim* which is apparently in the dual form, but in reality is a plural (Koehler and Baumgartner [HALOT], 1999). It can be translated "heaven" or "heavens," depending on the context.

And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firma-

ment, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so. And God called the firmament Heaven. (Genesis 1:6–8, KJV)

In modern translations, *rāqī'* is most often translated "expanse" which has the meaning of that which was spread out or stretched. It comes from the Hebrew word *rq'*, which means to hammer out (HALOT) and by analogy to spread out like thin plate metal that is hammered. In this passage, God calls the expanse "Heaven," i.e., He equates heaven with the expanse so that they can be considered interchangeable.

Brown's (2001) Hydroplate model (HPT) is not considered in this analysis, because he interpreted the "expanse" as a layer of the Earth's crust; the "waters above" being the oceans and those below a subterranean reservoir. But the word firmament (*rāqī'*) is used 17 times in the Bible. In all other cases outside of Genesis it refers to a heavenly expanse either connected with the heavens and the sun (Psalm 19), stars (Daniel 12:3), or the glory of God (Ezekiel 1:22–26, 10:1), but never with the crust. Brown argued that Psalm 24:2, 33:7, 104:3, 136:5–9, and II Peter 3:5 supported his theory, but these passages better fit the third day when God separated the oceans and dry land.

If it can be shown biblically that either the "heaven" or "expanse" has multiple parts, then the other does too. A primary passage to the possible meanings is found in II Corinthians 12:1–4:

I knew a man in Christ above fourteen years ago, (whether in the body, I cannot tell; or whether out of the body, I cannot tell: God knoweth;) such an one caught up to the third heaven...how that he was caught up into paradise...

Paul spoke of the third heaven, which implies at least two others. Since Paul was writing under divine inspiration, we can use this passage to under-

stand others. There are several passages in scriptures that also indicate multiple heavens.

Behold, the *heaven* and the *heaven of heavens* cannot contain thee; how much less this house that I have builded?" (I Kings 8:27, II Chronicles 6:18, emphasis added)

Wise Solomon understood that God could not be contained by His creation, as did Moses:

Behold, the *heaven* and the *heaven of heavens* is the Lord's thy God, the earth also, with all that therein is. (Deuteronomy 10:14, emphasis added)

These passages also suggest multiple heavens. This issue is discussed among the lexicons. HALOT (1997, p. 1561) says "it probably does not mean a number of different heavens but is an expression for the superlative...." Botterwork et. al., [TDOT] (2006) specifically says that it does not refer to multiple heavens. VanGemeren, [NIDOTTE] (1997) notes that other cultures thought there were multiple heavens (Babylonian), but did not think that this was the OT view, but was a call to praise God with other heavenly creations.

Jenni and Westermann, [TLOT] (2004) says that this is a special, not yet explained expression. They concluded that it "seems to indicate heaven in its totality not a (highest) region" (TLOT, p. 1370). However, only TDOT rules out the possibility of multiple heavens based on the reasoning of the JEDP theory. "Only with Deuteronomy and the literature of the exilic period (Deutero-Isaiah) did heaven become an important object of theological interest" (TDOT, p. 207). They do not believe that Moses or Solomon spoke these words, but that they were inserted by the P author at a much later date. Yet, this conclusion is flawed based on a faulty hypothesis. Furthermore, all these ignore the New Testament passage II Corinthians 12:1–4 which declares under inspiration of the Holy

Spirit that Paul was taken into the third heaven.

If there are three, does the Bible define them? Thirteen English words (e.g., sky, air, cloud, and firmament) were used in the King James Version to define and describe the heavens.

The Hebrew and Greek terms appear over 800 times (Table 1). There are eleven different words translated as "heaven," "heavens," or "heavenly" in both Old and New Testaments. In the Old Testament, out of 441 usages, the Hebrew *shamayim* (398) and its Aramaic equivalent *shamayin* (38) is by far the most prevalent. Similarly, in the New Testament the Greek word *ouranos* is used 269 out of 298 times.

The word "heaven" was used for different purposes depending upon the context. For example, it was used over 50 times as an identifier of the one true God—the God of *heaven* (Table 2) to differentiate Him from local pagan deities. It was also used by Jesus many times as "Our Father which art in heaven" (Table 2).

Some of these uses of "heaven" are listed below:

1. The usual word for the sky or the realm of the sky
 - a. Birds fly and wind (HALOT, TDOT, TLOT, NIDOTTE)
 - b. The area high above the ground but below the stars and heavenly bodies (TDOT)
2. Phenomena from and in the sky
 - a. From which come such things as dust, hail, rain (HALOT, NIDOTTE), snow, fire (TLOT), and frost (TDOT)
 - b. This realm is God's storehouse (TLOT)
3. The realm of the sun, moon, and stars (TDOT, TLOT, NIDOTTE)
4. The phrase "heaven and earth" may denote the entire creation (HALOT, TDOT, TLOT, NIDOTTE)
5. Heaven is the dwelling place of God
 - a. Another expression representing the dwelling place of God in

heaven (HALOT, TLOT, NIDOTTE)

- b. This does not indicate height, but a superlative (HALOT, TLOT)

These descriptions can be used to identify the three heavens: (1) atmospheric space, (2) interstellar space, and (3) the place of God's throne. We will examine these now in reverse order.

The Third Heaven

Paul was taken up into the third heaven and called it "paradise." The word "paradise" is used on only two other occasions; in the first, Jesus told the robber crucified with him "today shalt thou be with me in paradise" (Luke 23:43), and second, "To him that overcometh will I give to eat of the tree of life, which is in the midst of the paradise of God" (Revelation 2:7). Hebrews tells us that Jesus "is set on the right hand of the throne of the Majesty in the heavens" (Hebrews 8:1). Peter says

the like figure whereunto even baptism doth also now save us (not the putting away of filth of the flesh but the answer of a good conscience toward God,) by the resurrection of Jesus Christ: *who is gone into heaven, and is on the right hand of God;* angels and authorities and powers being made subject unto him. (I Peter 3:21–22, emphasis added)

The Bible tells us that the third heaven is the place where Jesus is today and where His people yearn to be.

There are over 130 references describing this third heaven (Table 3). This includes such descriptions as God's holy dwelling place or habitation, His throne, His Kingdom, and that He hears or looks down from heaven. There are over 55 Old Testament references and well over 70 in the New Testament (Table 3). These descriptions identify heaven as a *place*.

Where is it located? Apparently, it is the highest, often referred to as "the heaven of heavens." It is possible it was

Table 1. Words for Heaven in the Bible

Hebrew or Greek Word	Strong's Number	English word	English #	English word	English #	English word	English #	English word	English #	English word	English #	English word	English #	Total	
galgal ¹	1534	heaven	1											1	
arabah ²	6160			heavens	1									1	
ariphim	6183			heavens	1									1	
raqiya	7549										firmament	17		17	
shachaq	7834	heaven	2					sky	2		clouds ³ / small dust	11, 1		16	
shamyim	8064	heaven	289	heavens	109					air	21	astrologer ⁴	1	420	
shamayin	8065	heaven	35	heavens	3									38	
no word ⁵		heaven	1											1	
aer	109									air	7			7	
epouranios	2032	heaven	1			heavenly	16					high ⁶ / celestial	1, 2	19	
mesour-anema	3321	midst of heaven	3											3	
ouranios	3770					heavenly	6							6	
ouranothen	3771	heaven	2											2	
ouranos	3772	heaven	249	heavens	19	heavenly ⁷	1	sky	5	air	10			284	
TOTAL		heaven	583	heavens	133	heavenly	23	sky	7	air	38	other	33	all	817

¹galgal is used a total of 11 times in the Bible most often translated as “wheel”

²arabah is used a total of 61 times in the Bible most often translated as “plain”

³the word “clouds” is used a total of 49 times in the Bible most often by the Hebrew word “ab”

⁴shamayim is translated astrologer only one time in the Bible and in combination with the Hebrew word “habar”

⁵the word “heaven” was added in translation and not in original manuscript

⁶the word “high” is used numerous times in the Bible and by many other Hebrew and Greek words

⁷ouranos is translated heavenly only one time in the Bible and in combination with the Greek word “ek”

described as the “firmament” over the cherubim Ezekiel saw in visions by the river Chebar (Ezekiel 1:22–28) (Morris, 2006). An alternate interpretation of these verses is that it may be translated as a “platform,” which may better fit in this context (Block, 1997). Either way, Ezekiel is describing a majestic scene where there was an expanse, a throne

above the expanse, and one, having the likeness of a man, was upon it.

The third heaven has been shut off from earth, and we do not know its exact location. We only know that it exists on a different plane at present. It is possible that this “heaven” will come down to earth as the New Jerusalem will be the location for the throne of the Lord Jesus Christ (Revelation 21).

The Second Heaven

There are over 60 references describing some aspect of the second heaven. This includes such descriptions as God multiplying Abraham’s descendants as the stars of heaven; the command not to worship the sun, moon, stars, and the host of heaven; and stars which can mean angels, shall fall from heaven (Table 4).

Table 2. Heaven as an Identifier of God

Description	#	Bible Verse
Old Testament		
God, possessor of heaven and earth	2	Genesis 14:19, 22
LORD God/God/King of heaven	29	Genesis 24:3; 24:7; Deuteronomy 4:39; Joshua 2:11; II Chronicles 20:6; 36:23; Ezra 1:2; 5:11; 5:12; 6:9; 6:10; 7:12; 7:21; 7:23 (2x); Nehemiah 1:4; 1:5; 2:4; 2:20; Job 22:12; Psalm 136:26; Lamentations 3:41; Daniel 2:18; 2:28; 2:37; 2:44; 4:37; 5:23; Jonah 1:9
He that sitteth in the heavens shall laugh	1	Psalm 2:4
New Testament		
Father which is in heaven	16	Matthew 5:16; 5:45; 5:48; 6:1; 6:9; 7:11; 7:21; 10:32; 10:33; 16:17; 18:10; 18:14; 23:9; Mark 11:25; 11:26; Luke 11:2
Heavenly Father	6	Matthew 6:14; 6:26; 6:32; 15:13; 18:35; Luke 11:13
God of heaven	2	Revelation 11:13; 16:11
Lord of heaven	1	I Corinthians 15:47
Total – New and Old Testament	57	

Modern science tells us that the place of the sun, moon, and stars is the vast expanse of interstellar space. This heaven is mentioned separately from the heaven of birds, clouds, and rain, indicating their separate nature. Furthermore, the passages that speak of stars falling from heaven, or the sun, moon, and stars losing their light refer to future events and are subject to much speculation and interpretation. There are only four cases in the Bible where a star actually falls to the earth. In some it refers to angels and to others a star or stars.

- And out of one of them came forth a little horn, which waxed exceeding great, toward the south, and toward the east, and toward the pleasant land. And it waxed great, even to the host of heaven; and it cast down some of the host and of the stars to

the ground, and stamped upon them. (Daniel 8:9–10)

- And the stars of heaven fell unto the earth, even as a fig tree casteth her untimely figs, when she is shaken of a mighty wind. (Revelation 6:13)
- And the third angel sounded, and there fell a great star from heaven, burning as it were a lamp, and it fell upon the third part of the rivers, and upon the fountains of waters; and the name of the star is called Wormwood: and the third part of the waters became wormwood: and many men died of the waters, because they were made bitter. (Revelation 8:10–11)
- And the fifth angel sounded, and I saw a star fall from heaven unto the earth: and to him was given the key of the bottomless pit. And he opened the bottomless pit; and there arose a smoke out of the pit as the smoke of

a great furnace; and the sun and the air were darkened by reason of the smoke of the pit. (Revelation 9:1–2)

Stars falling to the ground, possibly meteorites, such as the star “Wormwood” do not originate in the Earth’s atmosphere, but come from interstellar space. Therefore, the second heaven is interstellar space which contains sun, moon, stars, and the host of heaven.

The First Heaven

There are over 130 references describing some aspect of the first heaven, including lightning, smoke, fire, wind, birds, clouds, and rain (Table 5). These are never mentioned together with the sun, moon, stars, or the host of heaven.

It should be noted that although these phenomena appear to be separated in the scriptures, they do interact, primarily because clouds range from

Table 3. Verses which referred to the third heaven as a place are listed. Verses such as God looked down from or heard from heaven are considered the third heaven, because that is the place of God's throne and that is the place where Jesus Christ is now.

Description	#	Bible Verse
Old Testament		
God in heaven	5	Deuteronomy 3:24; I Kings 8:23; II Chronicles 6:14; Psalm 115:3; Ecclesiastes 5:2
hear thou from heaven	13	I Kings 8:32, 34, 36, 45, 49; II Chronicles 6:27, 30, 35, 39; 7:14; Nehemiah 9:27, 28; Psalm 20:6
God's throne in heaven/sitteth in heaven	6	I Kings 22:19; II Chronicles 18:18; Psalm 2:4; 11:4; 103:19; Isaiah 66:1
his holy habitation/dwelling place, in heaven	8	Deuteronomy 26:15; I Kings 8:30; 8:39, 43; II Chronicles 6:21, 33; 30:27; Psalm 123:1
Lord look down from heaven	8	Psalm 14:2; 33:13; 53:2; 80:14; 85:11; 102:19; Isaiah 63:15; Lamentations 3:50
came down/go up/ascend from/to heaven	8	Genesis 28:12; Deuteronomy 30:12; II Kings 2:1, 11; Psalm 139:8; Proverbs 30:4; Isaiah 14:12, 13
heavens cannot contain him	3	I Kings 8:27; II Chronicles 2:6; 6:18
witness, things, word, army, voice in heaven	5	Job 16:19; Psalm 113:16; 119:89; Daniel 4:31, 35
New Testament		
Kingdom of heaven	9	Matthew 5:20; 7:21; 8:11; 11:11; 13:11; 18:1, 3, 4; 19:23
rewards/treasures in heaven	6	Matthew 5:12; 6:20; 19:21; Mark 10:21; Luke 12:33; 18:22
swear not by heaven	2	Matthew 5:34; 23:22
thy will be done as in heaven	2	Matthew 6:10; Luke 11:2
exalted/received/ascended/carried/taken up to heaven	12	Matthew 11:23; Mark 16:19; Luke 10:15; 24:51; Acts 1:11; 2:34; 10:16; 11:10; Romans 10:6; II Corinthians 12:2; I Peter 3:22; Revelation 11:12
bound/loosed in heaven	4	Matthew 16:19 (2x); 18:18 (2x)
God/Master in heaven	3	Matthew 22:30; Ephesians 6:9; Colossians 4:1
angels in heaven	5	Matthew 24:6; Mark 12:25; 13:32; Luke 2:15; Galatians 1:8
fall from heaven	1	Luke 10:18
names written in heaven	1	Luke 10:20
descended/came down from heaven	15	John 3:13; 3:31; 6:33, 38, 41, 42, 50, 51, 58; Act 11:5; Revelation 3:12; 18:1; 20:1; 21:2; 21:10
heaven is thy throne	2	Acts 7:49; Revelation 4:2
voice from/in heaven	2	Acts 11:9; Revelation 19:1
house in heavens	1	II Corinthians 5:2
sat Him at his right hand in heavenly places	3	Ephesian 1:20; 2:6; Hebrews 8:1
pattern, inheritance, silence, war, temple, armies of heaven	8	Hebrews 9:23; I Peter 1:4; Revelation 8:1; 12:7; 14:17; 15:5; 16:17; 19:14
Total – New & Old Testament	132	

Table 4. Verses which refer to lights, sun, moon, and stars are listed. Verses concerning God stretching out the heavens are included with the second heaven as they appear to verify the evidence for an expanding universe.

Description	#	Bible Verse
Old Testament		
lights in firmament of heaven	3	Genesis 1:14; 1:15; 1:17
sun, moon, stars, planets, constellations, host of/in heaven	30	Genesis 15:5; 22:17; 26:4; Exodus 32:13; Deuteronomy 1:10; 4:19; 10:22; 17:3; 28:62; Joshua 10:13; II Kings 17:16; 21:3; 21:5; 23:4; 23:5; I Chronicles 27:23; II Chronicles 33:3; 33:5; Nehemiah 9:23; Psalm 8:3; 89:37; Isaiah 13:10; 34:4; Jeremiah 8:2; 19:13; 33:22; Ezekiel 32:7; Joel 2:10; Nahum 3:16; Zephaniah 1:5
heaven for height/high/ measured above earth	5	Job 22:12; Psalm 103:11; Proverbs 25:3; Isaiah 55:9; Jeremiah 31:37
stretcheth/spreadeth out the heavens	13	Job 9:8; 37:18; Psalm 104:2; Isaiah 40:22; 42:5; 44:24; 45:12; 48:13; 51:13; Jeremiah 10:12; 51:15; Ezekiel 1:22; Zechariah 12:1
shine as the brightness of the firmament	1	Daniel 12:3
heavens had no light	2	Jeremiah 4:23; Ezekiel 32:8
spread out the sky	1	Job 37:18
New Testament		
stars fall from heaven	5	Matthew 24:29; Mark 13:25; Revelation 6:13; 8:10; 9:1
powers of heaven shaken	3	Matthew 24:29; Mark 13:25; Luke 21:26
host of heaven	1	Acts 7:42
heavens departed as a scroll	1	Revelation 6:14
stars of the sky	1	Hebrews 11:12
Total – New & Old Testament	66	

the surface to over 60,000 feet (Bryson, 1981). Similarly, birds fly from near the ground to over 25,000 feet (Parkes, 1981). This overlap between clouds and birds helps define the location of the first heaven. It is atmospheric space.

Psalm 148

Psalm 148 is one of the best passages describing the three heavens. It is one of the greatest Psalms of praise. It can be divided into three sections: verses 1–2 refer to the abode of God and His angels, verses 3–6 are praises from the celestial heavens, and verses 7–12 are praises from the earth. It appears to progress from the highest heaven down to earth.

The first praises (1–2) are offered from the “heavens” (the third heaven) and the “heights,” the Hebrew word “*mārôm*” which means “a highly placed location” or “place on high” (HALOT). It is in the plural form which, in this case, indicates a superlative “the highest height” or an elative “an extremely high height” suggesting the “highest place.” Next the angels praise him and all his hosts. Angels are often depicted in the presence of God (I Kings 22:19–22; Job 1:6–12; 2:1–6, Ezekiel 1:4–8; Isaiah 6:1–9) in the third heaven. The Hebrew word for hosts is *šābā’* and can be translated as an army of angels (Psalm 103:21) or stars (Deuteronomy 4:19) (HALOT).

In this case it seems to be referring to the angels.

In the next section, the celestial heavens praise Him as the sun, moon, and stars offer praise. But in verse 4, we see the term “heavens of heavens.” Although this is translated “highest heaven” in a number of translations, in context, it most likely refers to the realm of the sun, moon, and stars—the second heaven. Humphreys proposes that “heavens of heaven” can be interpreted in this manner (Humphreys, 1994), and it seems to fit better here. Then the waters above the “heavens” (or “heaven”) praise Him.

In a rare mention outside Genesis 1, verse 4 calls for praise from “the wa-

Table 5. Verses which refer to atmospheric phenomena are listed. Most are listed separately, but through our knowledge of science, we know that they interact together. It should be noted that these phenomena are never mentioned with the heaven of the sun, moon, and stars.

Description	#	Bible Verse
Old Testament		
fowls fly in firmament of heaven	1	Genesis 1:20
fowls/birds of heaven/air	47	Genesis 1:26; 1:28; 1:30; 2:19; 2:20; 6:7; 7:3; 7:23; 9:2; Deuteronomy 4:17; 28:26; I Samuel 17:44; 17:46; II Samuel 21:10; I Kings 14:11; 16:4; 21:24; Job 12:7; 28:21; 35:11; Psalm 8:8; 79:2; 104:12; Proverbs 23:5; 30:19; Ecclesiastes 10:20; Jeremiah 4:25; 7:33; 8:7; 9:10; 15:3; 16:4; 19:7; 34:20; Lamentations 4:19; Ezekiel 29:5; 31:6; 31:13; 32:4; 38:20; Daniel 2:38; 4:12; 4:21; Hosea 2:18; 4:3; 7:12; Zephaniah 1:3
windows/doors of heaven	6	Genesis 7:11; 8:2; II Kings 7:2; 7:19; Psalm 78:23; Malachi 3:10
rain from heaven	15	Genesis 8:2; Deuteronomy 11:11; 11:17; 28:12; 28:24; Judges 5:4; II Samuel 21:10; I Kings 8:35; 18:45; I Chronicles 6:26; Psalm 68:8; Isaiah 55:10; Jeremiah 10:13; 14:22; 51:16
brimstone/fire out of heaven	9	Genesis 19:24; II Kings 1:10 (2x); 1:12 (2x); 1:14; I Chronicles 21:26; II Chronicles 7:1; Job 1:16
dew of heaven	10	Genesis 27:28; Deuteronomy 33:13; 33:28; Daniel 4:15; 4:23; 4:25; 4:33; 5:21; Haggai 1:10; Zechariah 8:12
rain bread from heaven	4	Exodus 16:4; Nehemiah 9:15; Psalm 78:24; 105:40
hail/hailstones/great stones from heaven	2	Joshua 10:11; Psalm 18:13
thunder from heaven	4	I Samuel 2:10; II Samuel 22:14; Psalm 18:13; 77:18
clouds of heaven	3	Job 35:5; Psalm 147:8; Daniel 7:13
winds in/of heaven	6	Psalm 78:26; Jeremiah 49:36; Daniel 7:2; 8:8; 11:4; Zechariah 2:6
snow/ice	2	Job 38:29; Isaiah 55:10
New Testament		
fowls/birds of heaven/air	11	Matthew 6:26; 8:20; 13:32; Mark 4:4; 4:32; Luke 8:5; 9:58; 13:19; Acts 10:12; 11:6; Revelation 19:17
clouds of heaven	3	Matthew 24:30; Mark 14:62; I Thessalonians 4:17
winds of heaven	1	Matthew 24:31
rain from heaven (or lack of it)	4	Luke 4:25; Acts 14:17; James 5:18; Revelation 11:6
fire from heaven	3	Luke 9:54; Revelation 13:13; 20:9
bread from heaven	2	John 6:31; 6:32
hail from heaven	1	Revelation 16:21
sign from heaven	4	Matthew 16:2; 16:3 (2x); Luke 12:56
Total – New & Old Testament	138	

ters above the heavens.” This may be a transition point; the waters are below the stars but above the earth. In other words,

they would be the waters of Genesis 1:7, which refers to the atmosphere or first heaven. The NIV lends credence

to this idea when it translates “heavens” as “skies” in this passage. The English word *sky* comes from the Scandinavian

word *skei* which can mean the celestial heavens, but most often refers to a cloud or the upper region of the air (Murray, et.al. [OED], 1970). In this case it appears to refer to the atmosphere.

Next, there is a summation of the first four verses of Psalm 148 as asking that all things in the celestial heavens are to praise the Lord because He created them. Apparently, these created things are to remain forever (see also Daniel 12:3), with the exception that they will no longer be under the curse (Revelation 22:3).

Verses 7 and 8 begin the final section of praise which transitions from the heavens to the earth. The verses mention dragons (tannin), oceanic depths, fire, hail, snow, vapors (clouds), and stormy wind. The latter are atmospheric phenomena associated with “heaven” as noted in Table 5. Two points are to be highlighted from these verses. First, there is the mention of dragons which most likely includes dinosaurs from the dragons of the deep such as plesiosaurs, to the beasts of the fields, and possibly flying reptiles such as the pterosaurs as well. The only dragon mentioned by name is Leviathan (Isaiah 27:1), which may have been alive at that time, but apparently is extinct now. Second, these verses cover the entire earth from the lowest places of the deep oceans to the highest point in the sky. These phenomena are never mentioned in conjunction with the sun, moon, and stars. This separation indicates that these are located in a different space, i.e. the atmosphere, and what would be the first heaven.

In 9–12, praise moves from the height of the mountains, hills, and trees continuing down to all living creatures and finally to people. All these things are to praise God for his name and his glory.

From this great psalm, we see the outline of the three heavens—the highest of all the heavens, interstellar space, and Earth’s atmosphere.

Is the first heaven interstellar space?

Humphreys’ WHT proposes that the first heaven is interstellar space and the atmosphere is the “face” of the expanse. He bases this on Genesis 1:20b

...and fowl that may fly above the earth in the open firmament of heaven.

He prefers the translation:

...and fowl that may fly above the earth *on the face of the expanse of the heavens*. (emphasis added)

The implication is that birds “fly only in the lower reaches of the vast spaces of the heavens” (Morris, 2006 p. 11).

Birds can fly as high as 25,000 feet...at which point they are above two-thirds of the atoms of the atmosphere. So most of the atmosphere is merely at the surface of the expanse. Therefore the expanse itself must be something much bigger—such as interstellar space. (Humphreys, 1994, p. 61)

However, most birds fly at or near the Earth’s surface. Those at high altitudes are exceptions:

Most songbirds, for example, fly at between 500 and 2,000 feet and most waterfowl stay between 200 and 4,000 feet. (Whiteman, 2000)

These include migratory and soaring birds. But this assumes the present atmosphere and present topography of the earth. It does not consider potential differences of the antediluvian earth, including a potential vapor canopy and lower relief (Whitcomb and Morris, 1961).

1. Three of the top five high altitude sighting of birds were those migrating over the Himalayan Mountains (Wikipedia, 2019). Mt. Everest is over 29,000 high. If Earth’s topography were much less, say only 8,000 feet, these birds would not have to fly at such high altitudes to migrate. Even these high-altitude sightings show birds near the surface.

2. The antediluvian climate could have been milder. If it was uniformly temperate and productive, perhaps due to a vapor canopy, birds might not have migrated at all. The main reason birds migrate is for food (Kerlinger, 1995). Another reason is seasonal variations, but that is also tied to food. If the climate was milder and seasonal change not as great as today’s, migration would be less likely.
3. Wind patterns might have been different. Soaring birds do not flap to attain high altitude; it is too exhausting. Instead, they rely on warm updrafts. Besides these thermal currents, soaring birds can use “obstruction currents” such as winds flowing over mountains, cliffs, or tall buildings to reach altitude (Kerlinger, 1995). Migrating birds use prevailing winds at high altitudes. These wind patterns would have been drastically different on the pre-Flood earth due to the more uniform climate (Whitcomb and Morris, 1961).
4. In the present atmosphere, temperature generally decreases with altitude. This would not be the case with a vapor canopy. Vardiman (2001) estimated that the base of the canopy would be approximately 23,000 feet (7 km) above Earth’s surface. The temperature would increase 10° C (18° F) every 3,300 feet (1 km), assuming a base temperature of 30° C at the surface (Vardiman, 2001). Birds do not do well in high temperatures. They have a high body temperature of 105° F (40° C) and a high metabolic rate and active lifestyle (Mayntz, 2018). They do not have sweat glands and rely mainly on high respiration rates to cool their bodies. In a study of Sonoran Desert doves and quails, Gambel’s quail could tolerate temperatures around 50° C (122° F) while mourning doves and white-winged doves could tolerate temperatures as high as 60° C (140° F)

(Smith et al., 2015). These birds live in the desert; however, most birds do not tolerate such high temperatures. Finally, soaring birds can go to great altitudes and in so doing reach cooler air (Mayntz, 2018), but this would not be the case for a vapor canopy. A vapor canopy would have limited high-altitude flight.

For these reasons, birds would indeed stay at, or near, the surface of the earth under the vapor canopy model. So Genesis 1:20b would be applicable under the proposal that the first heaven is the atmosphere and birds fly on the surface of the earth.

Moreover, Humphreys (1994) proposed that empty space outside the bounded universe is the second heaven (Humphreys, 1994). Yet, this empty space is never mentioned in the Bible. Psalm 148 is a psalm of praise where everything that was created praises God from the highest heaven to the dragons of the deep, but this empty space was not mentioned here or anywhere else in the Bible.

Finally, if the waters above are above the sun, moon, and stars then the location of the “waters above the heaven” in Psalm 148 should be placed between verses 2 and 3 and not between 4a and 8. The preponderance of evidence indicates that the three heavens are the atmosphere, deep space, and the place where Christ is now (Morris, 2019).

Were the “Waters Above” Liquid?

The waters above the expanse mentioned in Genesis 1:6 were likely liquid water, not vapor or ice.

Waters (mayim). The word means a liquid water, not a vapor or solid. Had the water in Genesis 1:6–8 been a vapor, cloud, mist, or ice, other Hebrew words would have been more appropriate. For example, ancient Hebrew has six words for “cloud.” (Brown, 2001, p. 263)

The word *mayim* is used 580 times in the Old Testament and most often refers to liquid water, but not as vapor or ice (HALOT). None of the models reviewed propose that the “waters above” remained liquid, but all three propose it was initially, before turning through natural processes, into vapor (Dillow, 1982) or ice (Hartnett, 2007; Humphreys, 1994).

The Three Models

A brief description of each model will include supporting scriptural and scientific evidence, and an evaluation of strengths and weaknesses. In addition, we will note their relationship to the Flood and current Flood models.

The Vapor Canopy Model

The modern vapor canopy model (VCM) was proposed by Whitcomb and Morris (1961), and later defended in the many writings by Morris. Dillow (1982) also defended it, and the model was debated in some depth in the *Creation Research Society Quarterly* (Dillow, 1977, 1978a, 1978b, 1979, 1980, 1983; Kofahl, 1976; Morton, 1979, 1980; Rush and Vardiman, 1992; Smith, 1980; Walters, 1991). It was questioned by creationists after that debate, although Dr. Larry Vardiman (2001, 2003) continued to perform research on the issue. The essential points of the original model included:

1. The creative process was most likely an instantaneous event; i.e., God spoke and it happened (Psalm 33:9), but does not rule out other possibilities and is not essential to the model.
2. Water was moved above the atmosphere, or first heaven, in the form of a vapor canopy.
3. Meteorological conditions were different before and after the Flood.
4. The canopy collapsed during the Flood, supplying part of the rain.
5. Geologic formations were caused by vertical uplift due to isostatic

readjustment after the Flood.

The strength of the vapor canopy model is three-fold. First, it explains an enigmatic passage in Genesis 2:5–6:

And every plant of the field before it was in the earth, and every herb of the field before it grew: for the Lord God had not caused it to rain upon the earth, and there was not a man to till the ground. But there went up a mist from the earth, and watered the whole face of the ground.

The VCM interprets this to mean that there was no rain before the Flood and today’s hydrologic cycle began after the Flood.

This verse [Genesis 2:6] is applied specifically to the initial completed creation, but there is no mention made of any change in this meteorological phenomenon after the Fall, so it evidently continued until the time of the Deluge. This inference is supported also by the fact that the rainbow is mentioned as a new sign from God to man after the Flood, implying strongly that rain as we know it and the subsequent rainbow were experienced for the first time then (Genesis 9:11–17). (Whitcomb and Morris, 1961, p. 241, brackets added)

The existence of rain before the Flood has been much debated (Sarfati, 2015; Snelling, 2009), though there is little evidence either way. The plant or herb of the field (Genesis 2:5) did not grow until there was a man to till the ground. Before the Fall, Adam and Eve tended Eden. After the ground was cursed, Adam was to toil and eat from his labor. But that says nothing about rain. Did rain appear as a result of the curse? It is not mentioned in that context and was considered a blessing after the Flood (Deuteronomy 28).

Furthermore, the Hebrew word *’ed* for “mists” (Brown, et al. [BDB], 1906) has also been translated as “springs.” HALOT supports the idea of subterranean stream of fresh water which appears to be influenced by Albright

(Mowinckel and Albright, 1939). But either interpretation does not demand rain on the earth before the Flood.

The second strength of the VCM is that it supports God's benediction on the sixth day. If a vapor canopy was a part of this, it should have persisted until the Flood, unless it can be shown that it was replaced at the curse (Genesis 3). Under our present conditions, rain is necessary for us to live. In fact, it is considered a blessing from God (Deuteronomy 28:12), and its absence is a curse (Deuteronomy 28:23–24).

The third strength of the VCM is in providing rain for the onset of the Flood. This rain has been the cause of great debate among creationists.

It needs to be confirmed what were “the fountains of the great deep” and “windows of heaven,” and whether the fountains and the rainfall from the “windows” were both stopped on the one hundred fiftieth day... (Boyd and Snelling, 2017, p. 747).

It is being investigated by Boyd and Snelling as a sequel to their first book on the Genesis Flood (Boyd and Snelling, 2017). It will be interesting to hear their conclusions on this important issue.

The greatest weakness of the VCM are the numerous atmospheric problems cited in the debates beginning in the 1970s which were not resolved by later work extending up to recent years. Nevertheless, the models show that a metastable thick canopy could supply enough rain for 40 days and night, but under present conditions, such a canopy would make Earth's surface too hot to support life (Vardiman, 2001). However, such a canopy could cover a livable earth if heat from the sun was 25% of its present output (Vardiman, 2003).

The idea that the intensity of the sun has increased is possible once the straitjacket of uniformitarianism is abandoned. The Bible predicts that an increase in solar output will happen in the future:

Moreover the light of the moon shall be as the light of the sun, and the light of the sun shall be sevenfold, as the light of seven days, in the day that the Lord bindeth up the breach of his people, and healeth the stroke of their wound. (Isaiah 30:26)

Even evolutionists talk about a “faint young sun paradox” problem (Oard, 2011b). This proposes that the output of the sun was about 70% of current values in the early earth and is used only to explain an “old-age” problem. This is an area that requires further investigation.

The RATE group showed through several lines of research that accelerated nuclear decay took place in the past, specifically during the Creation Week, the Fall, and the Flood. In their study, they suggested that small changes in the strength of the nuclear force can lead to large changes in half-lives (Vardiman, et. al., 2005). Other areas of further research proposed by the RATE group included meteorites, which are used as standards to date the earth and the rest of the solar system (Vardiman, et al., 2005). It is possible that accelerated nuclear decay affected more than just the earth, but perhaps the entire solar system. However, the RATE group did not consider if this affected the sun. Whether this caused an increase in the sun's heat at the time of the Flood is a matter for future study.

Another problem arises from Psalm 148, which clearly states that the waters above the heaven were there at that time, and that they will exist forever. Caution is required, because the psalmist could be using a figure of speech called an “apostrophe”:

A figure of speech, by which a speaker or writer suddenly stops in his discourse, and turns to address pointedly some person or thing, either present or absent. (OED, pp. 392–393)

In the VCM model, the vapor canopy was created on the second day and was declared “good.” It collapsed during the Flood and provided the 40

days and nights of rain. Morris (2006) proposed its restoration at the re-creation of the New Earth.

The White Hole Cosmology Model

Humphreys (1994; 1998) derived a cosmological model in response to the problem of starlight and time. Evolutionists (Nye and Ham, 2014) argue that our ability to see starlight from objects billions of lightyears away invalidates a recent creation. Humphreys used Einstein's general theory of relativity, which has been well-established experimentally, to answer them. He notes the discontinuities between the work of the Creation Week (which were miraculous) and those after (which were preservational). Humphreys asserted in his white hole cosmology (WHT):

1. The universe is bounded (finite).
2. The universe expanded.
3. The earth is at or near the center of the universe.
4. The universe is young per Earth time.
5. The original matter was water.
6. God transformed the water into the various elements during the creation week.

The greatest strength of the WHT is it supplies a “scientifically satisfactory explanation of the large-scale phenomena we observe in the heavens” (Humphreys, 1994, p. 84). It appears to follow secular science and the current “Big Bang Theory” with its expansion/inflation ideas. It explains the following:

1. Light from distant galaxies. We see light from galaxies which are billions of light-years away, measured by a variety of techniques. Light traveling such great distances at today's speed would take billions of years to reach us.
2. Galactic red shifts. The wavelengths of light from each galaxy are shifted toward the red side of the spectrum by a factor roughly proportional to the distance of the galaxy from us. There are some exceptions, but the

overall trend is very clear and must be explained.

3. Cosmic microwave background. The earth is immersed in low-power microwave (centimeter to millimeter wavelength) electromagnetic radiation whose spectrum is exactly like that of the thermal radiation (heat waves, black-body radiation) found within a cavity whose walls are very cold, at 2.74° K. After correction for the earth's motion through space, this radiation is very uniform, having variations with direction no greater than one part in 100,000. (Humphreys, 1994, pp. 84–85).

In addition, Humphreys (1994, 1998) found support in many verses that describe the heavens as being “stretched out.” These include Isaiah 40:22 and Jeremiah 10:12 (Table 4). However, these verses may not be referring to the mechanism God used to create the heavens, but simply referring to the vastness of space.

The greatest weakness of the WHT is that it depends on the assumptions of a 4-dimensional and bounded or finite universe. These contingencies are conceptual, speculative, and currently unverifiable. WHT cannot explain star formation, nor does it predict/explain dark matter/energy (which is also speculative). Furthermore, it places the Genesis 1 waters above the heaven outside of intergalactic space, at the edge of the universe, which he interprets as the first heaven. But this would not appear to match the location as described in Psalm 148, as noted above.

But Humphreys has continued to defend his model against all objections. It may never be proved, but it has not yet been disproved. WHT seems to work well in conjunction with Catastrophic Plate Tectonics (CPT) to explain the rain during the Flood. This is not surprising, as Humphreys is one of the co-authors of CPT (Austin, et al., 1994). Finally, it gives a plausible scientific answer for the starlight-time problem.

The Hartnett-Carmeli Model

Hartnett (2007) also relies on relativity to explain the starlight-time problem, but as modified by Moshe Carmeli (2002). The Hartnett-Carmeli Model (HCM) uses time-dilation to explain distant starlight in a young universe. It, too, relies upon an “economy of miracles” during the Creation Week events. HCM can be summarized as follows:

1. Universe can be either infinite or finite and is isotropic, but not homogeneous. HCM goes with finite.
2. Universe expanded during Creation.
3. Earth is at or near the center of the universe.
4. Universe is young per Earth time.
5. Universe is three-dimensional but has a fourth velocity dimension (*spacevelocity* model) as proposed by Carmeli's Cosmological Relativity (Carmeli, 1996, 2002, 2006).
6. The waters above are in the outer reaches of the solar system.

Like WHT, the greatest strength of this model is that it gives a “scientific satisfactory explanation” for the universe and the problem of starlight and time. The universe can be theoretically finite or infinite, but Hartnett (2007) chooses the former.

In contrast to WHT, it does not depend on the highly controversial idea of a 4-dimensional universe, nor does it need dark matter/energy to shore up the model. It seems to have a plausible explanation for particle production (star formation) as a natural consequence of energy conversion in the Carmeli cosmology.

The waters of Genesis 1:6 existed as ice in the outer solar system. They collapsed during the Flood and provided the water for the 40 days and nights of rain. Only remnants of the “waters above remain.” This seems to be in line with the Impact Flood Model as proposed by Oard (2011a). Although Oard proposed that the rain was caused by impactors hitting the oceans and blasting up water into the air, he may

not have considered this option as a possibility.

Its greatest weakness is biblical; locating the waters above in the outer reaches of the solar system does not appear to match the Bible's descriptions. Also, it does not try to explain the events occurring on Days 1–3 (Hartnett, 2016). Furthermore, the Carmeli cosmology lacks supporters in the secular world and has questions and potential inconsistencies (Hartnett, 2016). Like the other two models, it cannot be verified.

Even though the Bible does not place the waters above in the outer reaches of the solar system, there appears to be evidence of water, or remnants of it, at this location. Hartnett did not claim this to be a definitive answer but only a sketch; it is an ongoing endeavor, and objections could be worked out upon further research. Moreover, the Carmeli cosmology may not be mainstream science, but that does not mean that it is invalid, as further research may discover answers to its inconsistencies. One of the advantages of this model is that it demonstrates other possibilities to the light-time travel problem, and that the present theories of the Universe which requires dark matter/energy to shore up the model can be explained otherwise.

Carmeli's model is able to describe the Universe without dark matter and dark energy. That is very appealing, but it does not make it the correct cosmology because other models have been developed that claim something similar. (Hartnett, 2016, p. 2)

Related Questions

There are several questions which are related to the models above and to creation in general. Is the universe infinite or finite? Also, is the universe four or three dimensional? Finally, is time dilation the only way to explain the starlight-time problem, or are there other solutions? The answers to these questions may be

able to help us determine which model best fits the data, and consequently, identify a possible Flood model.

Is the Universe Infinite or Finite?

It is impossible to tell by direct observations whether the universe is finite or infinite.

The choice of cosmology, then, is ultimately personal preference, not a requirement dictated by the data. (Hartnett, 2007, p.87)

Hartnett (2007) pointed out that the universe could be infinite with the earth at the center, if matter was isotropically (but not homogeneously) distributed around us. Many maps of the universe show this to be the case, but the many assumptions required leave it an open question.

Both Humphreys (1994) and Hartnett (2007) model the universe as finite and bounded, with Earth near its center, citing biblical support:

But will God indeed dwell on the earth? Behold, the heaven and heaven of heavens cannot contain thee; how much less this house that I have builded? (I Kings 8:27)

Humphreys (1994) claims that this verse alone should convince creationists that the universe is finite. However, the verse does not state that: simply that the heavens (universe) cannot contain God. It does not exclude the possibility that the universe could be infinite, but even if it were, it could not contain the God who created it. This is a great mystery.

[Heaven] includes all space...and extends from the air we breathe... to the firmament or expanse that contains the innumerable stars. This it includes, and exceeds for where our intellect ceases to operate, and fails to find a limit to the extension of space, there faith comes in. (*Strong's Hebrew Dictionary*, p. 284)

Hartnett (2007) takes a different tack, asserting that these verses imply a finite universe.

He telleth the number of the stars; he calleth them all by their names. (Psalm 147:4)

I will bless thee, and in multiplying I will multiply thy seed as the stars of the heaven, and as the sand which is upon the seashore. (Genesis 22:17)

Again, these verses are not explicit about the finitude of the universe. Hartnett (2007) claims they assert a finite number of stars, which implies a finite universe.

Other scriptures indicate infinite heavens:

Thus saith the Lord; If heaven above can be measured and the foundations of the earth searched out beneath, I will also cast off all the seed of Israel for all that they have done, saith the Lord. (Jeremiah 31:37)

This verse is a comparison of what God will do (or never do) concerning His promises to Israel and His mercy to those who fear Him. This implies an immeasurability of the heavens which implies an infinite amount of time.

For as the heaven is high above the earth, so great is his mercy toward them that fear him. As far as the east is from the west, so far hath he removed our transgressions from us. (Psalm 103:11-12)

It is interesting that the Bible uses the phrase "as far as the east is from the west," which is literally an unmeasurable dimension, instead of "as far as the north is from the south," which is not (i.e., the north to the south poles). Thus there is a point on the globe which is the South Pole, but there is no point on the globe which is "the west." This also implies that the heaven above the earth is also unmeasurable.

For as the heavens are higher than the earth, so are my ways higher than your ways, and my thoughts than your thoughts. (Isaiah 55:9)

This, too, implies an infinite distance, as there is no searching out the ways and thoughts of God. We barely

know the physical world in which we live, much less the spiritual world that is to come.

Morris (1984, p.173) sums up the infinite universe position as follows:

Since God is infinite in power, it is reasonable that the universe He would create would be a universe of boundless space and endless time. In fact, our minds are so constituted (by creation) that we cannot even conceive of anything else. That is, what could be outside the boundaries of space, except more space? What could be after time, but more time? Relativistic mathematics may involve such things as curved space and warped time, but the real world of human experience and observation is one of unbounded three-dimensional space and unending one-dimensional time.

Recent creationist cosmologies disagree. Humphreys' (1994) model requires a finite, bounded universe. If the universe is infinite, then his model fails.

4-Dimensional or 3-Dimensional Space

The debate of whether we live in a 4-dimensional (4-D) or 3-dimensional (3-D) space has been around since the 1800s (Franklin, 1981). 4-D space is conceptual and unverifiable. At the same time, neither has it been disproved, as numerous experiments have been unable to falsify it. 3-D objects used to describe 4-D space, such as the tesseract cube (the tesseract cube is a four-dimensional analogue of a cube), or a balloon, require visualization to see another dimension. Does the Bible support a 4-D universe? Humphreys cites these verses:

And Thou, Lord in the beginning hast laid the foundations of the earth; and the heavens are the works of thine hands: They shall perish, but thou remainest; and they all shall wax old as doth a garment; And as vesture shalt thou fold them up, and

they shall be changed; but thou art the same, and thy years shall not fail. (Hebrews 1:10–12)

And all the host of heaven shall be dissolved, and the heavens shall be rolled together as a scroll: and all their host shall fall down, as the leaf falleth off from the vine, and as a falling fig from the fig tree. (Isaiah 34:4)

And the heaven departed as a scroll when it is rolled together, and every mountain and island were moved out of their places. (Revelation 6:14)

These verses are pointing to future events which the prophets were describing, either through prophetic utterance or divine vision, using highly metaphorical terms which the hearer/reader could understand. One interpretation is as follows:

This suggests that (1) there is some dimension in which space is thin, (2) space can be bent, and (3) there exists a direction it can be bent toward. Thus these verses could be hinting that a fourth spatial dimension exists, even though we can't perceive it. (Humphreys, 1994, p. 67)

This is based on a very literal interpretation of these passages. However, no observations have detected this “thin” dimension. The universe is always described with a radius. It has been estimated as 13.5 billion light-years (Hartnett), 20 billion light-years (Humphreys, 1994), and as high as 46 billion light-years (Sarfati, 2015). As far as we can tell, there is no “thin” dimension.

Furthermore, these verses can be interpreted in several ways; e.g., as a cloud that blots out the stars of the sky (Morris, 2006). The Bible uses complex imagery to describe persons, places, and events. They can sometimes be interpreted literally, metaphorically, or figuratively. How these verses are to be interpreted is subjective, so we cannot be dogmatic. Someday it may be revealed to us either through science or by experience.

Physically, the created order has always been a 3-D universe. Biblical examples include Noah's Ark, the Ark of the Covenant, the tabernacle, the temple, Ezekiel's future temple complex, and the New Jerusalem. Moses' tabernacle used a divine plan (Exodus 25:9, 40; Hebrews 8:5).

His earthly tabernacle was patterned after the heavenly tabernacle. New Jerusalem is described as an equidimensional cube (Rev. 21:16). There is not a fourth dimension. On a more speculative note, God presents Himself as a triune being; perhaps the physical dimensions of the created reality mirror that. 4-D space is therefore speculative and unobserved. More importantly, there is no clear biblical indication that it exists.

Time Dilation

Modern physics has shown observationally that space is vast, with stars and galaxies billions of light years away. Once, the “mature creation” theory, with light created in place, seemed to be the best explanation for distant starlight. But variations, including supernovas, and other phenomenon post-dating the creation week are yet billions of light years away. This light could not reach a 6,000-year old Earth.

Time dilation (Hartnett, 2007; Humphreys, 1994) solves this problem. Distant starlight could travel much faster than our frame of reference. It can also explain supernovas and other phenomenon that occurred after the creation week. This is the greatest strength of these models. However, Psalm 33:6–9 appears to say otherwise: “For he spake, and it was done.” This seems to imply that the stars were created instantly only a few thousand years ago.

The Anisotropic Synchrony Convention (ASC) model (Lisle, 2010) suggests that light reaches earth instantaneously in a young creation. ASC maintains that the round-trip speed of light is constant, but the speed of light is a function of

direction. It varies relative to the observer by the equation $c_{\theta} = c/(1-\cos\theta)$, where $\theta = 0^{\circ}$ is the direction toward the observer (is instantaneous), and $\theta = 180^{\circ}$ for the direction away from the observer (is $c/2$), so that the average measured speed of light is c . This appears to solve many biblical starlight problems as God spoke “and it was so” (Genesis 1:15).

The time when a celestial event is seen was considered to be simultaneous with the time in which the event happened. (Lisle, 2010, p. 202)

Thus, in the ASC model the stars are only thousands of years old and not billions, as in the time-dilation models. Either way, these models can give satisfactory explanations for the time-travel problem.

One final possibility is that space itself was stretched out in some miraculous fashion during the creation week, carrying light along with it (Faulkner, 2013). This is a new concept and would be outside our current concepts of physics.

Summary

The creation of the universe falls beyond the realm of science. Consequently, some type of religion or faith must be used to describe its origin. The Bible gives us just such a description as God created the heaven and the earth in six days and rested on the seventh. Although it doesn't tell us every detail, it does give us a general order, duration, and to a certain extent, its methods (e.g., God spake...and it was so) using processes no longer in operation.

For Christians, interpretation is very important, especially with nebulous passages not directed at cosmology construction. In this paper an attempt was made to determine the three heavens as revealed to us by Paul (II Corinthians 12:1–4). It is proposed that they are the atmosphere, interstellar space, and the Kingdom of heaven where Christ is now.

One of the many mysteries of creation was what the waters above the expanse (heaven) were and where they were located. Three models have been compared, the Vapor Canopy Model, the White Hole Theory model, and the Hartnett-Carmeli Model. The VCM, the WHT, and the HCM place the waters above the atmosphere, interstellar space, and the outer reaches of the solar system respectively. Each of these models have their strengths and weaknesses, and it seems that at this time they are all unverifiable simply because there are too many unknowns, and no one, besides the Lord, was there to observe the events.

That there are such disagreements is not necessarily a bad thing. In fact, it is how good science is done as it helps us to study further, and to eventually discover the truth, even the mind of God.

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