THE BIBLE VS. EVOLUTION

Visual #10-1

LESSON 10. THE MEANING OF THE GEOLOGIC STRATA.

KEY SCRIPTURE: "You who laid the foundations of the earth, So that it should not be moved forever, You covered it with the deep as with a garment; The waters stood above the mountains. At Your rebuke they fled; At the voice of Your thunder they hastened away. They went up over the mountains; They went down into the valleys, To the place which You founded for them." Psalms 104:5-8 (NKJV)

Preparing to Teach the Lesson:

Many people are unclear about exactly what "science" is. In a nutshell, science has to do with things we can observe, test, and repeat. Evolution is not science because it cannot be repeated in order to be tested. There is no way we can make apes evolve into humans.

We cannot directly test the idea of creation, that is, that the universe, Earth, and life began in a condition of Initial Complexity, from which they have deteriorated until the present. However, we can indirectly test this idea by making predictions about what we expect to find in nature, then seeing whether those predictions match what we actually observe.

We previously saw some of the predictions of creation regarding the origin of life: (1) There should be evidence that conditions on the early Earth were fairly similar to those at present, and (2) Life should be so complex that natural processes are incapable of producing it. These predictions match closely with what we observe in nature.

In this lesson we will see that belief in creation leads us to make predictions regarding what we should find in the earth's geologic record. We will see that those predictions, too, match our observations in nature.

Today's Aim:

In this lesson we are going to see that the Earth's geologic record is far more compatible with creation and a young age than with evolution and "deep time."

Introducing the Lesson:

Visual #10-2

The Earth has many thick strata, or layers of rocks. Geology textbooks present a picture of these strata piled on top of one another in the "Geologic Column." This is usually presented with a list of ages going all the way back to about 4.5 billion years

Visual #10-3

The 4.5 billion year age comes from a study done by geochemist Clair Patterson in 1953. He used the ratio of uranium to lead in fragments of the Canyon Diablo meteorite (believed to have blasted out Meteor Crater in Arizona) to calculate its age at 4.55 billion years (Patterson, 1956). He assumed that all the parts of the solar system formed at the same time so the Earth must be the same age. If the age Patterson calculated for this single meteorite is incorrect, then so is the age of the earth.

1. The 4.55 billion year age assigned to the whole Earth comes from a radiometric test done on a single **meteorite** found at Meteor Crater in Arizona.

If we want to be as scientific as possible, we should understand something about scientific terminology. Let's clarify the meaning of three important terms.

- A **Law** of science is a description of ***what*** has always happened every time we

Visual #10-4 have observed some phenomenon. Before we call anything a Law, we test it repeatedly, perhaps for decades.

Visual #10-5 • A Scientific **Theory** is an attempt to explain ***why*** it happens. It, too, has been tested over and over.

In science, there is no such thing as "only a theory." In order for a hypothesis

Visual #10-6 to be called a theory, it must have been tested many times and never failed a test. It may never have *passed* a test, but at least it has not been falsified.

Despite the fact that there is only one Law of Gravity (an equation that describes how strong the force of gravitational attraction is between two objects), there are several Theories as to why gravity exists: gravitational waves, exchange of particles (gravitons), distortion of space, and perhaps others. Only one, gravitational waves, has passed any tests. Nevertheless, scientists are attempting to test the others so they also count as scientific theories.

• When it comes to the ancient earth we cannot perform direct tests. Thus, we cannot say that our belief about the prehistoric past is either a scientific law or a scientific theory. However, if we cannot do direct testing, we can still set up a

Visual #10-7 **Model**: an object, drawing, description, or set of equations to study the phenomenon.

Visual #10-8 You might have heard of John Saxe's poem about the "Blind Men of Hindustan" who encountered an elephant in the jungle. Each described what the part of the elephant he encountered felt like: a tree trunk, a wall, a fan, a rope, etc. Together, they were able to get an idea of what the whole elephant was like.

This course is based on a young-earth creation model, which includes the concept that a global Flood is responsible for much of the geologic record, including fossils. The opposing model taught in almost every public school is *uniformitarianism*, which says that the geologic record accumulated over billions of years by slow, steady, gradual processes. The Apostle Peter wrote before his death in 68 A.D. that Christians should beware of exactly that doctrine:

Visual #10-9 "…Knowing this first, that scoffers will come in the last days with scoffing, following their own passions and saying, "Where is the promise of his coming? For ever since the fathers fell asleep, all things have continued as they were from the beginning of creation. They deliberately ignore this fact, that by the word of God heavens existed long ago, and an earth formed out of water and by means of water, through which the world that then existed was deluged with water and perished." (2 Pet. 3:3-7 RSV)

2. In the last days scoffers will say:
   a. **Jesus** is not going to return to Earth in bodily form.
   b. Everything always proceeded at the same rate.
   c. There has never been a worldwide **Flood**.

Denial of the Flood is the basis of the dates on the geologic time scale.

Visual #10-10 **Predictions of Creation and Evolution concerning the Fossil Record.**

The test of a good scientific theory or model is its ability to make accurate predictions about what we should find in nature. We can use the opposing models of Evolution (Initial Disorganization) vs. Creation (Initial Complexity) to make at least five major predictions about the fossil record. We can then see which model better fits what we observe in nature.

The geologic strata are identified by fossils, the preserved remains of dead

things. They may consist of the entire carcass, parts of it, or traces such as footprints or burrows.

3. PREDICTIONS ABOUT THE FOSSIL RECORD.
   a. UNIFORMITARIANISM vs. CATASTROPHISM.
      i. Evolutionists believe in *uniformitarianism*. They usually say animals turn into fossils when they die and fall into a lake or other body of water, where they are **gradually** covered by sediment. Over millions of years the minerals in the sediment replace the animal's natural components. Over millions more years, they are eventually brought back to the surface by erosion.

Visual #10-11

Visual #10-12

Uniformitarianism is a statement of faith among geologists. The claim that "The present is the key to the past" must be accepted without proof. The great majority of fossils are believed to be the result of presently observed processes operating slowly and gradually over vast expanses of time. Catastrophic events have very little to do with the earth's geologic record.

This is simply wrong. As we saw in the last lesson, in order for an animal or plant to be preserved as a fossil, three conditions must be satisfied.

- It must be buried rapidly so as to be cut off from contact with scavengers and with oxygen in the atmosphere.
- It must be subject to a great deal of heat and pressure.
- The surrounding sediment must contain the right kinds of minerals.

      ii. Creationists believe most of the fossils were formed as a result of Noah's **Flood**.
      iii. Our observations are far more compatible with catastrophism than with uniformitarianism.

In the Lance Creek Formation of Wyoming alone, there are an estimated 34,000 fossils of a 30 foot long dinosaur known as *Edmontosaurus*. It would be difficult enough to believe that even a single animal would fall into a body of water and be fossilized over millions of years, but imagine how improbable it would be for 34,000 of them do do it at the same time and place.

- There are **miles** of sediment covering many areas of the continents around the world.
- There are estimated to be tens of **thousands** of dinosaurs fossilized together in the Lance Creek Formation of Wyoming. It would be difficult for all these animals to die at the same time and place and be turned into fossils by uniformitarian processes.
- There are many vast fossil **graveyards** around the world containing millions of fossils.
- Hundreds of billions of fossils have been found worldwide. Some estimate that there may be as many as a **trillion**.

Visual #10-13

The fossils have been grouped into about 250,000 species. Only about a dozen

or so are even considered possible transitional forms. Evolution is nowhere to be seen.

These phenomena could not be produced by the slow, steady, gradual accumulation of sediment around the world over hundreds of millions of years. They clearly indicate that at least one major catastrophe is responsible for much of the fossil record.

Visual #10-14 If there really was a worldwide Flood, what would we expect to find? Billions and billions of dead things buried in rock layers laid down by water all over the whole earth, even on top of the highest mountains. And what do we actually find? Billions and billions of dead things buried in rock layers laid down by water all over the whole earth, even on top of the highest mountains.

b. *Prediction:* MEANING OF THE ROCK STRATA.

Visual #10-15 The complete geologic does not exist in nature, but only in textbooks. It was pieced together from many locations around the world.

There are several dozen named strata. Some of them such as Triassic are subdivided into lower, middle, and upper. Most of the names have nothing to do with time. For instance, Cambrian rocks were first identified in Wales (Latin "Cambria"); Devonian rocks were first named at Devonshire; Jurassic are named for the Jura Alps; Cretaceous are named because they contain a high concentration of chalk, which is "creta" in Latin; Carboniferous is known for a great deal of carbon, and so on.

Visual #10-16 Each stratum is named not because of any sort of radiometric testing method, but because of the characteristic group or *suite* of fossils it contains.

i. Evolution: The strata represent **time periods**.

Visual #10-17 The world contains many "simple" one-celled organisms such as bacteria, more complex ones such as fish, and highly complex animals such as cats, monkeys, etc. Since each has evolved a different amount, the rate of evolution must be different for each type. Also, since evolution is a random process, the rate should be different from place to place. There should be no consistent worldwide patterns of interdependent fossil species.

The fossil record should not show any consistent patterns of **terminal** forms (those that seem to have stopped evolving) in clearly defined communities. Instead, there should be transitional forms at varying stages of development in different rock layers at different places. The greater the distance between two places, the greater the difference there should be in the fossils they contain.

ii. Creation: The strata represent ecological **communities**, or *biomes*.

Visual #10-18 There are several dozen ecological communities of animals and plants in the modern world. For example, lions, giraffes, zebras, and rhinos tend to be found fairly close together in an African savanna environment. A much different group of animals swims around coral reefs. We expect that fossilized creatures should also be found in ecological communities. In most cases, they probably lived together. They were definitely buried together in some catastrophic process.

There may be exceptions (misplaced fossils) but in general, creatures that lived together should be found together in fossil communities.

We expect, then, that there should be a pattern of clearly defined ecological communities of fossils around the world. This is exactly what we find.

Visual #10-19

iii. *Actual observation:* Rock strata around the world are identified by clearly defined communities or "suites" of fossils that are essentially the same no matter where they are found. This is exactly what **creation** leads us to expect.

There is no evolution from the bottom of the geologic column to the top.

Visual #10-20

The lowest sediments preserve fossils of types that would be best suited to the ocean **bottom**, then to progressively shallower environments until sea level and beyond.

Remember from the lesson on the origin of life that evolutionists believe life came into existence around sea level. This is dated about 3.5 billion years ago. However, the fossils supposed to be the oldest are Precambrian creatures, which are types that would have dwelt at the bottom of the ocean. This raises the questions, *Why did the earliest organisms decide to dive several miles to the bottom of the ocean?* and *How did they survive the dive?*

Visual #10-21

CLASSIFICATION OF FOSSILS.

Let's move on to the next logical prediction of what we should find in the fossil record. We will refer to the classification system used by biologists and paleontologists.

Visual #10-22

Kingdom - - - **Phylum** (may contain Sub-Phyla) - - - **Class** (may contain Subclasses) - - - **Order** (may contain Suborders) - - - **Family** (may contain Subfamilies) - - - **Genus** (may contain Subgenera) - - - **Species** (may contain Subspecies).

Humans belong to Kingdom Animalia, Phylum Chordata, Subphylum Vertebrata, Class Mammalia, Order Primates, Family Hominidae, Genus Homo, Species sapiens.

Each of these categories is called a **Taxon** (plural taxa). The higher taxa include kingdoms, phyla, class and orders.

Visual #10-23

Evolutionists believe that the first cell was a member of only one kingdom, phylum, class, and order. As its descendants evolved, a second species developed after countless years, followed by a second genus, family, order, class, phylum,. kingdom , and so on.

c. *Predictions:* INITIAL NUMBER OF HIGHER TAXA.

Taxa are categories such as kingdom, phylum, class, order, and so on.

i. Evolution: We should find a gradual **increase** in the number of higher taxa. The number of lower taxa may vary over time because of diversification and extinction.

Creation, on the other hand, says that all the higher taxa (kingdom, phylum, class, order) were present by the end of the creation week. Though we would not expect all of them to be preserved as fossils, we should find many represented in the fossil-bearing layers considered the "earliest."

ii. Creation: We should find **many** higher taxa even in the lowest fossil-bearing strata. The number of higher taxa should not increase in rocks supposed to be more recent. It may decrease due to mass extinction.

Because of diversification, extinction, and uncertainty of classification, the number of lower taxa (species, genus, and possibly family) may vary in different rock layers.

Pre-Cambrian times are supposed to have lasted almost four billion years. Though both plants and animals should have been going through thousands or millions of evolutionary stages during that time, the Pre-Cambrian fossil record consists mainly of blue-green algae, disputed "microorganisms" which may not be traces of living creatures at all, and one suite of complex invertebrates known as the Ediacaran fauna.

Visual #10-24 Suddenly in the Cambrian, representatives of all the phyla of the animal kingdom, as well as many divisions of plants, appeared fully formed with all their ordinal characters - those things which identify a snail as a snail, a fish as a fish, etc. – clearly defined. (As we would expect for a biome from the bottom of the ocean, they include only marine life.) The Cambrian fauna are quite complex, even including at least one type of vertebrates, jawless fish of **Class Agnatha**.

The origin of this vast array of Cambrian creatures is a mystery to evolutionists. No known transitional forms lead up to them from any Pre-Cambrian organisms, despite a supposed three billion years of evolution. Their sudden appearance is so dramatic that geologists call this the "Cambrian Explosion."

iii. *Actual observation:* There are few fossils below the Cambrian layer. Suddenly, representatives of every phylum of the animal kingdom and many divisions of plants appear in the "Cambrian **Explosion**." They are all complex creatures. None has any known **ancestors** in lower rock layers.

Visual #10-25 It's not that the sediments were incapable of preserving the Precambrian ancestors of the Cambrian animals because they were too soft. There are many Precambrian jellyfish in the fossil record. You can't get much softer than a jellyfish.

If we look in the modern oceans we find a great deal of diversity.

Visual #10-26

There is much less variety in the marine creatures of today than the variety found in the Cambrian Explosion. The vast majority of the Cambrian fossils later became **extinct**.

This is exactly the opposite of what evolution leads us to expect, but it is exactly what creation predicts: a great many higher taxa appear suddenly and explosively without known ancestry, then later become extinct.

The sudden appearance of all these types of animals and plants in the Cambrian ties in with the next logical prediction for creation or evolution.

d. *Predictions:* SUDDEN APPEARANCE vs. GRADUAL DEVELOPMENT.

i. Evolution: It would take millions or billions of **transitions** for the first

cell to evolve to the "terminal forms" living today or preserved in the fossil record.

Since the *ordinal characters* (those features that identify a dog as a dog, a cat as a cat, etc.) of each type would be evolving continually, there should be innumerable transitions leading up to the first specimens of each terminal form.

If enough fossils were preserved, we should find at least a few of these transitions along with the terminal forms.

ii. Creation: The earliest representatives of each kind should be **fully formed** with all their *ordinal characters* present. In no case should we find a series of living or fossilized creatures showing the gradual development of a new kind from a previously existing one.

Here's what we actually find.

iii. *Actual observation:* The trillion or more fossils that have been located have been grouped into about **250,000** fossil species. Millions of transitions would have been needed to produce the 250,000 terminal forms. However, only a few types of fossils are even claimed to be transitional.

The supposed transitions include a bird known as *Archaeopteryx* and a few types of molluscs. However, evolutionists are not unanimous in believing that they are really transitions. Every one of them has been disputed by other evolutionists.

Darwin was well aware of the phenomenon of sudden appearance when he wrote in the *Origin of Species*,

Visual #10-27

> "But just in proportion as this process of extermination has acted on an enormous scale, so must the number of intermediate varieties, which have formerly existed on the earth, be truly enormous. Why then is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this, perhaps, is the most obvious and gravest objection which can be urged against my theory. The explanation lies, as I believe, in the extreme imperfection of the geological record."

Darwin admitted that the "most obvious and gravest objection" to evolution was the lack of **transitional** fossils. He believed that this was due to incomplete evidence and expected that further discoveries in paleontology would show that his theory was correct.

Visual #10-28

More than 150 years later, a trillion or more fossils have been discovered. Darwin has not been vindicated. The transitions are still **missing**.

The fossil record remains such an obvious and grave objection to his idea of gradual evolution that a newer model known as Punctuated Equilibria (which says evolution occurred in sudden jumps) has gained significant acceptance. Those who claim that the fossil record proves evolution are either uninformed or else deliberately misrepresenting the facts.

Visual #10-29

Because of the lack of transitional fossils, some have developed a newer model of evolution, "Punctuated Equilibria." It says that the reason transitional fossils are missing is that the process was too **fast**.

Darwinian evolution says the transitions are missing because evolution was too slow. Punctuated Equilibria says they are missing because it was too fast. The third alternative is that evolution **never happened**.

Evolution and creation logically lead us to make one more major prediction about what we should find in the fossil record.

- Evolution says the strata represent time periods during which animals and plants were evolving al the way from one celled organisms to much higher forms. Thus, there should be continual change from the first appearance of any type of ancestral creature until the latest forms.
- Creation says that everything reproduces only "after its kind." Thus, we expect that from the first (i.e., lowest) appearance of any type until the highest (or until the present), there should be a resistance to basic change (*stasis*). That is, the "latest" specimens of each type should be readily identifiable as the same basic type as the "oldest."

Visual #10-30

e. *Predictions:* CONTINUAL GRADUAL CHANGE vs. STASIS.

i. Evolution: Since evolution is a continuous process, there should be **continual** change from the first appearance of any type of ancestral fossil until the latest forms.

ii. Creation: Since everything reproduces only "after its **kind**," the "latest" specimens of each kind should be readily identifiable as the same kind as the "oldest." From the first lowest appearance of any kind until the highest, there should be a resistance to basic change. This is called **stasis**.

Visual #10-31

The late Dr. Stephen Jay Gould, a Harvard paleontologist, was firmly committed to the Punctuated Equilibria model of evolution. He hated to be quoted by creationists. However, in arguing against gradual evolution (Neo-Darwinism) he frankly admitted that two of the most obvious characteristics of the fossil record are sudden appearance and stasis.

iii. *Actual observation:* Professional paleontologists admit that two of the most obvious characteristics of the fossil record are **sudden appearance** and stasis.

All in all, the characteristics of the fossil record match much more closely with the predictions of **creation** and catastrophism than they do with either gradual evolution or punctuated equilibria.

