

**Paper #1** Argument that the universe, including the sun, moon and stars, was not created by God only two days before he created the first human, a mistaken opinion based on a mistranslation of the Hebrew text of Genesis 1:16 and a mistranslation or misinterpretation of Genesis 1:1-5 and 1:14-19. When that first chapter of Genesis is correctly interpreted the so-called "[starlight problem](#)", one of the major criticisms of the biblical text, disappears entirely.



### **Introduction:**

This first paper in our series necessarily begins with a word of caution. Since this series of papers is concerned exclusively with biblical texts whose integrity is in question, we need to point out that the typical criticism directed at the various biblical texts seldom, if ever, consists entirely of rational argument. Too often we find the critics ridiculing the messenger rather than examining the message (an instance of "[ad hominem](#)" argument), and even more often arguing against a misrepresentation of the subject matter under consideration (a variation of the so-called "[straw man](#)" argument). The latter fallacy typically consists of three steps. The critic begins by mistranslating or misinterpreting the text. He/she then continues by pointing out inconsistencies in the misrepresented text or the flawed interpretation. And finally, the conclusion is reached that it is the Hebrew text itself that is grossly in error. The argument is clearly invalid; in logic it is called a [non sequitur](#).

The heading of this, our first paper, refers to an instance of this problematic type of criticism. In introducing this paper we referenced an online article entitled the "[starlight problem](#)", a reference to one of the most problematic of the assumed difficulties with the Hebrew text of Genesis 1. The article begins with the claim that this chapter dates the creation of the universe to a time approximately 6000 years ago, equivalent to saying that it was created around 4000 BC. It proceeds to point out glaring inconsistencies between that teaching and modern science. It concludes that the text of Genesis 1 is therefore seriously flawed. The casual reader of this online article would very likely be completely unaware that the author (who neglects to identify himself, nor specify his scientific qualifications, nor the biblical interpretation he is attacking) is actually referring to a select group of interpretive positions, whereas in fact the first chapter of Genesis can be, and has been, interpreted otherwise. We do admit, however, that the claim that stars were created around 4000 BC is a constituent element in the three most widely held interpretative positions, which therefore deserve the criticism they receive, even though they may one day be successfully defended. To his credit the author of the "starlight problem" article does acknowledge, albeit obliquely and apparently grudgingly, that there are other exegetical positions that interpret the first chapter of Genesis differently, thus circumventing the "starlight problem." But that author's mention of the alternative positions is brief, and they are abruptly dismissed. A single paragraph is devoted to them.

Numerous attempts to solve this problem - including some [hand-waving](#) about whether such a problem even exists - have been attempted by creationists. Some are bizarre, some outright absurd, and none are taken seriously by the scientific community. However, they are all united by a desperate need to [shoehorn](#) an absurdly young age for the universe into a reality that says otherwise.

We could not ask for a better example of the "ad hominem" and "straw man" arguments we mentioned moments ago than what is provided in this brief paragraph. The author has singled out for criticism some of the interpretive positions most difficult to defend and has branded all alternate theories, including those that accept the possibility of a boundless universe created millions or billions of years in the past, as bizarre, absurd, and supported by "hand-wavers". No discussion of these alternate positions is included. Nowhere is there any reference to the biblical text, much less an attempt to interpret it - only a claim

that alternative interpretations exist but are not taken seriously by the scientific community, itself an absurd statement. The fact is that most of the scientific community has never read the literature related to these alternative positions, much less developed an opinion regarding their credibility.

The only “hand-waver” in that article is its author.

Which brings us to the substance for which this paper is created – an analysis the Hebrew text of Genesis 1 that makes sense of its multiple difficulties, not simply the passages that create the fictional “starlight problem”.

### **The Hebrew text of Genesis, chapter 1, verses 1-5 & 14-19.**

The first chapter in the Hebrew Bible is replete with difficulties of an astronomical nature (pun intended), not so much for the translator as for the interpreter. Why does verse 1, which first mentions God’s creation of the universe, use the Hebrew verb *bara’* to describe that creation, while the balance of the chapter (with the exception of verse 27, which describes the creation of man) consistently states that everything was “made”, employing the generic term *‘asah*? The term *bara’*, used only 40 times in the Hebrew Bible (in the qal stem), is of unknown Semitic origin, and at the very least speaks to the uniqueness of the action being described, or of the element being made. While it does not necessarily describe a creation *ex nihilo*, ie. “out of nothing”, it does contrast with the word *‘asah*, which generally implies the formation/fashioning of something out of preexisting materials. We might also ask

If the sun was not created until day 4, how is it that in verse 2, and again in verse 3, the Spirit of God makes reference to a water covered planet. Should we not rather anticipate a reference to a frigid, frozen planet, in the absent of the sun’s heat?

or

What was the source of the light created on day one (vs 3-5), absent the sun, moon, and stars which were supposedly not created until day four (vs 14-19)?

or

How could God reckon in verse 5 that “there was evening and there was morning, the first day” (vs 5), again in the absence of the sun, moon and stars, which today provide the only visible criteria for this determination of passing time?

or

If the “creation week” consisted only of the respective actions cited on the six literal days, as described in the six paragraphs 1:3-5, 1:6-8, 1:9-13, 1:14-19, 1:20-24 and 1:25-31 - each of which begins with the identical phrase “and God said” and ends with the distinguishing phrase “and there was evening and there was morning” followed by a numbering of the days - then why is the creation of the earth not mentioned in these numbered sections?

And a related question:

The mention of the earth in verses 1 and 2 precedes the description of the “six days of creation” in verses 3 through 31. Assuming that the sun, moon, and stars were not created until the fourth day, this implies that the earth was for a time an isolate body, around which the sun, the moon, and the boundless universe of stars, nebulae, and galaxies were created in the span of 24 hours. This supposition in itself is difficult enough to comprehend, but it also raises the related question: why does the initial chapter of Genesis not mention the planets? This sequencing of the creative elements is, to say the least, problematic, in spite of the fact that it is held by all three of the major interpretive schools we will outline momentarily. That being the case, small wonder that cosmologists in the scientific community question the reliability of the Genesis account of creation.

These are by no means the only questions we could ask the Hebrew text. But they do deserve a reasonable answer. Which leads me to mention what must certainly be the overriding principle of sound exegesis.

*Given that a text, or a series of texts, can be interpreted in multiple ways, one ought to give preference to those interpretations that explain the majority of the perceived problems.*

That seems to this author to be a common sense approach, though the principle is certainly not followed by those seeking to criticize the biblical text, nor for that matter by the majority of well-intentioned Christian exegetes who develop these interpretive theories. But we follow that principle faithfully throughout this series of papers.

Several times already we have made reference to the three most widely held interpretive theories of the first chapter of Genesis. It is time to itemize them. For convenience we merely reproduce the summaries provided on the website [Bible.org](http://Bible.org):

**View 1: The Re-creation (or Gap) Theory.** This view maintains that [Genesis 1:1](#) describes the original creation of the earth, prior to the fall of Satan ([Isaiah 14:12-15](#); [Ezekiel 28:12ff](#)). As a result of Satan's fall the earth lost its original state of beauty and bliss and is found in a state of chaos in [Genesis 1:2](#). This 'gap' between verses 1 and 2 not only helps to explain the teaching of Satan's fall, but it also allows for a considerable time period, which helps to harmonize the creation account with modern scientific theory. It does suffer from a number of difficulties.

**View 2: The Initial Chaos Theory.** Briefly, this view holds that verse one would be an independent introductory statement. Verse 2 would describe the state of the initial creation as unformed and unfilled. In other words the universe is like an untouched block of granite before the sculptor begins to fashion it. The creation is not in an evil state, as the result of some catastrophic fall, but merely in its initial unformed state, like a lump of clay in the potter's hands. Verses 3 and following begin to describe God's working and fashioning of the mass, transforming it from chaos to cosmos. Many respectable scholars hold this position.

**View 3: Precreation Chaos Theory:** In this view (held by Dr. Waltke), verse one is understood either as a dependent clause ("When God began to create ... ") or as an independent introductory summary statement ("In the beginning God created ... "). The creation account summarized in verse one begins in verse two. This 'creation' is not 'ex nihilo' (out of nothing), but out of the stuff existing in verse 2. Where this comes from is not explained in these verses. In effect, this view holds that the chaotic state does not occur between verses one and two, but before verse one of an unspecified time. The absolute origin of matter is, then, not the subject of the 'creation' account of [Genesis 1](#), but only the relative beginnings of the world and civilization as we know it today.

For added clarity we summarize the three positions in table form, and at long last we inform the reader concerning the details of our revised position, which for lack of a better title we call the "Revised Gap Theory".

**Table 1: Variant theories of the structure of Genesis 1:1-31**

Theory	Genesis 1:1		Genesis 1:2		Genesis 1:3-31
Gap theory	Statement that God created a universe (heavens and earth) in the distant past, perhaps millions of years ago.	An unrecorded gap of time during which that universe is destroyed leaving only a damaged earth.	The surviving earth is described in its destructive state and is used as the basis for the construction of the present universe	No gap	Details of the construction of the present universe.
Initial chaos theory	A summary statement that God created the heavens and the earth. Details of this creation follow in verses 2-31.	no gap	A description of the “formless and unpopulated earth” that was the first stage in creating the “heavens and the earth”	No gap	Details of the construction of the present universe
Pre-creation chaos theory	A statement that in the distant past God began the creation of the universe by creating the unformed earth	no gap	A statement introducing the unformed earth from which the balance of the universe would one day be created	Gap of unknown duration	Details of the construction of the present universe
Revised Gap theory (this is the theory supported by this author)	Statement that God created the present universe (heavens and earth) in the distant past, perhaps millions of years ago.	no gap	The earth, the end result of millions of years of stellar evolution, is described as being “formless and unpopulated”.	Gap of unknown duration.	Details of the modification of the earth and the solar system to make the earth habitable for man.

We have outlined the three interpretive theories for one reason only. By describing what their constituent scholars have determined from the Hebrew text

we are better able to explain our own position, it being the case that in most instances we are dealing with precisely the same issues.

A few remarks are in order to explain certain details of the interpretive positions outlined in Table 1. We begin with the “gap theory”.

### **Gap Theory**

The Bible.org summary statement admits that the gap theory suffers from several difficulties. While it does not itemize these difficulties, the most obvious is its teaching that the “formless and unpopulated” earth mentioned in Genesis 1:2 is not the earth that was mentioned in Genesis 1:1, but rather the earth as it existed perhaps millions of years later, after a judgmental action by God. To justify this claim advocates of the theory make reference to biblical statements such as Isaiah 14:12-15 and Ezekiel 28:12-19, which supposedly state that Satan, the fallen archangel, was at some time in the distant past cast down to the earth by God, resulting in God’s judgmental devastation of the earth. Thus there exists a gap of unknown duration, perhaps millions of years, between Genesis 1:1 and 1:2. Multiple objections have been raised against this interpretation, though only two are mentioned here, one theological, one grammatical.

Theologically it can be argued that there is absolutely no biblical support for this interpretation. The Ezekiel reference cited above is not even a reference to Satan, but to a king of the island kingdom of Tyre in the eastern Mediterranean, living around the year 570 BC; and the Isaiah incident, the removal of Satan from heaven, can actually be dated to sometime in the century that preceded the universal flood that took place in the days of Noah, around 1500 years after the creation of man. We will say more about this incident in a later paper.

A second problem concerns the grammatical structure of Genesis, which demands that the “formless and unpopulated” earth described in verse 2 be identified as precisely the same earth mentioned in verse 1, not the remnants of that early earth after its partial destruction by an angry God. For reasons that will become evident momentarily it is important that we outline the nature of the grammatical difficulty. It has a bearing on the entries in our Table 1 that allude to “gaps” or “no gaps” in the narrative of Genesis 1. The problem is not at all difficult to explain, so please bear with us.

## Explanation of the structure of the first chapter of Genesis.

The first chapter of Genesis is a typical narrative sequence consisting of multiple statements joined by a conjunction, in this case the conjunction “and”. We quote the first two verses of Genesis and the beginnings of verses 3, 6, 9, 14, 20 and 24 in order to illustrate the problem.

- 1) In the beginning God created the heavens and the earth
- 2) **And** the earth was formless and void/unpopulated,  
**And** darkness was upon the face of the deep,  
**And** the spirit of God hovered over the surface of the waters.
- 3) **And** God said “Let there be light,  
**And** there was light ...
- 6) **And** God said ...
- 9) **And** God said ...
- 14) **And** God said ...
- 20) **And** God said ...
- 24) **And** God said ...

In the English translation, the various occurrences of the word “and” convey to the reader two distinct nuances. When the “**and**” is followed by a verb, thus denoting action (in this case “speaking”), the phrases or sentences which follow are construed to be consecutive stages in a narrative sequence. *There is an implied “gap of time” between these consecutive actions, whether or not auxiliary words are introduced to describe that progression of time, or its duration.* That gap of time could be a few minutes, a few days or years, or even “millions of years”. When the “**and**” is followed by a noun, as happens three times in verse 2, every reader of this paper will immediately recognize that there is no progression in time taking place, i.e. no temporal gap is implied between verses 1 and 2. The statements which follow the occurrences of the “and” in verse two are merely describing the “earth” that was created by God in verse 1.

So, for example, if I state

- 1) This morning I ate a good breakfast
- 2) **And** the breakfast consisted solely of cereal **and** toast **and** jam
- 3) **And** I went to work
- 4) **And** I drove home (at the end of day)
- 5) **And** I went to bed (about 9 o’clock)



there is no implied gap of time between the action in verse 1 and the statements in verse 2. Verse 2 is merely supplying details descriptive of the breakfast mentioned in verse 1. There is however an implied duration of time existing between the action of line 1 and that in line 3, and between the action in line 3 and that in line 4, and equally between the actions of lines 4 and 5, even if we omit the bracketed adverbial phrases at the ends of lines 4 & 5. That is English syntax in a nutshell. It also describes Hebrew syntax.

In the Hebrew text the “and” in the narrative is represented by a single vertical stroke with a slight bend at the top, representing the letter “waw” (pronounced vav), the sixth character in the Hebrew alphabet. Where that letter occurs before a verb the grammarians call it a “[waw consecutive](#)”. Where it occurs before a noun, as in verse two, it is called in various contexts either a “[waw disjunctive](#)” or a “[waw conjunctive](#)”. The names are inconsequential. We mention them, and provide links to online sites describing them, only to assist the reader who wishes to further investigate the issue. The point of this lengthy interlude is simply to argue that there is no grammatical justification for the interpretation provided by traditional gap theorists. No gap of time exists between verses 1 and 2 of Genesis chapter 1. All of the three other positions described in our Table 2 are at minimum consistent with the grammatical structure of the text.

There is, however, some support for the argument that a gap of time may have intervened between the creation of the “heavens and the earth” in Genesis 1, and the creative actions of God which begin in verse 3.

### **Initial Chaos and Pre-creation Chaos Theories**

The second and third interpretive positions in our Table 1 are very much alike. God first created the earth, then the universe. The two positions differ on precisely when the earth was created.

**Initial Chaos Theory.** *Proponents of the Initial Chaos interpretation* generally regard Genesis 1:1 as a mere summary statement prefixed to the detailed description of creation which follows in verses 2-31. The creation story

actually begins in verse 2 and continues uninterrupted through to the end of the chapter. No temporal gaps exist other than the 24 hour intervals separating the six creative acts. The narrative simply accepts the fact (declared in the summary statement) that God first made the earth, presumably around 4000 BC, and immediately began creating the universe around it. Though perhaps the most popular interpretation among exegetes, it answers absolutely none of the questions we raised on pages 2-4 of this paper.

**Pre-Creation Theory.** Marginally better is *the proposal advocated by the pre-creation chaos theorists*, some of whom regard Genesis 1:1 as a summary statement, others arguing for an [inceptive](#) nuance to the verb *bara'*, translating Genesis 1:1 as “In the beginning God began to create the heavens and the earth”. In this theory, while accepting that Genesis 1:2 describes the “unformed and unpopulated” earth with which God began his creative activity in Genesis 1:3-31, it is assumed that there may have been an unspecified, but perhaps significantly large gap of time in the narrative between the creation of the earth and the creative acts described in Genesis 3-31. In this theory at least, it is accepted that the earth might be extremely old, while the actions described in verses 3-31 definitely date to around 4000 BC. This theory might well have evolved into our *Revised Gap Theory* had its proponents accepted our proposal that the earth in verse two marks the end, not the beginning, of God’s creation of the universe.

This summary is brief, but instructive regarding the structure of Genesis 1:1-3. It will suffice to help us introduce our revised position. A glance at our Table 1 will quickly inform the reader that we agree entirely with the gap theorists that the first verse of Genesis is a description of the creation of the universe in the distant past, a statement sufficiently vague to answer the criticism of cosmologists who argue that the creation of the universe was a process that took millions, perhaps billions of years to complete. But there our agreement with the gap theory ends. As we have already argued, against that theory, we accept as fact that the earth mentioned in verse 2 is precisely the same earth mentioned in verse 1. No gap of time intervenes. No judgmental destruction of the earth need be postulated. Verse 2 is simply describing the condition of the earth at the end of the creative process that formed the universe, as described in verse 1.

Our second disagreement with the gap theory, indeed the major difficulty with this theory and also with the other two mentioned earlier, is the flawed interpretation of the “six days of creation” described in Genesis 1:3-31. These 29 verses have been very badly understood by almost all interpreters of the Hebrew text. ***The major problem with the gap theory, and indeed with the Initial Chaos and Pre-Creation Chaos theories, is the indefensible claim that verses 3-31 describe a creation of the universe.*** That is simply not the case. We have highlighted that statement for an obvious reasons. It is the heart and soul of our *Revised Gap Theory*. The balance of this paper is devoted to arguing that single proposition.

### **Reinterpretation of Genesis 1:3-19.**

We assume in this paper that when God created the heavens and the earth in Genesis 1, a process that may have taken millions of years, the earth ended up in the condition described in verse 2. It was not an isolate body, travelling through space without companion planets. It was accompanied by the same planets as exist today, plus one. This additional body, [a gas planet 10 times the diameter of Jupiter](#) (thus 1000 times as massive), was about to implode and ignite, and attain the status of a sun. The earth was without doubt spinning on its axis, once in approximately the same time period as it is at present. It had an atmosphere compatible with the existence of both plant and animal life forms. It also had a moon, though the moon was not yet visible. Nor for that matter were its companion planets visible, again because they, like the moon, were not yet reflecting light from a luminous sun. All of that changed in six 24 hour periods around the year 4000 BC. In order for us to defend that claim, and to detail precisely what happened at that time, we need to bring modern scientific theory into the picture.

There is certainly a degree of irony in the fact that “starlight”, used by critics to argue that the biblical text of Genesis 1 is inaccurate, is here used in defense of the credibility of the biblical account of creation. But that is precisely what happens. It is not the case that Genesis 1 and modern science are in conflict regarding the creation of the universe. It turns out they are in complete agreement, and that the text of Genesis 1 can only be understood in the context

of modern scientific theory, and conversely, that modern science neglects, to its peril, the details of the Genesis 1 account. Let me explain.

### **Agreement between the *Revised Gap Theory* and *Modern Science***

When the gap theory was first proposed, its advocates were criticized for accommodating their interpretation of the bible to scientific theories regarding the age of the cosmos, including the age of the earth. That criticism was unfounded. Any legitimate interpretation of the bible must *necessarily* take into account every possible detail that bears on the text in question, including scientific theories based on defensible facts. This approach ought to be regarded as a strength of the exegetical argument, not a deficiency. Thus in this section we accept, for the time being at least, that the majority of present day cosmologists are at least marginally correct in their assessment of the age of the universe, and of the processes that led to its formation. When our analysis is complete the reader will view scientific theory as a friend, not an adversary, of our interpretation of Genesis 1.

We begin by outlining the broad details of the “big bang” theory of the formation of the cosmos, not simply because this is by far the consensus opinion of cosmologists, but because it is the considered opinion of this author that its details best explain the observable problems with the text of Genesis 1, including those outlined on pages 2-4 of this paper. When we are finished, every one of these hypothetical problems will be more than adequately explained.

**The formation of the universe according to the “big bang” theory.** It is not the intention of this essay to describe how scientists explain the various processes operative in the formation of our universe. Even if we narrowed the scope of our investigation to the topic “How did our solar system evolve?” we would be weeks discussing the various theories proposed. Instead we describe the process in the broadest terms. Two paragraphs will suffice. We do provide a few hyperlinks to direct the interested reader to online sites that will at least summarize the scope of the problem.

The scientific theory of course begins with the conjectured (but unproven) [big bang origin of the universe](#), which hypothesizes that all matter in existence today appeared suddenly from an inconceivably small point in space, referred to by theoretical physicists as an “[initial singularity](#)”, a term best left undefined, though the reader is welcome to follow the link. From that mathematical construct all existing matter spewed forth into space, and if we are to believe the cosmologists it consisted exclusively of [hydrogen and its isotopes](#), the most elemental forms of matter. Later, as the molecules of hydrogen coalesced in space to form [nebulae](#), [stars](#) and [galaxies](#), due primarily to the operation of gravitational and electromagnetic forces, [nuclear fusion](#) in the cores of suns and proto-suns turned the hydrogen into helium, then the helium to carbon, the carbon to oxygen, and so on, creating the moderately heavy elements like silicon and iron, all depending on how massive the sun that spawned these elements. Heavier atoms still are conjectured to have developed later, via the explosion of [supernovae](#), through a process called [neutron capture](#), apparently a late stage in stellar evolution. Though we seriously doubt that the heavy elements could only originate this way, for the time being we accept the viability of this proposal. How these heavier elements appear in planets of our own solar system is another matter, since our sun is not sufficiently massive to produce them. If the reader wishes to pursue the matter further we recommend reading the details of the most popular theory, appropriately named the [nebular hypothesis](#).

We like the last title. It reminds us that all of the details discussed in the referenced Wikipedia articles are merely hypotheses. While our *Revised Gap Theory* embraces them for the time being, it does remain highly skeptical of the speculative details, none of which can be confirmed experimentally for obvious reasons. One aspect of modern scientific theory alone remains moderately above reproach, the theory of [stellar formation](#), and in particular, the generally accepted fact that every star, our sun included, began its life as a cloud of gas, coalesced into a [protostar](#) or proto-sun, its core gradually heating via the energy released through the process of nuclear fusion. As the theory goes, the resulting reduction in volume (as pairs of hydrogen atoms fuse into a single helium atom, releasing quantities of energy) causes a proto-star to contract, increasing the pressure at the core, intensifying the fusion process as even heavier elements are produced via the fusion process, until, at some moment in time, as the Wikipedia article

states, “the protostar blows back the infalling gas and is revealed as an optically visible pre-main-sequence star.

Every event in the two lengthy preceding paragraphs can be and has been compressed into the single declaration of Genesis 1:1: “In the beginning God created the heavens and the earth.” It was a process that may well have consumed thousands, perhaps multiple millions of years. If the scientists insist on claiming that by [radiometric methods](#) they can determine that the universe may be a few billions of years old, and if they can prove that claim, then fine, Genesis 1:1 will accommodate itself to that theory. Regardless, we argue that since Genesis 1:2 describes the earth as a planet enveloped in complete darkness, it must be argued that Genesis 1:3 is speaking about the arrival of light from the nearest luminous object, . Whether a nebula, a star, or a galaxy of stars makes no difference. And further, it must be the case that the gas giant companion of the planet earth, 93 million miles distant, was on the verge of ignition, transitioning from a protostar to the star now known as our sun. Already, the thermo-nuclear eruptions at its core had produced abundant radiant energy at its surface, much of which reached the surface of the earth, which, in combination with the surface heat generated by the earth’s molten core, had already turned the icy surface, at least in places, into liquid form. It may also be assumed that around 4000 BC the earth’s mantle was thinner as our molten core tried to work its way to the surface, but failed. Thus we explain the fact that God’s Spirit was roaming over the surface of the waters, not the surface of an ice-covered planet.

If the reader has not by now begun to comprehend our interpretation of Genesis 1:3-31 let us create the timeline.

**Genesis 1:1** God, with intention to one day create the human species, set in motion the process of creating the material universe. **God is the undefined “initial singularity” from which proceeded all of the matter in the universe, matter which was created by Him *ex nihilo*.** The matter thus created - hydrogen gas if we are to believe the experts – was flung out into space where it was apparently subject to the vagaries of gravitational and electromagnetic forces to develop into the universe as we know it today, with the earth imbedded in the midst of a massive galaxy we now call the Milky Way, itself light years in diameter.

This process of creation, as we explained earlier, may have taken millions, if not billions, of years. [In a future paper, in our analysis of the origins of the dinosaurs, we will discuss the phenomenon known as radiometric dating, and drastically reduce those numbers, though for the moment we accept them as plausible.

**Genesis 1:2** God now re-enters the picture, apparently engaged in the process of finding a planet suitable as a habitation for the human species he intends to create. His Spirit roams the surface of the watery planet we call earth, makes note of its darkness, remarks on its “unformed and unpopulated condition”, yet is apparently satisfied with His selection. There may then have followed a gap of time for the universe to briefly continue its development. With God, timing is everything. As Solomon once said: “There is an appointed time for everything. And there is a time for every event under heaven” (Ecclesiastes 3:1)



**Genesis 1:3-5** Since the earth in Genesis 1:2 was in total darkness, and light from the earth’s sun awaited its transformation from proto-star to star on day 4, the announcement of the arrival of light in Genesis 1:3 must necessarily be interpreted as a mere proclamation, announcing the arrival of light from the closest luminous object(s) in the universe, a distant “star”. The Hebrew text certainly admits that possibility. In fact, we argue that it demands that interpretation. While it is conceivable that God so organized His universe that

light from many stars arrived that same day, a single beam of starlight would be sufficient. The Hebrew noun *’or*, the generic term for “light”, lacks the article. Thus we could translate the beginning of Genesis 1:3 as “Let there appear a light; and there was a light”. For the very first time light from afar was now visible from the surface of the earth. And God was pleased, as we would expect. Understood in this context this was not a creative act. It was merely an instance of God’s timing at work. He had a plan for populating the earth, and that plan necessitated his synchronizing the beginning of his earthly renovations with the arrival of light from the cosmos and emergence of the sun. As this series of papers unfolds we will often remark on how God is extremely cognizant of the passage of time. Many of the so-called “miracles” in the bible are not instances where God is tampering with the laws of physics. He is simply allowing events to proceed in a natural order. So here.

That the announcement at the beginning of verse 3 was a reference to the arrival of starlight is confirmed by verses 4 and 5.

And God saw that the light was good. And God separated/distinguished the light from the darkness. And God called the light “day” and the darkness he called “night”. And there was evening and there was morning, day one.

What possible sense can be made of the fact that the light, now summoned into existence, could be used by God to distinguish between the days and nights of the rotating earth, giving meaning to those terms. There is really only one possible explanation. The light source must be one that was visible for the half day that the future sun would be shining in the heavens, and invisible during the half-day that began with the setting of the future sun. And what did God do to achieve that result. The answer is simple. He did nothing. Depending on where an earth observer is located, and where in the night sky a “star” is visible, that star will rise in the east and set in the west precisely as does the sun. In fact, if the starlight in question was located close to the line of sight of the yet invisible gas giant proto-star, soon to become our visible sun, the light arriving from the distant cosmos would rise and set in the pitch black darkness of the sky, closely following the trajectory of the “proto-sun”, and days later of the visible sun. God’s pronouncement that there was evening (*’erev*) and there was morning (*boqer*)



were words first used to describe the visibility and lack of visibility of this early “starlight”. The reader not well versed in astronomy should perhaps read the online article on “[starmotion](#)”. In the photo on the previous page we see a time-lapse photograph of multiple stars making their presence known as they march a short distance across the sky, travelling from east to west. If we are correct, there was a time, around 4000 BC, when only a single speck of light made that journey. At present we see the stars at night. During the first three days of the creative week the stars (or star) were only visible during the day. Strange, but true.

Two more of our hypothetical questions are now answered. We know whence came the light on day 1, three days before the sun came into its own. And we know the methodology by which the “morning” and the “evening” were determined in those early days.

Should the critic inquire as to the identity of the source of the earliest starlight our answer is predictable. We have no idea. Nor for that matter does any scientist. That scholarly body may have accurately described the process by which proto-stars were formed. *But they have absolutely no idea when existing luminous celestial objects first became luminous.*

Fast forward to Genesis 1:14-20.

### **Genesis 1:14-19**

Finally, we come to the end of our journey – our interpretation of the biblical passage which appears to state that on the 4<sup>th</sup> day of the creative week God “created” the sun, moon, and stars, giving rise to the misunderstanding that in 4000 BC God created the universe of stars, supposedly instantly, out of nothing, and only two days before he created the first man.

14 Then God said, “Let there be lights in the expanse of the heavens to separate the day from the night, and let them be for signs, and for seasons, and for days and years;

15 and let them be for lights in the expanse of the heavens to give light on the earth; and it was so.

16 And God made the two great lights, the greater light to govern the day, and the lesser light to govern the night, (along with) the stars also.

17 And God placed them in the expanse of the heavens to give light on the earth,  
 18 and to govern the day and the night, and to separate the light from the darkness; and  
 God saw that it was good.

While we are primarily interested in verse 16, it is instructive to note how this sequence of verses begins and ends. God is in the process of adding visible light to the heavens, employing language eerily similar to that employed in verse 3.

On the 1<sup>st</sup> creative day of Genesis 1:1-3 God announced the arrival of light (*'or*)- “Let there be a light” or “Let light appear” - followed by an expression that He was pleased. That light source would allow Him to “separate the light from the darkness” and it in turn would “govern the day and the night”. The context demanded that we identify the light source as a distant star. God did not create that source on day one, he merely timed events so that the source first became visible that day.

On the 4<sup>th</sup> creative day of Genesis 1:14-19 God announced the arrival of lights (*me'orot*) - “Let there be lights” or “Let the lights appear” - followed by an expression that He was pleased. Those light sources would allow Him to “separate the light from the darkness” and it in turn they would “govern the day and the night”. In this instance we are not required to identify the light sources. They are identified for us as the sun, the moon, and the kokavim. We would be shocked if the kokavim in this context is a reference to stars, since the pre-existence of at least one star seems to be confirmed in verses 3-5 and the existence of the universe of stars was hypothesized in our interpretation of Genesis 1:1. But we would not be surprised if in verses 14-19 God is referring to objects he did not create that day, i.e. objects that pre-existed the events of day 4, as the source of light on day 1 pre-existed its appearance. Here God is merely announcing the arrival of light from three additional sources.

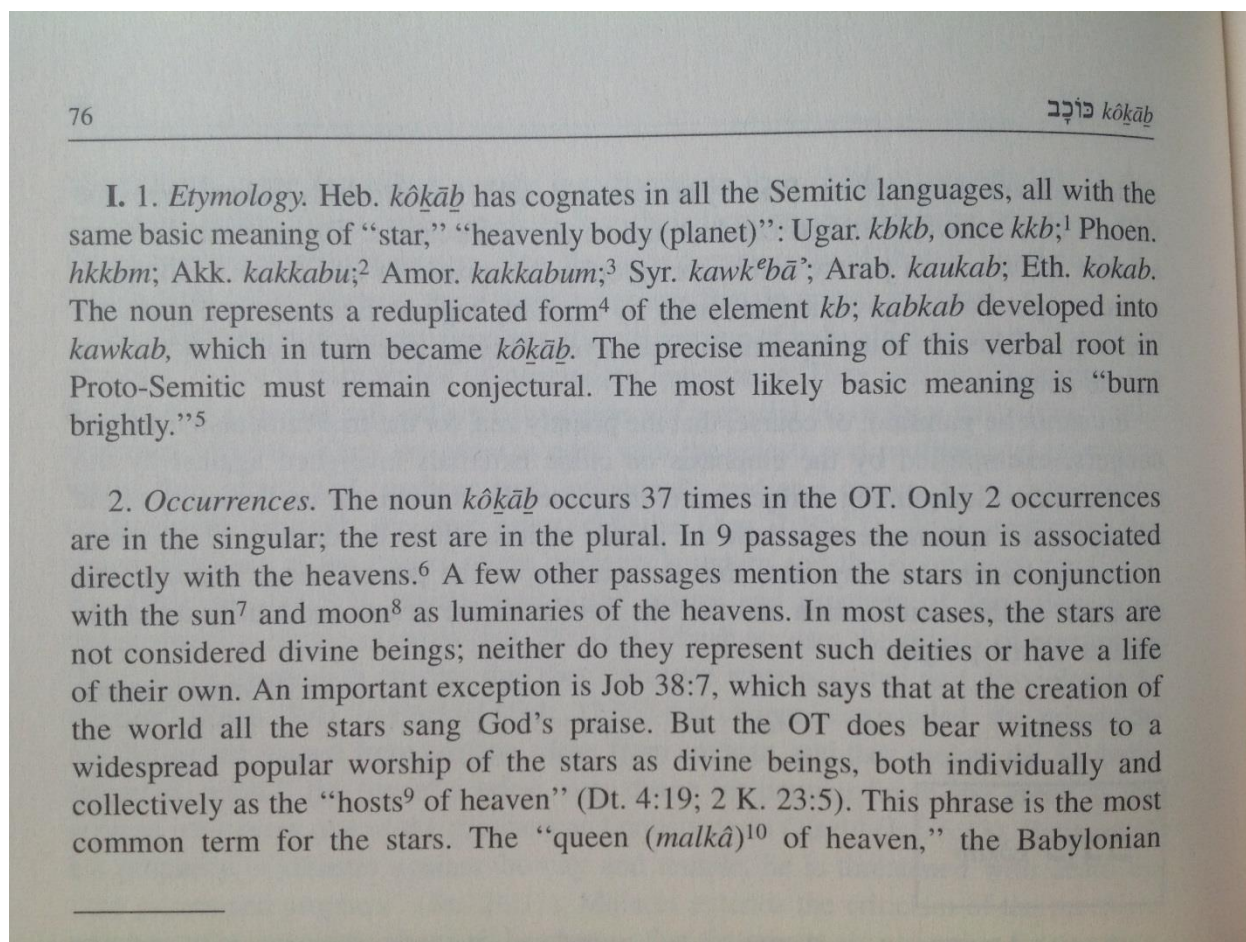
All three of the light sources are identified by name, but one of the names has been improperly translated, or at minimum wrongly interpreted. If we were to inform the reader that the Semitic word kokavim merely refers to “luminous objects” in the night sky, i.e. luminaries, he/she will not have the slightest difficulty is identifying the kokavim being referenced in Genesis 1:14-19. When

our proto-sun finally ignited in 4000 B.C., the inhabitants of the earth (had there been any) would immediately have become aware of the existence of the moon and the planets. This does at all imply that these celestial bodies were created on day four. As we have already stated, their existence is already taken for granted in Genesis 1:2. *On the day our proto-sun became luminous, within hours, the other two sources became visible, as light from the sun reached the moon and the planets and was reflected back to the earth.*

And how do we know that *kokavim* merely means “luminary” and that the Hebrew word at times may be a reference to the planets? One might start by reading a Hebrew dictionary, such as the comprehensive *Theological Dictionary of the Old Testament*, one page of which is duplicated in our Figure 1 on the following page.

Additionally, we can simply point out that the translation “star” given the Hebrew word by thousands of English speaking scholars, assumes precisely that fact. The English word has the meaning “luminary”. The ancients used the word *kokavim*, or cognates of that word precisely that way, to describe the pinpricks of light they observed in the night sky, of unknown origin. They were aware that most of the luminous objects they saw remained in fixed configurations as they move as a unit across the night sky. They also knew that a few of them did not and that light from these roaming stars did not flicker, as did the others. What they did not know is that the roaming lights were relatively near at hand, that their luminosity was attributable to light reflected from the sun, nor that they belonged to our “solar system”, itself a complete unknown. Nor did they know the source of the flickering lights they observed in the heavens. Little matter. They called them all *kokavim* just as English translators call them all “stars”. Even in the 20<sup>th</sup> century, when man is privileged to distinguish between distant stars, and galaxies of stars, and nebulae and planets, we still use the English word “stars” to reference them all, in spite of the ambiguity inherent in that translation (or perhaps because of it).

Figure 1: A page from the 7<sup>th</sup> volume of the prestigious 15 volume *Theological Dictionary of the Old Testament* (TDOT)



21<sup>st</sup> century stargazers still refer to the celestial lights as “stars” when they venture into the countryside to observe them. And not surprisingly, in thousands of published articles, Venus is still referenced as the “morning star”, as it was formerly referred to cultures around the world, each employing their equivalent of our generic word “star”. So we do not object when *kokavim* in Genesis 1:16 is translated with the word “stars”, rather than “luminaries” (or in this case “planets”), so long as the reader does not interpret the word as if it necessarily refers to distant suns, and incorrectly interprets the text of Genesis 1:16 as an announcement of the creation of the universe. In Genesis 1:3-31 the entire focus is on our solar system, as God grooms it in preparation for the arrival of man.

## Addendum

In publishing this paper the writer, of necessity, failed to include any acknowledgement of when and by whom this interpretive theory was first proposed, this because he was, and remains, unaware of the source. However, he has been notified by one reader that critical aspects of the theory have been published most recently by Gorman Gray in a book entitled "*The Age of the Universe: What are the Biblical Limits?*" Apparently Gorman Gray has interpreted the first two verses of Genesis 1 precisely as in our Revised Gap Theory presentation. Verse 1 records the creation of the universe and verse 2 identifies the state of the earth as it existed around 4000 BC, at the end of that creative process. As such Genesis 1:3-31 is concerning with modifications to the earth preliminary to the arrival of the first man. Those 29 verses have nothing to do with the creation of the universe. So far, so good. Gray appears to agree with our interpretation of verse two in assuming that the sun, moon and stars all exist, the planets also, but in his estimation all of these celestial bodies are fully illuminated, and would have been visible precisely as we observe them today, but for the fact that the earth's atmosphere was then impervious to light. Since we have not as yet read the book, we let a review article summarize the theory:

To accommodate his beliefs he proposes his own interpretation of the Creation Account: (1) Genesis 1:1 states God's initial action of creating (a) the heavens – finished, complete with stars and (b) the earth – the planet, initially unfinished as described in v.2, ocean-covered, and covered by a cloud of thick darkness per Job 38:9, and (2) some unknown amount of time passed before God continued His creation of the biosphere by starting Day 1 on the planet with 'Let there be light.'

Like the 'classical ruin-reconstruction gap theory, Gray's model inserts a time gap in the creation account. However, Gray's gap is between v.2 and v.3, rather than v.1 and v.2. It requires the same twisting of v.3 to say that the supposed cloud thinned to allow light to reach the surface of planet Earth, and of v.14-18 to say that the cloud evaporated entirely so the luminaries could now be seen for the first time from that surface. Gray's gap, however, does not involve an invented-ex-nihilo pre-Adamic race and their destruction before the creation days; to that extent Gray's model is an improvement of the 'classical' gap theory, but is still inconsistent with scripture.

If the reader wants to read the balance of the lengthy critical review, we provide here a link to Frank DeRemer's online article "[Young biosphere, old universe?](#)"

Until this author actually reads Gray's book he will restrict his closing remarks to two statements. (1) Cudos to Gray for correctly recognizing that Genesis 1:3-31 has nothing to do with the creation of the universe. And (2) It matters little to this author if Gray is correct and he has wrongly interpreted Genesis 1:3-5 and Genesis 1:14-19, since both Gray and this author agree that Genesis 1 is absolutely accurate, that only the interpretation of Genesis 1:3-31 is at issue, and that the "starlight problem" does not exist".

### **A look ahead**

In the opinion of this author the *Revised Gap Theory* perfectly explains all of the detail in Genesis 1:1-5 and 1:14-19. It does not conflict with scientific data, providing that data is accurately gathered and correctly interpreted. It accepts, for the time being at least, the scientific consensus on the manner by which the universe developed into its present form. The entire creative process, as presently conceived by scientists, is simply shoehorned into the first verse of Genesis 1.

What we do question, because the data does not support the conclusion, is that the universe began billions of years ago and that light from the most distant stars may have taken that long to reach the earth. Scientists throw around large numbers all too glibly, and they need to be held to account. There is not a scrap of scientific evidence to support most of their dating conclusions. Read any account descriptive of the origins of the universe and you will either find large numbers appearing out of nowhere, or you will find multiple references to [radiometric dating](#) of rock, or [red-shifts](#) and [Hubble's law](#) cited in relation to the depth of the universe, or numerous other phenomenon that supposedly support the theory that the universe is billions of years old. If the subject matter concerns the age of the earth, in addition to radiometric methods you may also find the author discussing [stratigraphic dating methods](#), though that methodology at best determines the relative, not the absolute dates when the strata were laid down. None of the referenced evidence can be successfully defended, whether or not it is used to determine the age of the earth or the age of the universe at large. In a later paper, in the course of discussing the dinosaurs, we will hold these methods up to the light, metaphorically speaking.

Having said that, our primary interest in the data provided by Genesis 1 (and to a lesser extent Genesis 2) is not with the age of the earth, the stars, the galaxies and the nebulae. We are concerned with the origins of plant and animal life, which Genesis dates to around 4000 BC., while the scientific community, following an evolutionary model, dates the arrival of life forms millions, even billions of years in the past. That enormous contrast needs to be examined, and we will begin the process in our next paper. Needless to say we will also examine the issue when we discuss the dinosaurs while treating the subject matter of Genesis chapter 6 in a later paper.

Enough said.