Chapter 4

THE EVIDENCE OF SCIENCE

The vast mysteries of the universe should only confirm our belief in the certainty of its Creator. I find it as difficult to understand a scientist who does not acknowledge the presence of a superior rationality behind the existence of the universe as it is to comprehend a theologian who would deny the advances of science.

— Werner von Braun, *the father of space science*[1]

The science of determining the age of something is one of the most fascinating of all sciences, but it is also one of the most inaccurate. Often when a particular rock is dated by more than one method, it will yield "different ages." Even when the same rock is dated more than once by the same method, it will often produce a different result. Albert Einstein once defined insanity as "doing the same thing over and over and expecting a different result." Apparently, that's what some scientists do—they test something repeatedly until they get the result they want. Different crystals in the same rock will frequently yield different ages. Obviously, scientific dating methods are not very accurate; only by reporting *selected results* do they appear to work. There are numerous instances that indicate the untrustworthiness of scientific dating methods. Rocks from a recent volcano that we know erupted long after the Grand Canyon was formed were tested by four different dating methods. The results ranged from 10,000 years to over 2,600,000,000 years. In 1995, some of the minerals from rock which formed at the eruption of Mount St. Helens in 1980 were dated at 2,800,000 years, when, clearly, they were only 15 years old! And then there is the volcanic rock that just recently was formed in the eruptions of Hawaiian volcanoes.

It was dated at 30,000,000 years old! Scores of other faulty dating attempts can be cited.[2]

Radioactive Dating Methods

The two most popular radioactive dating methods are *radiocarbon* dating and *radioisotope* dating. Radiocarbon dating is generally referred to as *carbon-14 dating,* and is only used when the object being tested is less than 50,000 years old. Here's how the carbon clock works: Carbon has unique properties that are essential for all life on earth. Carbon-14 is unstable and slowly decays, changing back into nitrogen and releasing energy. This instability makes it *radioactive*. Carbon-14 gets cycled through the cells of plants and animals, and as soon as they die, the carbon-14 atoms which decay are no longer replaced, so the amount of carbon-14 is such that half of it will convert back to nitrogen in roughly 5,730 years. This is referred to as the "half-life" of carbon-14. So in "two" half-lives—about 11,460 years—only one-quarter of the carbon-14 will be left. Theoretically, once something is over 50,000 years old, there should no longer be any detectable carbon-14. Therefore, if a sample contains carbon-14, it is good evidence that the item being tested is not millions of years old.[3]

As simple as this dating method sounds, there are a number of complicating factors. First, plants take up less carbon-14 than would be expected, so they test older than they really are; second, the amount of cosmic rays penetrating the earth's atmosphere varies with the sun's activity, and this affects the amount of carbon-14 produced, which in turn changes the results; and third, the energy of the earth's magnetic field has been decreasing, so more carbon-14 is being produced now than in the past, which will make old things look *older* than they really are.[4]

Carbon dating in many cases embarrasses evolutionists because it yields ages that are significantly less than those expected from their evolutionary model. An item that is older than 50,000 years should have no detectable level of carbon-14. Laboratories that measure carbon-14 often request a source of organic material with *zero* carbon-14 to use as a "blank," thus insuring that their lab procedures are not adding carbon-14. Coal should be an obvious candidate because the youngest coal on our planet is supposed to be millions of years old, and most of it should be tens or hundreds of millions of years old. Obviously such coal should be completely devoid of carbon-14, but it is not. And not one single source of coal has been found that completely lacks carbon-14.[5] It is a total mystery to evolutionists as to why coal has carbon-14 in it, or why a piece of wood supposedly many millions of years old still

has carbon-14 present; but it makes perfect sense to scientific creationists, because they do not believe the earth is billions of years old.[6]

The second radioactive dating method is referred to as *radioisotope* or *radiometric* dating. Radioisotope dating methods are used today to give ages of millions or billions of years for rocks. Uranium is the most well-known radioactive atom, and it occurs in several different forms or *isotopes*. One of these isotopes, *uranium 238*, decays into thorium 234, which itself is unstable and decays into a smaller atom which is also unstable. This radioactive atom continues to decay until it finally changes into *lead 206*, which no longer decays. In this case the uranium is referred to as the *parent* atom, and the lead is called the *daughter* atom.[7] Radioisotope dating is often applied to igneous rocks (rock formed from a molten state), and is used to identify how long ago the rock was solidified. For any dating method to be accurate, certain conditions must be met to get an accurate reading: 1) the *starting conditions* must be known; 2) the *decay rates* must have always been constant; and 3) the *isotope atoms* must have remained the same over time, without any being added or lost.[8] So, the problem with calculating the age of a piece of rock is that assumptions must be made about the past that cannot be proved.

The question that naturally surfaces is this: "What if something happened over the entire history of a piece of rock under examination that produced a *change* in that rock?" There are a number of ways in which either parent or daughter atoms can be added to or subtracted from a rock. One of the most significant elements would be the presence of water. Geologist John D. Morris says, "Water can dissolve either uranium or lead atoms, and transport them elsewhere, and if it has done so, the calculated date would be in error. It is also extremely unlikely that a rock would remain totally isolated for long periods of time, especially if major flooding took place."[9]

Since rock dating is potentially so full of errors, are there better ways to date the earth? Fortunately there are a number of ways to date the earth, as well as its oceans and its atmosphere, and these methods appear to be more accurate than dating an individual piece of rock. For example, the *ocean* contains a number of chemicals that have been dissolved in it, and rivers continue to bring more chemicals to the ocean every day. Scientists are able to measure the rate at which chemicals are added, and because they know the present quantity of chemicals in the ocean, they can calculate how long it took for the various chemicals to build up at the current rate of addition; this calculation will reveal the apparent age of the ocean.[10] For example, we know what the content level of salt is in the ocean, so if we add up all the possible ways salt can be added or removed from the ocean, we can determine