

# A LITERAL DAZE OVER LITERAL DAYS, PART 2

Genesis 1:21-25

## I. The Days Of Creation (1:3-31)

**Day 1: Creating Light & Night** – Worship God Through Physics & Time (3-5)

**Day 2: Creating Sky & Water** – Worship God Through Meteorology & Oceanography (6-8)

**Day 3: Creating Land, Sea & Plants** – Worship God Through Geography, Geology & Botany (9-13)

**Day 4: Creating The Universe** – Worship God Through Astronomy (14-19)

**Day 5: Creating Sea & Sky Life** – Worship God Through Marine Biology & Ornithology (20-23)

**Day 6: Creating Land Life** – Worship God Through Biology, Zoology & Anthropology (24-31)

## II. The Literal Day Interpretation

### A. "Day" In Genesis 1 Means A Literal "Day" (24 hour)

- The Meaning Of The Word *Yom* Regularly Means A Literal "Day" Unless The Context Demands Otherwise
- Sequential Numbers Used To Modify "Day" Consistently Is Used With A Literal "Day"
- Genesis 1 Describes Each "Day" Had A "Morning" And "Evening"
- The Seven Day Week Was Established As A Pattern For Man's Work (Gen 2:1-3; Ex 20:11)
- Moses Spoke Of Six Days Elsewhere In His Writings (Ex 20:11; 31:17)

### B. Death & Corruption Occurred After Adam's Fall (Rom 5:12-15; Gen 3:19; 1 Cor 15:21-22)

### C. Jesus Referred To Man Being Created During The Same Time As The Universe (Mk 10:6)

### D. Life Began On Day 3, Light From The Solar System Began On Day 4 – Could Life Be Sustained For Millions Of Years Without Light? (Gen 1:11-14)

## III. The Day-Age Theory

### A. The Word For "Day" (*Yom*) Could Mean A Long Period Of Time

- The Word For "Day" Has Been Used To Describe Periods (Ps 90:4; 2 Pet 3:8; Joel 3:21)
- The Word For "Day" Means More Than 24 Hours In Genesis 2:4
- God Is Still On His 7<sup>th</sup> Day Of Rest (Heb 4:3-5)
- Day 3 Must Be Longer Than 24 Hours For Plants To Grow From Seeds (Gen 1:12)
- If The Sun Was Not Created Until Day 4, There Could Be No Day Or Night
- Day 6 Must Be Longer Than 24 Hours For All The Events To Occur

### B. Scientific Evidence

- Scientific evidence for young earth by Dr. Russell Humphreys, "Evidence for a Young World" (<http://www.answersingenesis.org/docs/4005.asp>)

### C. There Was Death And Decay Before The Fall

### D. The Church Fathers Believer In A Day Age

# A LITERAL DAZE OVER LITERAL DAYS, PART 2

## Genesis 1:21-25

### I. The Days Of Creation (1:3-31)

**Day 1: Creating Light & Night** – Worship God Through Physics & Time (3-5)

**Day 2: Creating Sky & Water** – Worship God Through Meteorology & Oceanography (6-8)

**Day 3: Creating Land, Sea & Plants** – Worship God Through Geography, Geology & Botany (9-13)

**Day 4: Creating The Universe** – Worship God Through Astronomy (14-19)

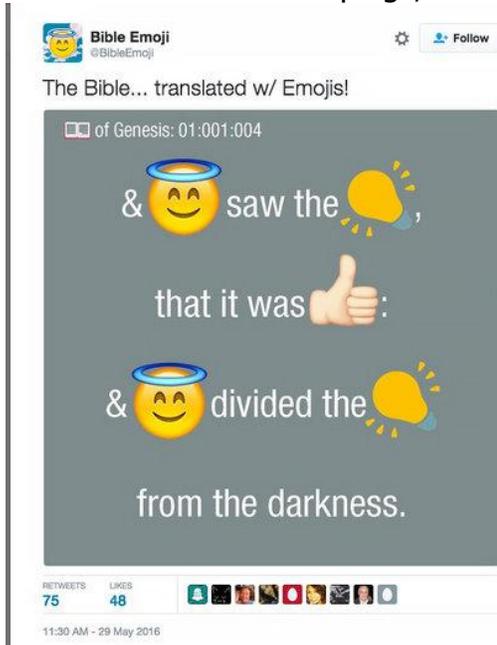
**Day 5: Creating Sea & Sky Life** – Worship God Through Marine Biology & Ornithology (20-23)

**Day 6: Creating Land Life** – Worship God Through Biology, Zoology & Anthropology (24-31)

**Genesis 1:24-25** 24 And God said, "Let the earth bring forth living creatures according to their kinds—livestock and creeping things and beasts of the earth according to their kinds." And it was so. 25 And God made the beasts of the earth according to their kinds and the livestock according to their kinds, and everything that creeps on the ground according to its kind. And God saw that it was good.

- V. 24 – "livestock" = Heb. *behemah* = domesticated animals including cows, sheep, goats
- "creeping things" = Heb. *remes* = reptiles, amphibians (but not insects)
- v. 25 – "beasts of the earth" = Heb. *chayyah* = undomesticated (wild) animals
- All the animals (including dinosaurs) were herbivores
  
- Jonathan Safarti points out that Noah didn't need to take hundreds of varieties of dogs on the ark – just a wolf-like dog that had the potential for making the variety of dogs today. He adds: "And evolutionists now concede that domestic dogs came from wolves only a few thousand years ago, and are not really very different, although they insist on calling this 'evolution.'" (citing *National Geographic*, Jan, 2001, p. 5)
  
- Animals reproduce after their own kind
- *Kind* does not mean *Species*
- *Species* is a modern concept
- *Kind* is broader than species and new species have come to existence
- DNA – God programmed a tremendous amount of information in this complex molecule
- Information is not added, but can be lost
- Ie/ Sending a document through a copy machine – likeness, but lose information
- If bacteria becomes a dog, information must be added to change structure
- Information must be added for evolution to be true
- Natural selection – it does occur, but loses information
- Mutations – mistake (typo) in the DNA which garbles instructions, it's a loss of information
  - Some mutations can be beneficial but is still a loss of information
    - Wingless insects
    - Blind fish in dark ocean
    - Antibiotic resistance
  - Dr. Lee Spetner: "Not even one mutation has been observed that adds a little information to the genome." (*Not By Chance*)
- Information Theory – how information is transmitted

- Information has 3 quantities (Jason Lisle)
  - a symbolic code system (alphabet)
  - language (communication understood)
  - meaning
    - pings from outerspace – SETI is looking for **meaning** in these outerspace pings, but until then, it's just pings



<http://www.nytimes.com/2016/06/03/business/media/the-word-of-god-now-available-in-emoji.html>

- Information doesn't come from chance, but a mind
- DNA proves God
- Anthony Flew, an outspoken atheist, came to be a deist because of "evidence of the complexity of life" (Lennox, p. 29) and DNA
  - "The largely irrational protest against Flew, by people whose intellectual pretensions should have moderated their reaction, is unequivocal evidence that an *a priori* naturalism can effectively stop intelligent minds entertaining the notion that some features of the universe point towards a designing intelligence, even though such an explanation may be the most logical and obvious ways of interpreting evidence." (Lennox, p. 29)

### Assumptions of Radiometric Dating

(from Jason Lisle, <https://www.youtube.com/watch?v=dRbtradNmNI>)

1. Initial conditions are known – we don't know how must lead is in the uranium to start with
2. Decay rate is constant – proven wrong, new rocks from Mt. Saint Helens and Hawaiian volcanoes that have formed fresh from magma (starting point of age of rock) have come back from testing to be 100,000's to millions of years old
3. System is closed

### Carbon Dating

- More accurate when tested on objects of known age
- C12 stable – most carbon, C14 radioactive – small fraction in atmosphere, food and our body
- C14 constantly decays in nitrogen

- While alive, we exchange carbon with atmosphere (breathing)
  - But when we die, carbon just decays
  - C14 decays in a million years – so if they test things millions or billions of years old, it can't be consistent
  - Diamonds – too hard to get new molecules in it
  - Dinosaur fossils still have C14 in it so they can't more than a million years old
- 
- 450 million tons of salt enter the ocean every year (salt output is 27%/year)
  - oceans can't be more than 62 million years old (evolutionists believe oceans are 3 billion years old)
  - Mud on ocean floor –
  - World population growth

Testimony of Creator – most accurate

## II. The Literal Day Interpretation

### A. "Day" In Genesis 1 Means A Literal "Day" (24 hour)

- Dr. Henry Morris, founder of Institute of Creation Research, writes: "Not only is 'day' (Hebrew, *yom*) defined in this context the first time it is used (Genesis 1:5), but the writer conclusively restricted its interpretation to the literal meaning by numbering the days ('first day,' 'second day,' etc.) and by indicating their boundaries ('evening and morning'), both of which restrictions elsewhere in the Old Testament limit the meaning to literal days." ("Did Jesus Teach Recent Creation?," <http://www.icr.org/article/2031/>)

#### 1. The Meaning Of The Word *Yom* Regularly Means A Literal "Day" Unless The Context Demands Otherwise

- It's not whether "day" ever means "age"
- What does the word "day" mean in the context of Gen 1?
- Don't take the meaning of the word from another context and read it into Gen 1
- Illegitimate Totality Transfer – illegitimate transfer of meaning from another context
- Beyond Genesis 1, *yom* is employed 359x meaning a 24 hour day
- Criticism:
  - In Gen 2:4, *yom* was used in a broad sense to a time when all things were created
 

**Genesis 2:4** <sup>4</sup>This is the history of the heavens and the earth when they were created, in the **day** that the Lord God made the earth and the heavens,
  - *Yom* was also used to describe an epoch period in Psalm 90:4 (cf. 2 Pet 3:8)

**Psalm 90:4** <sup>4</sup>For a thousand years in Your sight Are like yesterday when it is past, And like a watch in the night.

**2 Peter 3:8** <sup>8</sup>But, beloved, do not forget this one thing, that with the Lord one day is as a thousand years, and a thousand years as one day.

- It is inconsistent hermeneutics to read a New Testament meaning [of "day"] into the Old Testament context [Gen 1]

## 2. **Sequential Numbers Used To Modify "Day" Consistently Is Used With A Literal "Day"**

- Criticism:
  - There is no firm rule in Hebrew linguistics that dictate all numbered days necessitate a 24 hour day
  - Hos 6:1-2 has numbered days that are not literal days

**Hosea 6:1-2** <sup>1</sup>Come, and let us return to the Lord; For He has torn, but He will heal us; He has stricken, but He will bind us up. <sup>2</sup>After two days He will revive us; On the third day He will raise us up, That we may live in His sight.

## 3. **Genesis 1 Describes Each "Day" Had A "Morning" And "Evening"**

**Genesis 1:5** <sup>5</sup>God called the light Day, and the darkness He called Night. So the **evening** and the **morning** were the first day.

**Genesis 1:8** <sup>8</sup>And God called the firmament Heaven. So the **evening** and the **morning** were the second day.

**Genesis 1:13** <sup>13</sup>So the **evening** and the **morning** were the third day.

**Genesis 1:19** <sup>19</sup>So the **evening** and the **morning** were the fourth day.

**Genesis 1:23** <sup>23</sup>So the **evening** and the **morning** were the fifth day.

**Genesis 1:31** <sup>31</sup>Then God saw everything that He had made, and indeed it was very good. So the **evening** and the **morning** were the sixth day.

- "Day" is described as having both "evening and morning" in Gen 1:5,8,13,19,23,31
- Beyond Genesis 1, when *yom* is used in conjunction with "evening" or "morning" 23x all meaning a regular day
- Beyond Genesis 1, *yom* is used associated with "evening" or "morning" 38x and all convey a regular day
- If God wanted to convey "age," there were other available Hebrew terms (*olam, qedem*), but none of those words were used in Genesis 1

- Criticism:
  - How can you have morning and evening when the sun wasn't created until the 4<sup>th</sup> day?
  - Ankerberg & Geisler critique: "if one is going to take everything in Genesis 1 in a strictly literal way, then the phrase "evening and morning" does not encompass all of a twenty-four-hour day, but only the late afternoon of one day and the early morning of another. This is considerably less than twenty-four-hours." ("How Long Were the Days of Genesis 1-2?," <http://www.ankerberg.com/Articles/science/SC0707W2C.htm>)
- Response:
  - But if God means a "day" with a morning and evening
  - There could be other sources of light besides the sun
  - The Big Bang theory says that the sun was created before the earth

#### 4. The Seven Day Week Was Established As A Pattern For Man's Work

**Genesis 2:1-3** <sup>1</sup>Thus the heavens and the earth, and all the host of them, were finished. <sup>2</sup>And on the seventh day God ended His work which He had done, and He rested on the seventh day from all His work which He had done. <sup>3</sup>Then God blessed the seventh day and sanctified it, because in it He rested from all His work which God had created and made.

**Exodus 20:11** <sup>11</sup>For in six days the Lord made the heavens and the earth, the sea, and all that is in them, and rested the seventh day. Therefore the Lord blessed the Sabbath day and hallowed it.

**Mark 2:27** <sup>27</sup>And He said to them, "The Sabbath was made for man, and not man for the Sabbath.

- Criticism:
  - Ankerberg & Geisler critique: "It is true that the creation week is compared with a workweek (Ex. 20:11); however, it is not uncommon in the Old Testament to make unit-to-unit comparisons rather than minute-for-minute ones. For example, God appointed forty years of wandering for forty days of disobedience (Num. 14:34). And, in Daniel 9, 490 days equals 490 years (cf. 9:24-27)." ("How Long Were the Days of Genesis 1-2?")

#### 5. Moses Spoke Of Six Days Elsewhere In His Writings

**Exodus 20:11** <sup>11</sup>For in six days the Lord made the heavens and the earth, the sea, and all that is in them, and rested the seventh day. Therefore the Lord blessed the Sabbath day and hallowed it.

**Exodus 31:17** <sup>17</sup>It is a sign between Me and the children of Israel forever; for in six days the Lord made the heavens and the earth, and on the seventh day He rested and was refreshed.' "

## **B. Death And Corruption Occurred After Adam's Fall**

**Romans 5:12** <sup>12</sup>Therefore, just as through one man sin entered the world, and death through sin, and thus death spread to all men, because all sinned—

**Romans 5:14-15** <sup>14</sup>Nevertheless death reigned from Adam to Moses, even over those who had not sinned according to the likeness of the transgression of Adam, who is a type of Him who was to come. <sup>15</sup>But the free gift is not like the offense. For if by the one man's offense many died, much more the grace of God and the gift by the grace of the one Man, Jesus Christ, abounded to many.

**Genesis 3:19** <sup>19</sup>In the sweat of your face you shall eat bread Till you return to the ground, For out of it you were taken; For dust you are, And to dust you shall return."

**1 Corinthians 15:21-22** <sup>21</sup>For since by man came death, by Man also came the resurrection of the dead. <sup>22</sup>For as in Adam all die, even so in Christ all shall be made alive.

**Romans 8:20-22** <sup>20</sup>For the creation was subjected to futility, not willingly, but because of Him who subjected it in hope; <sup>21</sup>because the creation itself also will be delivered from the bondage of corruption into the glorious liberty of the children of God. <sup>22</sup>For we know that the whole creation groans and labors with birth pangs together until now.

**Genesis 3:17-18** <sup>17</sup>Then to Adam He said, "Because you have heeded the voice of your wife, and have eaten from the tree of which I commanded you, saying, 'You shall not eat of it': "Cursed is the ground for your sake; In toil you shall eat of it All the days of your life. <sup>18</sup>Both thorns and thistles it shall bring forth for you, And you shall eat the herb of the field.

- Ken Ham writes: "The basis of the Gospel message is that God brought in death and bloodshed because of sin (Hebrews 9:22), so that man could be redeemed. The reason for death is tied up with the message of redemption." ("Billions, Millions, or Thousands--Does It Matter?," <http://www.icr.org/article/705/10/>)

**Hebrews 9:22** <sup>22</sup>And according to the law almost all things are purified with blood, and without shedding of blood there is no remission.

- Paul Taylor & Mark Van Bebber point out ("Is The Age Of The Earth A 'Trivial' Doctrinal Point?", <http://www.christiananswers.net/q-eden/edn-c026.html>)

"Biblically, physical death is a clear penalty of sin—first demonstrated by the death of the sacrificial animals (beginning with those killed by God to clothe Adam and Eve). This penalty was also verified by the physical deaths of Adam and later, Christ, the perfect sacrifice and atonement.

Adam's Potential Lifespan. Apparently Adam would never have died if he had not disobeyed (Genesis 2:16-17, 3:22). God expelled Adam and Eve from the Garden and guarded the tree of life so they would not use it to thwart death (Genesis 3:22-23)."

- Criticism:
  - Prior to Adam, animals hunted, preyed upon, and subject to volcanoes, earthquakes and asteroids destroying the animal population
  - Rom 5:12 doesn't say animals didn't die, just men

### **C. Jesus Referred To Man Being Created During The Same Time As The Universe**

**Mark 10:6** <sup>6</sup>But from the beginning of the creation, God 'made them male and female.'

- Christ is not separating the creation of the universe and man by billions of years
- Ken Ham comments: "This makes it clear that Jesus taught the creation was young, for Adam and Eve existed 'from the beginning' –not billions of years after the universe and Earth came into existence." ("Did Jesus Say He Created In Six Days?," <http://www.answersingenesis.org/us/newsletters/0801lead.asp>)
- **Criticism:**
  - The old earth proponents say that man was created at the end of the creation period. There could still be long periods in between.

### **D. Life Began On Day 3, Light From The Solar System Began On Day 4 – Could Life Be Sustained For Millions Of Years Without Light?**

**Genesis 1:11-14** <sup>11</sup>Then God said, "Let the earth bring forth grass, the herb that yields seed, and the fruit tree that yields fruit according to its kind, whose seed is in itself, on the earth"; and it was so. <sup>12</sup>And the earth brought forth grass, the herb that yields seed according to its kind, and the tree that yields fruit, whose seed is in itself according to its kind. And God saw that it was good. <sup>13</sup>So the evening and the morning were the third day. <sup>14</sup>Then God said, "Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons, and for days and years;

- **Criticism:**
- Light was created on the 1<sup>st</sup> Day (Gen 1:3)
- Ankerberg & Geisler: "Some scholars have noted a parallelism between the first three days (light, water, and land – all empty) and the second three days (light, water, and land – all filled with bodies). This may indicate a parallelism in which the first and fourth days cover the same period, in which case the sun existed from the beginning. Others have pointed out that while the sun was created on the first day, it did not appear until the fourth day. Perhaps this was due to a vapor cloud that allowed light through, but not the distinct shape of the heavenly bodies from which the light emanated." ("How Long Were the Days of Genesis 1-2?")

## **III. The Day-Age Theory**

### **A. The Word For "Day" (*Yom*) Could Mean A Long Period Of Time**

## 1. The Word For "Day" Has Been Used To Describe Periods (Ps 90:4; 2 Pet 3:8; Joel 3:21)

**Psalm 90:4** <sup>4</sup>For a thousand years in Your sight Are like yesterday when it is past, And like a watch in the night.

**2 Peter 3:8** <sup>8</sup>But, beloved, do not forget this one thing, that with the Lord one **day** is as a thousand years, and a thousand years as one **day**.

**Joel 2:31** <sup>31</sup>The sun shall be turned into darkness, And the moon into blood, Before the coming of the great and awesome **day** of the Lord.

- **Criticism:**

- These passages are not speaking about creation
- There are no "comparative articles" ("as" or "like") in Genesis 1
- 2 Pet 3:8 and Joel 2:31 are speaking about the coming of the Lord and focusing on how the length of time is not a factor to God

## 2. The Word For "Day" Means More Than 24 Hours In Genesis 2:4

**Genesis 2:4** <sup>4</sup>This is the history of the heavens and the earth when they were created, in the day that the Lord God made the earth and the heavens,

- *Yom* refers to the 6 day period of time
- Yet this proves that context determines the meaning of *yom*
- *Yom* is not qualified by a sequential number or "evening" or "morning" here

## 3. God Is Still On His 7<sup>th</sup> Day Of Rest

- Old Earth proponents John Ankerberg and Norman Geisler state: "Everyone agrees that it has been at least thousands of years since the time of creation, yet the Bible declares that God rested on the seventh day after His six days of creation (Gen. 2:2-3). According to the book of Hebrews, God is still in His Sabbath rest from creation (4:3-5); hence, the seventh day has been at least six thousand years long, even on the shortest of all the chronologies of humankind." ("What is the Biblical Evidence for Long Days in Genesis?," <http://www.ankerberg.com/Articles/science/SC0707W2.htm>)

**Hebrews 4:3-5** <sup>3</sup>For we who have believed do enter that rest, as He has said: "So I swore in My wrath, 'They shall not enter My rest,'" although the works were finished from the foundation of the world. <sup>4</sup>For He has spoken in a certain place of the seventh day in this way: "And God rested on the seventh day from all His works"; <sup>5</sup>and again in this place: "They shall not enter My rest."

## 4. Day 3 Must Be Longer Than 24 Hours For Plants To Grow From Seeds

**Genesis 1:12** <sup>12</sup>And the earth brought forth grass, the herb that yields seed according to its kind, and the tree that yields fruit, whose seed is in itself according to its kind. And God saw that it was good.

- Old Earth Proponents say that the seeds need more than 24 hours to grow. There is no indication of supernatural growth.
- **Criticism:**
  - The text doesn't say that seeds were growing, but that the herb yielded seeds according to its type.
  - God planted mature vegetation
  - John MacArthur summarizes in *The Battle For The Beginning*: "Many who deny a literal six-day creation claim that such rapid changes are not possible. Obviously, land submerged under the sea in the morning would not normally be dry enough to support the planting of vegetation by evening. And the massive global tectonic changes that would be necessary to cause whole continents to appear from the sea would hardly seem feasible in the same twenty-four-hour period that plant life emerges.

"That might seem to be a powerful and persuasive argument if we were talking about natural processes. But Scripture is describing the creative work of God, with whom all things are possible (Matthew 19:26)." (p. 93)

## 5. **If The Sun Was Not Created Until Day 4, There Could Be No Day Or Night**

- **Criticism:**
  - Day and night implies a rotating earth
  - A sun is not required for day and night
  - A light source is required for day and night
  - God doesn't state what the light source is
  - God said there was light on Day 1 (Gen 1:3) before there was

**Genesis 1:3-5** <sup>3</sup>Then God said, "Let there be light"; and there was light. <sup>4</sup>And God saw the light, that it was good; and God divided the light from the darkness. <sup>5</sup>God called the light Day, and the darkness He called Night. So the evening and the morning were the first day.

- Day 4 God established the stars and sun to determine day and night, but there was still day and night in Days 1-3

**Genesis 1:14-19** <sup>14</sup>Then God said, "Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons, and for days and years; <sup>15</sup>and let them be for lights in the firmament of the heavens to give light on the earth"; and it was so. <sup>16</sup>Then God made two great lights: the greater light to rule the day, and the lesser light to rule the night. He made the stars also. <sup>17</sup>God set them in the firmament of the heavens to give light on the earth, <sup>18</sup>and to rule over the day and over the

night, and to divide the light from the darkness. And God saw that it was good. <sup>19</sup>So the evening and the morning were the fourth day.

## 6. Day 6 Must Be Longer Than 24 Hours For All The Events To Occur

John Ankerberg & Norm Geisler list the over-eventful day:

- "First, God created all the many hundreds (or thousands) of land animals (Gen. 1:24-25).
- Second, God 'formed' man of the dust of the earth (Gen. 2:7). This Hebrew word (*yatsar*) means "to mold" or "form," which implies time. *Yatsar* is used specifically of the work of a potter (cf. Jer. 18:2f.).
- Third, God said, "I will make a helper suitable for him" (Gen. 2:18). This indicates a time subsequent to the time of the announcement.
- Fourth, Adam observed and named this whole multitude of animals (Gen. 2:19). As Robert Newman noted, "If every one of the approximately 15,000 living species of such animals (not to mention those now extinct) were brought to Adam to be named, it would have taken ten hours if he spent only two second on each." This is hardly enough time for Adam to study each animal and determine an appropriate name for it. Assuming a minimum of only two minutes each, the process would have taken six hundred hours (or twenty-five days).
- Fifth, Adam searched for a helpmate for himself, apparently among all the creatures God had made. "But for Adam no suitable helper was found" (implying a time of searching) (Gen. 2:20).
- Sixth, God put Adam to sleep and operated on him, taking out one of his ribs and healing the flesh (Gen. 2:21). This too involved additional time."
- Seventh, Eve was brought to Adam, who observed her, accepted her, and was joined to her (Gen. 2:22-25).

In conclusion, it seems highly unlikely that all of these events – especially the fourth one – were compressed within a twenty-four-hour period or, more precisely, within the approximately twelve hours of light each day afforded." ("What is the Biblical Evidence for Long Days in Genesis?,"

<http://www.ankerberg.com/Articles/science/SC0707W2.htm>)

- These authors must have written this before watching the television show "24". A lot can happen in 24 hours with **Jack Bauer & Adam**
- We don't know how many species there were to name. How many dog types were there?
- Also, Adam named the beasts of the field, not the entire earth  
**Genesis 2:20** <sup>20</sup>So Adam gave names to all cattle, to the birds of the air, and to **every beast of the field**. But for Adam there was not found a helper comparable to him.

**Genesis 1:25** <sup>25</sup>And God made the **beast of the earth** according to its kind, cattle according to its kind, and everything that creeps on the earth according to its kind. And God saw that it was good.

## B. Scientific Evidence

- Frederic R. Howe summarizes the scientific evidence used to prove an old earth ("The Age of the Earth: An Appraisal of Some Current Evangelical Positions, Part 1," Bibliotheca Sacra, Volume 142:565, Jan, 1985, pp. 33-34):

### **I. Astronomical evidence**

#### A. Light travel-time

- Within specific assumptions, the time needed for light to reach the earth is computed. Presently the figuring is based on quasar-light source. Estimated age of the universe: 10 billion years.

#### B. Expanding universe observations

- Complex calculations involving evidence of red-shift (Doppler effect) observations work back to the assumption of an original "big bang." Estimated age of the universe and this galaxy: 15 to 20 billion years.

#### C. Stars: structure and energy sources

- Complex computations of star composition (hydrogen-helium ratios) are converted into time estimates. Estimated age of the sun and solar system: 5 to 10 billion years.

### **II. Selected radiometric evidence**

A. Meteorites: 4.5 billion years.

B. Earth rocks: 3.6 billion years or younger.

C. Moon rocks: 4.6 billion years.

### **III. Selected nonradiometric evidence** (Here no dates are listed for each item, but the evidence all points to the age of the earth as vastly greater than 6,000 to 10, 000 years.)

A. Carbonate deposits: The Great Bahama Bank, off the coast of Florida, has multiple layers over 14,500 feet thick.

B. Ooids (small spheroidal bodies): Formation for adding many layers of mineral deposits involves massive time elements.

C. Dolomite formation: Replacement of calcium carbonate particles in lime sediment or lime rock gives strong evidence of vast amounts of time required.

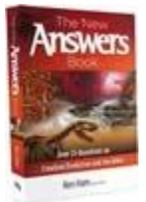
D. Evaporites: The Castile Formation of West Texas has thin layers of anhydrite and calcium carbonate.

E. Coral reefs, ancient and modern (Example: Eniwetok atoll, 4,610 feet of coral deposit.) The formation of coral reefs gives strong evidence of slow deposition.

F. Organic banks (Example: The Capitan Reef of West Texas, 2,000 feet thick in places, with fossilized remains of organisms.) This translates into a demand for long time periods for formation, even hundreds of thousands of years."

- Ken Ham responds to the scientific evidence against literal days:

- "The age of the earth, as determined by man's fallible methods, is based on unproven assumptions, so it is not proven that the earth is billions of years old.
- "This unproven age is being used to force an interpretation on the language of the Bible. Thus, man's fallible theories are allowed to interpret the Bible. This ultimately undermines the use of language to communicate.
- "Evolutionary scientists claim the fossil layers over the earth's surface date back hundreds of millions of years. As soon as one allows millions of years for the fossil layers, then one has accepted death, bloodshed, disease, thorns, and suffering before Adam's sin."



("Could God Really Have Created Everything in Six Days?," September 27, 2007  
<http://www.answersingenesis.org/articles/nab/could-god-have-created-in-six-days>)

- **Does science interpret Scripture or does Scripture interpret science?**
  - "It is obvious that the Bible is not a scientific textbook in the sense of giving detailed technical descriptions and mathematical formulations of natural phenomena. But this is not an adequate reason for questioning the objective accuracy of the numerous portions of Scripture which do deal with natural phenomena and historical events. The Bible is not a mathematics text either, but we expect that Daniel understands sixty-nine weeks by the phrase, "seven weeks and sixty-two week" (Dan 9:25). The Bible is not, strictly speaking, a historical textbook either, but we expect that when it alludes to things which can be historically verified, it should be accurate. Likewise, the Bible is not technically a textbook of modern science, but when it refers to things which can be measured and checked by modern science, it should be accurate." (Joseph P. Dillow, *The Waters Above: Earth's Pre-Flood Vapor Canopy*, Moody Press, 1981, p. 2; Cited by Frederic R. Howe, "The Age of the Earth: An Appraisal of Some Current Evangelical Positions, Part 1," *Bibliotheca Sacra*, Volume 142:565, Jan, 1985, p. 26)

- **To simply convert day to age to accommodate evolution brings up significant contradictions in how Genesis 1 states the order happened:**

**Biblical account of creation      Evolutionary/long-age speculation**

Earth before the sun and stars	Stars and sun before earth
Earth covered in water initially	Earth a molten blob initially
Oceans first, then dry land	Dry land, then the oceans
Life first created on the land	Life started in the oceans
Plants created before the sun	Plants came long after the sun
Land animals created after birds	Land animals existed before birds
Whales before land animals	Land animals before whales

(Ken Ham, "Could God Really Have Created Everything in Six Days?," September 27, 2007  
<http://www.answersingenesis.org/articles/nab/could-god-have-created-in-six-days>)

- Dr. Russell Humphreys points out 14 scientific evidences that demonstrate a young world in "Evidence for a Young World" (First published in [Impact](#) #384, ICR, June 2005  
<http://www.answersingenesis.org/docs/4005.asp>)
  1. Galaxies wind themselves up too fast.
  2. Too few supernova remnants.
  3. Comets disintegrate too quickly.
  4. Not enough mud on the sea floor.
  5. Not enough sodium in the sea.
  6. The earth's magnetic field is decaying too fast.
  7. Many strata are too tightly bent.
  8. Biological material decays too fast.
  9. Fossil radioactivity shortens geologic "ages" to a few years.
  10. Too much helium in minerals.
  11. Too much carbon 14 in deep geologic strata.
  12. Not enough Stone Age skeletons.
  13. Agriculture is too recent.

14. History is too short.

### C. There Was Death And Decay Before The Fall

- Romans 5:12 is descriptive of spiritual death, not physical death
- Dr. Hugh Ross wrote in *The Genesis Question*:

“When we consider that the second thermodynamic law is essential for life’s existence, essential for eating and mobility and countless other activities that most of us agree are enjoyable and good, we see no reason to suggest that the law should be judged as bad. Thermodynamic laws were included when God declared His creation ‘very good’ (Genesis 1:31).

“We must be careful, however, not to confuse God’s very good creation with His best creation, or more accurately, His ultimate goal for His creation. In the new creation there will be no thermodynamic laws – no decay, no frustration, no groaning, no grieving (see Revelation 21:1-5). The thermodynamic laws are good, in spite of the ‘decay,’ ‘frustration,’ and ‘groaning,’ because they are part of God’s strategy for preparing His creation to enjoy the blessings and rewards of the new creation.”

- Ankerberg & Geisler add: “For Adam and Eve, if they did any work in the Garden, then a loss of energy and a certain amount of decay was present. Why? Because work is essential to breathing, circulating blood, contracting muscles and digesting food. These are all virtually life-sustaining processes. Adam was working, tending the Garden of Eden (Gen. 2:15) before he sinned. Thus, Romans 8:20-22 could not imply that Adam’s sin inaugurated all of the decay process.” (“Was There Death Before Adam?,” <http://www.ankerberg.com/Articles/science/SC0707W2B.htm>)

- **Criticism:**

- Death is commenced with Adam’s judgment

**Genesis 2:17** <sup>17</sup>but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall surely die.”

**Genesis 3:19** <sup>19</sup>In the sweat of your face you shall eat bread Till you return to the ground, For out of it you were taken; For dust you are, And to dust you shall return.”

- Man began to eat meat post Flood. Men ate vegetables before the fall, so vegetables aren’t included in the “death” realm

**Genesis 9:3** <sup>3</sup>Every moving thing that lives shall be food for you. I have given you all things, even as the green herbs.

- To use plant life and eating food as evidence of pre-fall death is inconsistent with the rest of Scripture.
  - When we're in heaven, we will be eating seasonal fruit.
 

**Revelation 22:2** <sup>2</sup>In the middle of its street, and on either side of the river, was the tree of life, which bore twelve fruits, each tree yielding its fruit every month. The leaves of the tree were for the healing of the nations.

**Ezekiel 47:12** Along the bank of the river, on this side and that, will grow all kinds of trees used for food; their leaves will not wither, and their fruit will not fail. They will bear fruit every month, because their water flows from the sanctuary. Their fruit will be for food, and their leaves for medicine."
  - Yet breaking down and digesting fruit is not equated to death, because there is no more death in heaven
 

**Revelation 21:4** <sup>4</sup>And God will wipe away every tear from their eyes; there shall be no more death, nor sorrow, nor crying. There shall be no more pain, for the former things have passed away."
- Paul Taylor and Mark Van Bebber write on the timing of the advent of death:

"The Bible teaches that God created a paradise. Adam and Eve soon corrupted paradise with sin. Death was the penalty. As a result, sin, suffering, and death came upon Adam and upon all the world he ruled (Romans 5:12-17). The first bloodshed took place when God killed animals to provide a skin covering for Adam and Eve.

"This was symbolic of His plan to later die as a sin offering Himself, in the person of Jesus Christ, to cover our sins forever and conquer death forever. The Bible teaches that God will ultimately restore paradise (the New Heavens and New Earth). There will be no more death and no more tears. Lambs will once again lie down in peace with lions.

"However, if the billions-of-years scenarios were true, then death, disease, and suffering would be nothing new or special resulting from Adam and Eve's sin. They would be merely the natural order of things since the beginning of time. In other words, most of our natural world's relatively miserable present-day condition would not have truly resulted from events subsequent to Adam's sin. Disease, death, and tragedy would have been designed into the natural order of things from the start." ("Six Days Or Billions Of Years...Does It Make Any Difference?, [http://www.answersingenesis.org/creation/v16/i4/six\\_days.asp](http://www.answersingenesis.org/creation/v16/i4/six_days.asp))

#### **D. The Church Fathers Believer In A Day Age**

- Ken Ham: "Most church fathers accepted the days of creation as ordinary days. It is true that some of the early church fathers did not teach the days of creation as ordinary days—but many of them had been influenced by Greek philosophy, which caused them to interpret the days as allegorical. They reasoned that the creation days were related to

God's activities, and God being timeless meant that the days could not be related to human time." ("Could God Have Created Everything In Six Days?", <http://www.answersingenesis.org/articles/nab/could-god-have-created-in-six-days>)

- John MacArthur in *The Battle For The Beginning* (Word Publishing, 2001, p. 70) revealed:

"Hugh Ross and other old-earth creationists respond to this argument by pointing out that Augustine and certain other church fathers interpreted the days of creation nonliterally. 'Their scriptural views cannot be said to have been shaped to accommodate secular opinion,' Ross claims.

"Indeed, Augustine did take a nonliteral view of the six days of creation. He wrote, 'What kind of days these were it is extremely difficult, or perhaps impossible for us to conceive, and how much more to say!'

"But what Ross *doesn't* tell his readers is that Augustine and those who shared his views were arguing that God created the entire universe instantly, in a less than a nanosecond—indeed, outside the realm of time completely. Far from agreeing with Ross and modern science that creation was spread over billions of years, Augustine and others who shared his view went the opposite direction and foreshortened the time of creation to a single instant. They did this because they had been influenced by Greek philosophy to believe that a God who transcends time and space could not create in the realm of time. So they collapsed the six days to a single instant. Augustine wrote, 'Assuredly the world was made, not in time, but simultaneously with time.' That was precisely what Augustine's study of the works of secular philosophers had taught him. In other words, his views on this question *were*, after all, an accommodation to secular opinion. (And such opinions *did* eventually erode the early church's commitment to the authority of Scripture.)"

## Evidence for a Young World

by [Dr. Russell Humphreys](#), Ph.D., ICR associate professor of physics

First published in [Impact](#) #384, ICR  
June 2005

<http://www.answersingenesis.org/docs/4005.asp>

### Abstract

Here are fourteen natural phenomena which conflict with the evolutionary idea that the universe is billions of years old. The numbers listed below in bold print (usually in the millions of years) are often maximum possible ages set by each process, not the actual ages.

---

Here are fourteen natural phenomena which conflict with the evolutionary idea that the universe is billions of years old. The numbers listed below in bold print (usually in the millions of years) are often **maximum possible** ages set by each process, not the actual ages. The numbers in italics are the ages *required by evolutionary theory* for each item. The point is that the maximum possible ages are always much less than the required evolutionary ages, while the Biblical age (6,000 years) always fits comfortably within the maximum possible ages. Thus, the following items are evidence against the evolutionary time scale and for the Biblical time scale. Much more young-world evidence exists, but I have chosen these items for brevity and simplicity. Some of the items on this list can be reconciled with the old-age view only by making a series of improbable and unproven assumptions; others can fit in only with a recent creation.

### 1. Galaxies wind themselves up too fast.

The stars of our own galaxy, the Milky Way, rotate about the galactic center with different speeds, the inner ones rotating faster than the outer ones. The observed rotation speeds are so fast that if our galaxy were more than **a few hundred million years** old, it would be a featureless disc of stars instead of its present spiral shape.<sup>1</sup> Yet our galaxy is supposed to be at least *10 billion years* old. Evolutionists call this “the winding-up dilemma,” which they have known about for fifty years. They have devised many theories to try to explain it, each one failing after a brief period of popularity. The same “winding-up” dilemma also applies to other galaxies. For the last few decades the favored attempt to resolve the puzzle has been a complex theory called “density waves.”<sup>1</sup> The theory has conceptual problems, has to be arbitrarily and very finely tuned, and has been called into serious question by the Hubble Space Telescope’s discovery of very detailed spiral structure in the central hub of the “Whirlpool” galaxy, M51.<sup>2</sup>

### 2. Too few supernova remnants.

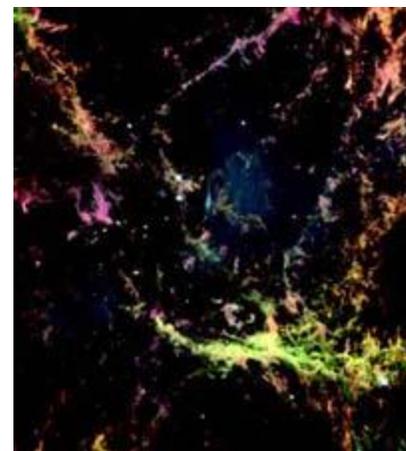
According to astronomical observations, galaxies like our own experience about one supernova (a violently-exploding star) every 25 years. The gas and dust remnants from such explosions (like the Crab Nebula) expand outward rapidly and should remain visible for over a *million years*. Yet the nearby parts of our galaxy in which we could observe such gas and dust shells contain only about 200 supernova remnants. That number is consistent with only about **7,000 years** worth of supernovas.<sup>3</sup>

### 3. Comets disintegrate too quickly.

According to evolutionary theory, comets are supposed to be the same age as the solar system, about *five billion years*. Yet each time a comet orbits close to the sun, it loses so much of its material that it could not survive much longer than about 100,000 years. Many comets have typical ages of less than **10,000 years**.<sup>4</sup> Evolutionists explain this discrepancy by assuming that (a) comets come from an unobserved spherical “Oort cloud” well beyond the orbit of Pluto, (b) improbable gravitational interactions with infrequently passing stars often knock comets into the solar system, and (c) other improbable interactions with planets slow down the incoming comets often enough to account for the hundreds of comets observed.<sup>5</sup> So far, none of these assumptions has been substantiated either by observations or realistic calculations. Lately, there has been much talk of the “Kuiper Belt,” a disc of supposed comet sources lying in the plane of the solar system just outside the



Spiral galaxy NGC 1232 in constellation Eridanus (photo courtesy of European Southern Observatory).

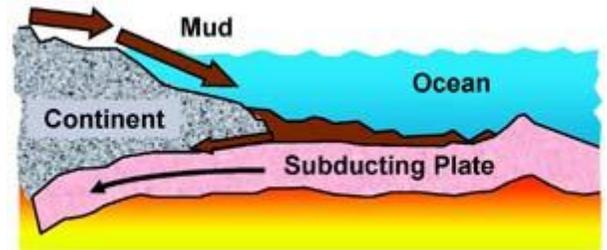


Crab Nebula (photo courtesy of NASA)

orbit of Pluto. Some asteroid-sized bodies of ice exist in that location, but they do not solve the evolutionists' problem, since according to evolutionary theory, the Kuiper Belt would quickly become exhausted if there were no Oort cloud to supply it.

#### 4. Not enough mud on the sea floor.

Each year, water and winds erode about 20 billion tons of dirt and rock from the continents and deposit it in the ocean.<sup>6</sup> This material accumulates as loose sediment on the hard basaltic (lava-formed) rock of the ocean floor. The average depth of all the sediment in the whole ocean is less than 400 meters.<sup>7</sup> The main way known to remove the sediment from the ocean floor is by plate tectonic subduction. That is, sea floor slides slowly (a few cm/year) beneath the continents, taking some sediment with it. According to secular scientific literature, that process presently removes only 1 billion tons per year.<sup>7</sup> As far as anyone knows, the other 19 billion tons per year simply accumulate. At that rate, erosion would deposit the present mass of sediment in less than **12 million years**. Yet according to evolutionary theory, erosion and plate subduction have been going on as long as the oceans have existed, an alleged *three billion years*. If that were so, the rates above imply that the oceans would be massively choked with sediment dozens of kilometers deep. An alternative (creationist) explanation is that erosion from the waters of the Genesis flood running off the continents deposited the present amount of sediment within a short time about 5,000 years ago.



Rivers and dust storms dump mud into the sea much faster than plate tectonic subduction can remove it.

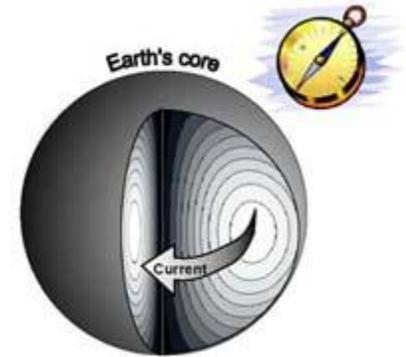
#### 5. Not enough sodium in the sea.

Every year, rivers<sup>8</sup> and other sources<sup>9</sup> dump over 450 million tons of sodium into the ocean. Only 27% of this sodium manages to get back out of the sea each year.<sup>9,10</sup> As far as anyone knows, the remainder simply accumulates in the ocean. If the sea had no sodium to start with, it would have accumulated its present amount in less than 42 million years at today's input and output rates.<sup>10</sup> This is much less than the evolutionary age of the ocean, *three billion years*. The usual reply to this discrepancy is that past sodium inputs must have been less and outputs greater. However, calculations that are as generous as possible to evolutionary scenarios still give a maximum age of only **62 million years**.<sup>10</sup> Calculations<sup>11</sup> for many other seawater elements give much younger ages for the ocean.



#### 6. The earth's magnetic field is decaying too fast.

The total energy stored in the earth's magnetic field ("dipole" and "non-dipole") is decreasing with a half-life of 1,465 ( $\pm$  165) years.<sup>12</sup> Evolutionary theories explaining this rapid decrease, as well as how the earth could have maintained its magnetic field for *billions of years* are very complex and inadequate. A much better creationist theory exists. It is straightforward, based on sound physics, and explains many features of the field: its creation, rapid reversals during the Genesis flood, surface intensity decreases and increases until the time of Christ, and a steady decay since then.<sup>13</sup> This theory matches paleomagnetic, historic, and present data, most startlingly with evidence for rapid changes.<sup>14</sup> The main result is that the field's total energy (not surface intensity) has always decayed at least as fast as now. At that rate the field could not be more than **20,000 years** old.<sup>15</sup>



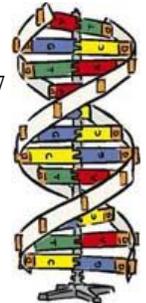
Electrical resistance in the earth's core wears down the electrical current which produces the earth's magnetic field. That causes the field to lose energy rapidly.

### 7. Many strata are too tightly bent.

In many mountainous areas, strata thousands of feet thick are bent and folded into hairpin shapes. The conventional geologic time scale says these formations were deeply buried and solidified for *hundreds of millions of years* before they were bent. Yet the folding occurred without cracking, with radii so small that the entire formation had to be still wet and unsolidified when the bending occurred. This implies that the folding occurred **less than thousands of years** after deposition.<sup>16</sup>

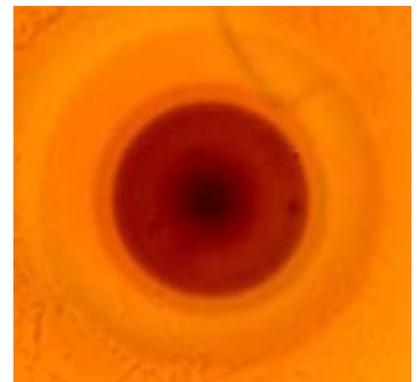
### 8. Biological material decays too fast.

Natural radioactivity, mutations, and decay degrade DNA and other biological material rapidly. Measurements of the mutation rate of mitochondrial DNA recently forced researchers to revise the age of "mitochondrial Eve" from a theorized *200,000 years* down to possibly as low as **6,000 years**.<sup>17</sup> DNA experts insist that DNA cannot exist in natural environments longer than **10,000 years**, yet intact strands of DNA appear to have been recovered from fossils allegedly much older: Neandertal bones, insects in amber, and even from dinosaur fossils.<sup>18</sup> Bacteria allegedly *250 million years* old apparently have been revived with no DNA damage.<sup>19</sup> Soft tissue and blood cells from a dinosaur have astonished experts.<sup>20</sup>



### 9. Fossil radioactivity shortens geologic "ages" to a few years.

Radiohalos are rings of color formed around microscopic bits of radioactive minerals in rock crystals. They are fossil evidence of radioactive decay.<sup>21</sup> "Squashed" Polonium-210 radiohalos indicate that Jurassic, Triassic, and Eocene formations in the Colorado plateau were deposited **within months** of one another, not *hundreds of millions of years* apart as required by the conventional time scale.<sup>22</sup> "Orphan" Polonium-218 radiohalos, having no evidence of their mother elements, imply **accelerated nuclear decay** and very rapid formation of associated minerals.<sup>23,24</sup>



Radio Halo (photo courtesy of Mark Armitage)

### 10. Too much helium in minerals.

Uranium and thorium generate helium atoms as they decay to lead. A study published in the *Journal of Geophysical Research* showed that such helium produced in zircon crystals in deep, hot Precambrian granitic rock has not had time to escape.<sup>25</sup> Though the rocks contain *1.5 billion years* worth of nuclear decay products, newly-measured rates of helium loss from zircon show that the helium has been leaking for

only **6,000** ( $\pm 2000$ ) **years**.<sup>26</sup> This is not only evidence for the youth of the earth, but also for episodes of greatly accelerated decay rates of long half-life nuclei within thousands of years ago, compressing radioisotope timescales enormously.

### **11. Too much carbon 14 in deep geologic strata.**

With their short 5,700-year half-life, no carbon 14 atoms should exist in any carbon older than 250,000 years. Yet it has proven impossible to find any natural source of carbon below Pleistocene (Ice Age) strata that does not contain significant amounts of carbon 14, even though such strata are supposed to be *millions or billions of years* old. Conventional carbon 14 laboratories have been aware of this anomaly since the early 1980s, have striven to eliminate it, and are unable to account for it. Lately the world's best such laboratory which has learned during two decades of low-C14 measurements how not to contaminate specimens externally, under contract to creationists, confirmed such observations for coal samples and even for a dozen diamonds, which cannot be contaminated in situ with recent carbon.<sup>27</sup> These constitute very strong evidence that the earth is only **thousands**, not billions, of years old.

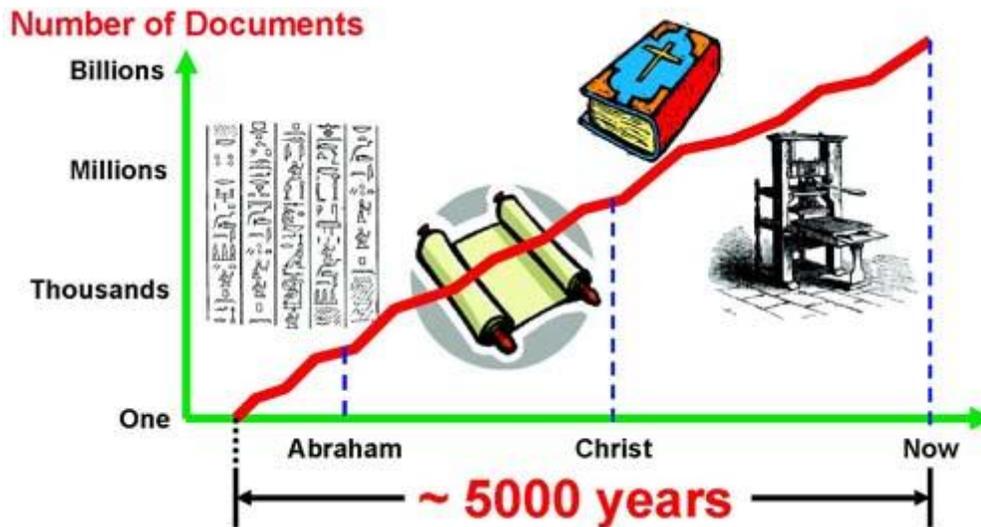


### **12. Not enough Stone Age skeletons.**

Evolutionary anthropologists now say that *Homo sapiens* existed for at least *185,000 years* before agriculture began,<sup>28</sup> during which time the world population of humans was roughly constant, between one and ten million. All that time they were burying their dead, often with artifacts. By that scenario, they would have buried at least eight billion bodies.<sup>29</sup> If the evolutionary time scale is correct, buried bones should be able to last for much longer than 200,000 years, so many of the supposed eight billion stone age skeletons should still be around (and certainly the buried artifacts). Yet only a few thousand have been found. This implies that the Stone Age was much shorter than evolutionists think, perhaps only **a few hundred years** in many areas.

### **13. Agriculture is too recent.**

The usual evolutionary picture has men existing as hunters and gatherers for *185,000 years* during the Stone Age before discovering agriculture less than 10,000 years ago.<sup>29</sup> Yet the archaeological evidence shows that Stone Age men were as intelligent as we are. It is very improbable that none of the eight billion people mentioned in item 12 should discover that plants grow from seeds. It is more likely that men were without agriculture **for a very short time** after the Flood, if at all.<sup>31</sup>



## 14. History is too short.

According to evolutionists, Stone Age *Homo sapiens* existed for 190,000 years before beginning to make written records about 4,000 to 5,000 years ago. Prehistoric man built megalithic monuments, made beautiful cave paintings, and kept records of lunar phases.<sup>30</sup> Why would he wait two thousand centuries before using the same skills to record history? The Biblical time scale is much more likely.<sup>31</sup>

## References

1. Scheffler, H. and Elsasser, H., *Physics of the Galaxy and Interstellar Matter*, Springer-Verlag (1987) Berlin, pp. 352–353, 401–413.
2. D. Zaritsky, H-W. Rix, and M. Rieke, Inner spiral structure of the galaxy M51, *Nature* **364**:313–315 (July 22, 1993).
3. Davies, K., Distribution of supernova remnants in the galaxy, *Proceedings of the Third International Conference on Creationism*, vol. II, Creation Science Fellowship (1994), Pittsburgh, PA, pp. 175–184, order from <http://www.icc03.org/proceedings.htm>.
4. Steidl, P. F., Planets, comets, and asteroids, *Design and Origins in Astronomy*, pp. 73-106, G. Mulfinger, ed., Creation Research Society Books (1983), order from <http://www.creationresearch.org/>.
5. Whipple, F. L., Background of modern comet theory, *Nature* **263**:15–19 (2 September 1976). Levison, H. F. et al. See also: The mass disruption of Oort Cloud comets, *Science* **296**:2212–2215 (21 June 2002).
6. Milliman, John D. and James P. M. Syvitski, Geomorphic/tectonic control of sediment discharge to the ocean: the importance of small mountainous rivers, *The Journal of Geology*, vol. 100, pp. 525–544 (1992).
7. Hay, W. W., et al., Mass/age distribution and composition of sediments on the ocean floor and the global rate of sediment subduction, *Journal of Geophysical Research*, **93**(B12):14,933–14,940 (10 December 1988).
8. Meybeck, M., Concentrations des eaux fluviales en elements majeurs et apports en solution aux oceans, *Revue de Géologie Dynamique et de Géographie Physique* **21**(3):215 (1979).
9. Sayles, F. L. and P. C. Mangelsdorf, Cation-exchange characteristics of Amazon River suspended sediment and its reaction with seawater, *Geochimica et Cosmochimica Acta* **43**:767–779 (1979).
10. Austin, S. A. and D. R. Humphreys, The sea's missing salt: a dilemma for evolutionists, *Proceedings of the Second International Conference on Creationism*, vol. II, Creation Science Fellowship (1991), Pittsburgh, PA, pp. 17–33, order from <http://www.icc03.org/proceedings.htm>.

11. Nevins, S., [Austin, S. A.], Evolution: the oceans say no!, [Impact No. 8 \(Nov. 1973\)](#) Institute for Creation Research.
12. Humphreys, D. R., The earth's magnetic field is still losing energy, *Creation Research Society Quarterly*, **39**(1):3–13, June 2002. [http://www.creationresearch.org/crsq/articles/39/39\\_1/GeoMag.htm](http://www.creationresearch.org/crsq/articles/39/39_1/GeoMag.htm).
13. Humphreys, D. R., Reversals of the earth's magnetic field during the Genesis flood, *Proceedings of the First International Conference on Creationism*, vol. II, Creation Science Fellowship (1986), Pittsburgh, PA, pp. 113–126, out of print but contact <http://www.icc03.org/proceedings.htm> for help in locating copies.
14. Coe, R. S., M. Prévot, and P. Camps, New evidence for extraordinarily rapid change of the geomagnetic field during a reversal, *Nature* **374**:687–92 (20 April 1995).
15. Humphreys, D. R., Physical mechanism for reversals of the earth's magnetic field during the flood, *Proceedings of the Second International Conference on Creationism*, vol. II, Creation Science Fellowship (1991), Pittsburgh, PA, pp. 129–142, order from <http://www.icc03.org/proceedings.htm>.
16. Austin, S. A. and J. D. Morris, Tight folds and clastic dikes as evidence for rapid deposition and deformation of two very thick stratigraphic sequences, *Proceedings of the First International Conference on Creationism*, vol. II, Creation Science Fellowship (1986), Pittsburgh, PA, pp. 3–15, out of print, contact <http://www.icc03.org/proceedings.htm> for help in locating copies.
17. Gibbons A., Calibrating the mitochondrial clock, *Science* **279**:28–29 (2 January 1998).
18. Chérifas, J., Ancient DNA: still busy after death, *Science* **253**:1354–1356 (20 September 1991). Cano, R. J., H. N. Poinar, N. J. Pieniazek, A. Acra, and G. O. Poinar, Jr. Amplification and sequencing of DNA from a 120–135-million-year-old weevil, *Nature* **363**:536–8 (10 June 1993). Krings, M., A. Stone, R. W. Schmitz, H. Krainitzki, M. Stoneking, and S. Pääbo, Neandertal DNA sequences and the origin of modern humans, *Cell* **90**:19–30 (Jul 11, 1997). Lindahl, T, Unlocking nature's ancient secrets, *Nature* **413**:358–359 (27 September 2001).
19. Vreeland, R. H., W. D. Rosenzweig, and D. W. Powers, Isolation of a 250 million-year-old halotolerant bacterium from a primary salt crystal, *Nature* **407**:897–900 (19 October 2000).
20. Schweitzer, M., J. L. Wittmeyer, J. R. Horner, and J. K. Toporski, Soft-Tissue vessels and cellular preservation in *Tyrannosaurus rex*, *Science* **207**:1952–1955 (25 March 2005).
21. Gentry, R. V., Radioactive halos, *Annual Review of Nuclear Science* **23**:347–362 (1973).
22. Gentry, R. V., W. H. Christie, D. H. Smith, J. F. Emery, S. A. Reynolds, R. Walker, S. S. Christy, and P. A. Gentry, Radiohalos in coalified wood: new evidence relating to time of uranium introduction and coalification, *Science* **194**:315–318 (15 October 1976).
23. Gentry, R. V., Radiohalos in a radiochronological and cosmological perspective, *Science* **184**:62–66 (5 April 1974).
24. Snelling, A. A. and M. H. Armitage, Radiohalos—a tale of three granitic plutons, *Proceedings of the Fifth International Conference on Creationism*, vol. II, Creation Science Fellowship (2003), Pittsburgh, PA, pp. 243–267, order from <http://www.icc03.org/proceedings.htm>. Also archived on the ICR website at [ICCRADIOHALOS-AASandMA.pdf](http://www.icc03.org/proceedings.htm).
25. Gentry, R. V., G. L. Glish, and E. H. McBay, Differential helium retention in zircons: implications for nuclear waste containment, *Geophysical Research Letters* **9**(10):1129–1130 (October 1982).
26. Humphreys, D. R., et al., Helium diffusion age of 6,000 years supports accelerated nuclear decay, *Creation Research Society Quarterly* **41**(1):1–16 (June 2004). See archived article on following page of the CRS website: [http://www.creationresearch.org/crsq/articles/41/41\\_1/Helium.htm](http://www.creationresearch.org/crsq/articles/41/41_1/Helium.htm).
27. Baumgardner, J. R., et al., Measurable <sup>14</sup>C in fossilized organic materials: confirming the young earth creation-flood model, *Proceedings of the Fifth International Conference on Creationism*, vol. II, Creation Science Fellowship (2003), Pittsburgh, PA, pp. 127–142. Archived at [http://www.icr.org/pdf/research/RATE\\_ICC\\_Baumgardner.pdf](http://www.icr.org/pdf/research/RATE_ICC_Baumgardner.pdf). See poster presented to American Geophysical Union, Dec. 2003, [AGUC-14 Poster Baumgardner.pdf](http://www.icr.org/pdf/research/RATE_ICC_Baumgardner.pdf).
28. McDougall, I., F. H. Brown, and J. G. Fleagle, Stratigraphic placement and age of modern humans from Kibish, Ethiopia, *Nature* **433**(7027):733–736 (17 February 2005).
29. Deevey, E. S., The human population, *Scientific American* **203**:194–204 (September 1960).

30. Marshack, A., Exploring the mind of Ice Age man, *National Geographic* **147**:64–89 (January 1975).
31. Ditt, J. O., Man's earliest beginnings: discrepancies in evolutionary timetables, *Proceedings of the Second International Conference on Creationism*, vol. II, Creation Science Fellowship (1991), Pittsburgh, PA, pp. 73–78, order from <http://www.icc03.org/proceedings.htm>.