# Chapter 6

## INACCURATE DATING METHODS

### *Why the non-historical dating techniques are not reliable*

***This chapter is based on pp. 183-221 of Origin of the Universe (Volume One of our three-volume Evolution Disproved Series). Not included in this chapter are at least 62 statements by scientists. You will find them, plus much more, on our website: evolution-facts.org.***

Several methods for dating ancient materials have been developed. This is an important topic; for evolutionists want the history of earth to span long ages, in the hope that this will make the origin and evolution of life more likely.

**Therefore we shall devote an entire chapter to a discussion of every significant method, used by scientists today, to date ancient substances.**

### 1 - RADIODATING

**MAJOR DATING METHODS—Several types of dating methods are used today.** Chief among them are:

(1) **Uranium-thorium-lead dating**, based on the disintegration of uranium and thorium into radium, helium, etc., and finally into lead.

(2) **Rubidium-strontium dating,** based on the decay of rubidium into strontium.

(3) **Potassium-argon dating**, based on the disintegration of potassium into argon and calcium.

In this chapter, we shall discuss the strengths and weaknesses

of each of these dating methods.

There is a basic pattern that occurs in the decay of radioactive substances. In each of these disintegration systems, the *parent* or original radioactive substance gradually decays into *daughter substances.* This may involve long *decay chains*, with each daughter product decaying into other daughter substances, until finally only an *inert element* remains that has no radioactivity. In some instances, the parent substance may decay directly into the end product. Sometimes, the radioactive chain may begin with an element partway down the decay chain.

A somewhat different type of radioactive dating method is called **carbon 14-dating** or **radiocarbon dating**. It is based on the formation of radioactive elements of carbon in the atmosphere, by cosmic radiation, and their subsequent decay to the stable carbon isotope. We will also discuss radiocarbon dating in this chapter.

**SEVEN INITIAL ASSUMPTIONS—**At the very beginning of this analysis, we need to clearly understand a basic fact: **Each of these special dating methods can only have accuracy IF (if!) certain assumptions ALWAYS (always!) apply to EACH specimen that is tested.**

***Here are seven of these fragile assumptions:***

(1) **Each system has to be a closed system; that is, nothing can contaminate any of the parents or the daughter products while they are going through their decay process**—or the dating will be thrown off. Ideally, in order to do this, each specimen tested needs to have been sealed in a jar with thick lead walls for all its previous existence, supposedly millions of years!

But in actual field conditions, there is no such thing as a closed system. One piece of rock cannot for millions of years be sealed off from other rocks, as well as from water, chemicals, and changing radiations from outer space.

(2) **Each system must initially have contained none of its daughter products.** A piece of uranium 238 must originally have had no lead or other daughter products in it. If it did, this would give a false date reading.

But this assumption can in no way be confirmed. It is impossible to know what was initially in a given piece of radioactive mineral. Was it all of this particular radioactive substance or were some other indeterminate or final daughter products mixed in? We do not know; we cannot know. Men can guess; they can apply their assumptions, come up with some dates, announce the consistent ones, and hide the rest, which is exactly what evolutionary scientists do!

(3) **The process rate must always have been the same. The decay rate must never have changed.**

Yet we have no way of going back into past ages and ascertaining whether that assumption is correct.

Every process in nature operates at a rate that is determined by a number of factors. These factors can change or vary with a change in certain conditions. Rates are really statistical averages, not deterministic constants.

The most fundamental of the initial assumptions is that all radioactive clocks, including carbon 14, have always had a constant decay rate that is unaffected by external influences—now and forever in the past. But **it is a known fact among scientists that such changes in decay rates can and do occur. Laboratory testing has established that such resetting of specimen clocks does happen.** Field evidence reveals that decay rates have indeed varied in the past.

**The decay rate of any radioactive mineral can be altered [1] if the mineral is bombarded by high energy particles from space** (such as *neutrinos*, *cosmic rays*, etc.); [2] **if there is, for a time, a nearby radioactive mineral emitting radiation**; [3] **if physical pressure is brought to bear upon the radioactive mineral; or [4] if certain chemicals are brought in contact with it.**

(4) One researcher, *John Joly of Trinity College, Dublin, spent years studying pleochroic halos emitted by radioactive substances. In his research **he found evidence that the long half-life minerals have varied in their decay rate *in the past*!**

> "His [Joly's] suggestion of varying rate of disintegration of uranium at various geological periods would, if correct, set aside all possibilities of age calculation by radioactive methods."—**A.F.*

*Kovarik, "Calculating the Age of Minerals from Radioactivity Data and Principles," in Bulletin 80 of the National Research Council, June 1931, p. 107.*

(5) **If any change occurred in past ages in the blanket of atmosphere surrounding our planet, this would greatly affect the clocks in radioactive minerals.**

*Cosmic rays, high-energy mesons, neutrons, electrons, protons,* and *photons* enter our atmosphere continually. These are atomic particles traveling at speeds close to that of the speed of light. Some of these rays go several hundred feet underground and 1400 meters [1530 yards] into the ocean depths. The blanket of air covering our world is equivalent to 34 feet [104 dm] of water, or 1 meter [1.093 yd] thickness of lead. **If at some earlier time this blanket of air was more heavily water-saturated, it would produce a major change—from the present rate,—in the atomic clocks within radioactive minerals.** Prior to the time of the Flood, there was a much greater amount of water in the air.

(6) The Van Allen radiation belt encircles the globe. It is about 450 miles [724 km] above us and is intensely radioactive. According to *Van Allen, high-altitude tests revealed that it emits 3000-4000 times as much radiation as the cosmic rays that continually bombard the earth.

**Any change in the Van Allen belt would powerfully affect the transformation time of radioactive minerals.** But we know next to nothing about this belt—what it is, why it is there, or whether it has changed in the past. In fact, the belt was only discovered in 1959. Even small amounts of variation or change in the Van Allen belt would significantly affect radioactive substances.

(7) **A basic assumption of all radioactive dating methods is that the clock had to start at the beginning; that is, no daughter products were present, only those elements at the top of the radioactive chain were in existence.** For example, all the uranium 238 in the world originally had no lead 206 in it, and no lead 206 existed anywhere else. But if either Creation—or a major worldwide catastrophe (such as the Flood) occurred, everything would begin thereafter with, what scientists call, an *"appearance of age."*

By this we mean "appearance of maturity." **The world would be seen as mature the moment after Creation.** Spread before us would be a scene of fully grown plants and flowers. Most trees would have their full height. We would not, instead, see a barren landscape of seeds littering the ground. We would see full-grown chickens, not unhatched eggs. **Radioactive minerals would be partially through their cycle of half-lives on the very first day.** This factor of initial *apparent age* would strongly affect our present reading of the radioactive clocks in uranium, thorium, etc.

Evolutionary theorists tell us that originally there was only uranium, and all of its daughter products (radioactive isotopes farther down its decay chain) developed later. But "appearance of maturity" at the Creation would mean that, much of the elements, now classified by evolutionists as "daughter products," were actually original—not daughter—products and were already in the ground along with uranium instead of being produced by it. **We already know, from Robert Gentry's studies, that *original* (primordial) polonium 218 was in the granite when that granite initially came into existence suddenly and in solid form**; yet polonium is thought by evolutionists to only occur as an eventual daughter product of uranium disintegration.

**TWENTY DATING METHODS—***We have looked at the basic assumptions relied on by the radiodating experts;* ***now let us examine the primary dating methods.***

***Here are the first twenty of them:***

(1) **Uranium-lead dating**
(2) **Thorium-lead dating**
(3) **Lead 210 dating**
(4) **Helium dating**
(5) **Rubidium-strontium dating**
(6) **Potassium-argon dating**
(7) **Potassium-calcium dating**
(8) **Strata and fossil dating**, as it relates to radiodating, will be briefly considered; although we will discuss rock strata dating in much more detail in chapters 12 and 14 *(Fossils and Strata* and *Effects of the Flood).*

In addition, there are three dating methods used to date ancient plant and animal remains:

(9) **Radiocarbon (carbon 14) dating**
(10) **Amino acid decomposition dating**
(11) **Racemization dating**

Lastly, we will briefly overview several other supposed "dating methods" which, although not expected to provide much accuracy in dating, are still used in an attempt to postulate long ages for earth's history:

(12) **Astronomical dating**
(13) **Paleomagnetic dating** has gained prominence in the past few decades. Because this present chapter is already quite long, we planned to fully deal with paleomagnetic dating in chapter 20 of this book; but, for lack of space, the greater portion of that material will be found in chapter 26 on our website.
(14) **Varve dating**
(15) **Tree ring dating**
(16) **Buried forest strata dating**
(17) **Peat dating**
(18) **Reef dating**
(19) **Thermoluminescence dating**
(20) **Stalactite dating**

***In the remainder of this chapter, we will consider each of these 20 dating methods:***

***1*—URANIUM-LEAD DATING—**Because of similarities in method and problems with uranium and thorium dating, we will frequently refer to both under the category of uranium dating.

**Three main types of uranium/thorium dating** are included here:

(1) **Uranium 238 decays to lead 206**, with a half-life of 4.5 billion years.
(2) **Uranium 235 decays to lead 207**, with a half-life of 0.7 billion years.
(3) **Thorium 232 decays to lead 208**, with a half-life of 14.1 billion years.

These three are generally found together in mixtures, and each one decays into several daughter products (such as radium) before becoming lead.

**FIVE URANIUM/THORIUM DATING INACCURACIES—*Here are some of the reasons why we cannot rely on radioactive dating of uranium and thorium:***

(1) **Lead could originally have been mixed in with the uranium or thorium.** This is very possible, and even likely. It is only an assumption that integral or adjacent lead could only be an end product.

In addition, ***common lead (lead 204),* which has no radioactive parent, could easily be mixed into the sample and would seriously affect the dating** of that sample. *Adolph Knopf referred to this important problem *(*Scientific Monthly, November 1957).* *Faul, a leading authority in the field, recognized it also *(*Henry Faul, Nuclear Geology, 1954, p. 297).*

When a uranium sample is tested for dating purposes, it is assumed that the entire quantity of lead in it is *"daughter-product lead"* (that is, the end-product of the decayed uranium). The specimen is not carefully and thoroughly checked for possible *common lead* content, because it is such a time-consuming task. Yet it is that very uranium-lead ratio which is used to date the sample! The same problem applies to thorium samples.

(2) Leaching is another problem. **Part of the uranium and its daughter products could previously have leached out.** This would drastically affect the dating of the sample. Lead, in particular, can be leached out by weak acid solutions.

(3) **There can be inaccurate lead ratio comparisons, due to different types of lead within the sample.** Correlations of various kinds of lead (lead 206, 207, etc.) in the specimen is done to improve dating accuracy. But errors can and do occur here also.

Thus, we have here astounding evidence of the marvelous unreliability of radiodating techniques. **Rock known to be less than 300 years old is variously dated between 50 million and 14.5 billion years of age! That is a 14-billion year error in dating!**

Yet such radiodating techniques continue to be used in order to prove long ages of earth's existence. A chimpanzee typing numbers at random could do as well.

Sample datings from a single uranium deposit in the Colorado Caribou Mine yielded an error spread of 700 million years.

(4) Yet **a fourth problem concerns that of *neutron capture.*** *Melvin Cooke suggests that the **radiogenic lead isotope 207** (normally thought to have been formed only by the decay of uranium 235) **could actually have been formed from lead 206, simply by having captured free neutrons from neighboring rock.** In the same manner, lead 208 (normally theorized as formed only by thorium 232 decay) could have been formed by the capture of free neutrons from lead 207. Cooke checked out this possibility by extensive investigation and came up with a sizeable quantity of data indicating that **practically all radiogenic lead in the earth's crust could have been produced in this way instead of by uranium or thorium decay!** *This point alone totally invalidates uranium and thorium dating methods!*

(5) **A fifth problem deals with the origin of the rocks containing these radioactive minerals.** According to evolutionary theory, the earth was originally molten. But, if true, **molten rocks would produce a wild variation in clock settings** in radioactive materials.

> "Why do the radioactive ages of lava beds, laid down within a few weeks of each other, differ by millions of years?"—*Glen R. Morton, Electromagnetics and the Appearance of Age.*

It is a well-known fact, by nuclear researchers, that **intense heat damages radiodating clock settings;** yet the public is solemnly presented with dates of rocks indicating long ages of time when, in fact, the evolutionary theory of the origin of rocks would render those dates totally useless.

**2—THORIUM-LEAD DATING—*A majority of the flaws discussed under uranium-lead dating, above, apply equally to thorium-lead dating.***

The half-lives of uranium 238, 235, and thorium 232 are supposedly known, having been theorized. But **whenever dates are**

**computed using thorium,—they always widely disagree with uranium dates! No one can point to a single reason for this. We probably have here a cluster of several major contamination factors; and all of these contamination factors are beyond our ability to identify,** much less calculate. To make matters worse, contaminating factors common to both may cause different reactions in the thorium than in the uranium! *(*Henry Faul, Nuclear Geology, p. 295).*

> "The two uranium-lead ages often differ from each other markedly, and the thorium-lead age on the same mineral is almost always drastically lower than either of the others."—**L.T. Aldrich, "Measurement of Radioactive Ages of Rocks," in Science, May 18, 1956, p. 872.*

***3-4*—LEAD 210 AND HELIUM DATING—**Two other methods of dating uranium and thorium specimens should be mentioned.

First, there is ***uranium-lead 210 dating***. Lead 210 is frequently used to date uranium.

Second is the ***uranium-helium method***. Helium produced by uranium decay is also used for the same dating purpose.

But the **lead 210 method is subject to the very same entry or leaching problems mentioned earlier. Helium leakage is so notorious as to render it unfit** for dating purposes.

Uranium and thorium are only rarely found in fossil-bearing rocks; so **recent attention has been given to rubidium dating and two types of potassium dating, all of which are radioactive isotopes of alkali metals and are found in fossil rocks.** *Let us now consider both of these:*

***5*—RUBIDIUM-STRONTIUM DATING—**Rubidium 87 gradually decays into strontium 87.

***Rubidium:*** All aside from leaching and other contamination, **the experts have so far been unable to agree on the length of a rubidium half-life. This renders it useless for dating purposes.** This is because the samples vary so widely. *Abrams compiled a list of rubidium half-lives suggested by various research specialists. **Estimates, by the experts, of the half-life of rubidium varied between 48 and 120 billion years! That is a variation spread of 72 billion years: a number so inconceivably large as to ren-**

**der Rb-Sr dating worthless.**

***Strontium:*** In addition, only a very small amount of strontium results from the decay; and **much of the strontium may be non-radiogenic, that is, not caused by the decay process. This is due to the fact that strontium 87 is easily leached from one mineral to another, thus producing highly contaminated dating test results.**

Granite from the Black Hills gave strontium/rubidium and various lead system dates varying from 1.16 to 2.55 billion years.

***6*—POTASSIUM-ARGON DATING—**Radioactive potassium decays into calcium and argon gas. Great hopes were initially pinned on this, for ***potassium occurs widely in fossil-bearing strata!*** But they were greatly disappointed to discover: (1) **Because of such wide dating variations, they could not agree on potassium half-life.** (2) **The rare gas, argon, quickly left the mineral and escaped** into other rocks and into the atmosphere *(*G.W. Wetherill, "Radioactivity of Potassium and Geologic Time," Science, September 20, 1957, p. 545).*

Since it is a gas, argon 40 can easily migrate in and out of potassium rocks *(*J.F. Evernden, et al., "K/A Dates and the Cenozoic Mammalian Chronology of North America," American Journal of Science, February 1964, p. 154).*

Not only is argon an unstable gas, but potassium itself can easily be leached out of the rock. *Rancitelli and *Fisher explain that 60 percent of the potassium can be leached out of an iron meteorite by distilled water in 4.5 hours *(*Planetary Science Abstracts, 48th Annual Meeting of the American Geophysical Union, 1967, p. 167).*

Rainwater is distilled water. In heavy downpours, fairly pure rainwater can occasionally trickle down into deeper rock areas. When it does, **rainwater transfers potassium from one location to another.**

Another problem is that **potassium-argon dating must be calculated by uranium-lead dating methods! This greatly adds to the problem, for we have already seen that uranium dating is itself extremely unreliable!** This is something like the blind leading the blind.

In view of such information, **it is a seemingly unbelievable—but true—fact that K/A (potassium-argon) dating is, at the present time, a key dating method used in developing and verifying advanced evolutionary theories.** (See *Paleomagnetism,* briefly discussed in Chapter 20.*)* **The long ages applied to the major new theory of *"seafloor spreading"* is based entirely on potassium-argon dates in basalts (lava) taken from the ocean bottom.** You will frequently read articles about potassium-argon dating projects.

Submerged volcanic rocks, produced by lava flows off the coast of Hawaii near Hualalai, in the years 1800-1801, were dated using potassium-argon. **The lava forming those rocks is clearly known to be less than 200 years old; yet the potassium-argon dating of the rocks yielded great ages, ranging from 1.60 million to 2.96 billion years!** *(See *Science, October 11, 1968; *Journal of Geophysical Research, July 15, 1968).*

**Potassium is found in most igneous (lava), and some sedimentary (fossil-bearing), rocks.** In spite of its notorious inaccuracy, to this day potassium-argon dating continues to be the most common method of radioactive dating of fossil-bearing rock strata.

**Only those radioactive dates are retained, which agree with the 19th-century geologic column dating theories.** Research workers are told just that! *(*L.R. Stieff, *T.W. Stern and *R.N. Eichler, "Evaluating Discordant Lead-Isotope Ages," U.S. Geological Survey Professional Papers, 1963, No. 414-E).*

*7*—**POTASSIUM-CALCIUM DATING**—If possible, **the situation is even worse** for dating with this method. Radioactive potassium decays to both argon and calcium (calcium 40). But **the problem here is that researchers cannot distinguish between calcium 40 and other calciums because the two are so commonly and thoroughly intermixed. The argon is of little help, since it so rapidly leaches out.**

**PROBLEMS WITH ALL RADIODATING METHODS** —The rocks brought back from the moon provided an outstanding test for the various dating methods—because all those techniques were used on them. The results were a disaster.

**The age spread of certain moon rocks varied from 2 million to 28 billion years! Now scientists are arguing over the results.** Some say the moon is 2 million years old while others say it is 28 billion years old. We have here a weighty scientific problem, and a headache for evolutionists. (For more on this, see **Proceedings of the Second, Third and Fourth Lunar Conferences; Earth and Planetary Science Letters, Volumes 14 and 17.)*

Yet there is clear-cut non-radiogenic evidence that the moon is less than 10,000 years old. (See chapter 4, *Age of the Earth).* In contrast with these inaccurate dating methods, *scientific facts,* such as the almost total lack of moon dust, lunar soil mixing, presence of short half-life U-236 and Th-230 in moon rocks, low level of inert gases, and lunar recession,—provide strong evidence that the moon is less than 10,000 years old. (See chapter 4, *Age of the Earth.)*

**EMERY'S RESEARCH—In order for a radioactive clock to be usable, it has to run without variation.** But ***G.T. Emery has done careful research on radiohalos (pleochroic halos) and found that they do not show constant decay rates.** When the long half-life radiohalos (made by uranium, thorium, etc.) are examined, the time spans involved show inaccuracies in the decay rates.

**JUST ONE CATASTROPHE—**As *Jeaneman explains so well, **just one major catastrophe—such as a worldwide Flood—would have ruined the usefulness of all our radiodating clocks.**

Why would a single worldwide catastrophe reset all the atomic clocks? *First,* **there would be massive contamination problems**, as fluids, chemicals, and radioactive substances flowed or were carried from one place to another. *Second,* there would be **major radioactive rate-changing activities (atmospheric, radioative, and magnetic changes)** which would tend to reset the clocks directly. *Third,* a **major shifting and redistribution of rock pressure** occurring above radiogenic rocks would reset their clocks. *Fourth,* there would be **reversals of earth's magnetic core**, which was caused by the shock-wave vibrations through that fluid core from what was happening closer to the surface, including volcanoes, earthquakes, gigantic geysers, seafloor sinking, and massive

mountain building—see chapter 14 *(Effects of the Flood)* and chapter 20 *(Tectonics and Paleomagetism)*.

Now read this:

**FIVE WAYS TO CHANGE THE RATES—**Careful laboratory tests by ***H.C. Dudley** revealed that external influences can very definitely affect decay rates. **He CHANGED (!) the decay rates of 14 different radioisotopes by means of pressure, temperature, electric and magnetic fields, stress in monomolecular layers, etc.** The implications of this are momentous, even astounding! *(See *H.C. Dudley, "Radioactivity Re-Examined," Chemical and Engineering News, April 7, 1975, p. 2.)* The sedimentary rock strata were laid down under massive pressure. This involved great stress. (See chapter 12, *Fossils and Strata,* for more on both points.) Dramatic temperature changes occurred shortly after the strata were laid down; and Earth's iron core was disturbed to such an extent, that magnetic reversals occurred at the poles (see *Paleomagnetism,* on our website). Yet ***Dudley showed that each of these forces would have dramatically affected the clocks within radioactive rocks.**

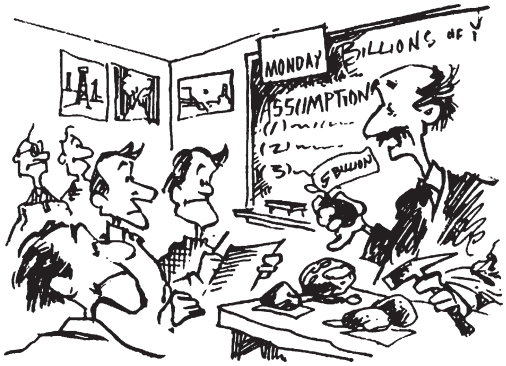
Immense forces were at work, during and just after the Flood, that could and did affect the constancy of radioactive half-lives—which, in turn, are the only basis for radiodating methods!

**The consequence is inaccurate dating results which are not reliable and which cannot be reset—since their earlier settings are not now known.**

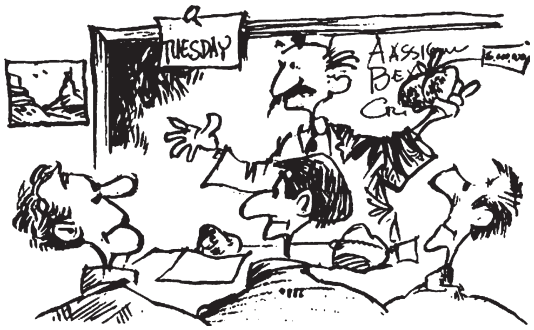
**Time* magazine (June 19, 1964) reported an intriguing item which was overlooked by much of the scientific community. **Although scientists generally consider that no known force can change the rate of atomic disintegration of radioactive elements,—researchers at Westinghouse laboratories have actually done it.** How did they do it? Simply by placing inactive "dead" iron next to radioactive iron. The result was that the disintegration rate was altered!

Radioactive iron will give off particles for a time and then lapse into an inactive state. When the researchers placed radioactive iron next to inactive iron, the inactive iron gradually became active. In

"I'm working on what I call a *'space-time-theory continuum.'* The idea is to come up with a theory which will make TIME itself able to invent new life forms! This will prove Charlie's theory!"

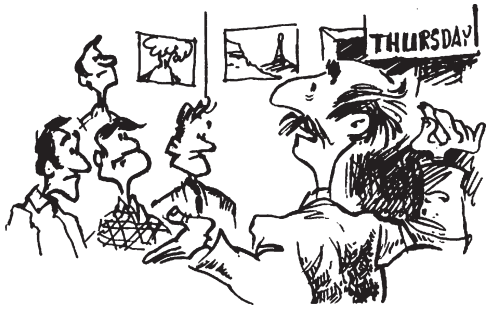



"By using dozens of assumptions, we're able to to assign billions of years to rocks. We do this to prove that life forms gradually evolved from nothing."

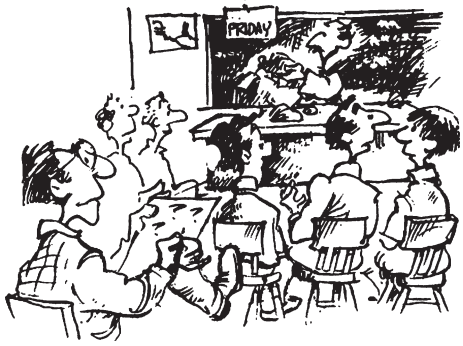



"How do we date rocks? It's easy. First, we assign various assumptions to each dating method to bring them into alignment with strata dating. Then we examine each individual rock, and apply or leave out a variety of special assumptions to it. The research conclusions really look good in print."


"What do we do about possible past contamination that could easily produce great errors in rock specimen dating?" "Oh, we don't worry about that. We must assume that contamination did not happen."




"You're worried about how to make the specimen datings fit? Nothing to be concerned about. It's all been worked out in advance. Simply look in the textbooks and find what the date should be, and then select from among the listed assumptions those that will bring the date of that particular rock or fossil into line."




"*Anomalies,* you ask; what do we do with anomalies? Those are the rock and fossil samples which we can't jam into line with the dating theory. Well, they require a special technique: Stick them into a back drawer and forget them."

this way, the apparent age of the radioactive iron was changed by about 3 percent while the clock of the previously inactive iron was returned to its original radioactive mass. Its clock was set back to zero!

If so much variation can be accomplished in small lab samples, think what has been taking place out in the field. All that, in this case, would be required would be for radioactive lead solutions to flow by and coat inactive lead.

## 2 - ROCK STRATA DATING

***8***—**STRATA AND FOSSIL DATING—**In two later chapters *(Fossils and Strata* and *Effects of the Flood),* we will discuss the strata dating method in detail. We will here discuss only its relationship to radioactive dating methods—**and learn that there are no relationships!**

**There are only three primary methods of long-ages dating: (1) *fossil-bearing rock strata,* (2) *radioactive dating,* and (3) carbon-14 dating.**

In the chapter on *Fossils,* we will discover that **dating rocks by their fossils is based on circular reasoning:** (1) **Each strata is a certain age because of certain key fossils in it**; (2) **the fossils in the strata are a certain age because evolutionary theory says they should be that certain age**, and also because they are in rock strata said to be that age. Thus, fossil/strata-dating methods are hopelessly foundered.

**Yet fossil/strata dating is crucial to the evolutionary theory! Without it, the whole thing collapses!** (1) None of the other dating methods (the twelve methods discussed in this present chapter) are reliable either, but instead are in continual conflict with one another and with fossil/strata dating conclusions. (2) **The 19th-century dating theory was applied to the fossils and strata; and evolutionists in later decades are required to bring their dates into alignment with those dates theorized over a century ago! Yet it cannot be done.** This is a most serious problem.

In chapter 12 *(Fossils and Strata),* we shall discuss in detail the problems associated with fossil and strata dating. But **let us right now put to rest a frequently stated misconception: that radio-**

**dating methods have successfully dated and positively established as reliable the dating system conjectures in the so-called "geologic column" of rock strata.** ***That is not true!***

**ONLY THREE USEABLE TEST RESULTS—**In reality, it is impossible to date sedimentary rock strata and the fossils within it by radioactive mineral dating. In fact, radiodating is so conflicting in its results, that, out of hundreds of thousands of tests,—**ONLY THREE test results have agreed sufficiently with evolutionary theory to be used as "norms." Each of these, of course, could only apply to a single stratum.**

**Out of tens of thousands of tests only three radioactive samples have been found to be near enough to rock strata age theories to be useable**,—and two of them are just interpolated guesses based on "strata thickness." **Evolutionists use but three undiscarded radiodatings to vindicate the reliability of the hundred-year-old strata and fossil dating theory!**

**INTERLOCKING IMAGININGS—***A brief historical review will help explain the situation:*

(1) Early in the 19th century, evolutionists decided that fossils in certain rock strata should be such-and-such an age.

(2) So they gave the strata containing those fossils dates which would match their fossil age theories.

(3) Then they announced that they had thought up the dates by peering at so-called *"index fossils."*

(4) They declared that they could now prove the ages of the fossils in the rocks—by the rock strata they were in. Thus, **they started out by dating the strata by imagined dates for fossils; and they ended up dating the fossils by applying those imagined dates to the strata!**

**This circular reasoning pattern has continued on down to the present day in regard to the dating of fossils and strata.**

But then, as the 20th century began, radioactive mineral dating began to be discovered. **Repeatedly, scientists have tried to correlate radioactive dating with the dates they applied to fossils and strata a century before radiodating was known. But they have not been able to do so. Out of literally thousands of tests,**

## *NOT DATING METHODS - BUT A STUDY IN CONFUSION*

**1 - NO ROCK IN THE WORLD IS A CLOSED SYSTEM**
They all can and probably have been contaminated

**2 - DECAY RATES COULD HAVE BEEN DIFFERENT IN THE PAST**
Under varying conditions, we have already found evidence of change in the present—and Joly found changes in the past

**3 - DAUGHTER PRODUCTS COULD EASILY HAVE BEEN PRESENT IN THE BEGINNING**
An original intermingling of such products would nullify present attempts to date by daughter products

**4 - UNKNOWN CHANGES IN PAST ENVIRONMENTS COULD RUIN OUR FINELY-DRAWN ASSUMPTIONS**
There is no way of knowing exactly what each local past environment was like

**5 - HIGH ENERGY PARTICLES, NEARBY RADIOACTIVE MINERALS, OR CONTACT WITH CERTAIN CHEMICALS**
could earlier have significantly altered decay rates

**6 - EARLIER CHANGES IN THE ATMOSPHERE WOULD HAVE GREATLY AFFECTED DECAY RATES**
No one knows whether the earlier atmosphere was identically like our present one

**7 - THE DECAY CLOCKS DID NOT HAVE TO START AT THE BEGINNING OF THEIR CHAINS**
Daughter products could have been present in the beginning

**8 - LEAD COULD ORIGINALLY BEEN MIXED IN WITH THE URANIUM OR THORIUM**
It is only an assumption that all the lead could only be an end-product

**9 - COMMON LEAD 9 (PB-204) COULD HAVE BEEN MIXED IN**
This would also seriously affect the dating

**10 - LEACHING COULD EASILY HAVE OCCURRED IN PAST TIME**
Passing solutions could have carried away portions of daughter products

**11 - COMPARISONS OF LEAD RATIOS COULD BE INACCURATELY MADE**
**This could damage test results in five ways**

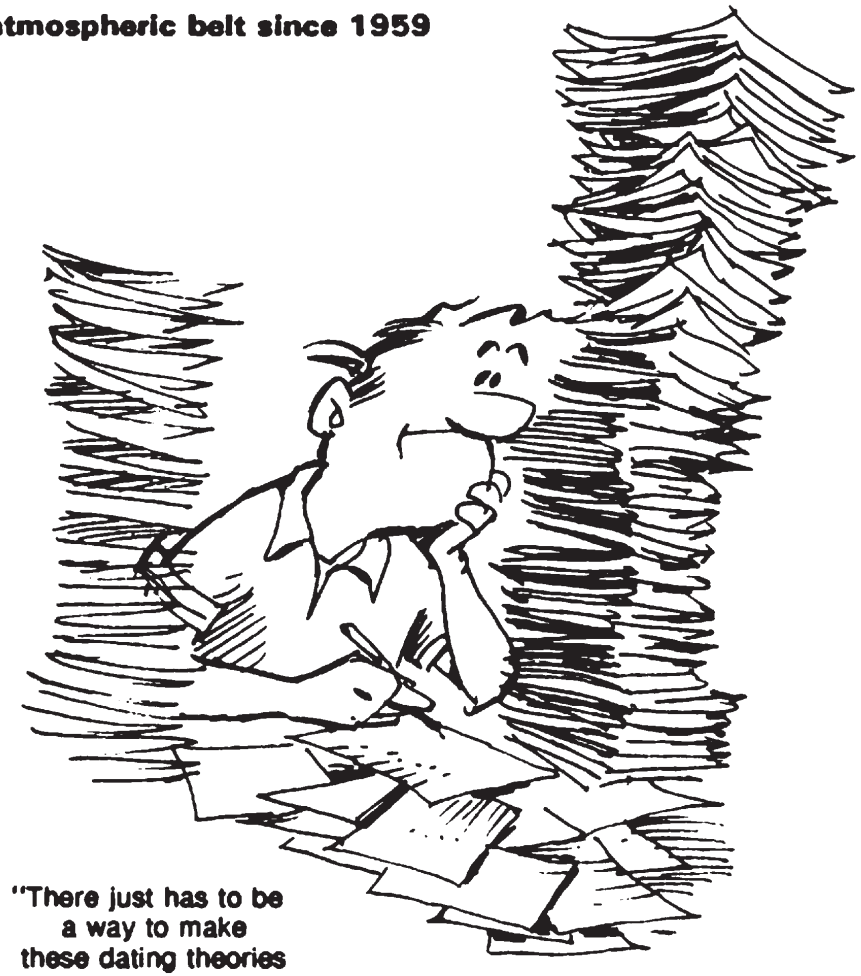
**12 - ANY EARLIER CHANGE IN THE VAN ALLEN BELT WOULD HAVE DECIDEDLY AFFECTED DECAY RATES**
**And we have only known of this high-atmospheric belt since 1959**

**13 - FREE NEUTRONS COULD BE CAPTURED FROM NEIGHBORING LEAD 206**
**Most radiogenic lead on earth could have been produced by neutron capture**

**14 - IF THE EARTH HAD ORIGINALLY BEEN MOLTEN, THIS WOULD HAVE RESULTED IN WIDE VARIATIONS IN CLOCK SETTINGS**
**Intense heat damages radiodating clock settings**

**15 - URANIUM DATES, THORIUM DATES, AND ALL THE OTHER DATING METHODS ALWAYS DISAGREE WITH ONE ANOTHER**
**This itself is strong evidence of the unreliability of the various methods**

**16 - SOME OF THE DAUGHTER PRODUCTS (SUCH AS ARGON) ARE GASES WHICH EASILY MIGRATE OUT OF THE ROCKS**
**Why then are these daughter products relied on for dating purposes?**



"There just has to be a way to make these dating theories work."

**they have been able to correlate only three of them:** the Colorado, Bohemian, and Swedish dates given in the *Knopf quotation [a lengthy statement we did not have room to include in this book]. **The evolutionists decided that three successes out of hundreds of thousands of test failures were enough to make their fossil/strata theory "scientific," by matching radiodating.** It is on this basis that evolutionary scientists now grandly proclaim that the fossiliferous strata have been dated by radioactive minerals! See chapter 12, *Fossils and Strata*, for much, much more on this.

**SOME DATING SAMPLES—***To conclude this section on radiodating problems, here are a few dating samples. Many, many, many more could have been cited!*

> "Sunset Crater, an Arizona Volcano, is known from tree-ring dating to be about 1000 years old. But potassium-argon put it at over 200,000 years *[*G.B. Dalrymple, '40 Ar/36 Ar Analyses of Historical Lava Flows,' Earth and Planetary Science Letters 6, 1969, pp. 47-55]*.
>
> "For the volcanic island of Rangitoto in New Zealand, potassium-argon dated the lava flows as 145,000 to 465,000 years old, but the journal of the Geochemical Society noted that 'the radiocarbon, geological and botanical evidence unequivocally shows that it was active and was probably built during the last 1000 years.' In fact, wood buried underneath its lava has been carbon-dated as less than 350 years old *[*Ian McDougall, *H.A. Polach, and *J.J. Stipp, 'Excess Radiogenic Argon in Young Subaerial Basalts from Auckland Volcanic Field, New Zealand,' Geochimica et Cosmochimica Acta, December 1969, pp. 1485, 1499]*.
>
> "Even the lava dome of Mount St. Helens [produced in 1980] has been radiometrically dated at 2.8 million years *[H.M. Morris, 'Radiometric Dating,' Back to Genesis, 1997]*."—*James Perloff, Tornado in a Junkyard (1999), p. 146.*

## 3 - RADIOCARBON DATING

**9—THE CARBON-14 CYCLE—***Willard F. Libby (1908-1980), working at the University of Chicago, discovered the carbon-14 dating method in 1946. This was considered to be a great breakthrough in the dating of remains of plants and animals of earlier times. **It is the special method used, by scientists, to date organic materials from earlier times in history.**

Cosmic rays that enter our atmosphere from outer space strike

the earth and transform regular nitrogen (nitrogen 14) to radioactive carbon (carbon 14). Carbon 14 has a half-life of about 5730 years. **This method of dating is called *carbon-14 dating, C-14 dating,* or *radiocarbon dating.*** Within about 12 minutes after being struck by cosmic rays in the upper atmosphere, the carbon 14 combines with oxygen, to become carbon dioxide that has carbon 14 in it. It then diffuses throughout the atmosphere and is absorbed by vegetation. (Plants need carbon dioxide in order to make sugar by photosynthesis.) Every living thing has carbon in it. While it is alive, each plant or animal takes in carbon dioxide from the air. Animals also feed on the vegetation and absorb carbon dioxide from it. There is some carbon 14 in all of that carbon dioxide. At death, the carbon 14 continues on with its radioactive decay. Theoretically, analysis of this carbon 14 can tell the date when the object once lived, by the percent of carbon-14 atoms still remaining in it.

*Libby's method involves counting the Geiger counter clicks per minute per gram of a dead material in order to figure out when that plant or animal died.

It sounds simple and effective, but in practice it does not turn out that way.

**MOST TEST RESULTS ARE TOSSED OUT—**Before we begin our study of radiocarbon dating, here is a quotation to think about:

> "It may come as a shock to some, but fewer than 50 percent of the radiocarbon dates from geological and archaeological samples in northeastern North America have been adopted as 'acceptable' by investigators."—**J. Ogden III, "The Use and Abuse of Radiocarbon," in Annals of the New York Academy of Science, Vol. 288, 1977, pp. 167-173.*

*Flint and *Rubin declare that radiocarbon dating is consistent within itself. What they do not mention is that **the published C-14 dates are only "consistent" because the very large number of radiocarbon dates which are not consistent are discarded!**

Two researchers from the University of Uppsala, Sweden, in their report to the Twelfth Nobel Symposium, said this:

> "C-14 dating was being discussed at a symposium on the prehistory of the Nile Valley. A famous American colleague, Professor Brew, briefly summarized a common attitude among archaeologists toward it, as follows: 'If a C-14 date supports our theories, we put

it in the main text. If it does not entirely contradict them, we put it in a footnote. And if it is completely 'out-of-date,' we just drop it."—*T. Save-Soderbergh and *Ingrid U. Olsson, "C-14 Dating and Egyptian Chronology," Radiocarbon Variations and Absolute Chronology, ed. *Ingrid U. Olsson (1970), p. 35 [also in *Pensee, 3(1): 44].

**THIRTEEN ASSUMPTIONS—**As mentioned above, radiocarbon dating was invented by *Willard Libby. From the beginning—and consistently thereafter—**he and his associates proceeded on the assumption that (1) the way everything is now, so it always has been, and (2) no contaminating factor** has previously disturbed any object tested with radiodating techniques.

The result is a nice, tidy little theory that is applied to samples, without regard for the immense uncertainties of how the past may have affected them individually and collectively. It is for this reason that *Libby was able to ignore all of a sample's past.

*Now let us consider **the underlying assumptions about radiocarbon dating** that are made in order to make it a workable method, even though not a reliable one.*

(1) **Atmospheric carbon:** For the past several million years, the air around us had the same amount of atmospheric carbon that it now has.

(2) **Oceanic carbon:** During that time, the very large amount of oceanic carbon has not changed in size.

(3) **Cosmic rays:** Cosmic rays from outer space have reached the earth in the same amounts in the past as now.

(4) **Balance of rates:** Both the rate of formation and rate of decay of carbon 14 have always in the past remained in balance.

(5) **Decay rates:** The decay rate of carbon 14 has never changed.

(6) **No contamination:** Nothing has ever contaminated any specimen containing carbon 14.

(7) **No seepage:** No seepage of water or other factor has brought additional carbon 14 to the sample since death occurred.

(8) **Amount of carbon 14 at death:** The fraction of carbon 14, which the living thing possessed at death, is known today.

(9) **Carbon 14 half-life:** The half-life of carbon 14 has been

accurately determined.

(10) **Atmospheric nitrogen:** Nitrogen is the precursor to Carbon 14, so the amount of nitrogen in the atmosphere must have always been constant.

(11) **Instrumentation and analysis:** The instrumentation is precise, working properly, and analytic methods are always carefully done.

(12) **Uniform results:** The technique always yields the same results on the same sample or related samples that are obviously part of the same larger sample.

(13) **Earth's magnetic field:** Earth's magnetic field was the same in the past as it is today.

***We have some big "ifs" in* the *above 13 assumptions!* In reality, <u>there is not one instance in which we can point to a C-14 sample and declare with certainty that EVEN ONE of those assumptions applies to it</u>.**

**LIBBY'S OTHER DISCOVERY—***Willard Libby's training was in science, not history; so **he and his co-workers were initially startled to learn that recorded history (actual historical events) only goes back to about 3000 B.C. They had been taught in school that it extended back 20,000 years!**

(We will learn in the chapter on *Ancient Man,* that the earliest dates of Egypt are based on the uncertain and incomplete king-lists of Manetho. The earliest Egyptian dates should probably be lowered to 2200 B.C.)

Like many other bright hopes that men had at last found a way to date things prior to 4300 years ago, radiocarbon dating has turned out to be just another headache to conscientious scientists.

**They work with a method that does not give accurate results. But they keep working, collecting data, and hoping for better dating methods at some future time.**

> "Well-authenticated dates are known only back as far as about 1600 B.C. in Egyptian history, according to John G. Read [*J.G. Read, Journal of Near Eastern Studies, Vol. 29, No. 1, 1970*]. Thus, the meaning of dates by Carbon 14 prior to 1600 B.C. is still as yet controversial."*—H.M. Morris, W.W. Boardman, and R.F. Koontz, Science and Creation (1971), p. 85.*

Aside from the few that can be checked by historical records, there is no way to verify the accuracy of C-14 dates.

**SIXTEEN RADIODATING PROBLEMS—*Here is a brief discussion of some of the serious hurdles to accuracy in C-14 (radiocarbon) dating:***

**(1) TYPE OF CARBON—Uncertainties regarding the type of carbon that may be in a given sample causes significant errors in dating.** As mentioned earlier, every living thing is full of carbon compounds, and includes some carbon 14. But, after death, additional radioactive carbon may have drifted into the sample. Few researchers take the exhaustive time needed to try and figure out which carbon is which. Frankly, in most instances, it would be impossible to be certain how much of this secondary or intrusive carbon had entered the sample from elsewhere.

**(2) VARIATIONS WITHIN SAMPLES—**Then there is the problem of variations within each of the samples. **Part of the sample tests one way and part tests another way.** So many factors affect this that the experts are finding it seemingly impossible to arrive at accurate dates.

**(3) LOSS OF Carbon 14—Rainfall, lakes, oceans, and below-ground moisture will cause a loss of Carbon 14**, and thus ruin its radiation clock.

**(4) CHANGES IN ATMOSPHERIC CARBON—**In addition, **it is not known what carbonic and atmospheric conditions were like in ancient times.** We know it was different, but do not know to what degree. Evidence is surfacing that changes have occurred which would invalidate ancient dates determined by carbon-14 analysis.

**(5) SUNSPOT EFFECT ON C-14 PRODUCTION—Sunspot production radically affects radiocarbon production in the atmosphere.**

Important discoveries have been made recently in regard to sunspots. Major variations in sunspot production have occurred in the past, some of which we know of. These have resulted in decided changes in radiocarbon production. (1) From A.D. 1420 to

1530 and from 1639 to 1720 there were few sunspots; during those years not a single aurora was reported anywhere around the globe. Northern Europe became something of an icebox; and there was an increase in solar wind, with consequent higher C-14 production in the atmosphere at that time. (2) In the 12th and early 13th centuries, there was unusually high sunspot activity for a number of years. At that time, there was less C-14 production, warmer climate, increased glacial melt, and unusually brilliant displays of the aurora borealis. Thus, we see that the past is not the same as the present in regard to radiocarbon production; yet "uniformity"—"the past is like the present"—is a basic premise in all carbon-14 dating. **When radiocarbon production in the atmosphere is so drastically changed, dating results, based on carbon 14 in creatures who lived at that time, are seriously affected.**

A number of additional sunspot changes in the centuries before then have been discovered. Each major change has generally lasted from 50 to several hundred years.

**(6) RADIOCARBON DATE SURVEY—**A major survey of 15,000 dates obtained by carbon 14 dating revealed that, in spite of its errors, **radiocarbon dating continually yields dates that are millions and even billions of years younger than those obtained by other radiodating techniques (uranium, thorium, potassium, etc.).**

**(7) CHANGE IN NEUTRINO RADIATION—A change in neutrino radiation into our atmosphere in earlier times would also affect radiocarbon levels.** But we have no way of measuring past neutrino radiation levels.

**(8) COSMIC RAYS—The amount of cosmic radiation entering our atmosphere and reaching the earth** would also be crucial.

A partial change in cosmic radiation amounts would also greatly affect C-14 dating. But a change in cosmic radiation from outer space would not be necessary, only a change in the amount of water or warmth—or both—in our atmosphere.

**(9) MAGNETIC FIELD—Scientists now know** that **there has**

**been a fairly rapid weakening of earth's magnetic field.** (This was discussed in chapter 4, *Age of the Earth.)* **It is cosmic radiation entering our atmosphere that changes Carbon 12 into Carbon 14**. **The three go together: earth's magnetic field, cosmic rays, and Carbon 14.** Thus the strength of earth's magnetic field has a major effect on the amount of carbon 14 that is made.

**(10) MOISTURE CONDITIONS—Atmospheric changes in moisture content in the past would also significantly affect C-14 amounts.** Changes in ground moisture, even temporary ones, would have an even greater impact. How much moisture came into contact with a given sample at various times in past ages? Could water have trickled alongside or through the sample at some earlier time? What about storage problems in more recent times or after the sample was collected? Prior to testing, was the sample placed in a location more damp than where it was found? —All these factors can decidedly affect the internal clockwork of radiocarbon samples.

**(11) IF WARMER AND MORE WATER VAPOR—If the earth was either warmer at an earlier time or had more water in the atmosphere** (both of which we believe happened before and during the Flood), then the C-14 clocks would register long ages of time prior to about 2000 B.C.

**(12) DRAMATIC CHANGES AFTER FLOOD—**For some time after the Flood there were changes in the atmosphere (a loss of water from the vapor canopy), changes in climate (due to worldwide warmth changing to cooler conditions), and changes due to volcanism and glaciation.

**Because of these dramatic worldwide alterations, plants, animals, and people living in the early centuries after the Flood would have received *much less carbon 14* than they would receive today. This would make those earlier life forms and civilizations appear to be *much more ancient* by radiocarbon dating methods than they actually were.**

With the passing of the centuries, the carbon-14 radiation levels would have gradually increased until, by about 1000 B.C., they would have been close to early nineteenth-century levels.

This is why radiocarbon dates for the past 2600 years (going back to c. 600 B.C.) generally show a better correlation with historically verified chronologies. But even in dates from 2600 B.C. on down to the present there are discrepancies in carbon-14 dates.

**(13) RECENT DATES ARE MOST ACCURATE—**It is rather well-known that ***carbon-14 dates, going back about 2600 years, tend to be the most accurate***. But, ***prior to about 600 B.C., the dates given by radiocarbon analysis begin lengthening out excessively.***

**(14) EVEN MODERN SPECIMENS ARE INACCURATE—It is a surprising fact that even specimens from recent centuries show serious problems.** *Consider a few examples.* They reveal that radiocarbon dating cannot be relied on as accurate evidence for anything:

Mortar from Oxford Castle in England was dated by radiocarbon as 7370 years old, yet the castle itself was only built 785 years ago *(E.A. von Fange, "Time Upside Down," quoted in Creation Research Society Quarterly, November 1974, p. 18).*

*Freshly killed* seals have been dated at 1300 years. This means they are supposed to have died over a millennium ago. Other seals which have been dead no longer than 30 years were dated at 4600 years *(*W. Dort, "Mummified Seals of Southern Victoria Land," in Antarctic Journal of the U.S., June 1971, p. 210).*

Wood was cut out of *living,* growing trees. Although only a few days dead, it was dated as having existed 10,000 years ago *(*B. Huber, "Recording Gaseous Exchange Under Field Conditions," in Physiology of Forest Trees, ed. by *K.V. Thimann, 1958).*

Various *living* mollusks (such as snails) had their shells dated, and were found to have "died" as much as 2300 years ago *(*M. Keith and *G. Anderson, "Radiocarbon Dating: Fictitious Results with Mollusk Shells," in Science, 141, 1963, p. 634).*

**(15) CARBON INVENTORY—**Due to drastic changes at the time of that immense catastrophe, the Flood, there is reason to believe that dramatic changes were occurring at that time in the carbon-14 content of the atmosphere. In addition, massive amounts of carbon were buried then. Immense worldwide forests became fossils or

coal, and millions of animals became fossils or petroleum.

**A world carbon inventory by *W.A. Reiners reveals that the total amount of carbon in the world today is less than 1/500th of the total amount that is locked into fossil plants and animals within sedimentary rock strata!** *(See *W.A. Reiners, Carbon and the Biosphere, p. 369).* **An enormous amount of carbon was buried at the time of the catastrophe of the Flood. If the same world inventory of carbon 14—as now exists—were distributed in that pre-Flood biosphere as living plants and animals, the level of C-14 activity back then would have been 500 times as much as the amount existing now.**

This alone would account for nine C-14 half-lives, or 51,000 years of the radiocarbon timescale. This factor alone totally destroys the usefulness of radiocarbon dating.

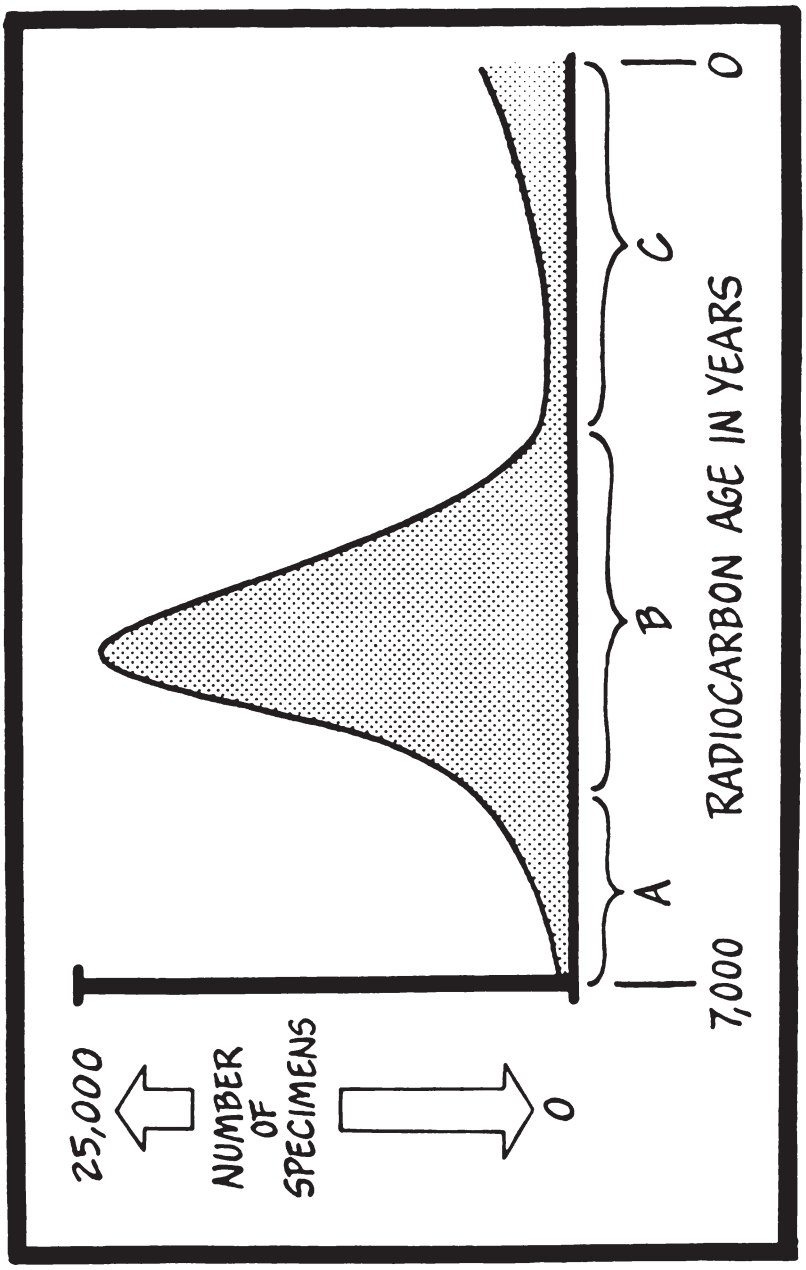
**(16) THROWING OFF THE CLOCK—**In his book, *Evolution or Degeneration (1972, pp. 80-81),* H.R. Siegler mentions that ***Willard F. Libby, the developer of radiodating, found a serious discrepancy at a certain point in past history that indicated his assumed buildup of terrestrial radiocarbon was inaccurate.** But, since he was convinced that the earth was millions of years old, he went ahead with his date assumptions. Siegler suggests that a relatively recent Creation (plus, we might add, **the catastrophic effects of the Flood) would account for the discrepancy**. Keep in mind that, **before the Flood, a vast vapor canopy was in our atmosphere, which would tend to shield the earth from radiocarbon buildup**.

This is the problem: **Prior to about 1600 B.C., radiodating tends to go wild.** Something happened back then that threw the clock off. Creation scientists recognize that the problem was the Genesis Flood and the abnormal conditions that existed for centuries after it ended.

**C-14 DATA POINTS TO THE FLOOD—**An immense number of plants and animals died at the time of the Flood, as recorded in Genesis 6-9. **One would expect that radiocarbon dating should produce a large number of specimens that died at about the same time.** Due to errors in dating, we would not expect those

**RADIOCARBON DEATH DATES—The graph below portrays Whitelaw's 25,000 corrected carbon-14 datings. The graph peaks in section B, when the huge destruction occurred at the time of the Flood. Section C would represent the gradual increase in dateable remains as life slowly multiplied again after the Flood.**

**Whitelaw arrived at a 7000-year B.P. (before present) Creation date by comparing radiocarbon production and disintegration, which is based on the assumption that there was no change in the vapor canopy or amount of available carbon prior to the Flood. Adjusting for changes in those two factors could easily bring the date of Creation down to c. 6000 years B.P.**



carbon-14 dates to correspond with the time of the Flood, but we should expect them to nonetheless point to a time when there was a dramatic increase in the number of deaths.

In 1970, R. Whitelaw, of Virginia Polytechnic Institute, went through the research literature on radiocarbon dating and carefully compiled 25,000 C-14 dates up to that year. The specimens were of people, animals, and vegetation obtained from above and below sea level. Whitelaw then applied certain principles to help avoid disparity problems between radiocarbon production and disintegration. He then put the results of his research into a single graph.

The chart *(shown on a nearby page)* shows a gradual increase in deaths from about 5000 B.C. onward. **The deaths peaked at about 4000 years ago (2000 B.C.).** Errors in radiocarbon dating would be responsible for the 2000-year spread in the largest number of deaths—although the Flood took place in a much smaller period of time. (Biblical chronology indicates that the Genesis Flood occurred c. 2348 B.C.) But the basic facts are there:

A gigantic loss of life occurred at about that time. Robert Whitelaw found that 15,000 C-14 dates placed it about 2500 B.C. *(See R. Whitelaw, "Time, Life and History in the Light of 15,000 Radiocarbon Dates," in Creation Research Society Quarterly, 7 (1970):56.)*

**MASS SPECTROMETER—**Here is a technique that you are not likely to hear much about. **The problem for evolutionists is that it consistently yields dates that are too low. Yet if its conclusions were accepted, ALL fossils, ALL coal, ALL petroleum, and ALL hominid (ancient man) bones would be dated less than 5000 years in the past!**

The mass spectrometer technique is fairly new, and the equipment is quite expensive. Unfortunately, when working with radiocarbon, the results will still be skewed (dates will appear to be too ancient) because the atmosphere in ancient times had a different amount of carbon 14 than it now has. (The mass spectrometer is discussed again in chapter 13, *Ancient Man*.)

**LESSON FROM JARMO—**Jarmo was an ancient village that was inhabited for not over 500 years. It was discovered in northeast

Iraq. **Eleven different C-14 tests were made there, and dates with a 6000-year spread were tallied up!** A fundamental scientific principle is that a correct method will give the same result when repeated; if it cannot do this, it is not scientific.

**CONCLUSION—**As with the other methods of non-historical dating, we find that radiocarbon dating is also highly inaccurate.

> "The troubles of the radiocarbon dating method are undeniably deep and serious . . It should be no surprise, then, that fully half of the dates are rejected. The wonder is, surely, that the remaining half come to be accepted."—**R.E. Lee, "Radiocarbon, Ages in Error," in Anthropological Journal of Canada, March 3, 1981, p. 9.*

## 4 - AMINO ACID DATING

***10*—AMINO ACID DECOMPOSITION—**In 1955, *Philip Abelson reported on a new dating method, and immediately a number of researchers began exploring its possibilities.

Amino acids are the building blocks of proteins. At the death of the creature that they were in, amino acids begin decomposing at varying rates.

A major difficulty in applying this dating method is that, of the twenty amino acids, some decompose much more rapidly than others. Scientists can only try to estimate the age when an animal died by the amount of decomposition it has experienced since death. Gradually more stable compounds remain while others decompose in varying ways.

Accompanying this is the problem that various organisms have different ratios of amino acids. Each type of plant and animal has its own special amino acid ratios. Because of this, trying to analyze their later decomposition to establish the dates when they died is risky business. **Because there is a wide variation in decomposition time among different plant and animal species, researchers who have worked with this dating method have written several reports stating that amino acid dating, on the basis of comparative decomposition, can only yield broad ranges of fossil age. In other words, it is not a useful dating method.**

**NO ANCIENT FOSSILS—**One worthwhile discovery that scientists made when they applied amino acid dating methods (both

*amino acid decomposition* and *amino acid racemization)* out in the field—was that **traces of amino acid still exist all through the fossil strata! This means that none of the fossils are ancient!**

Although we cannot accurately date with amino acid methods, yet we can know that, when amino acids still exist in the field,—they are not very old! We will discuss this more in a later chapter *(Fossils and Strata).*

***11*—RACEMIC DATING—**This is a different dating method based on amino acid remains from once-living creatures. It is also called *racemization.* A leader in research in both amino acid dating methods has been the Carnegie Institute of Washington, D.C.

Of the twenty amino acids, all but one *(glycine)* can be formed in one of two patterns: the *L (left-handed)* and the *D (right-handed).* The chemical structure of the L and D are identical to one another. The difference lies only in their shape. Imagine two gloves: a left-handed glove and a right-handed one. Both are made of the same materials, but they are mirror opposites. The L and D amino acids are both identical in every way; except, in the L form, some molecules stick out on the left side and, on the D form, some protrude on the right side. (In two later chapters, *Primitive Environment* and *DNA,* we will discuss L and D amino acids again.)

**ONLY L—Only the L (left-handed) amino acids ever occur in animal tissue. The D (right-handed) ones are never found in the protein of animals that are alive.**

When man makes amino acids in a laboratory, he will always get an equal number of both L and D. Only very complicated methods are able to separate them, so the experimenter can end up with only L amino acids. **There is no way to synthetically make only L amino acids. This is a marvelous proof that living things could not form by chance.** More on this in chapter 8, *DNA and Protein.*

**SEEKING A RACEMIC MIXTURE—**This brings us back to *racemization* as a dating method: At death, the L amino acids begin converting to the D type. The changeover in animal remains is completely random, with Ls changing into Ds, and Ds changing back to

Ls. Gradually, over a period of time, a *"racemic mixture"* is the result. The amino acids become "racemic" when they contain equal amounts of both L and D types.

**Scientists much prefer racemic dating to amino acid decomposition dating. Analyzing for a racemic mixture can be done more quickly and with less expensive equipment than the amino acid decomposition method.** In addition, the starting point will, with the exception of glycine (the simplest amino acid, which is neither L nor D), always be 100 percent L amino acid content.

*But there are serious problems in trying to use racemic activity to date ancient materials:*

**TEN RACEMIC PROBLEMS—**Many different factors can affect the accuracy of racemic dating methods; and, as with problems accompanying radioactive and radiocarbon dating analysis, for any given specimen no one can know which factors are involved or to what degree. Why? Because the person would have to be there studying the specimen since its clock first started thousands of years ago, at its death, and its L amino acids began their journey toward racemization.

***The rate at which racemization occurs is dependent on at least ten different factors:***

(1) **What have been the surrounding water concentrations?** (2) **What amount of acidity and/or alkalinity has been nearby at different times?** (3) **What has been the varying temperature of the specimen since death?** (4) **To what degree has there been contact with clay surfaces in the past?** (Clay is highly absorbent.) (5) **Could aldehydes—especially when associated with metal ions—have contacted the sample at some past time?** (6) **What buffer compounds have contacted it? What were their concentrations?** (7) **To what degree in the past has the amino acid specimen been "bound" (isolated from surrounding contamination)?** (8) **If bound, what was the location of the tested specific amino acid, in relation to the outer membrane or shell of the specimen?** (9) **How large was the specimen it was in? Have changes in size occurred in the past?** (10) **Were bacteria**

**present at some earlier time?** Because bacteria can produce one of the amino acids (D-alanine), test results can be thrown off by this one factor.

**CONTAMINATION FACTOR—Soft materials are the most easily contaminated.** Using this method, amino acids in very hard materials, such as bone, tend to produce dates up to 20,000 years. But amino acids in more easily contaminated materials, such as seashell meat, will run to long ages of time, peaking out about 150,000 years.

**TEMPERATURE CHANGE—Just a one degree increase in temperature** at 23° C. [73.4° F.]—just one degree—will produce ***a nearly 16 percent increase*** in the rate at which racemization occurs. **So any temperature change will significantly affect the racemic clock within the amino acid mixture.**

Interestingly enough, **the only time when racemic dating agrees with the theorized long-ages dating of radioactive materials is when the racemization has been done in the laboratory with very high temperatures!** Thus, as would be expected, samples from out in the field reveal ages that are far less than those acceptable to evolutionary conjectures.

**THE COLD STORAGE PROBLEM—**Another problem lies with the fact that **"cold storage" slows down racemization and give an appearance of a longer age span since death.** After the Flood, intense volcanic activity spewed so much dust into the air that the earth cooled and glaciers spread from the poles southward for quite some time. Since then, the climate has gradually been warming up. Thus, **if an animal died in A.D. 500, and if it was free from various contamination factors, it might yield a date of 1,500 years. But an animal dying in 2200 B.C., shortly after the Flood, might yield an age of 150,000 years.**

The Racemic researchers themselves admit that their dates can only be tentative at best. The fact is (as they know all too well), there is no characteristic racemization rate that is reliably constant.

**MOISTURE: A DOUBLE PROBLEM—***Wehmiller and *Hare have suggested that racemization can only occur during the hy-

drolysis of the protein. In other words, **moisture has to be present all during the time that the amino acids are racemizing. But that moisture, coming from outside and flowing in and through the specimen, will bring with it contamination of various kinds.** In contrast, amino acid samples from extinct dinosaurs, from the La Brea tar pits in southern California, indicate that they died only yesterday! This is because tar sealed water away from the samples. Yet scientists can have no way of knowing the temperature and other factors of the water and air that earlier contacted any given sample.

**pH FACTOR—If the water moistening the amino acids had a higher pH (if it was more alkaline), then racemization would occur in only a fraction of its normal time**, giving the impression of great age to the sample. But who can know the pH of the contaminating water at various times in the past?

**A SAMPLE TEST—**One example of racemic dating problems is the dating of a single Late Pleistocene *Mercenaria* shell, which, when several tests were run on it, produced a variety of dates ranging from 30,000 to 2 million years for its various amino acids! Other examples could be cited (see the radiodating section on our website).

**ANOTHER RADIODATING PROBLEM—**Efforts have been made to confirm racemization dating by radiocarbon dating, but this has failed also.

Because of the very low dates it produces, racemic dating has cast yet another shadow over the integrity of the high-age dates produced by the various radioactive dating methods.

## 5 - OTHER DATING METHODS

***12*—ASTRONOMICAL DATING—***The speed of light is also used as a "dating method." The time required for light to travel to us from distant stars and galaxies is generally given in the millions of light-years.* If such time spans are correct, then one would expect those light sources (the stars the light came from) to be millions of years old.

But to a great degree, **these long ages of time for dating starlight are based on the redshift theory and on the Einsteinian**

**theory of the nature of space, both of which have been seriously questioned.**

**(1) *Redshift Theory.*** Several of the very serious weaknesses of the redshift theory, which requires speeding stars, immense distances, and an expanding universe, were discussed in chapter 2, *Big Bang and Stellar Evolution.*

More reasonable explanations of the spectral redshift, which fit astronomical facts better, would eliminate the expanding universe theory and bring the stars much closer to us.

**(2) *Einstein's Theory.* Albert Einstein theorized that the speed of light is the only constant** (186,000 miles [299,274 km] per second) and that everything else is relative to it. Theoretical effects of that theory are little short of astounding (people that become almost infinite in length if they travel too fast, time that stops, etc.).

But there are a number of scientists who do not believe Einstein was correct. They believe in a Euclidean universe which has normal time, energy, and matter in it. The velocity of light would not then be a constant.

**One important implication of the Euclidean viewpoint would be that the time required for light to travel from a star to the earth would be greatly reduced.** This is highly significant.

***13*—PALEOMAGNETIC DATING—**Because *paleomagnetic dating* is such a new field, and is so intricately associated with *seafloor spreading* and *plate tectonics*, which has taken the geological world by storm since the 1960s, it deserves special discussion and far too much space for this present chapter. Within the past 25 years, paleomagnetic dating has become a significant method of trying to prove long ages for earth's history. **There are serious flaws in paleomagnetic dating, one of which is that K/A (potassium-argon) dating is heavily relied on.** (Due to a lack of space, the data in chapter 20, *Paleomagnetism*, has been almost entirely removed from this book; go to our website).

***14*—VARVE DATING—**There are sedimentary clays that are known as *varved deposits.* These clays are banded sediments, with each band generally quite thin. The color of each band will vary

from light to dark. **Evolutionists arbitrarily interpret each varve as being exactly—no more and no less—equal to one year!** On this basis, they count the "varves" and attempt to work out "varve chronologies."

**In reality, any brief flooding discharge into a lake will cause a varve, which is a settling out of finer particles.** *Thornbury, a major geology writer, discussed the problems in that theory *(*W.D. Thornbury, Principles of Geomorphology, p. 404).*

**Pebbles, plants, insects, and dead animals have been found embedded in varves.** How could a dead fish rest on the bottom of a lake for two hundred years without rotting while slowly accumulating sediments gradually covered and fossilized it? This does not occur in modern lakes, and it would not have happened anciently.

***15*—TREE RING DATING—**The giant sequoias *(Sequoia gigantea)* of the Sierra Nevada Mountains of California, along with the bristlecone pines of Arizona and California, are the oldest living things on earth.

Nothing can kill a mature sequoia, with the exception of man and his saws. Yet **no sequoias are older than 4000 years of age. They date back to the time of the Flood, and no further.**

The bristlecone pines of the White Mountains in California and nearby Arizona are said to be somewhat older. But research by Walter Lammerts, a plant scientist, has disclosed that **the bristlecone pine routinely stops growth during the dry summer and when both spring and fall are rainy, which is common; it produces two rings a year. Thus, the giant redwoods *(Sequoia gigantea)* are with certainty the oldest living thing, not the bristlecone pine.**

For more information on this, see chapter 4, *Age of the Earth.*

***16*—BURIED FOREST STRATA DATING—Buried trees are to be found in the sedimentary deposits. Some are horizontal, others diagonal, and many are vertical.** This topic will be discussed in more detail in two later chapters *(Fossils and Strata* and *Effects of the Flood).* Because these vertical trees are at times found above and below one another, evolutionists assume that here is another way to prove long ages. Outstanding examples are to be found in *Amethyst Mountain* and *Specimen Ridge* in the northwestern part of Yellowstone National Park. **Fif-**

**teen to eighteen successive levels of buried trees are to be found there.** This could be the result of local floods occurring over a period of many centuries (although such floods never today wash over these mountains). **The Genesis Flood—a worldwide inundation that covered everything would more easily explain these tree levels.** As it rose, it successively laid down trees, plants, and animals, covered them over with sediment, and then repeated the operation again and again. **A dead tree would rot; it would not remain vertical while long ages of strata gradually covered it!**

***17*—PEAT DATING—**Peat moss is any of a group of pale-green mosses, genus *Sphagnum.* They grow in swamps and are the major source of peat. Peat is made up of deposits of this decomposed plant matter found in what were once swamps. It is found in bogs and similar poorly drained areas. The residue of these mosses is sold as mulch under the names of "peat moss" or "sphagnum moss." Peat is not only used as a plant covering (mulch), but is also burned as a fuel.

**Scientists have worked out the theory that peat forms at the rate of about one-fifth inch per century, or one foot in 6000 years. Thus, evolutionists use peat bogs to help support the theory that long ages were required to form peat bogs. But research evidence contradicts the theorized uniform rate of peat moss formation. Here are several examples:**

> "More than a century ago . . peat farmers said that the rate [of peat formation] was about 2½ inches [6.35 cm] per year. A large number of embarrassing finds soon supported the experience of the peat farmers:
>
> "Elephant bones found under a few inches or feet of peat in America are still dated in terms of many thousands of years. In some places in Scotland old Roman roads were covered with peat to a depth of eight feet [24.38 dm], but one could hardly argue for an age of 48,000 years for such work by human beings.
>
> "Other finds included datable metal objects found at great depths in peat. In Abbeville, France, a boat loaded with Roman bricks was found in the lowest tier of peat. In the Somme Valley, beech stumps up to four feet in height were found covered by peat before they had decayed."*—Erich A. von Fange, "Time Upside Down," in Creation Research Society Quarterly, June 1974, p. 17.*

***18*—REEF DATING—**During his five-year voyage on the *Beagle* (1831-1836), *Charles Darwin first learned about coral reefs. Sailors and explorers were well-acquainted with them, but no one knew how they got there. ***Darwin developed a theory that coral reefs gradually grew higher as the oceans filled over millions of years**; and later, in 1842, he wrote a book about it.

**Coral, which makes the reefs, only lives within a couple hundred**

**feet of sea level; yet remains of coral are to be found deep in the ocean. Therefore, at some past time the oceans rose.** According to *Darwin's uniformitarian theory, oceans have risen at a slow, steady rate for millions of years.

**What actually happened was a filling of the oceans during the Flood, as the rains fell, and shortly afterward as mountain building took place. The up-raised continents flooded the ocean basins with yet more water.** (See chapter 14, *Effects of the Flood* for more on this.)

***19*—THERMOLUMINESCENCE DATING—**A little-known method of dating is thermoluminescence dating, but it is one that has also failed to meet expectations. Speaking of *Ban Chiang* pottery dating from southeastern Asia, we are told:

> "The Ban Chiang painted pottery, thought on the basis of thermoluminescence dates to be more than 6000 years old, is now found by radiocarbon dating to be no older than the first millennium B.C."—*Quoted in News Notes, Creation Research Society Quarterly, June 1977, p. 70.*

***20*—STALACTITE FORMATION—**In almost every country there are limestone caverns. Water running through limestone dissolves some of the mineral. As it prepares to drip from cracks in the ceiling, some of the water evaporates and leaves a mineral deposit. The result is *dripstone.* As it grows longer, it becomes *stalactites.* Dripping onto the ground, more formations are built up, called *stalagmites.* (Memory device: *"c"* comes before "g," and stalactites come before and result in stalagmites; therefore stalactites are on top, stalagmites are on the floor.)

**Stalactites are the long conical formations that hang down from the ceiling of caves. They are often cited as a proof of the earth's great age. But that is not correct. There is evidence that stalactites can form fairly rapidly.** Dr. Ken Ham tells of a cave in Queensland, Australia that, because it is a comparatively dry cave with little moisture, ought to have an especially slow stalactite growth. It is known that, in the 1890s as a means of recreation, men destroyed the stalactites within that cave with shotgun blasts. By the 1980s, the stalactites had already made six inches [15.24 cm] of new growth.

A London subway tunnel that has not been used since 1945, when it was an air-raid shelter, was opened again 33 years later in 1978. In his book, *In the Minds of Men (p. 336),* Ian Taylor shows a picture of the 24-inch [61 cm] stalactites that had developed in that brief space of time.

Over a dozen other examples of lengthy stalactites that developed within a matter of a decade or less could have been described. But the above illustrations should suffice. Neither stalactites nor stalagmites are evidence that the earth is millions of years old, and **the standard scientific measurement applied to them (one inch [2.54 cm] equals a thousand years) is totally inaccurate.**

**SUMMARY—**In this chapter, we have learned that the various methods used to date materials, supposedly older than a few thousand years, are notoriously unreliable. This fact should be kept in mind.

## CHAPTER 6 - STUDY AND REVIEW QUESTIONS
## INACCURATE DATING METHODS

GRADES 5 TO 12 ON A GRADUATED SCALE

1 - What is the oldest species of tree in the world?

2 - Why are evolutionists so afraid to tell the public that their theories and dating techniques do not agree with scientific facts?

3 - There are five factors that render inaccurate the results of uranium or thorium dating. List three of them.

4 - List three of the four reasons why a worldwide Flood would have ruined the clocks in radiodating results.

5 - Why are evolutionists so concerned to try to make radiodating conclusions agree with the 19th-century theoretical dates applied to sedimentary strata?

6 - List five of the thirteen radiocarbon assumptions which you consider to be the most flawed and most likely to produce inaccurate carbon-14 test results.

7 - How can we know that a dating technique is accurate if there is no way to verify a particular date?

8 - Why should anyone think that a radiodating method has any possible accuracy, when all its dates are wildly different from one another, and with every other dating technique—even on the same tested substance?

9 - Is a scientific method "scientific" which cannot be verified by other data or duplicated by alternate tests?

10 - Summarize five of the most significant of the sixteen major problems in radiocarbon dating.

11 - Twenty methods for figuring out the date of ancient materials are listed near the beginning of this chapter. Write a brief report on one of them, and why it does not accurately date.

12- List three of the reasons why racemic amino acid dating is so inaccurate.

13 - Why is the evolutionary varve theory not true?

14 - In view of the facts given in this chapter, which of the twenty dating methods discussed in this chapter can be reliably used?

15 - Why is it that ancient records of total solar eclipses are the most accurate way of dating ancient events?