**Paper #4  Argument that there exists no record of human existence prior to ca 4000 BC: Part 3.**  In this paper we will discuss the scientific evidence which supports our contention that plants and animals did not exist before the year 4114 BC.  The discussion is entirely centered on the radiometric dating procedure known as radiocarbon dating, the only scientific method available for precise dating of organic matter.

**Prologue**

According to the Hebrew Bible God created the first man and woman in the year 4114 BC, give or take a year or two.  Ten lineal generations followed, with lifespans ranging from 400 to 1000 years, and in consequence they and their extended families literally filled the earth as it then existed.  There followed a flood, which we have dated 2458 BC, which destroyed the entire population of the earth, save for one man (Noah), his wife, three sons and their wives.  The lives of these eight sole survivors, and their descendants in the following century, spread out through the Tigris/Euphrates region (called Mesopotamia by later Greeks), living a relatively primitive lifestyle, until the roots of civilized life emerged in the extreme south, a region known as Sumer.  There God determined to confound human speech, and in Sumer there emerged, as if on cue, a distinct language, called Sumerian by scholars, completely unrelated to the Semitic "Adamic language" which hitherto was spoken by all descendants of Noah.

It was at this stage that we entered the picture in our last paper, arguing that literally thousands of original documents produced by the occupants of this ancient Tigris/Euphrates world bear witness to precisely the same story as that presented in the Hebrew Bible, albeit told in a foreign tongue, and embellished over many generations following with superfluous and clearly fictional elements.  And the chronology of the biblical story, with which the author of this paper is extremely familiar, agrees precisely with the evidence provided by the ancient documents, evidence which includes multiple comprehensive "king lists" produced by nations obsessed with detailed record keeping.

So well authenticated are the details preserved in the Hebrew Bible that only an extremely biased reader can dismiss out of hand the obvious conclusion, namely, that the text of the first dozen chapters of the book of Genesis and thousands of

Mesopotamian texts telling essentially the same story, are all describing precisely the same reality. There was a creation, a sequence of long-lived descendants, a flood, a century of primitive culture, the emergence of civilized life (kingship), a confusion of tongues resulting in the dispersion of multiple distinct linguistic groups throughout the Near East, and all of this in the recent past, within the compass of human memory. Even the timetables for these events, as represented in the Bible and in Near Eastern literature, turn out to be exact duplicates, as we documented at length in our previous paper. But while we are perplexed that the court is still in session, the jury still pondering and perhaps questioning the evidence, we acknowledge the need for more witnesses to the truth, so we continue to plead our case, this time adding to the mass of ancient documents the testimony of modern science.

**Postdiluvian Cultures**

In our last paper we detailed the fact that the *Sumerian King List*, properly interpreted, dates the emergence of kingship in Sumer to around the year 2350 BC, approximately a century after the flood, leaving us to question whether or not there exists evidence of the activity of the descendants of Noah in the time frame 2450-2350 BC. Fortunately such evidence has survived to the present. And it can be dated.

Archaeologists and anthropologists alike have spent the last two centuries searching the ancient world for data attesting the beginnings of human communal existence. Nowhere has the search been more intensive than in the Tigris/Euphrates basin, for obvious reasons. If this is where civilization eventually emerged after the flood, surely it is where evidence should exist confirming the very beginnings of organized human life, assuming of course that every vestige of the civilization that existed before the flood has been destroyed. If our timeline in the previous paper is correct, what these specialists should have discovered in their prolonged search for the origins of human life, are the remains left by Noah and his extended family as that family grew and occupied increasingly larger amounts of territory in the land between the two rivers.

Location of Mt. Ararat in the Ararat Range in North-Eastern Turkey & South-Western Armenia

According to the Hebrew Bible the boat/arc containing Noah and his family came to rest in the mountains of Ararat (Genesis 8:4), a mountain range which borders present day Turkey on the extreme north-east, and Armenia on the extreme south-west. From that location we would expect that the descendants of Noah would move in three directions, 1) northward into Georgia (and beyond into Russia), 2) south into the northern reaches of the Tigris valley and the northern parts of present day Iraq, and 3) south-west through Turkey down the Euphrates valley into northern Syria,

then continuing east and south-east along the Euphrates into Sumer, where civilization eventually emerged. We are not guessing at these locations. When archaeologists began their search for human origins in the early 19th century this is precisely where they found them. And by far the bulk of the ancient habitation sites were located along the Euphrates as it exited Turkey and entered Syria, and along



The twin peaks of Mount Ararat

that same river as it turned east, including territory along the two major tributaries entering the Euphrates from the north, the Balikh and Khabur/Chabur Rivers. These settlements, home to what anthropologists call the Halaf culture, are precisely what we would expect to see in the immediate aftermath of the flood. According to our timetable of events, those sites consisted entirely of the children, grandchildren, and great-grandchildren of Noah. As yet the inhabited world was occupied entirely by Semitic speakers, though these early Mesopotamian settlers left no literary record of their sojourn. Anthropologists and archaeologists alike have examined these early remains, largely consisting of pottery, stores of grain, and assorted artifacts such as jewellery, carvings, bone implements, etc. And they have assigned names and dates to these human

Approximate extent of the Halaf Culture. (denoted by area in purple)

habitation sites, to which they affix the name "culture".  Thus they have distinguished an Ubaid culture in ancient Sumer, an Halaf culture in the region previously described, and a Samarra culture midway between the previous two settlement groups.  Further north along the Upper Tigris they have documented the existence of the Hassuna culture.  If the reader takes the time to review the Wikipedia links to these cultures he/she will be struck by the fact that they are all consistently dated radiometrically to the era 6500-3800 BC.

We have absolutely no dispute with the discovery and interpretation of these findings, representing as they do the initial spread of the descendants of Noah throughout the then known world.  These people are, according to archaeologists, the oldest human inhabitants of these regions, if not of the entire world, and we endorse that opinion wholeheartedly, *providing we are allowed to add two provisos*.  **1) The Ubaidians, Halafians, etc. represent not the first humans who inhabited these regions, but the initial human habitation *after the great flood in the days of Noah*, and 2) the inhabitants of these regions should not be dated in the era 6500-3800 BC.  The timelines provided in our previous paper cannot be seriously questioned.  Rather, the Ubaid, Halaf, Hassuna and Samarra cultures must be dated in the time frame ca 2450-2350 BC and beyond.**  The biblical and Mesopotamian accounts of a creation followed by a prolonged period of human occupation prior to a devastating flood cannot be simply shrugged off by contemporary scholars.  That is not science.  Science takes pride in accounting for every known variable when it puts forward an hypothesis.  Here there is clearly a
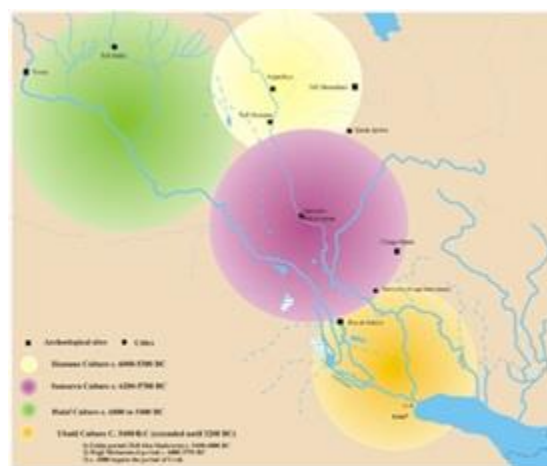


Approximate locations of the Ubaid, Halaf, Samarra, & Hassuna Cultures

disconnect between the anthropological interpretation of the history of the Mesopotamian world, and how the inhabitants of that world themselves experienced it.  We side with the people as represented by the biblical text and thousands of Sumerian documents, anthropological opinion notwithstanding.  But how do we explain the "radiometric dating" which *appears* to be at odds with our timelines?

**The Theory & Limitations of Radiometrical/Radioactive dating.**

When anthropologists and archaeologists refer to "radiometrically established dates" they are almost always referring to the employment of the procedure known as "radiocarbon dating", this because they are normally concerned with dates in the vicinity of thousands of years BC, and the artifacts they are attempting to date are at least in part organic, carbon containing compounds such as bone, or wood, or grains or grasses, for which radiocarbon dating is not just the best available dating technique, *it is the only available technique*.   For that reason alone radiocarbon dating is the only radiometric dating method that will be discussed in this paper.

When we began this paper our stated objective was to provide scientific proof that no plant or animal lived prior to ca 4000 BC.  Should any scientist or scientific theory suggest that an organic compound be assigned a date older than 4000 BC we must immediately seek an explanation for the 'anomaly'.  We will discuss in this paper several examples of errant dating by scientists, the dates of the four Mesopotamian cultures being only one example, and a not too serious one at that.  The cultures have been introduced in part to fill the gap between the flood (2458 BC) and the institution of "kingship" (ca 2350 BC), a time frame not discussed in our last paper, and in part to introduce radiometrical dating to our readers.  Since scientists have claimed that plants and animals lived hundreds of thousands, even hundreds of millions of years in the past, and since *radiocarbon dating is the only legitimate scientific method for dating organic matter*, we have no choice but to hold this theory up for some scrutiny.  So we beg the indulgence of our readers, particularly those with little or no scientific training, and/or minimal interest in scientific theories.  We will be brief, and where by necessity we are required to refer to more technical aspects of radiocarbon dating

methodology, we will simply provide a link to online sources of information, one of which, the Wikipedia article which discusses radiocarbon dating, is more than adequate for most purposes.

**Radiocarbon Dating: the theory.** We will introduce the method in point form, and for a good reason. In our next section we want to discuss the limitations of the theory, at which stage we will identify several of our outlined "points" as sources of potential error. The format chosen here will facilitate this later procedure.

1. The only "science" absolutely needed to comprehend this theory is the grade school notion that all matter is made up of atoms, and that two of the more than one hundred different types of atoms that exist in nature are "carbon" and "nitrogen". The normal carbon atom is composed of a nucleus containing 6 "protons" and 6 "neutrons" with 6 "electrons" in motion in the space surrounding. Since the protons and neutrons are of comparable weight, and together make up most of the mass of the atom, the normal carbon atom is said to have an atomic mass of 12, and the atom is thus designated $^{12}_{6}C$, the 12 being the atomic mass, the six representing the number of protons in the nucleus, referred to as the atomic number of the atom. It is the number of protons that determines most of the *chemical properties* of the atom and thus distinguishes carbon from every other atom, and in particular from nitrogen, its nearest neighbor in the table of elemental particles (the "periodic table" for those of you with good memories). Add a neutron to a carbon atom $^{12}_{6}C$ (otherwise known simply as "carbon 12") and it is still carbon, but its atomic mass increases by 1 unit. You now have $^{13}_{6}C$ (or carbon 13), called an isotope (or nuclide) of carbon, an atom that is still rather stable. Add another neutron and you now have $^{14}C$ (or carbon 14), yet another isotope of carbon, but this time unstable. Its nucleus thus contains 6 protons (which means it is still carbon) and 8 neutrons . Note that we have stopped using the subscript 6 since it is redundant. If you see the symbol C denoting the fact that we are discussing the carbon atom, you automatically know the atomic number is 6.

2.  If you understood our first point you will have no difficulty with our second point, which introduces the element nitrogen, denoted by the symbol $^{14}_{7}N$.  Let's go through the numbers again.  As stated, nitrogen is the next door neighbor of carbon in the periodic table of elements.  Its atomic number is 7, meaning that it has seven protons in its nucleus, and it has 7 neutrons which is why its atomic mass is 14.  In a non-ionized (uncharged) atom the electrons and protons are always equal, so the nitrogen element must have 7 electrons in motion in the space surrounding.  Now the astute reader will immediately understand that if we could somehow change one of the protons in a normal nitrogen atom $^{14}_{7}N$ into a neutron, we would in the process be changing the nitrogen atom into $^{14}_{6}C$ (carbon 14), the radioactive isotope of carbon.  Conversely if we change one of the neutrons in $^{14}_{6}C$ into a proton, the radiocarbon atom would revert into normal nitrogen.  We pause to let the reader get the facts straight.  If necessary read and re-read points 1 and 2 until you "get it".

The process by which protons change to neutrons, and vice versa, is called beta decay.  It is not necessary that the reader investigate how the process works, though we have provided a link for the interested reader.  Sufficient here to note that the conversion of nitrogen to radioactive carbon requires a catalyst such as an energetic neutron to collide with the nitrogen nucleus and displace a proton (see Figure 1 below).  The conversion of radioactive carbon back into nitrogen requires no catalyst.  It will happen of its own accord, suddenly, without warning, but you might have to wait thousands of years for the event to happen.  That spontaneity is the essence of the process known as radioactive decay, common to all radioactive substances.


3. Earth's atmosphere is made up almost entirely of nitrogen (78%) and oxygen (21%) with trace quantities of argon, carbon dioxide, and water vapor.  According to radiocarbon dating theorists, nitrogen has existed in our atmosphere in relatively the same proportion as at present for at least the last 100,000 years.  The theory also assumes that at least for that duration the earth's atmosphere has been subject to intense cosmic radiation, both low-energy radiation from our sun, and high-energy radiation from completely unknown sources outside our solar system (see the Wikipedia article on cosmic rays).  It is further assumed that the high energy cosmic radiation, which consists primarily of protons, is either directly or indirectly the source of the high energy neutrons in the atmosphere

which interact with the nitrogen atoms, displacing a pro<u>to</u>n in the process (see Figure 1 below) to produce radioactive carbon 14,.  In other words, **without high energy cosmic rays in our atmosphere there would be no production of $^{14}$C from $^{14}$N.**  It is extremely important that our readers understand that fact, readily admitted by all scientists!

**Figure 1:  Illustration of one process (called neutron capture)
by which nitrogen atoms in the atmosphere are converted
into atoms of radioactive carbon 14.**

$\nearrow$  $^{14}_6$C  (carbon 14))

Cosmic rays $\rightarrow$  neutron  $\rightarrow$  $^{14}_7$**N**

$\searrow$  displaced proton
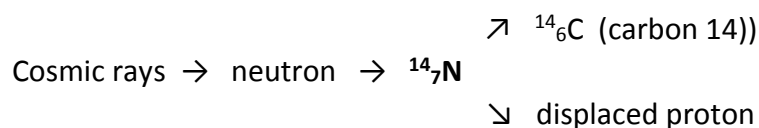
    4. We stated in our point 1 that carbon 14 is unstable and in point 2 we called it radioactive.  These are simply two variant ways of saying that the carbon 14 atom spontaneously changes back into nitrogen over time, a fact we referred to above using the terms "beta decay" and "radioactive decay".  While it is impossible to predict when any specific $^{14}$C atom will undergo that decay, it is possible to determine statistically an average rate of decay, and to predict when half of the $^{14}$C atoms in a given sample will revert back to the original $^{14}$N.  This length of time is referred to as the half-life of the element, and for $^{14}$C it is known to be approximately 5,730 years.  This means that in a given sample originally consisting of 10,240 $^{14}$C atoms [here we randomly pick a number that will not involve us in fractions] there will be only 5,120 left after 5,730 years.  After another 5,730 years there will remain only 2,560 $^{14}$C atoms, and after yet another 5,730 years only 1,280.  After the tenth half-life, i.e after 57,300 years, only 10 carbon 14 atoms remain in the original sample.  The process is summarized in our Table 1 on the following page.

**Table 1:  Chart illustrating how $^{14}$C atoms disappear**
**from a sample over time.**

| Time lapse (years) | $^{14}$C atoms in sample item (example only) | Fraction of original $^{14}$C remaining | Percentage of original $^{14}$C remaining |
|---|---|---|---|
| 0 | 10,240 | all | 100 |
| 5730 | 5,120 | 1/2 | 50 |
| 11,460 | 2,560 | 1/4 | 25 |
| 17,190 | 1,280 | 1/8 | 12.5 |
| 22,920 | 640 | 1/16 | 6.25 |
| 28,650 | 320 | 1/32 | 3.125 |
| 34,380 | 160 | 1/64 | 1.5625 |
| 40,110 | 80 | 1/128 | .78125 |
| 45,840 | 40 | 1/256 | .39062 |
| 51,570 | 20 | 1/512 | .19531 |
| 57,300 | 10 | 1/1024 | .09765 |

This single chart should be sufficient to convince most readers that after 50,000 years almost any testing of a sample for residual carbon 14 atoms will encounter severe *technical challenges*.  On the one hand there will be few if any $^{14}$C atoms left in the sample.   On the other hand, even if some $^{14}$C remains the chances of detecting its presence will be slim to none, no matter what laboratory method is used.  And if we were to add another ten rows to our chart, only the foolhardy would suggest that any detectible $^{14}$C would remain, this because most articles being tested actually contain far fewer than our hypothetical 10,240 radiocarbon atoms.  As the Wikipedia article on carbon 14 suggests, "$^{14}$C makes up only trace amounts, i.e. about 1 or 1.5 atoms per $10^{12}$ atoms of the carbon in the atmosphere", and this same proportion is *assumed* to be present in the sample being tested.  In case the reader of this paper is unfamiliar with scientific notation used for describing large numbers, $10^{12}$ refers to a decimal number denoted by a 1 followed by twelve zeros.  Thus in the atmosphere, and similarly in the test sample, there will be only one $^{14}$C atom for every 1,000,000,000,000 (= one trillion) non-radioactive carbon atoms.  Small wonder that the vast majority of scholars accept 50,000 years as the upper threshold for radiocarbon testing.

Another way of putting it is this:  ***If a measurable amount of $^{14}C$ is found in a test sample, it must be assumed that the sample is not appreciably older than 50,000 years (100,000 years being an extreme upper limit).***  No scientist in the world would dispute that statement!

5.  At long last we come to the heart of the testing method.  To save time and space we borrow from the Wikipedia article on radiocarbon dating the brief description of how the creation of carbon 14 in the atmosphere allows scientists to date organic matter on the earth:

> The method was developed by Willard Libby in the late 1940s and soon became a standard tool for archaeologists. Libby received the Nobel Prize for his work in 1960. The radiocarbon dating method is based on the fact that radiocarbon is constantly being created in the atmosphere by the interaction of cosmic rays with atmospheric nitrogen. The resulting radiocarbon combines with atmospheric oxygen to form radioactive carbon dioxide, which is incorporated into plants by photosynthesis; animals then acquire $^{14}C$ by eating the plants. When the animal or plant dies, it stops exchanging carbon with its environment, and from that point onwards the amount of $^{14}C$ it contains begins to decrease as the $^{14}C$ undergoes radioactive decay. Measuring the amount of $^{14}C$ in a sample from a dead plant or animal such as a piece of wood or a fragment of bone provides information that can be used to calculate when the animal or plant died. The older a sample is, the less $^{14}C$ there is to be detected, and **because the half-life of $^{14}C$ (the period of time after which half of a given sample will have decayed) is about 5,730 years, the oldest dates that can be reliably measured by radiocarbon dating are around 50,000 years ago, although special preparation methods occasionally permit dating of older samples.** (emphasis added)

We summarize the content of the quoted preceding paragraph by augmenting our Figure 1 to form our Figure 2 on the following page.

**Figure 2:  Illustration of one process (called neutron capture) by which nitrogen atoms in the atmosphere are converted into atoms of radioactive carbon 14 which are subsequently ingested by plants and animals and incorporated into their cellular structure.**

$\nearrow$  $^{14}_{6}C$  (carbon 14))

Cosmic rays $\rightarrow$  neutron  $\rightarrow$  $^{14}_{7}N$

$\searrow$  displaced proton
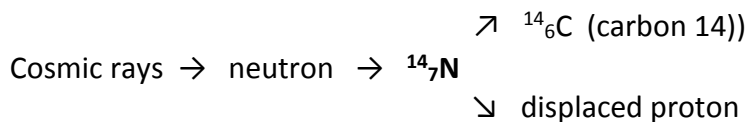
$\rightarrow$ the $^{14}_{6}C$ combines with oxygen in the atmosphere to form an isotope of carbon dioxide ($CO_2$)

$\rightarrow$ edible plants & trees absorb the carbon dioxide through photosynthesis and incorporate the carbon 14 into their cell structure

$\rightarrow$ herbivorous animals (including humans) consume the plants and carnivorous animals (including humans) devour plant eating animals, thus ingesting carbon 14 into their bone & cellular structure

$\rightarrow$ at death no further $^{14}C$ is introduced into the plant or animal physiology and the ingested carbon 14 immediately begins to undergo beta decay.  Within approximately 50,000 years it will cease to be detectible in laboratory tests.

6.  One further point needs to be made as we turn our attention to the laboratory where the radio-carbon test of an organic sample is under way. The technician doing the test has one objective and that is to determine, as precisely as possible, what fraction of the carbon in the sample consists of $^{14}C$ and what fraction is non-radioactive carbon (almost all of which is $^{12}C$).   This existing $^{14}C/^{12}C$ ratio will then be compared to the *assumed value of the $^{14}C/^{12}C$ ratio at the time that the living organism (plant or animal) sample died*, to determine the radiocarbon age of the sample.   The details are omitted here, though some of the formulae used (which depend on the testing procedure being employed) are provided in the Wikipedia "radiocarbon dating" article or that which discusses "radiocarbon dating calculations".  The theory is not difficult, but part of the theory is entirely hypothetical, and needs to be mentioned, since it lies at the heart of the interpretive problem, and is the explanation for why the Mesopotamian culture samples are dated 6500-3800 by scientists, where we would date those same

samples no older than 2450 BC. To draw attention to the problem we ask one simple question which lies at the heart of the radiocarbon dating theory. How does the 21$^{st}$ century lab technician know what the $^{14}C/^{12}C$ ratio was at the time that the donor of the sample (the once living plant or animal) died? Without that information the calculations cannot proceed, and only one conclusion can be reached based on the tests conducted. Apparently there was $^{14}C$ in the tested sample in sufficient quantities that its present $^{14}C/^{12}C$ ratio could be determined. And that tells us at least the fact that the sample is not multiple hundreds of thousands of years old, a fact that we mentioned earlier on page 9, and repeat here to further emphasize the fact.

> ***If a measurable amount of $^{14}C$ is found in a test sample, it must be assumed that the sample is not appreciably older than 50,000 years (100,000 years being an extreme upper limit).***

So we repeat our question. How does the 21$^{st}$ century lab technician know what the $^{14}C/^{12}C$ ratio was at the time that the donor of the sample (the once living plant or animal) died, knowledge essential to providing an actual date for the sample? The simple answer is – *he/she doesn't know that fact.* And lacking that information the technician must undertake a leap of faith. ***The assumption is made, entirely without evidence, that the $^{14}C/^{12}C$ ratio measurable in the atmosphere today was not significantly different in the remote past, and can be used reliably as the basis for all radiocarbon measurements on ancient samples.*** For the sake of critics who might interject at this point and claim that the discipline of dendrochronology (tree ring dating) *is able to validate the stated assumption*, we merely point out that calibration charts are of unproven reliability prior to the beginning of the 2$^{nd}$ millennium, and as we will see momentarily, even this author accepts the scientific premise back that far (see our Figure 3 on page 15). What we object to most strenuously are denrochronological calibration charts which claim that "tree ring dating" can be extended four or five thousand years into the past, where they cannot possibly be authenticated. The interested reader might want to read up on the subject here and here and here, with particular attention paid to the process called "cross dating", a self-authenticating process in which dendrologists use errant assumptions about the initial $^{14}C/^{12}C$ ratio in tree ring samples in order to date them and arrange them in chronological order, which order is then used to validate their radiocarbon dating assumptions.

This is about the most extreme example of "circular reasoning" that this author has ever encountered.

So the scientist begins by making the *assumption* that the $^{14}C/^{12}C$ ratio has not changed appreciably over time, and based on that *assumption* the radiocarbon age of the sample is determined. *Change the assumption and you change the radiometric dating of the sample.* And there is no doubt that the assumptions made in determining the dates 6500-3800 years for the Mesopotamian cultures are incorrect. Which leads us to examine more closely this most critical limitation of the radiocarbon dating methodology.

**Radiocarbon Dating: its limitations.** In our discussion of the theory of radiocarbon dating we underscored three remarkable statements, all of which would be endorsed by every living scientist (with the possible exception of the 3rd statement, where scientists with reputations at stake embrace selective tree-ring results). We repeat the three statements here.

**Fact #1) Without high energy cosmic rays in our atmosphere there would be no production of $^{14}C$ from $^{14}N$.** (copied from our point 3 on page 7)

**Fact #2) If a measurable amount of $^{14}C$ is found in a test sample, it must be assumed that the sample is not appreciably older than 50,000 years (100,000 years being an extreme upper limit).** (copied from our point 4 on page 9)

**Fact #3) The assumption is made, entirely without evidence, that the $^{14}C/^{12}C$ ratio measurable in the atmosphere today was not significantly different in the past, and can be used reliably as the basis for all radiocarbon measurements on ancient samples**. (Copied from our point 6 on page 11)

In the balance of this paper we want to react to these three statements. In combination they confirm our contention that all plant and animal life emerged on this planet around the year 4000 BC. We begin by using these three facts to redate our four Mesopotamian cultures, the oldest confirmed presence of human and plant life on earth. And in our final section we apply these same scientific facts to life before the flood, remains of which include coal, oil, natural gas, diamonds, and of course, fossil remains such as the infamous dinosaur, to select only a few of the more prominent elements.

**A. Dating of the Mesopotamian cultures.**

As already implied in our Fact #3, in radiocarbon dating, assumptions are everything.  For the scientists analyzing the material from the four Mesopotamian cultures it was apparently *assumed* that the $^{14}C/^{12}C$ ratio in the 7th-3th millenniums BC was roughly the same as that same ratio measured in the 21st century AD.  As with most scientists today, those scholars were trained to observe nature with a uniformitarian mindset.  For them there was no flood, preceded by seventeen centuries of occupation by humans living extraordinarily long lives, preceded in turn by a special creation in which all plant and animal life came into existence.  And on page 4 of this paper we criticized that mindset with the following comment:

> The biblical and Mesopotamian accounts of a creation followed by a prolonged period of human occupation prior to a devastating flood cannot be simply shrugged off by contemporary scholars.  That is not science.  Science takes pride in accounting for every known variable when it puts forward an hypothesis.  Here there is clearly a disconnect between the anthropological interpretation of the history of the Mesopotamian world, and how the inhabitants of that world themselves experienced it.  We side with the people as represented by the biblical text and thousands of Sumerian documents.

So the Mesopotamian explorers who first excavated the four cultures were comfortable with the assumption that the $^{14}C/^{12}C$ ratio remained relatively constant over an 8 1/2 thousand year time frame from 6500 BC through to 2000 AD.  And thus they simply used the 2000 AD measurement of the $^{14}C/^{12}C$ ratio as the basis for determining the radiocarbon age of the samples submitted for testing, and equated "radiocarbon years" and "calendar years" for the whole of that time frame, including for the years supposedly represented by the Mesopotamian samples.  But we are not comfortable with their assumptions and so we make our own, based largely on Fact #1 stated above.  Here is what we believe/assume to be a vastly superior (if not 100% accurate) representation of the facts. Two points should be sufficient to explain our reasoning.

1.  When God created animal and plant life in 4114 BC he first made adjustments to the atmosphere, ensuring that a canopy of water vapor surrounded the earth, ostensibly to protect human life from the damaging effects of cosmic radiation, thus adding centuries to human life expectancy.  It is a well-known fact that water is one of the best insulators against cosmic radiation, so much so that NASA is

contemplating using water in the shell of the planned Mars explorer to protect the astronauts as they pass through the Van Allen radiation belts that surround the earth.  One of the side effects of this insular property of the water canopy, and its limiting effect on the penetration of cosmic radiation into earth's atmosphere during those pre-flood years, was that very little $^{14}C$ was created.  We are in fact surprised that any $^{14}C$ build-up took place during the 1,656 years from creation to flood.  But as we will see momentarily, some radioactive carbon was formed and made its way into the cellular structure of both plants and animals.

2. With the arrival of the flood the water canopy disappeared and human life was exposed to the damaging effects of cosmic radiation.   Over the next half millennium life spans gradually reduced to what 21$^{st}$ century humans consider more typical levels, three score years and ten.  Genetic mutations increased dramatically.  Disease became commonplace.  And of course, levels of $^{14}C$ in the atmosphere immediately sky-rocketed upward.  We summarize these assumptions in Figure 3 below.  Explanation follows.

**Figure 3:  Timeline showing initial $^{14}C/^{12}C$ ratio assumptions made by "uniformitarian" scientists versus biblical "creationists".**
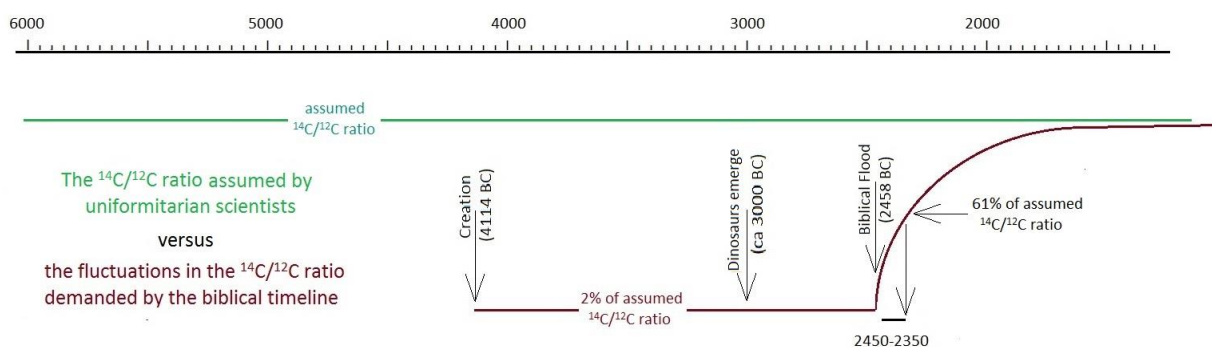


The assumption made by the scientific community at large is represented by the upper horizontal green line where the $^{14}C/^{12}C$ ratio remained constant over time, at roughly the measured level at the turn of the 21$^{st}$ century AD.  That line is *assumed* to extend for thousands of years in both directions.  For these scientists there was no special creation, no flood, no long-lived humans.  Plant and animal life is *assumed* to have existed for millions of years.

By contrast the *assumption* made by this author is that represented by the lower irregularly shaped red line, where the $^{14}C/^{12}C$ ratio begins around the year 4000 BC at an extremely low level compared to that which exists today.  The 2% figure is an educated guess, chosen because it explains a situation we will document in the following section.  The fact that this level remains constant for the entire antediluvian era is merely a reflection of our belief that the extreme length of human life (and by extension the strength of the cosmic radiation in the atmosphere and the associated production of $^{14}C$) remained relatively constant for that length of time

*There is really only one difference between the two interpretive positions.  The green line is supported by absolutely no historical or scientific evidence.  It is pure conjecture.  The red line is supported by the Hebrew Bible tradition which in turn is supported by the Egyptian and Mesopotamian (Sumerian, Babylonian and Assyrian) timelines and a mass of inscriptional material of these nations, i.e by the written traditions of the oldest known civilizations on earth.*  And where organic remains are dated by the red line, as opposed to the green line, the results turn out to be precisely what the Hebrew Bible tradition demands.  The Mesopotamian cultures are a case in point.

We are informed by the various Wikipedia articles related to the four primary Mesopotamian cultures that when artifacts from the respective habitation sites were submitted for radiocarbon dating the oldest remains dated to 6500 BC (or thereabouts).   That is equivalent to saying that the submitted samples that were assigned this date were approximately 8,450-8,500 radiocarbon years old, depending when those particular radiocarbon tests were conducted late in the 20th century.  From our Table 1 on page 8 we are able to determine at a glance that a "time lapse" of between 8,450 and 8500 years would be determined when the percentage of the $^{14}C$ in the sample is assumed to have decayed to between 50 and 25 percent of its original value.  To be more specific, we can use the radiocarbon dating formulae and determine that a radiocarbon age of around 8500 years would be registered only if the test determined that the sample had decayed to about 36% of its *assumed original value*.  Lower the estimated original value and the radiocarbon age would be reduced accordingly.  Lower it by precisely 39% (i.e. to 61 % of the original estimated value) and the formulas tell us that the radiocarbon age of the sample would be reduced from ca 8,500 years to

ca 4,360 years, and the calendar year accordingly from 6,500 BC to 2,360 BC. We have illustrated this precise situation in our Figure 3 chart (simply follow the two arrows at the extreme right of the diagram while keeping in mind that the chart is very crudely constructed).

The figures we have just quoted, in combination with our Figure 3, justify our claim that the Mesopotamian cultures do not predate the biblical flood, and therefore certainly do not predate creation. And consequently our claim that there is no evidence of the existence of plant and animal life prior to 4114 BC remains viable, at least back to the time of the flood in 2458 BC. But the question may legitimately be asked – what about the time frame before the flood? According to scientists plant and animal life dates back multiple hundreds of millions of years. Those early life forms have certainly left behind a legacy, in the form of coal and oil and natural gas, and organic carbonated remains such as diamonds, and above all skeletal material, which fills museums around the world, replete with informational plaques descriptive of their vast ages. Dinosaurs, of course, are a favorite topic of discussion, and one can scarcely see a week go by without hearing the media mention the demise of the dinosaurs, the event dated approximately 65 million years ago.

### B. Dating of the remains of organic matter created in the antediluvian age (4114-2458 BC).

Clearly we reject out of hand the claims that coal, oil, natural gas, diamonds & the bones of dinosaurs must be dated hundreds of thousands, much less hundreds of millions of years in the past. **There is simply no scientific evidence that remotely supports those bizarre claims!** Those assertions are not simply misguided; they are outright fraudulent. Innumerable scientific reputations have been made and defended by stating and restating outlandish theories of the great antiquity of plant and animal life. Would that we could view the supposed evidence, if only to hold it up for scrutiny. Alas, none exists. Instead, a search for proof of antiquity quickly uncovers incontrovertible evidence that all of these items, and many others like them, were created in the antediluvian age, sometime between 4114 BC and 2458 BC. And as the reader of this paper can probably guess, the proof is to be found in the theory of radiocarbon dating.

Twice already we have stated in this paper, once on page 9 and again on page 12, a fact acknowledged to be true by every scientist on earth.  We repeat it here for the third time:

> **If a measurable amount of <sup>14</sup>C is found in a test sample, it must be assumed that the sample is not appreciably older than 50,000 years (100,000 years being an extreme upper limit).**

Again we ask an obvious question.  What is there about that simple statement that is so hard for scientists to grasp?  If you want to disprove a claim that dinosaurs once existed several hundred million years ago, and died out around 60 million years ago, all you need to do is find a single $^{14}$C atom in a radiocarbon test of a small sliver of dinosaur bone.  And the test has been done, repeatedly.  In each and every case a measurable amount of $^{14}$C has been discovered, resulting in radiocarbon dates in the vicinity of 25,000-45,000 years.  While this evidence absolutely disproves the widespread notion of dinosaurs roaming the earth 200 million years ago, and certainly negates the theory that the last dinosaur died out 65 million years ago, it conflicts seriously with our contention that the mammoth dinosaurs lived and died out in the time frame 4114-2458 BC.  In fact, in our next paper we will supply information that records their existence in the approximate year 3000 BC.  We will also discuss the fact that the giant dinosaurs of Jurrasic Park fame probably became extinct at the time of the flood in 2458 BC, though less massive dinosaur species persisted for millennia following the flood.

So how do we explain the dates 25,000-45,000 obtained from the radiocarbon testing of dinosaur bones?   And while we are at it, we may as well include the equally large numbers obtained from radiocarbon testing of coal, oil, natural gas and diamonds, all of which have been radiocarbon dated on multiple occasions, each time producing results which confirm that they are not hundreds of millions of years old as scientists claim.   We leave it to the reader to examine a sampling of the hundreds of online sites which document these radiocarbon tests.  [This linked article by Dr. Andrew Snelling will get you started.](  )  Our only interest here is to explain why substances created and deceased in the time span 4114-2458 BC can yield radiocarbon dates over ten times those numbers.

As it turns out, we have already explained the process by which the errant numbers are produced.  In our analysis of the Mesopotamian cultures we

explained how samples allegedly dated as old as 6500 BC actually should have been dated to the years 2360 BC and following.  The cause of the discrepancy – incorrect assumptions on the part of scientists as to the initial $^{14}C/^{12}C$ level in the samples being tested.  Let me explain once again how our Figure 3 green and red lines should be interpreted, this time in relation to the aforementioned antediluvian substances.  For this analysis we choose the dinosaur evidence.

When scientists subject dinosaur remains to radiocarbon testing they follow the green line in our chart on page 15.  If a radiocarbon test is done and a result is obtained which shows that the submitted sample contains only 1% of the assumed original amount of $^{14}C$, our Table 1 on page 8 tells us that the radiocarbon date assigned to the sample will lie somewhere between 34,380 and 40,000 years.  Use of the radiocarbon testing formulae allows us to be more specific.  A 1% reading will produce a radiocarbon date of 38,070 years, implying that the dinosaur in question died around 36,000 BC.   But if we follow the red line in our Figure 3, which assumes that the original $^{14}C$ value should be reduced to 2% of the scientific estimate, the radiocarbon test is actually showing a reduction in $^{14}C$ from 2% to 1%, i.e. a 50% reduction.   And we know, since we have  repeated the figure multiple times already in this article, that a reduction in the amount of $^{14}C$ by 50% means the sample is 5730 years old, and its calendar date is approximately 3730 BC.   Our calculations of course *assume* the accuracy of our 2% estimate for the initial $^{14}C/^{12}C$ ratio, but the assumption, once made, does explain the high numbers and reduce them to figures consistent with our 4114-2580 BC dates for the antediluvian age.  And as we explained earlier, we can at least provide justification for our "red line" estimate.  Scientists have absolutely no rationale to cite in defence of the "green line".

It is absolutely inconsequential that our arrow on the Figure 3 chart indicates that the dinosaurs were in existence around 3000 BC, while our hypothetical example in the preceding paragraph died around 3730 BC.  In the preceding paragraph we were dealing in ballpark figures.  The 2% level for the red line on that chart is just an educated guess.  Move it ever so slightly downward and 3730 BC date for the death of this hypothetical dinosaur will quickly move forward in time.  Move it slightly higher and the date will move back in time, but still within our antediluvian time frame, especially if we allow for some error in the radiocarbon testing procedure.  We have deliberately omitted discussion of multiple other

factors that influence the determination and interpretation of radiocarbon results, largely because they only marginally affect the result.

**Postscript**

We have consumed twenty pages arguing a case that might well have been concluded with a single paragraph, assuming the reader had some familiarity with radiocarbon dating and its limitations.  The method itself is relatively straightforward and foolproof, though both creationists and evolutionists are careful to raise all sorts of objections to its validity; creationists largely because they object to the fact that the method assigns calendar years to substances and artifacts that imply that they predate our hypothetical 4000 BC date for creation; scientists because the method absolutely condemns their belief that plants and animals (including humans) were alive and well millions of years in the past.  But our brief analysis in this paper should inform creationists that they have nothing to fear from the methodology.   It is the scientific community that should hang its collective head in shame.  So fearful are scientists of radiocarbon dating that it is virtually impossible in the 21$^{st}$ century to get a radiocarbon laboratory to perform a radiocarbon dating of substances like coal or oil or dinosaur bones.  They decline to perform such tests on the grounds that the assumed age of the substance lies far beyond the limitations of the radiocarbon dating methodology, this in spite of the fact that they know the test will produce valid datable results.  Let the reader decide the real reason for their reluctance.