

A view of the Earth from space, showing the horizon and a bright blue glow. The Earth is partially visible, with a bright blue glow along the horizon line. The background is a dark, starry space.

GENESIS
IN THE BEGINNING



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Welcome to Yahuah's Oasis, where it's all things

Yahuah !! You will find videos and praise music and all downloads are free. We hope you'll visit often and let us know what you think or any ideas to make this site better. Also if you send us your address, we'll send Yah's bracelet. Blessings!!!

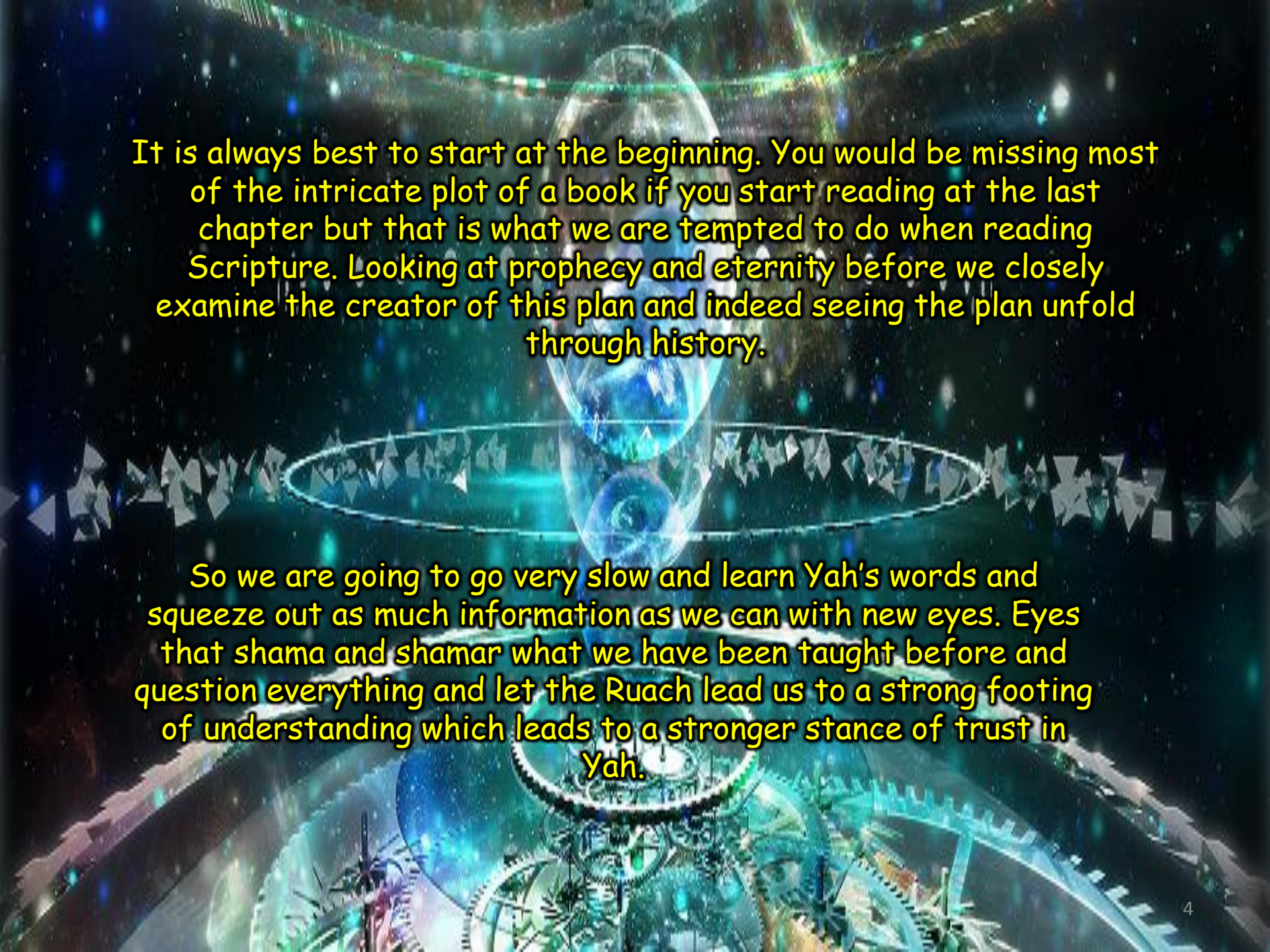
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"Observations For Our Times" by Craig Winn

Date	Topic(s)	Study Material(s)
January 3 Segment 1 Segment 2 Segment 3 Segment 4	"The Land Down Under's" Roy Goodman joined Craig, Scott, and Frank to discuss the science of Big Bang, macroevolution, and other fascinating topics.	Roy's write-up of his discussion His follow-up email to Frank

The background is a complex, futuristic scene. At the top center, a glowing blue and green orb is suspended, surrounded by a circular ring of light. Below this, a large, intricate mechanical structure with many gears and a central blue sphere is visible. The entire scene is set against a dark, starry background with various light effects and patterns.

It is always best to start at the beginning. You would be missing most of the intricate plot of a book if you start reading at the last chapter but that is what we are tempted to do when reading Scripture. Looking at prophecy and eternity before we closely examine the creator of this plan and indeed seeing the plan unfold through history.

So we are going to go very slow and learn Yah's words and squeeze out as much information as we can with new eyes. Eyes that shama and shamar what we have been taught before and question everything and let the Ruach lead us to a strong footing of understanding which leads to a stronger stance of trust in Yah.

To start off we will be using as many other scriptures to flesh out the stories we read, which include Yasher, Enoch, the Chinese language and science to name but a few. But as always, we will be presenting our research, and it will be up to you to take it further to cement your own understanding.

One of the first questions we will endure to answer is the nagging question of, is the universe/earth 6,000 years old or billions. Was it creation or evolution. The answer we have found is surprising as we look at scripture and science and find that the answer is both and still falls in line with Torah.

Psalm 90:4-6

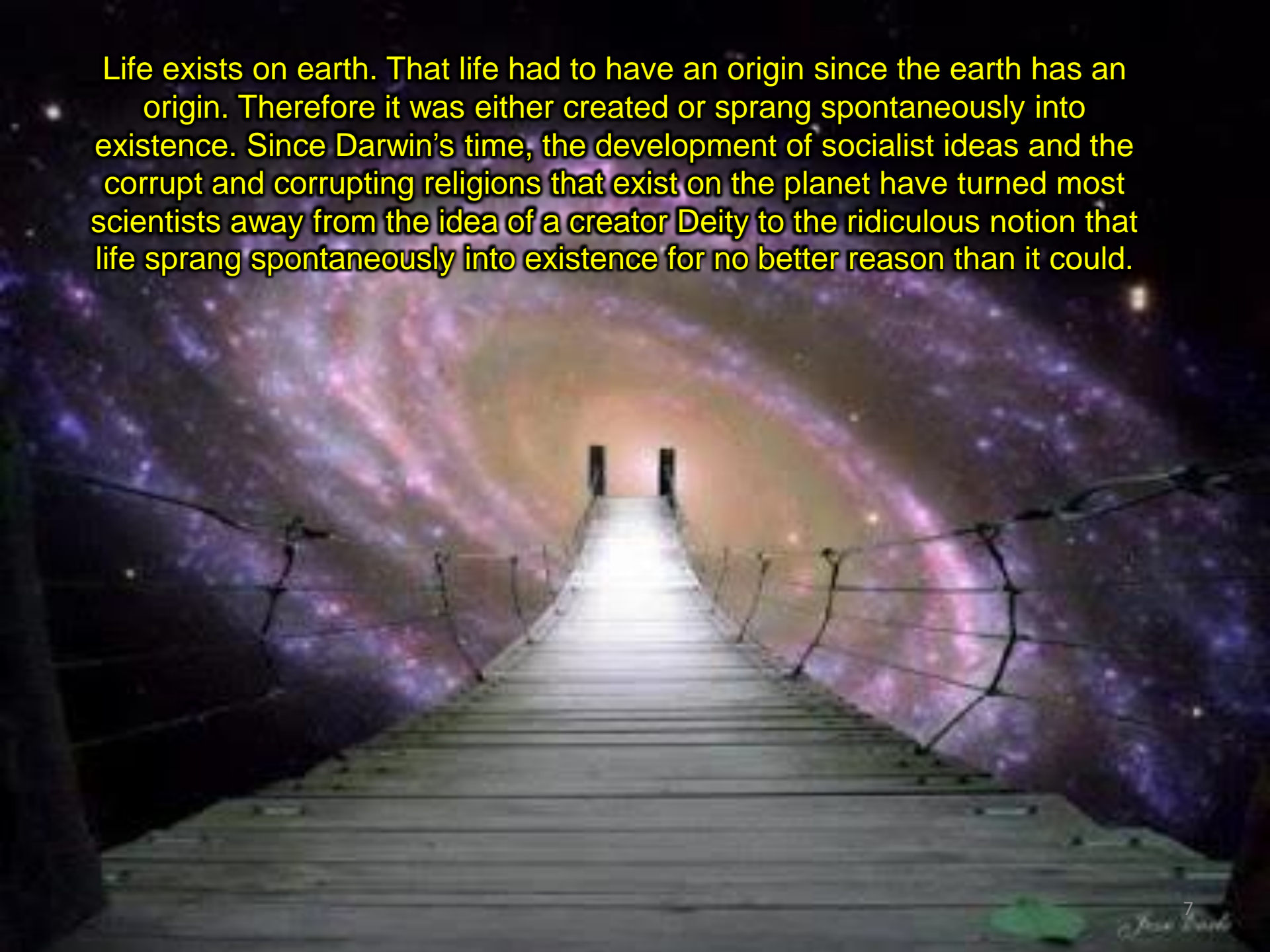
⁴ For a thousand years in Your sight Are like yesterday when it passes by, Or as a watch in the night. ⁵ You have swept them away like a flood, they fall asleep; In the morning they are like grass which sprouts anew. ⁶ In the morning it flourishes and sprouts anew; Toward evening it fades and withers away.

But do not let this one *fact* escape your notice, beloved, that with YHUH one day is like a thousand years, and a thousand years like one day. ⁹ YHUH is not slow about His promise, as some count slowness, but is patient toward you, not wishing for any to perish but for all to come to repentance. 2 Peter 3:8-9

While science is not our strong suit, what we will present for you to look at first, can be looked at from those that are Science oriented and for us that are laymen. We will be looking at a paper by Roy Goodman who is trained in medicine, physics and molecular biology. He is aiming to show that science comes from Yah and He is revealed in the science. Logic and reason has to underlie an orderly universe in which life can exist. Yahuah is logic and reason. We will also put in purple Craig Winn's input to this discussion, as this was also a discussion on Observations.

Since Yahuah created science and we are just in the process of discovering what He obviously already knows, Roy is going to go through the "theories" that have been put out there by "human science" and will show which theories that measure up to Yah's standard. Now even he admits there is a piece to this puzzle that he has not figured out but at least it is plausible where the other theories are not. So let us get started.

Life exists on earth. That life had to have an origin since the earth has an origin. Therefore it was either created or sprang spontaneously into existence. Since Darwin's time, the development of socialist ideas and the corrupt and corrupting religions that exist on the planet have turned most scientists away from the idea of a creator Deity to the ridiculous notion that life sprang spontaneously into existence for no better reason than it could.

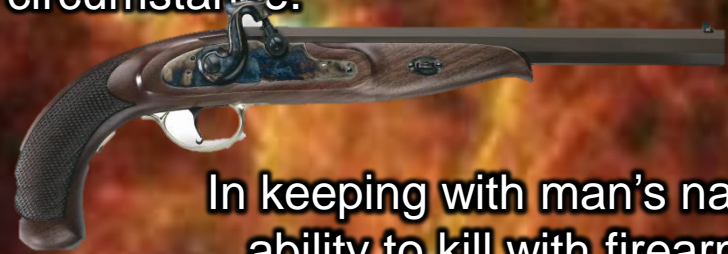


The idea of evolution is that systems change in adaptation to changes in the environment. It is not necessarily just organic life that changes and adapts to changes in circumstance.

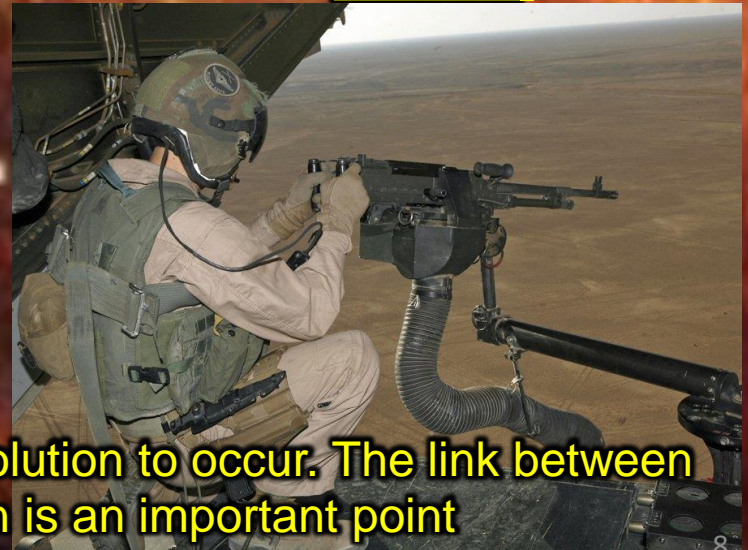
As oil becomes scarce, internal combustion engines become more efficient, the design of aircraft improves, changing from slow inefficient biplanes to the stream-lined efficient aircraft we have today.



That is, it took intelligence to enable the evolution to occur. The link between intelligent direction and evolution is an important point



In keeping with man's nature, the ability to kill with firearms has evolved from muzzle loaded flintlocks to the powerful automated Gatling guns we now possess. You will note that the evolution, just described is directed.



Charles Darwin, a naturalist who lived through the middle of the 19th Century, proposed the idea that life could adapt to changes in the environment through a process he called natural selection. Though this idea **did not do away with the idea of intelligent direction** it did, however, **make such direction unnecessary**.

Darwin's theory of evolution



The British naturalist **Charles Darwin** (1809–1882) later suggested a more persuasive argument for evolution.

Darwin proposed that evolution took place through **natural** and **sexual selection**.

Darwin developed his theory of evolution after noticing close similarities between certain fossils and the adaptations of modern day animals he saw during his round-the-world voyage on the HMS Beagle.

GCSE

Biology 1b Evolution and Environment



The Christian church with its lies, internal contradictions and past behavior was turning men away from Yah so many saw these developments as a way to explain our existence and reason for being that did not involve a god at all or at least one that was far distant and disinterested in events on planet earth.

Anaximander, a Greek philosopher in 520 BC may have been the first to propose the idea of evolution – at least in a rudimentary form.



Many people believe Darwin was an atheist. In fact he attended a Unitarian church in his youth and only later in life became what he described as an agnostic. He remained a theist of sorts through most of his life. At the time of Darwin's publication of his thesis "On the Origin of Species" Marx and Engels had published the communist manifesto, a document that eschewed any god but man. Darwin's work was gratefully received as further evidence of the push towards rejection of Yah, His Torah, and any association with the need for a creator.

Religion is the impotence of the human mind to deal with occurrences it cannot understand.



Karl Marx
Prussian-German philosopher
(1818-1883)
QuoteHD.com

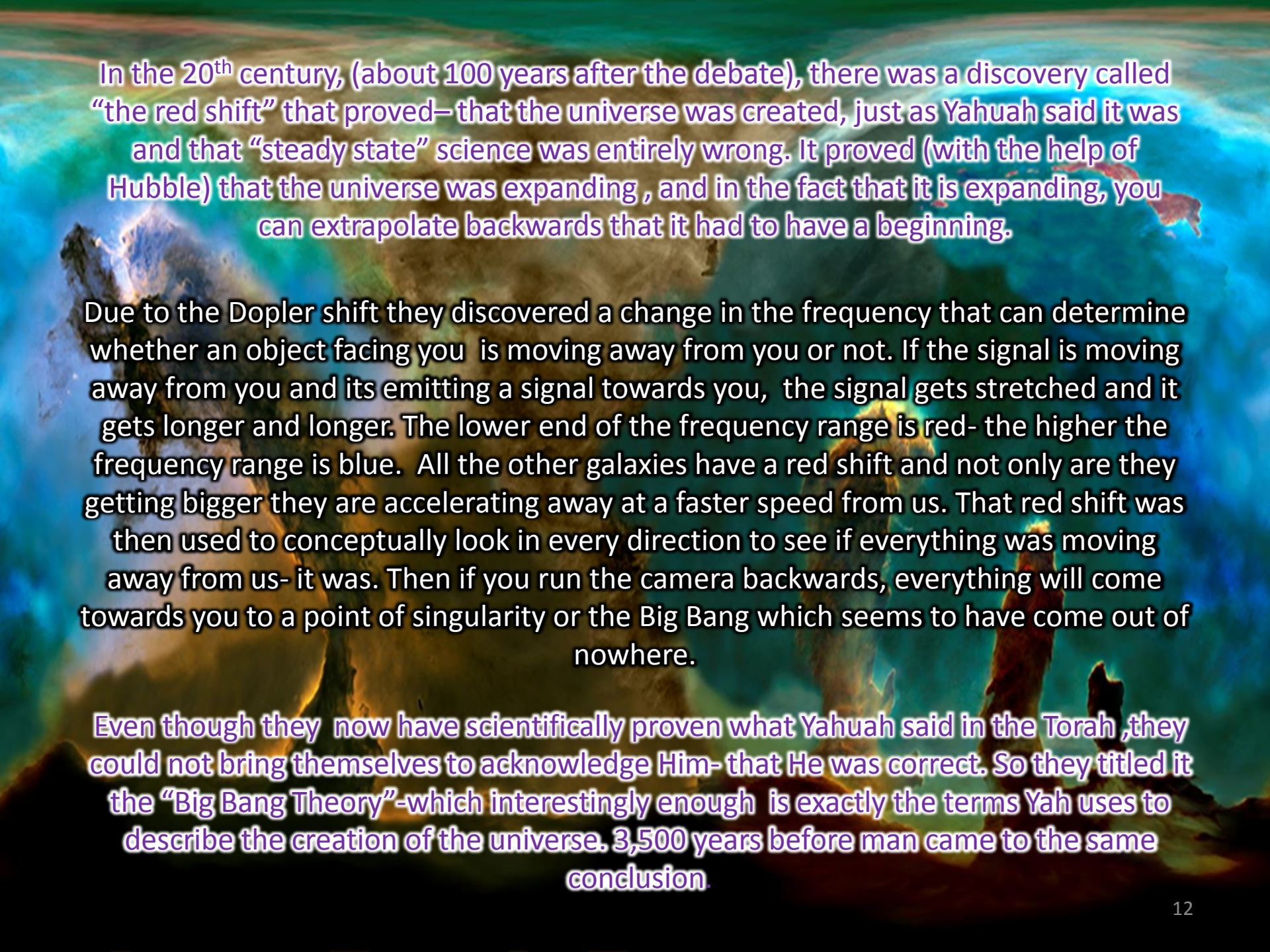


In 1860 in Oxford's natural history museum a famous debate between Thomas Huxley (Darwin's bulldog) and Bishop Samuel Wilberforce occurred. This debate is considered a pivotal historic moment when science supposedly defeated religion on the question of the origin of all life and the laws governing human behavior. Now mankind could formulate his own laws and live in freedom from a harsh and unforgiving god.

However, media spin is not new. The Huxley/Wilberforce debate was portrayed as a great victory for Huxley though, as usual, the reality was different.

Science has a habit of arguing on behalf what it "thinks to be true" at the moment, only to find out that almost none of it is true. For example when this debate took place, 90% of the scientists believed in the "steady state universe" - the universe being the constant "I Am". It had always existed and it was never created.

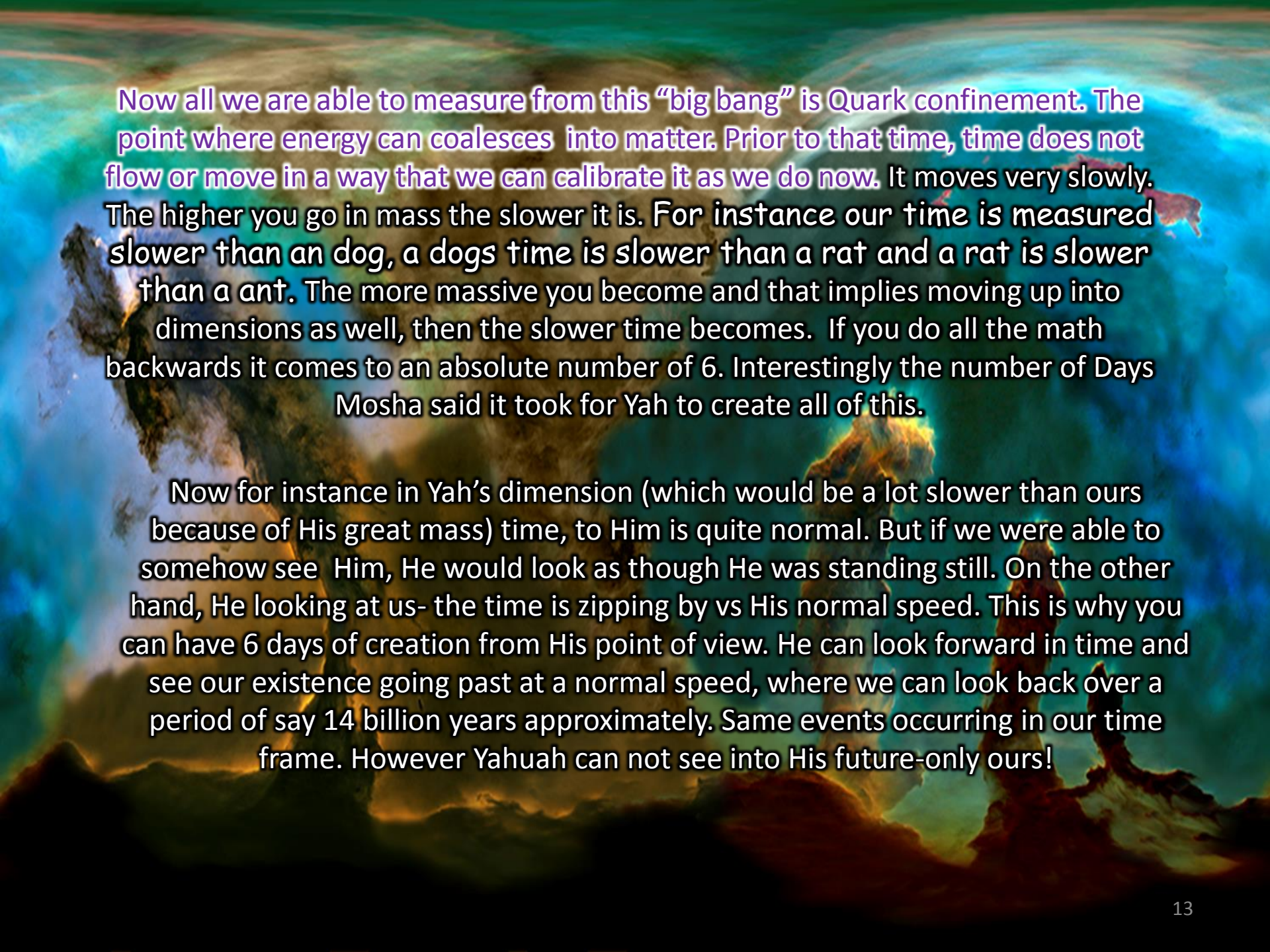


The background of the slide is a vibrant, colorful image of the universe, featuring various nebulae, galaxies, and star clusters in shades of blue, green, orange, and red. The text is overlaid on this cosmic scene.

In the 20th century, (about 100 years after the debate), there was a discovery called “the red shift” that proved— that the universe was created, just as Yahuah said it was and that “steady state” science was entirely wrong. It proved (with the help of Hubble) that the universe was expanding , and in the fact that it is expanding, you can extrapolate backwards that it had to have a beginning.

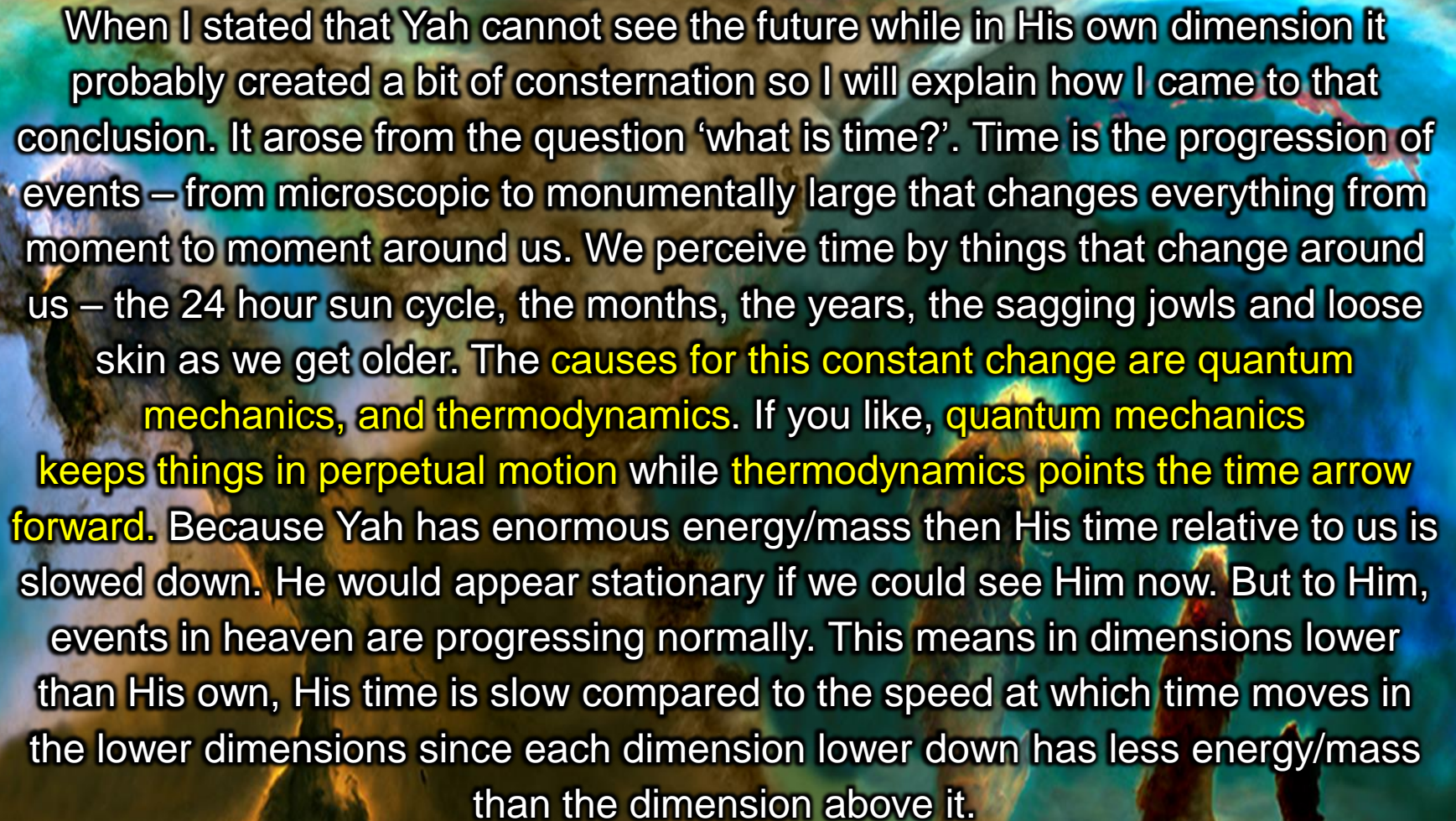
Due to the Doppler shift they discovered a change in the frequency that can determine whether an object facing you is moving away from you or not. If the signal is moving away from you and its emitting a signal towards you, the signal gets stretched and it gets longer and longer. The lower end of the frequency range is red- the higher the frequency range is blue. All the other galaxies have a red shift and not only are they getting bigger they are accelerating away at a faster speed from us. That red shift was then used to conceptually look in every direction to see if everything was moving away from us- it was. Then if you run the camera backwards, everything will come towards you to a point of singularity or the Big Bang which seems to have come out of nowhere.

Even though they now have scientifically proven what Yahuah said in the Torah ,they could not bring themselves to acknowledge Him- that He was correct. So they titled it the “Big Bang Theory”-which interestingly enough is exactly the terms Yah uses to describe the creation of the universe. 3,500 years before man came to the same conclusion.

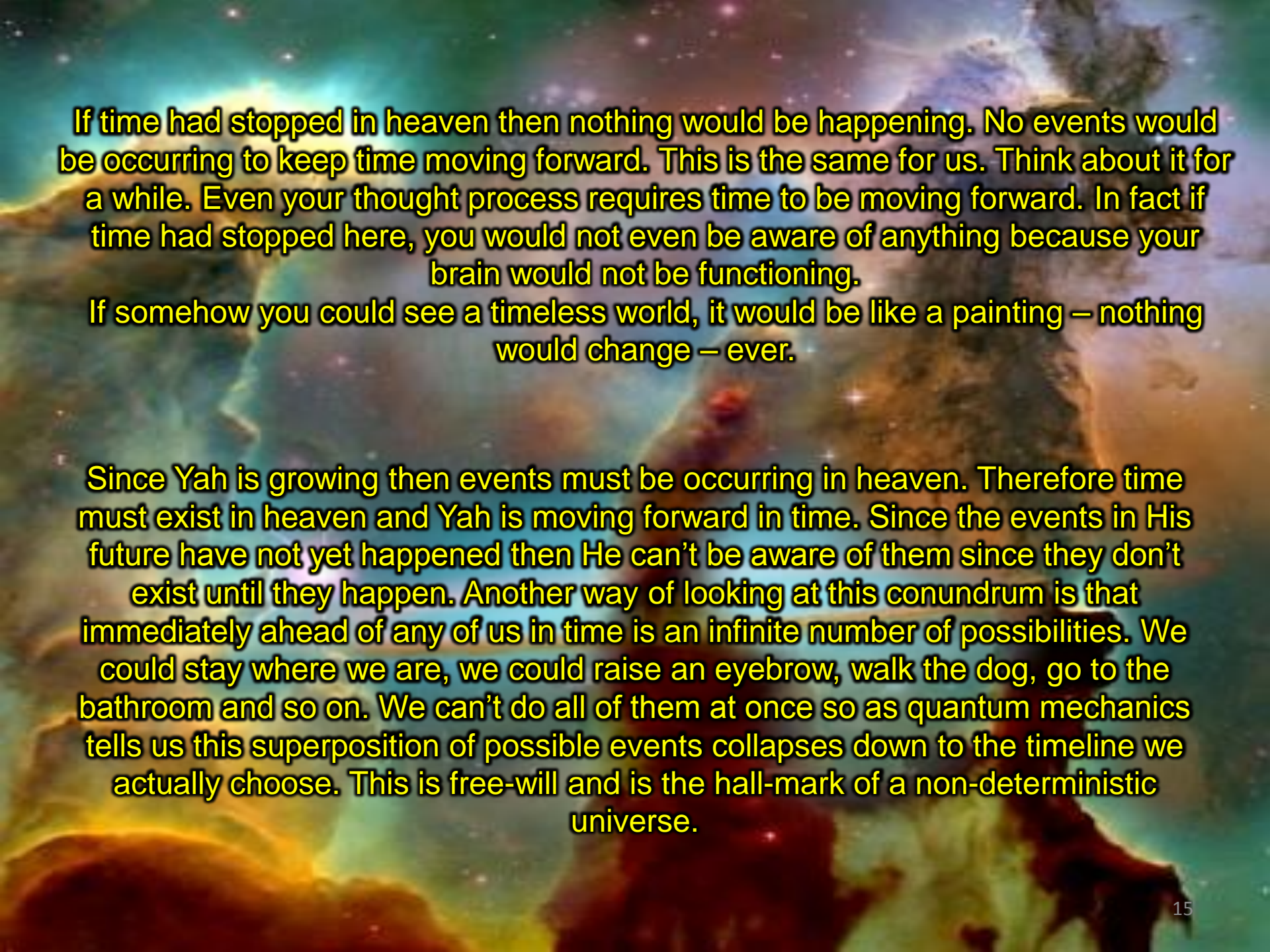


Now all we are able to measure from this “big bang” is Quark confinement. The point where energy can coalesce into matter. Prior to that time, time does not flow or move in a way that we can calibrate it as we do now. It moves very slowly. The higher you go in mass the slower it is. For instance our time is measured slower than an dog, a dogs time is slower than a rat and a rat is slower than a ant. The more massive you become and that implies moving up into dimensions as well, then the slower time becomes. If you do all the math backwards it comes to an absolute number of 6. Interestingly the number of Days Mosha said it took for Yah to create all of this.

Now for instance in Yah’s dimension (which would be a lot slower than ours because of His great mass) time, to Him is quite normal. But if we were able to somehow see Him, He would look as though He was standing still. On the other hand, He looking at us- the time is zipping by vs His normal speed. This is why you can have 6 days of creation from His point of view. He can look forward in time and see our existence going past at a normal speed, where we can look back over a period of say 14 billion years approximately. Same events occurring in our time frame. However Yahuah can not see into His future-only ours!



When I stated that Yah cannot see the future while in His own dimension it probably created a bit of consternation so I will explain how I came to that conclusion. It arose from the question 'what is time?'. Time is the progression of events – from microscopic to monumentally large that changes everything from moment to moment around us. We perceive time by things that change around us – the 24 hour sun cycle, the months, the years, the sagging jowls and loose skin as we get older. The **causes for this constant change are quantum mechanics, and thermodynamics**. If you like, **quantum mechanics keeps things in perpetual motion** while **thermodynamics points the time arrow forward**. Because Yah has enormous energy/mass then His time relative to us is slowed down. He would appear stationary if we could see Him now. But to Him, events in heaven are progressing normally. This means in dimensions lower than His own, His time is slow compared to the speed at which time moves in the lower dimensions since each dimension lower down has less energy/mass than the dimension above it.



If time had stopped in heaven then nothing would be happening. No events would be occurring to keep time moving forward. This is the same for us. Think about it for a while. Even your thought process requires time to be moving forward. In fact if time had stopped here, you would not even be aware of anything because your brain would not be functioning.

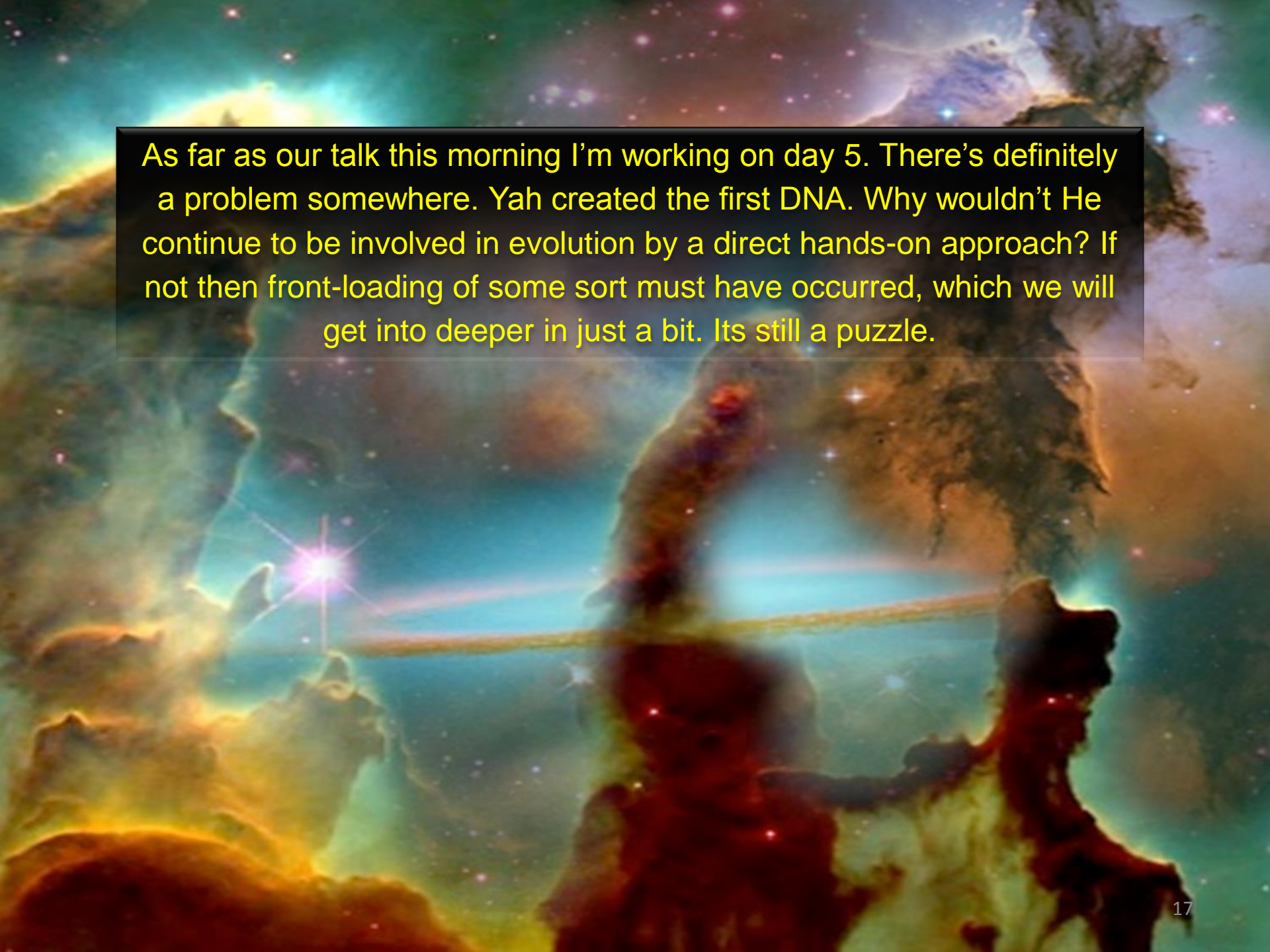
If somehow you could see a timeless world, it would be like a painting – nothing would change – ever.

Since Yah is growing then events must be occurring in heaven. Therefore time must exist in heaven and Yah is moving forward in time. Since the events in His future have not yet happened then He can't be aware of them since they don't exist until they happen. Another way of looking at this conundrum is that immediately ahead of any of us in time is an infinite number of possibilities. We could stay where we are, we could raise an eyebrow, walk the dog, go to the bathroom and so on. We can't do all of them at once so as quantum mechanics tells us this superposition of possible events collapses down to the timeline we actually choose. This is free-will and is the hall-mark of a non-deterministic universe.

In a deterministic universe, the future timeline would be known but until the events actually occur, even though you know they are going to occur, the future does not exist.

Also going into the past would throw up all sorts of paradoxes. The timeline was predetermined so that when you appeared in this timeline the timeline would be wrong as it was determined that you would not be present in that timeline.

If our relative time is faster than that of Yah in His higher dimension, then our future becomes visible to Him but in His past. If He could maneuver into the past in His own dimension then there would be an infinite series of Yahuahs , an infinite amount of energy and hence a paradox; but He can maneuver into the past in lower dimensions and effect change there but only where the lower dimension is a subset of His dimension. Think of where 2D like a sheet of paper intersects 3D. He uses messengers to go into lower dimensions since He is unable to go there – think of a 3D person squeezing into 2D sheet of paper.

A vibrant, multi-colored nebula with a bright star and a glowing beam of light. The nebula features a mix of blue, green, yellow, and red hues, with a prominent bright star on the left side. A glowing beam of light extends from the star towards the right. The background is filled with numerous small stars and a soft, ethereal glow.

As far as our talk this morning I'm working on day 5. There's definitely a problem somewhere. Yah created the first DNA. Why wouldn't He continue to be involved in evolution by a direct hands-on approach? If not then front-loading of some sort must have occurred, which we will get into deeper in just a bit. Its still a puzzle.

At the time of the Huxley/Wilberforce debate little was known of the cell. Though microscopes had been developed by then the cell was thought to be just like a lump of jelly with a surrounding membrane and a nucleus.

Had Wilberforce known what we now know - that the cell in fact is an extremely sophisticated machine shop with microscopic machines carrying out all its functions under the direction of one of the most remarkable coding methods ever devised – then he would have wiped the floor with Huxley and Darwin's ideas would have been stillborn.

Had he known what modern science has shown in physics Huxley would have left the hall with his tail between his legs. An eloquently delivered speech does not overcome truth and facts no matter how much you may desire it.

However, Darwin's ideas were not without merit.



Super cells

Stem cells are self-renewing wonder cells with the potential to become any other type of cell in the body. Unlike regular cells, they do not have a specialisation, such as nerve cells. All cells start out as stem cells, before developing specific skills. Lab experts have discovered that adult stem cells can be manipulated into other types with the potential to grow replacement organs in the lab.

DID YOU KNOW? Bacteria are the simplest living cells and the most widespread life form on Earth

Animal cells under the microscope

Cell structure explained

There are around 75 trillion cells in the human body, but what are they and how do they work?



Cells are life and cells are alive. You are here because every cell inside your body has a specific function and a very specialised job to do. There are many different types of cell, each one working to keep the body's various systems operating. A single cell is the smallest unit of living material in the body capable of life. When grouped together in layers or clusters, however, cells with similar jobs to do form tissue, such as skin or muscle. To keep these cells working, there are thousands of chemical reactions going on all the time.

All animal cells contain a nucleus, which acts like a control hub telling the cell what to do and contains the cell's genetic information (DNA). Most of the material within a cell is a watery, jelly-like substance called cytoplasm (cyto means cell), which circulates around the cell and is held in by a thin external membrane, which consists of two layers. Within the cytoplasm is a variety of structures called organelles, which all have different tasks, such as manufacturing proteins - the cell's key chemicals. One vital example of an organelle is a ribosome; these numerous structures can be found either floating around in the cytoplasm or attached to internal membranes. Ribosomes are crucial in the production of proteins from amino acids.

In turn, proteins are essential to building your cells and carrying out the biochemical reactions the body needs in order to grow and develop and also to repair itself and heal.

Mitochondria

These organelles supply cells with the energy necessary for them to carry out their functions. The amount of energy used by a cell is measured in molecules of adenosine triphosphate (ATP). Mitochondria use the products of glucose metabolism as fuel to produce the ATP.

Ribosomes

These tiny structures make proteins and can be found either floating in the cytoplasm or attached like studs to the endoplasmic reticulum, which is a conveyor belt like membrane that transports proteins around the cell.

Endoplasmic reticulum

The groups of folded membranes (canals) connecting the nucleus to the cytoplasm are called the endoplasmic reticulum (ER). If studded with ribosomes the ER is referred to as 'rough' ER; if not it is known as 'smooth' ER. Both help transport materials around the cell but also have differing functions.

Smooth endoplasmic reticulum

Rough endoplasmic reticulum (studded with ribosomes)

Golgi body

Another organelle, the Golgi body is one that processes and packages proteins, including hormones and enzymes, for transportation either in and around the cell or out towards the membrane for secretion outside the cell where it can enter the bloodstream.

Cell membrane
 Surrounding and supporting each cell is a plasma membrane that controls everything that enters and exits.

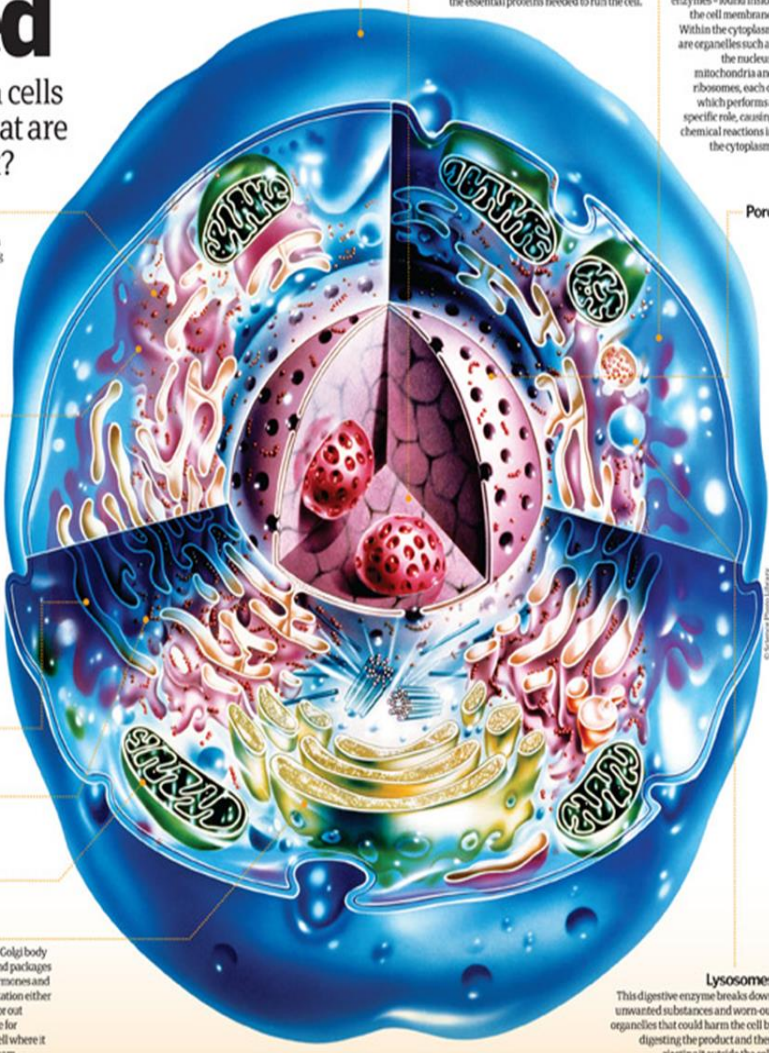
Cell anatomy

Nucleus
 The nucleus is the cell's 'brain' or control centre. Inside the nucleus is DNA information, which explains how to make the essential proteins needed to run the cell.

Cytoplasm

This is the jelly-like substance - made of water, amino acids and enzymes - found inside the cell membrane. Within the cytoplasm are organelles such as the nucleus, mitochondria and ribosomes, each of which performs a specific role, causing chemical reactions in the cytoplasm.

Pore



This month in Science

Get a closer look inside just one of the 75 trillion cells of all living animals in this fantastic cutaway illustration. Next, learn how gas behaves, including why bicycle pumps heat up when you compress the gas inside. Ever had sudden painful cramp? Well, find out what causes this discomfort in your muscles on page 67. Then brush up on how toothpaste works and see how they add those stripes.



67 Cramp



67 Fool's gold



68 Blood clots

SCIENCE

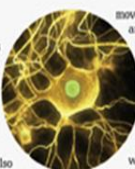
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Types of human cell

So far around 200 different varieties of cell have been identified, and they all have a very specific function to perform. Discover the main types and what they do...

NERVE CELLS

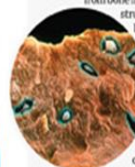
The cells that make up the nervous system and the brain are nerve cells, or neurons. Electrical messages pass between nerve cells along long filaments called axons. To cross the gaps between nerve cells (the synapses) that electrical signal is converted into a chemical signal. These cells enable us to feel sensations, such as pain, and they also enable us to move.



move. We can control skeletal muscles because they are voluntary. Cardiac muscles, meanwhile, are involuntary, which is fortunate because they are used to leaping your heart beating. Found in the walls of the heart, these muscles create their own stimuli to contract without input from the brain. Smooth muscles, which are pretty slow and also involuntary, make up the linings of hollow structures such as blood vessels and your digestive tract. Their wave-like contraction aids the transport of blood around the body and the digestion of food.

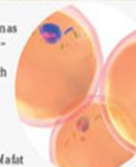
BONE CELLS

The cells that make up bone matrix - the hard structure that makes bones strong - consist of three main types. Your bone mass is constantly changing and reforming and each of the three bone cells plays its part in this process. First the osteoblasts, which come from bone marrow, build up bone mass and structure. These cells then become buried in the matrix at which point they become known as osteocytes. Osteocytes make up around 90 per cent of the cells in your skeleton and are responsible for maintaining the bone material. Finally, while the osteoblasts add to bone mass, osteoclasts are the cells capable of dissolving bone and changing its mass.



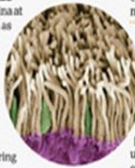
FAT CELLS

These cells - also known as adipocytes or lipocytes - make up your adipose tissue, or body fat, which can cushion, insulate and protect the body. This tissue is found beneath your skin and also surrounds your other organs. The tissue of a fat cell can increase or decrease depending on the amount of energy it stores. If we gain weight the cells fill with more watery fat, and eventually the number of fat cells will begin to increase. There are two types of adipose tissue: white and brown. The white adipose tissue stores energy and insulates the body by maintaining body heat. The brown adipose tissue, on the other hand, can actually create heat and isn't burned for energy - this is why animals are able to hibernate for months on end without food.



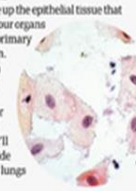
PHOTORECEPTOR CELLS

The cones and rods in the retina at the back of the eye are known as photoreceptor cells. These contain light-sensitive pigments that convert the image that enters the eye into nerve signals, which the brain interprets as pictures. The rods enable you to perceive light, dark and movement, while the cones bring colour to your world.



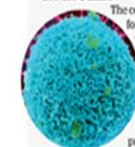
EPITHELIAL CELLS

Epithelial cells make up the epithelial tissue that lines and protects your organs and constitute the primary material of your skin. These tissues form a barrier between the precious organs and unwanted pathogens or other fluids. As well as covering your skin, you'll find epithelial cells inside your nose, around your lungs and in your mouth.



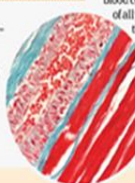
LIVER CELLS

The cells in your liver are responsible for regulating the composition of your blood. These cells filter out toxins as well as controlling fat, sugar and amino acid levels. Around 60 per cent of the liver's mass consists of hepatocytes, which are the liver's specialised cells that are involved with the production of proteins and bile.



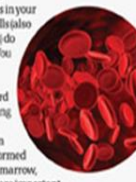
MUSCLE CELLS

There are three types of muscle cell - skeletal, cardiac and smooth - and each differs depending on the function it performs and its location in the body. Skeletal muscles contain long fibres that attach to bone. When triggered by a nerve signal, the muscle contracts and pulls the bone with it, making you



RED BLOOD CELLS

Unlike all the other cells in your body, your red blood cells (also known as erythrocytes) do not contain a nucleus. You are topped up with around 25 trillion red blood cells - that's a third of all your cells, making them the most common cell in your body. Formed in the bone marrow, these cells are important because they carry oxygen to all the tissues in your body. Oxygen is carried in haemoglobin, a pigmented protein that gives blood its red colour.



Lysosomes
 This digestive enzyme 'breaks down' unwanted substances and worn-out organelles that could harm the cell by digesting the product and then ejecting it outside the cell.

The ages of the universe and the earth were not known until recently. (We are still subject to error though, keep that in mind.) Only about 80 years ago the universe was considered steady state – that is as we see it now is how it was and how it will always be. The universe was the great I AM.

Then Hubble showed through the red shift that the universe in fact was expanding so that if the clock is run backwards the universe would have originated from a point later called the 'big bang'.



It was soon realized that the universe in fact was very old – not just the 6000 years – the bible allegedly said it was and as many Christians believe. The actual age of the universe is somewhere between 13.7 and 14.7 billion years from our point of view.

The Hubble telescope has recently given a reading of about 13.7 billion years, though like all science of this kind there is no theoretical basis for determining the exact age of the universe so there is always uncertainty surrounding the quoted figure.

Likewise the earth is about 4.5 billion years old and **as it was created from the same gas and dust cloud that made the solar system it is the same age as most of the other planets and the sun.** (A planet such as Pluto may have been captured).



Watch asteroids pummel the Earth in its first 500 million years

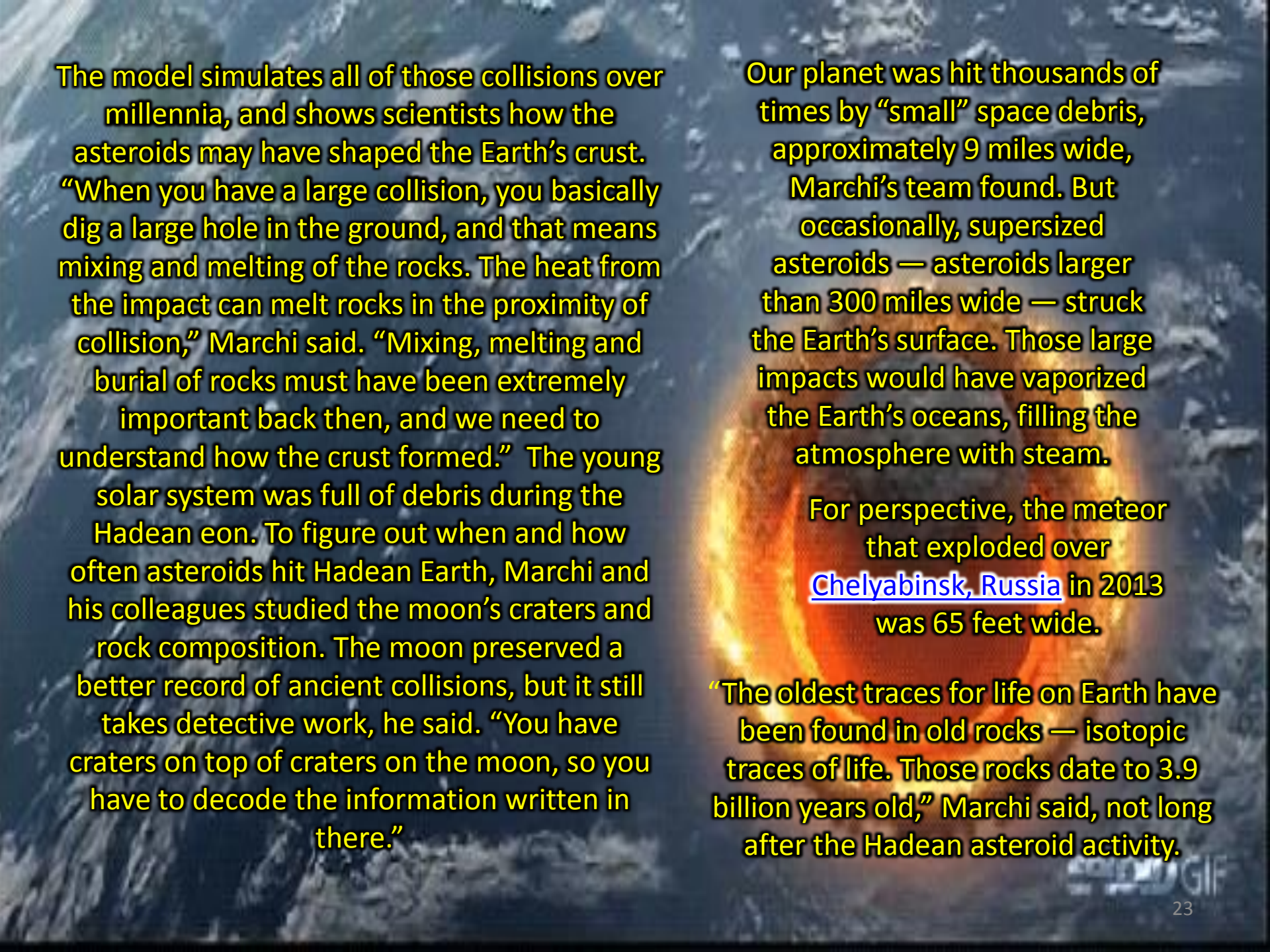


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BY REBECCA JACOBSON, INSIDE ENERGY July 30, 2014 at 5:28 PM EDT

A 500-million-year long storm of asteroids pummeled the infant Earth soon after it was formed, scientists believe. The smaller asteroids were the length of 15 football fields. The big ones were the size of Maine. These collisions, which occurred during the Hadean eon, 4 to 4.5 billion years ago, were crucial to the planet's evolution and may have paved the way for life. Those 500 million years of intense asteroid activity make up approximately 10 percent of the Earth's history, said Simone Marchi, a research fellow at the Southwest Research Institute in Boulder, Colorado.

Their model shows where and when thousands of asteroids struck the Earth, churning up hot magma under the newly-formed surface. That mixing and melting destroyed rocks from Earth's infancy. The oldest rocks recovered on Earth are 3.8 billion years old, too young to answer questions on the timing or magnitude of the asteroid strikes. An ancient mineral called zircon is the only material on Earth that appears to have survived the asteroid storm, but it is scattered throughout younger rocks, leaving few answers on its own.



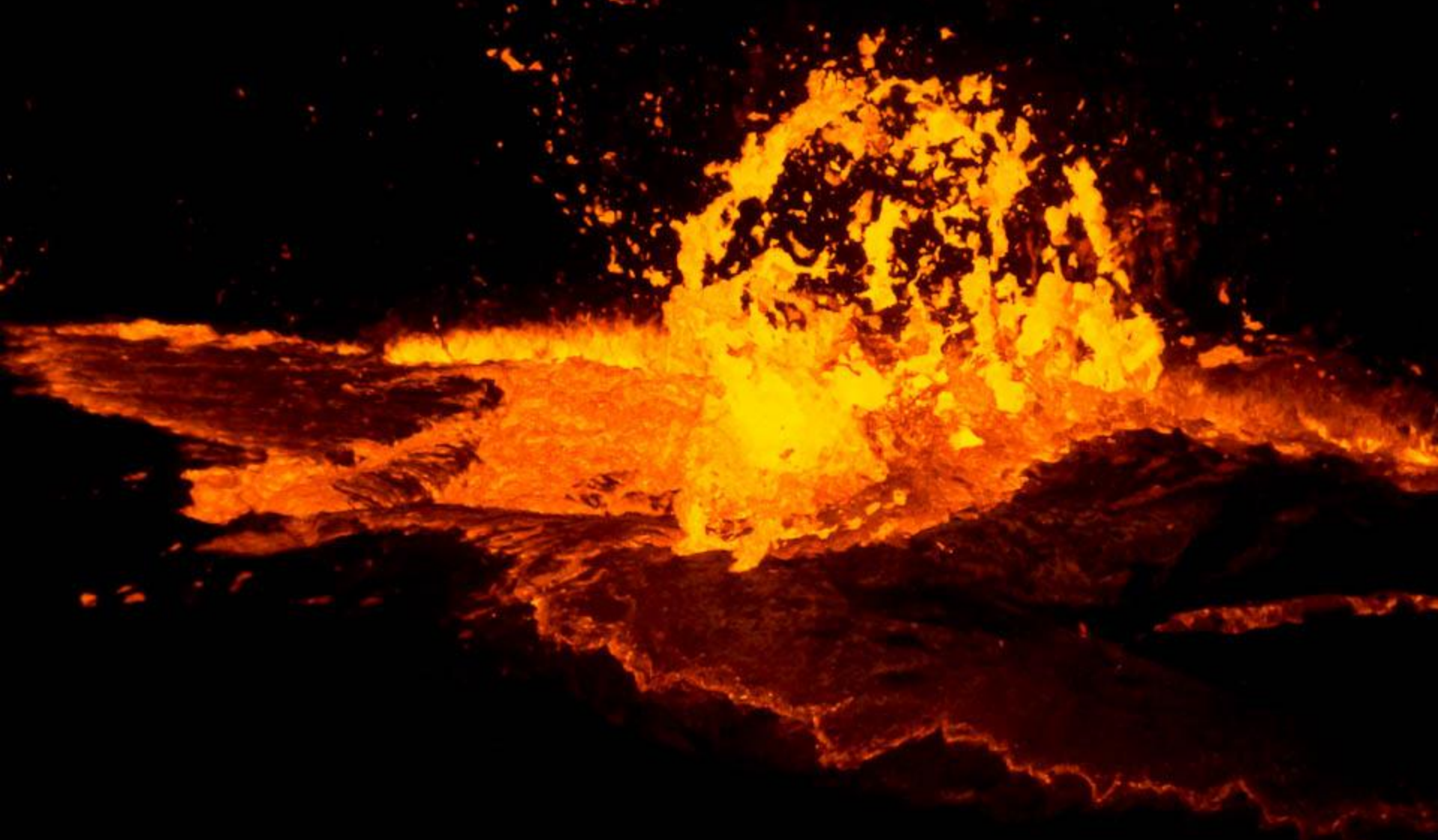
The model simulates all of those collisions over millennia, and shows scientists how the asteroids may have shaped the Earth's crust. "When you have a large collision, you basically dig a large hole in the ground, and that means mixing and melting of the rocks. The heat from the impact can melt rocks in the proximity of collision," Marchi said. "Mixing, melting and burial of rocks must have been extremely important back then, and we need to understand how the crust formed." The young solar system was full of debris during the Hadean eon. To figure out when and how often asteroids hit Hadean Earth, Marchi and his colleagues studied the moon's craters and rock composition. The moon preserved a better record of ancient collisions, but it still takes detective work, he said. "You have craters on top of craters on the moon, so you have to decode the information written in there."

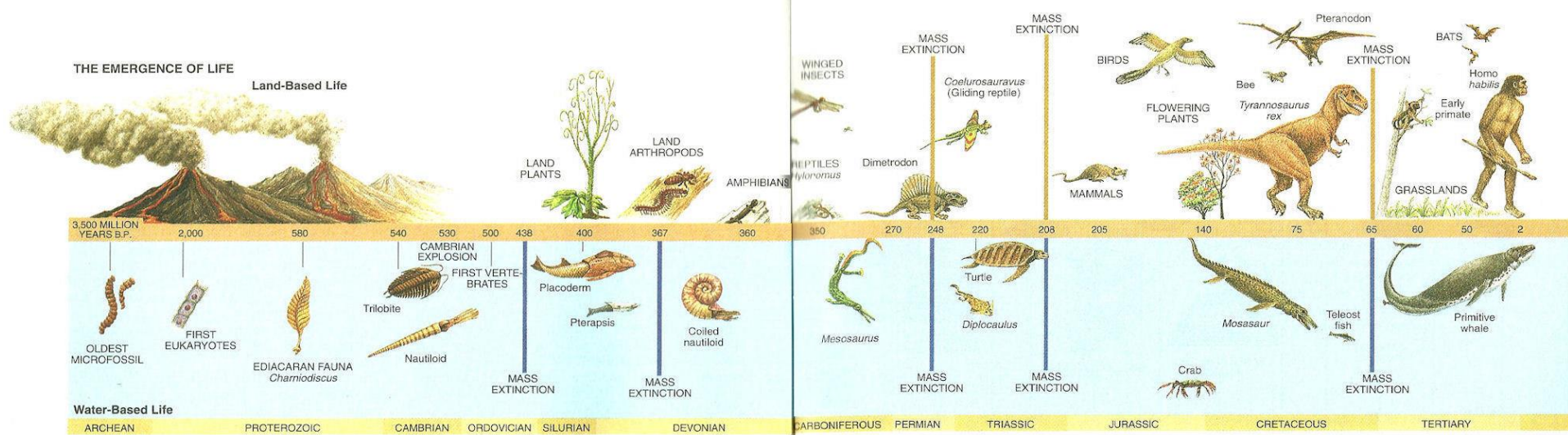
Our planet was hit thousands of times by "small" space debris, approximately 9 miles wide, Marchi's team found. But occasionally, supersized asteroids — asteroids larger than 300 miles wide — struck the Earth's surface. Those large impacts would have vaporized the Earth's oceans, filling the atmosphere with steam.

For perspective, the meteor that exploded over [Chelyabinsk, Russia](#) in 2013 was 65 feet wide.

"The oldest traces for life on Earth have been found in old rocks — isotopic traces of life. Those rocks date to 3.9 billion years old," Marchi said, not long after the Hadean asteroid activity.

Back to Roy: This melted the earth's original crust, removing all traces of it so that by the time the cometary bombardment ceased the new crust cooled to the point where it could support life. That was around 3.8 billion years ago from our point of view.





Modern ideas behind evolution are that life somehow started by random chemical combinations in pools of water on the earth's surface. From there life forms gradually changed under the forces of natural selection until eventually humanoids appeared. No supernatural input of any kind was required – only the laws of physics and chemistry. The early atmosphere was thought to be reducing – that is it contained little or no oxygen. Energy for chemical combinations was supplied by lightning bolts and/or UV radiation from the young sun. At the time the absence of oxygen implied the absence of ozone so that the entire UV spectrum could penetrate to the ground and influence the reactions occurring in the pools of water.

A consequence of this theory is that natural selection would gradually over time by progressive small advantageous variations change one species into another. Variations that were not advantageous would die out. Therefore there should be something like a paper trail of intermediate kinds found in the fossil record.



Howard Hughes Medical Institute
2011 Holiday Lectures on Science

BONES, STONES, AND GENES THE ORIGIN OF MODERN HUMANS

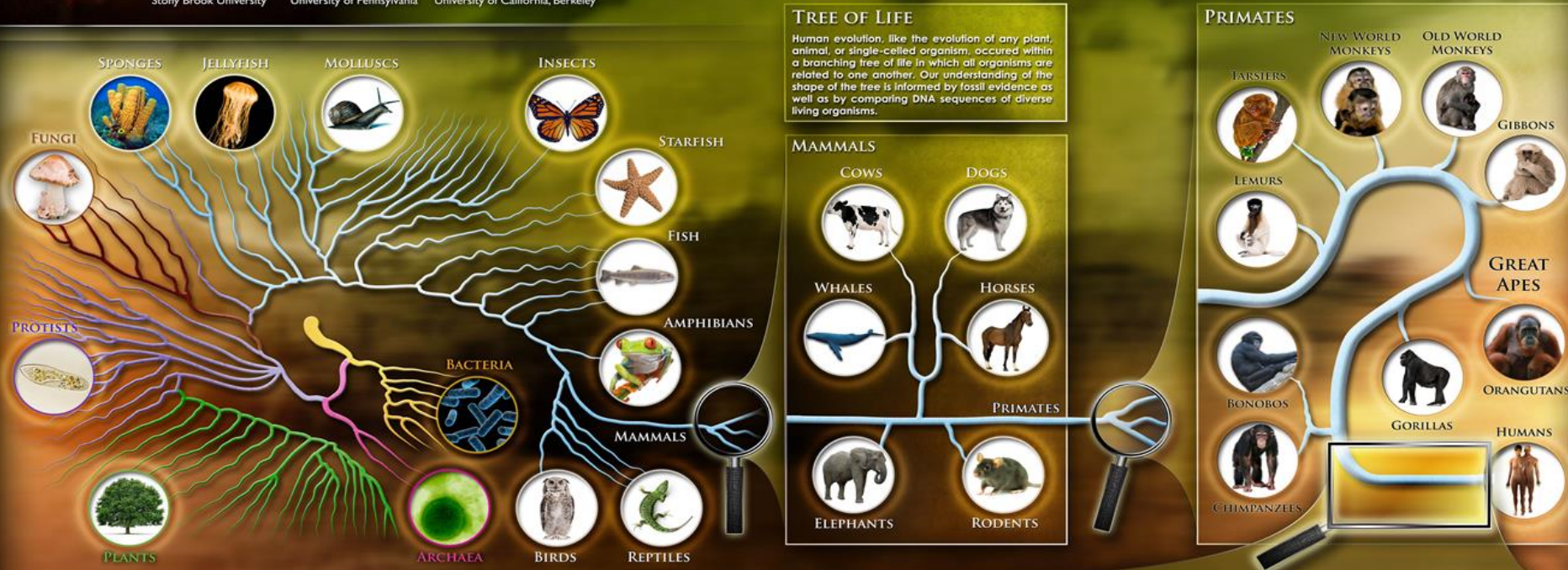
Three leading researchers of human evolution reveal the fossil and genetic evidence chronicling the origin of our species.

John J. Shea, Ph.D. Sarah A. Tishkoff, Ph.D. Tim D. White, Ph.D.
Stony Brook University University of Pennsylvania University of California, Berkeley

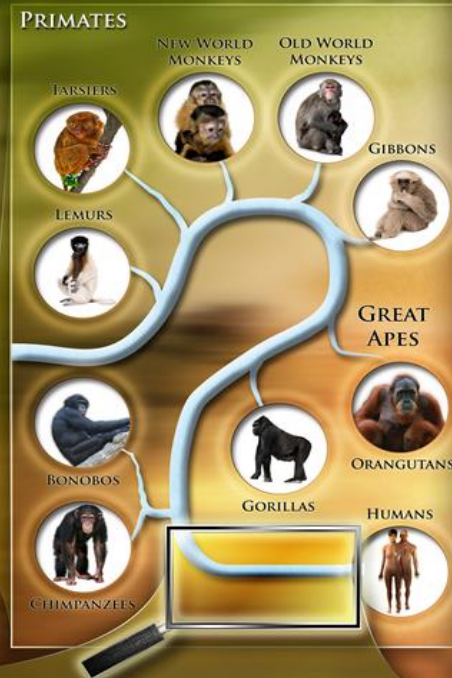
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April 2012

HUMAN EVOLUTION WITHIN THE TREE OF LIFE



TREE OF LIFE
Human evolution, like the evolution of any plant, animal, or single-celled organism, occurred within a branching tree of life in which all organisms are related to one another. Our understanding of the shape of the tree is informed by fossil evidence as well as by comparing DNA sequences of diverse living organisms.



ONGOING HUMAN EVOLUTION

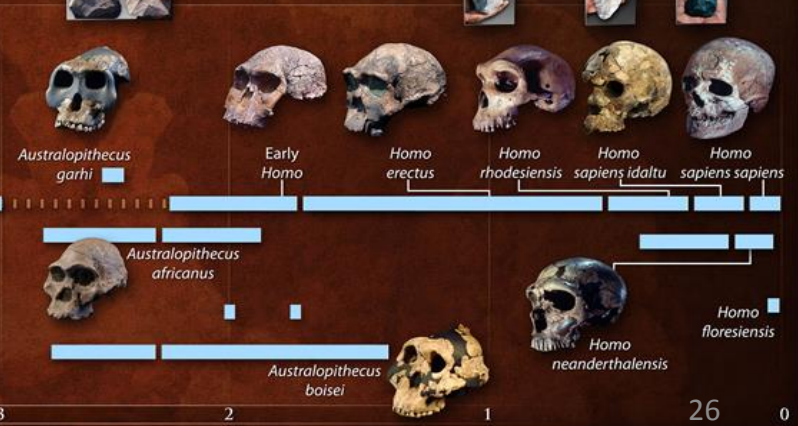
Although milk is essential nutrition for human infants, most people lose the ability to digest the lactose in milk after weaning, due to a reduction in the level of the enzyme lactase. Genetic evidence is consistent with the hypothesis that adult milk intolerance is the ancestral human trait. As the cultural practices of livestock herding developed in Europe and Africa, new mutations that caused lactase levels to remain high into adulthood arose independently in these populations. This adaptation allowed people to take advantage of a novel food source—the milk of newly-domesticated mammals. The descendants of these pastoralists are concentrated in East Africa and Europe and have spread worldwide in more recent migrations.



HOMINIDS



STONE TOOLS



HUMAN EVOLUTION
Important fossils of numerous human ancestors have been discovered during the last century, and there are now thousands of fossils documenting human evolution after our lineage spills from the lineage that led to chimpanzees. These fossils can be placed on a timeline that reveals the basic course of our evolution, even though details are still being worked out. Shown here are some key hominid skulls chosen to illustrate phases in this evolution, along with examples of contemporaneous stone tools that provide glimpses into how these hominids behaved. Blue bars represent species lineages for humans and their closest, but now extinct, relatives. Our evolution continues today, as selection and other forces act on the genetic variation in the world's human population.

Instead, apart from one famous fossil – archaeopteryx – none have been found. What we do find are fossils of one species, then fossils of another that has supposedly resulted from the former.

The absence of a continuous fossil record confirming Darwin's hypothesis was well known to him and was also the source of much anxiety for him.

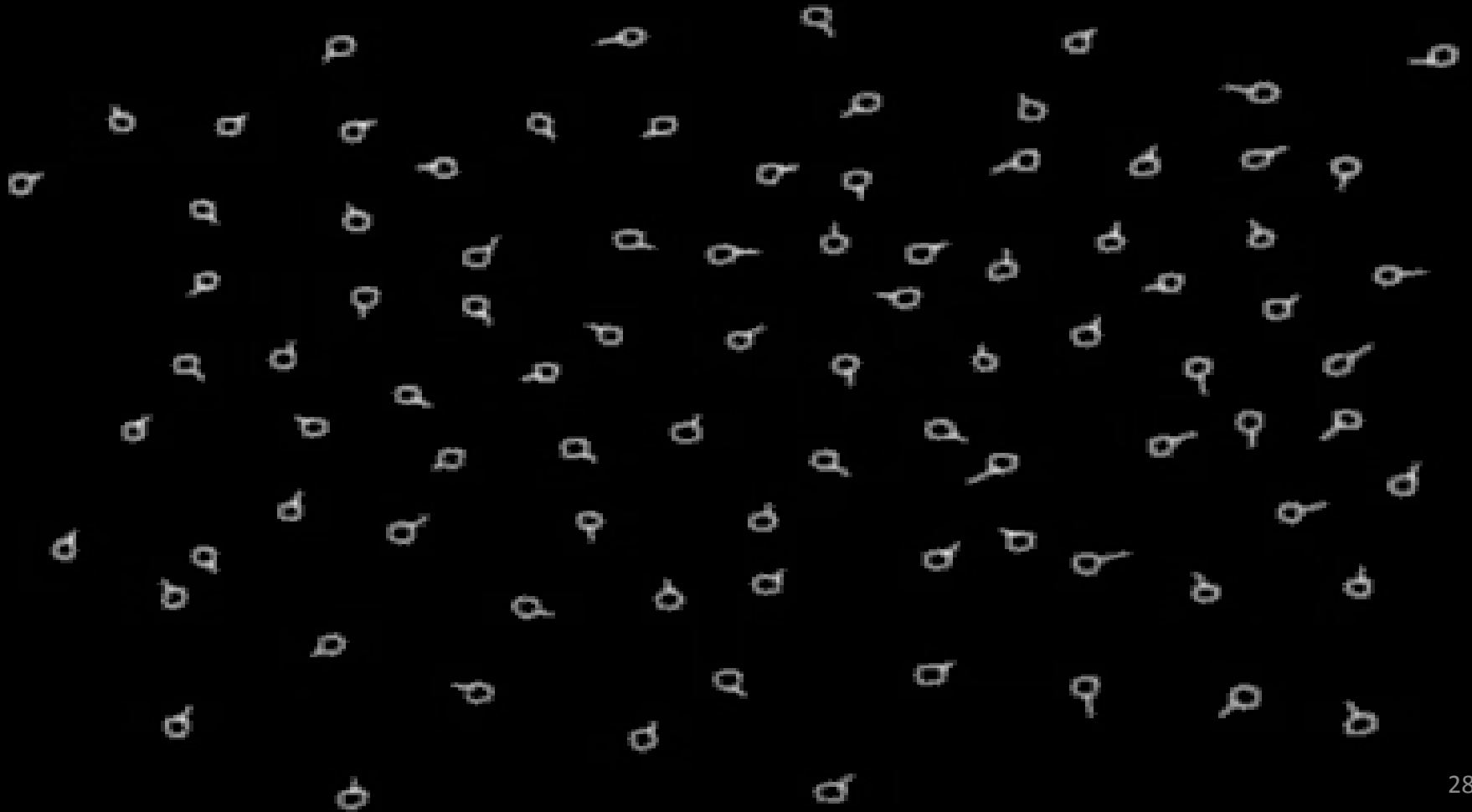
*The absence of a continuous fossil record led to another theory of evolution called **punctuated equilibrium** in which species somehow changed from one to another very rapidly leaving no intermediates.*

Whatever theory of evolution is chosen there are obvious requirements for the theory to be true.

The first is that a disordered state can spontaneously go to an ordered state. In terms of life that is to say that randomly distributed elements can spontaneously combine to form primitive life that becomes self-sustaining.

Second: this primitive life can then continue an upward path by natural selection to produce all the sophisticated life we find on earth today.


The third is there must be eons of time to bring evolution about.



The first requirement is called **abiogenesis** which means **spontaneous generation of life**. I will divide evolutionary theory into **macro-evolution** and **micro-evolution** which correspond to the first two axioms that I have described. Time is a requirement for both.

There is, however, a side issue related to **abiogenesis** that needs to be dealt with first: Fred Hoyle, a British cosmologist argued a case for **panspermia**, **an idea that earth was seeded with viruses and organic molecules from outer space thus avoiding the need for abiogenesis (spontaneous generation of life) on earth and thereby allowing evolution by natural selection to proceed here on earth.**

Nonsense of a high order



“The notion that... the operating programme of a living cell could be **arrived at by chance in a primordial soup here on the Earth is evidently nonsense of a high order.”**

Evolutionist Sir Fred Hoyle, “The Big Bang in Astronomy,” New Scientist, Vol 92, No 1280 (November 19, 1981), p527. (Emp added)

Evolutionist Sir Fred Hoyle

Hoyle, however, seemed to have been remarkably confused about creation, abiogenesis and evolution. I offer two quotes for your consideration:

Would you not say to yourself, "Some super-calculating intellect must have designed the properties of the carbon atom, otherwise the chance of my finding such an atom through the blind forces of nature would be utterly minuscule. A common sense interpretation of the facts suggests that a super intellect has "monkeyed with" physics, as well as with chemistry and biology, and that there are no blind forces worth speaking about in nature. The numbers one calculates from the facts seem to me so overwhelming as to put this conclusion almost beyond question." (Fred Hoyle, "The Universe: Past and Present Reflections." Engineering and Science, November, 1981. pp. 8–12)

What he means by "monkeyed with" is that if you just run probabilities based on the laws of physics you just don't get there. There had to be an outside influence.

and a part quote: "If one proceeds directly and straightforwardly in this matter, without being deflected by a fear of incurring the wrath of scientific opinion, one arrives at the conclusion that biomaterials with their amazing measure of order must be the outcome of intelligent design." (Hoyle, Fred, Evolution from Space, Omni Lecture, Royal Institution, London, 12 January 1982)

Although it sounds like he is on the right track-there is some issues. And he was an atheist.

Fred Hoyle



24 Jun 1915 – 20 Aug 2001

Since Hoyle [believed in a steady state universe](#), there would have been an infinite amount of time in which these space-based viruses and molecules could have arisen and more than enough time for them to travel through the reaches of space to earth carried on comets or other interstellar bodies.

However, with final confirmation of the big bang theory of the origin of the universe and the subsequent deduction of the universe's age, Hoyle's thesis falls apart. His conclusion that I quoted above of [the origin of life on this planet would preclude for similar reasons the development of life elsewhere and its transport to earth.](#) In short there simply was not enough time. Panspermia simply puts the origin of life out of reach and doesn't solve any of the fundamental problems of evolution.

NATIONAL
GEOGRAPHIC

Panspermia:

Could life hitch a ride on meteoroids,
asteroids, and comets?

Nevertheless for a time his theory took hold aided by the experiments of Miller and the discovery of organic molecules and micro-organisms in comets and meteorites such as the Murchison meteorite.

Does anyone else find it odd that this is a “new arrival” from space?

The Murchison Meteorite – A “Messenger from Space”

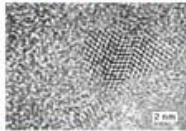
Amino Acids	17-60 ppm
Aliphatic Hydrocarbons	>35 ppm
Aromatic Hydrocarbons	3319 ppm
Fullerenes	>100 ppm
Carboxylic Acids	>300 ppm
Hydrocarboxylic Acids	15 ppm
Purines and Pyrimidines	1.3 ppm
Alcohols	11 ppm
Sulphonic Acids	68 ppm
Phosphonic Acids	2

Fall Date is 28 September 1969
 100 kg known weight
 36°37' S, 145° 12' E

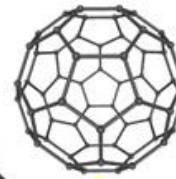
Type
 Class
 Group

Chondrite
 Carbonaceous Chondrite
 CM2

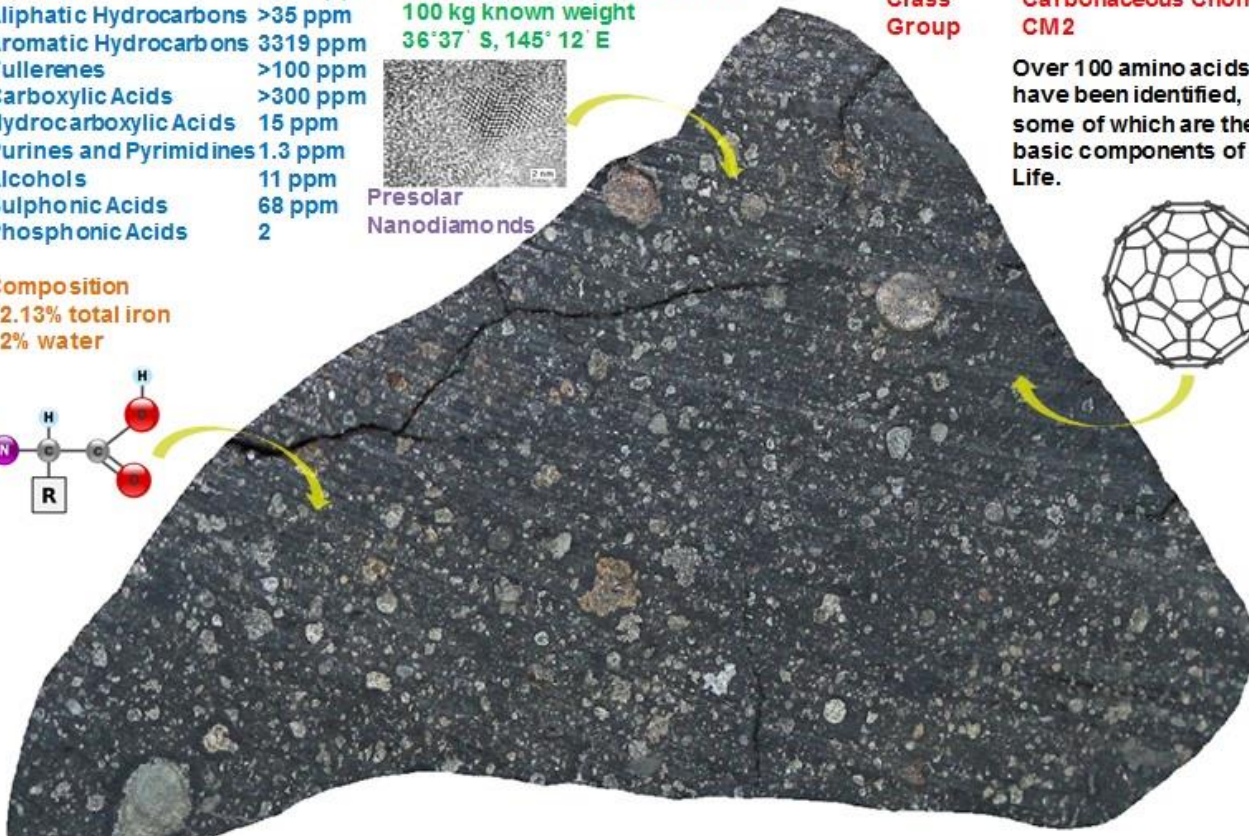
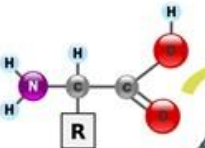
Over 100 amino acids have been identified, some of which are the basic components of Life.



Presolar Nanodiamonds



Composition
 22.13% total iron
 12% water



It fell in 1969!
 Remember we had been to space before this- one has to wonder what we “deposited” up there in our space debris.

This is a fragment from the 'Murchison Meteorite' which landed in Victoria, Australia in 1969. It has been dated at nearly 4.95 billion years old - nearly 500 million years older than the age of the Earth...



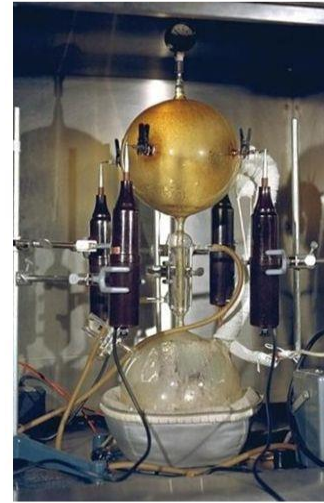
CM chondrites, together with the CI group, are rich in carbon and are among the most chemically primitive meteorites in our collections.

In 1952 Stanley Miller and Harold Urey carried out an experiment that mimicked what was considered to be the conditions in the early earth's atmosphere.

Volcanoes would have been erupting; lightning would have lit up the sky. The gases of the atmosphere would have contained carbon dioxide, hydrogen Sulphide, Sulphur dioxide, nitrogen, oxides of nitrogen and cyanides. The atmosphere would have been translucent but not the clear atmosphere we presently enjoy. In particular little or no free oxygen would have been present.

These gases were enclosed in a glass reaction vessel in which simulated lightning was produced by electrical sparks. After a week or two a brownish discoloration was found in the flask. Analysis showed this to contain many amino acids. With the addition of other constituent gases even more organic molecules were created, many if not most of those forming the building blocks of life. **It seemed that abiogenesis had been shown to be true. Champagne bottles were uncorked and more organic molecules were poured into frothing glasses for the enjoyment of atheists.**

Origin of Organic Molecules: Miller's experiments



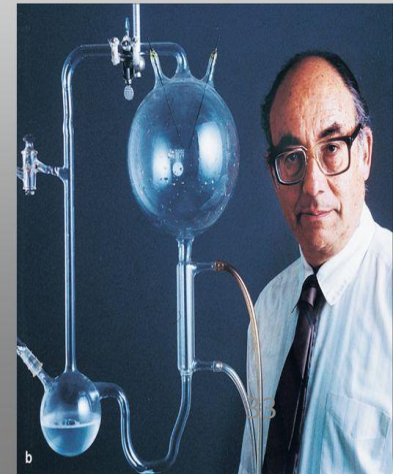
In 1953 a graduate student, Stanley Miller, and his professor, Harold Urey, performed an experiment that proved organic molecules could have spontaneously formed on early Earth from inorganic precursors. The now-famous "Miller-Urey experiment" used a highly reduced mixture of gases – methane, ammonia and hydrogen – to form basic organic monomers, such as amino acids.

The Miller-Urey experiment attempted to recreate the chemical conditions of the primitive Earth in the laboratory, and synthesized some of the building blocks of life.

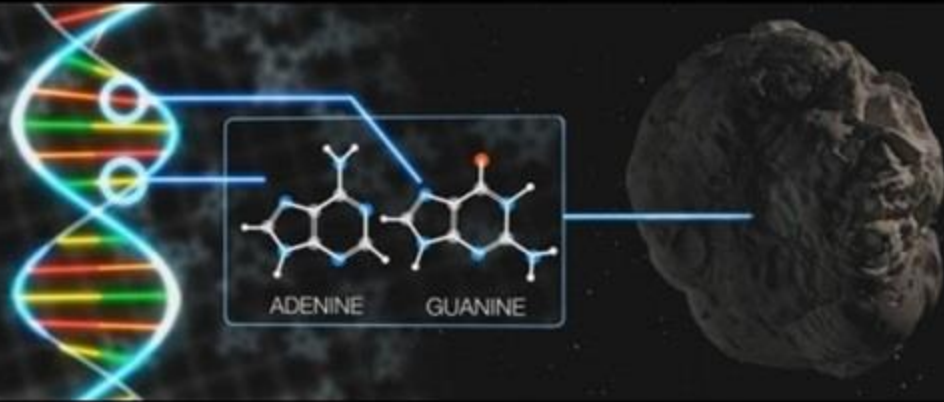
How the relatively simple organic building blocks polymerase and form more complex structures?

The Origin of Life on Earth

- An important experiment performed by Stanley Miller and Harold Urey in 1952 sought to recreate the conditions in which life on Earth might have begun.



COLLOIDAL



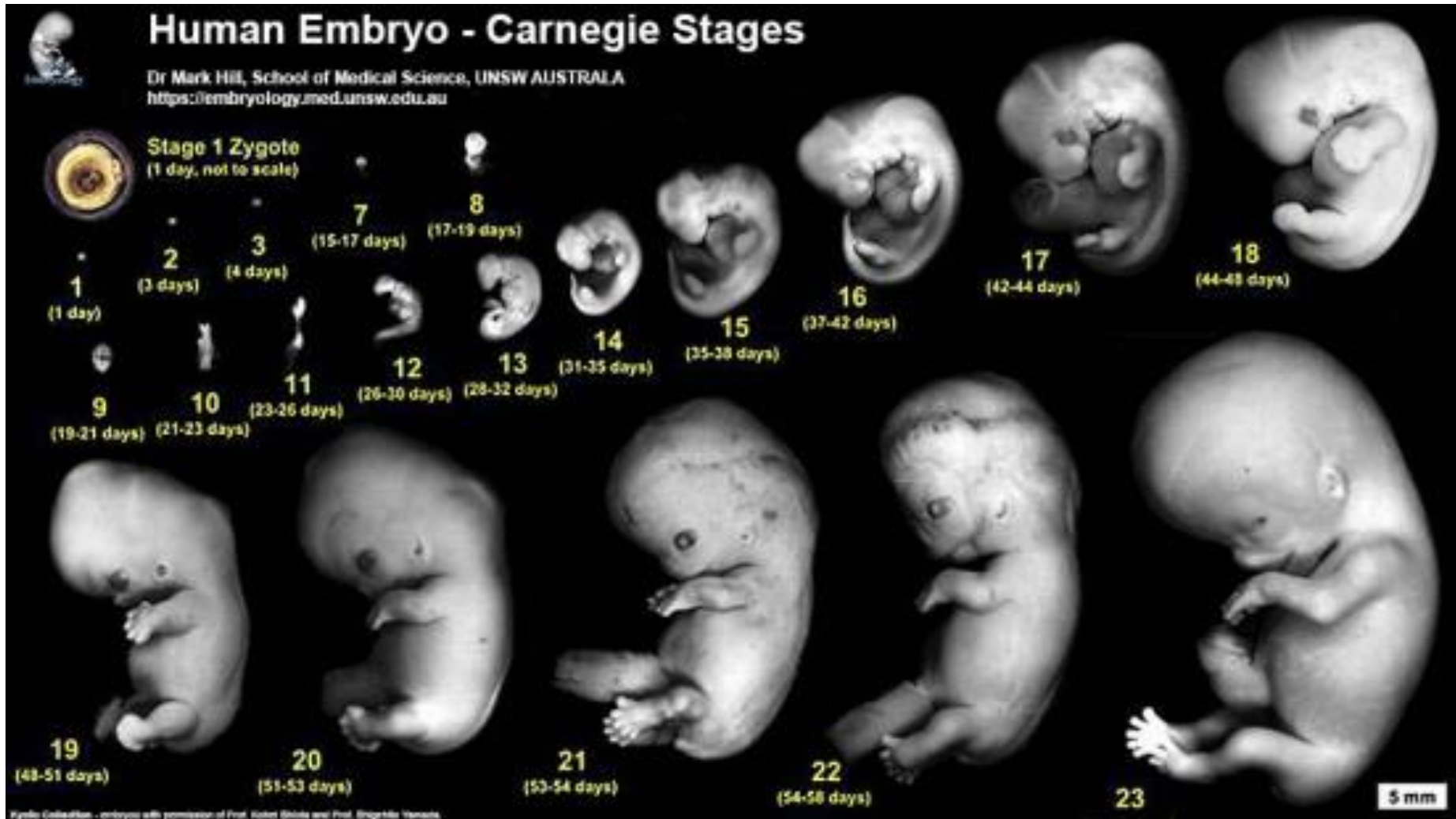
In 1969 at Murchison in Victoria, Australia, a carbonaceous chondrite meteorite exploded and deposited fragments some weighing up to 7 kg across a wide area. Within these fragments were found 15 amino acids and a raft of other organic molecules including micro-organisms. More champagne bottles were uncorked and more organic molecules were poured into frothing glasses.

MURCHISON METEORITE

The presence of micro-organisms seemed to cement the idea of panspermia but even if panspermia were true it still didn't explain how life could spontaneously arise anywhere in the universe.

With time it became obvious that these organic molecules were abundant, being easily made and found in other comets and meteors. In the same way that iron rusts when water and oxygen are present so these molecules would spontaneously form under the right conditions.

The one thing they were not was life.



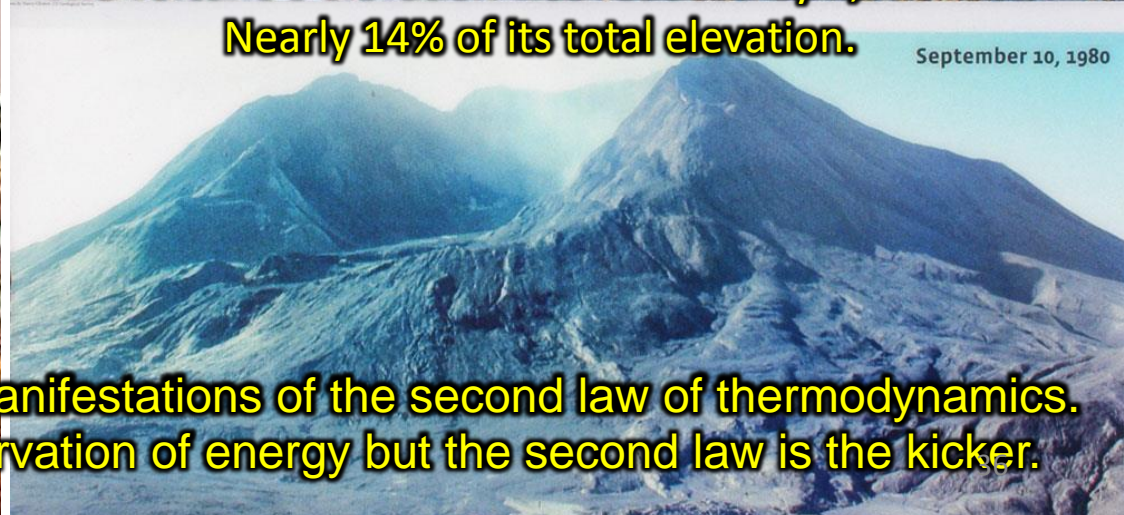
But **abiogenesis (spontaneous generation of life)** or **macro-evolution** had other problems.

The first was the laws of thermodynamics.

We all know that a hot cup of coffee left on the bench cools until its temperature is the same as its surroundings. We know machines wear out, despite our best endeavors to keep them going. Our bodies age and fall apart, our genome deteriorates, mountains erode and disappear.



The volcano's elevation was reduced by 1,300 feet.
Nearly 14% of its total elevation.



All these and other events are manifestations of the second law of thermodynamics. The first law relates to the conservation of energy but the second law is the kicker.

It says that:

With every energy exchange some energy is degraded and unable to do useful work so that in the end we cannot win. These laws are a consequence of the large but limited amount of energy in the universe. Since the universe is expanding the average amount of energy per unit volume is decreasing so that information (which is energy and its handmaiden order) decreases while randomness and disorder increase.

This is called **entropy** and the second law states that it is globally increasing. We can stop or even reverse entropy in localized areas such as with air conditioning but the result is that we must locally use more high quality energy to do so with the result that globally entropy is increased. Again, **please take note: achieving a decrease in entropy requires an intelligent input.**

An obvious objection is that evolution – if it increases complexity – must by definition decrease entropy without an intelligent input. Both macro and microevolution rely on this idea for their validity. I shall deal with them later but to give you a hint I'll mention here the concept of front-loaded evolution.

What we see with entropy is a universal progressive loss of information and order with the passage of time. The reverse of this, for example – a cup of cold coffee spontaneously heating to a drinkable temperature – has never and will never be observed.



Our chemistry is continually working against the second law to maintain as best as possible the ordered structure we call our bodies. For that we need energy – otherwise known as food.

So the whole universe is slowly winding down, localized sources of high quality energy are dissipated, stars burn through their fuel and die and the universe progressively darkens to the blackness of an eternal night. This is called the thermal death of the universe because we arrive at a point where there is not enough free energy to carry on processes – including thought.



Yet, despite all of this knowledge we still have people that tell us that order – not just order but order of a high degree - comes about spontaneously. They tell us that molecules self organize into an ordered structure, that stars form from randomly distributed dust clouds to radiate light and heat.

And indeed they do but at a high entropic cost. The spontaneous localized order causes entropy to speed up, burning the available energy in stars and degrading that energy so it is no longer available with the result that globally **entropy** (With every energy exchange some energy is degraded and unable to do useful work) has taken a giant leap forward. The same is true of self-organising molecules. Under appropriate energetic conditions, crystals of – say, quartz , diamond or even salt will form but these structures adopt the lowest energy state for their configuration and immediately **entropy** starts breaking them down again when the conditions of their formation change.

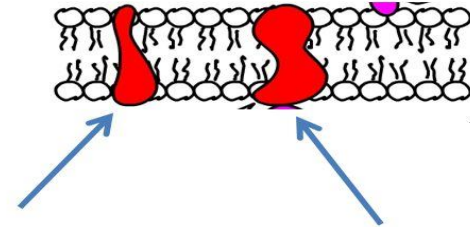
Even so, self organizing molecules are a cause celeb of macro-evolutionists.

The problem for the macro-evolutionists is that the structures that form from these self-organising molecules are low in information and still require an energetic cost to form. Energy is either put in to make the structure or it's lost to the environment.

Many of the molecules that make up our bodies are high in information. Proteins have a specific sequence so that they can assume a functional form and carry out the job for which they were made. In every cell except RBCs DNA and RNA are found.

Who am I?

- I am a protein molecule that is permanently attached or firmly anchored in the plasma membrane. I also serve as transport proteins, chemical receptors, and regulators for cell to cell recognition.

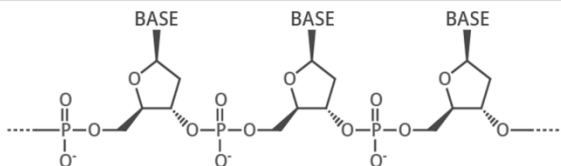


DNA is deoxy ribose nucleic acid and RNA is ribose nucleic acid. Both are found in various forms in the cell but most are concentrated in the nucleus. DNA is the main nuclear constituent. It is a double helix formed by a repeating backbone of a sugar called ribose and phosphate groups that join them together. (Deoxy means that a hydroxyl group on the sugar has been replaced by hydrogen which for chemical reasons means it cannot bind another molecule of phosphate at that site.)

THE CHEMICAL STRUCTURE OF DNA

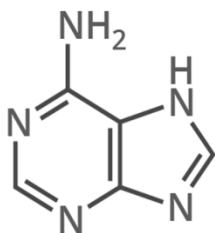
DNA (deoxyribonucleic acid) carries genetic information in all multicellular forms of life. It carries instructions for the creation of proteins, which carry out a wide range of roles in the body.

THE SUGAR PHOSPHATE 'BACKBONE'

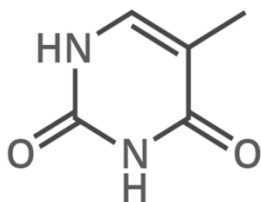


DNA is a polymer made up of units called nucleotides. The nucleotides are made of three different components: a sugar group, a phosphate group, and a base. There are four different bases: adenine, thymine, guanine & cytosine.

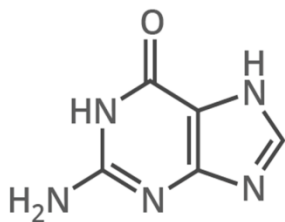
A ADENINE



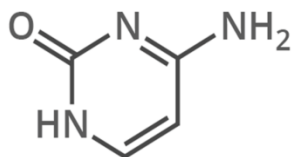
T THYMINE



G GUANINE

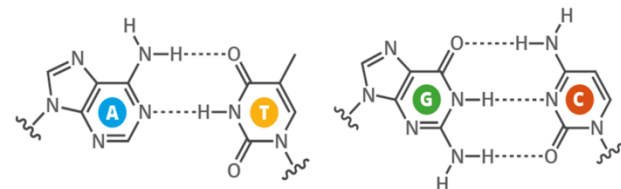


C CYTOSINE



WHAT HOLDS DNA STRANDS TOGETHER?

DNA strands are held together by hydrogen bonds between bases on adjacent strands. Adenine (A) always pairs with thymine (T), whilst guanine (G) always pairs with cytosine (C).



FROM DNA TO PROTEINS



The bases along a single strand of DNA act as a code. The letters form three letter 'words', or codons, which code for different amino acids - the building blocks of proteins.

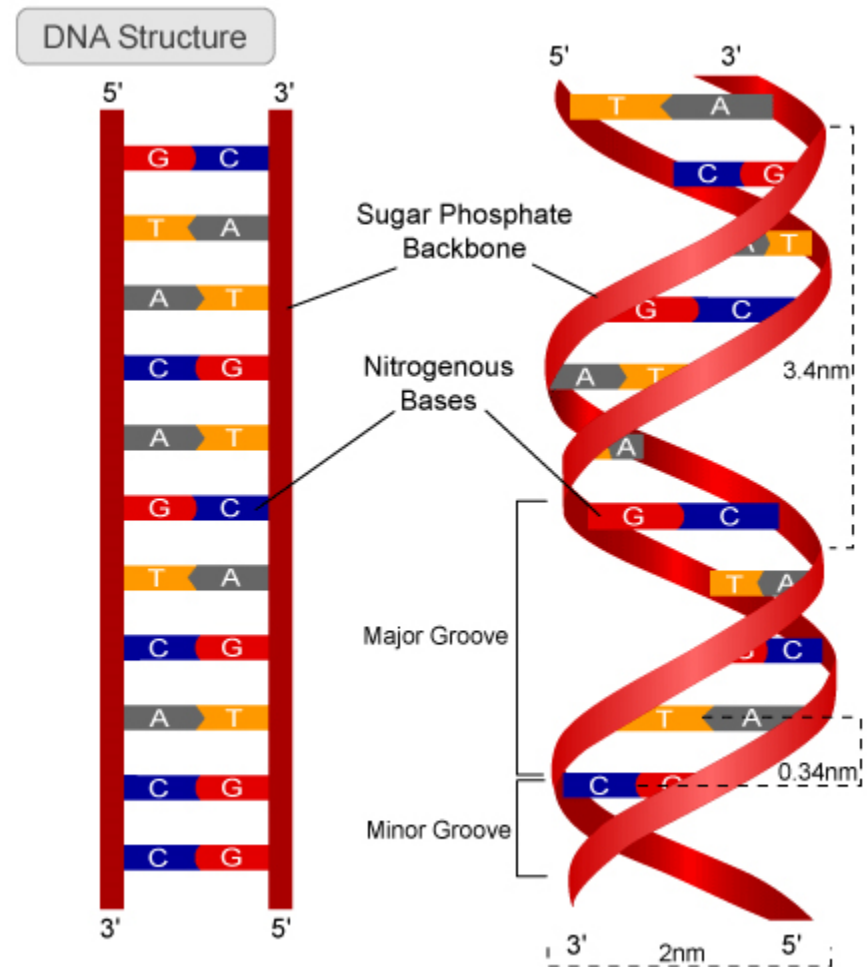
An enzyme, RNA polymerase, transcribes DNA into mRNA (messenger ribonucleic acid). It does this by splitting apart the two strands that form the double helix, then reading a strand and copying the sequence of nucleotides. The only difference between the RNA and the original DNA is that in the place of thymine (T), another base with a similar structure is used: uracil (U).



In multicellular organisms, the mRNA carries genetic code out of the nucleus, to the cell's cytoplasm. Here, protein synthesis takes place. 'Translation' is the process of converting turning the mRNA's 'code' into proteins. Molecules called ribosomes carry out this process, building up proteins from the amino acids coded for.



The helix is joined together like a ladder by rungs of specialized molecules called purines and pyrimidines. On each rung one purine has just the right shape and length to mate with a pyrimidine on the opposite DNA strand to form the helix. Those used in the human genome are given the letters ATCG which stands for adenine, thymine, cytosine and guanine. Uracil -U - is found in RNA in place of thymine. The code the DNA carries is in the form of groups of three rungs. Each group codes for an amino acid. The code is not highly specific in that for some amino acids, a number of groups will code for the same amino acid. In addition the first two rungs of each group of three are most important, the variation mentioned above is always found in the last rung.



Dept. Biol. Penn State ©2004

All of the molecules I have mentioned have been found in meteorites and made here on earth by processes such as the Miller experiment. This, of course, gave heart to the macros but the problem for them lies not in the ease with which these molecules are made but in the way they are assembled.

If you leave a salt water solution to evaporate the water away what is left are crystals of sodium chloride. The crystal self-assembles quite easily in these conditions but the crystal is in a low information state i.e. if you were building the crystal from scratch you could choose any of the sodium chloride molecules to fit into the crystal lattice in any order and still come out with the same crystal.



On the other hand, even when crystalized, large organic macromolecules have high or very high information. To make a protein with a specific sequence so that it will fold into a specific 3D structure and be functional the order of the amino acids is important. Not all the sequence of amino acids is critical but there are places in the protein sequence where their order is critical. Change one of these and the protein becomes useless. The same is true but on a much grander scale for DNA.



As an example while working in a biochemistry laboratory I made a protein called apolipoprotein C1.

It was made by using a bacterial cell called E coli which contained a circular piece of DNA called a plasmid into which my sequence was inserted. The E Coli then made more of itself and in so doing made my protein bound up with the plasmid.

My protein was then extracted (detail is not important), purified and characterized.

It was a small protein – 57 amino acids in sequence and it proved to be functionally identical to the naturally occurring protein in the human body.

Now it would seem that putting 57 specific amino acids into a line and joining them together should be simple but it is anything but. And that's in a laboratory under controlled conditions and with intelligent (some may dispute that) input.

Macro evolutionists think forming a protein in nature without any intelligent input should be a doodle. Richard Dawkins, a paleo biologist is one such. He is the author of Climbing Mount Improbable which I will show and others have shown is really climbing mount impossible.

The reason comes back to picking the winning numbers in gold lotto or powerball. But it's worse than that. In Gold Lotto and Powerball you only need the winning numbers. The order in which they are drawn does not matter.

MATCH	PRIZE	POWER PLAY® PRIZES				
		2X	3X	4X	5X	10X
5 OF 5 + POWERBALL®	JACKPOT <small>Win or share jackpot prize</small>	Power Play® Multiplier does not apply to jackpot.				
5 OF 5*	\$1,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
4 OF 5 + POWERBALL	\$50,000	\$100,000	\$150,000	\$200,000	\$250,000	\$500,000
4 OF 5	\$100	\$200	\$300	\$400	\$500	\$1,000
3 OF 5 + POWERBALL	\$100	\$200	\$300	\$400	\$500	\$1,000
3 OF 5	\$7	\$14	\$21	\$28	\$35	\$70
2 OF 5 + POWERBALL	\$7	\$14	\$21	\$28	\$35	\$70
1 OF 5 + POWERBALL	\$4	\$8	\$12	\$16	\$20	\$40
0 OF 5 + POWERBALL	\$4	\$8	\$12	\$16	\$20	\$40

In molecular biology the order of selection is critical.

In our biology we use 20 different amino acids. All 20 of these can be made in primordial pools of water in a reducing atmosphere with incoming UV light and lightning strikes.

WHAT ARE THE ODDS?



Let's say the first three amino acids in apo C1 are serine, glycine and threonine. Let's say all three AAs are present in multiple primordial pools into which organic molecules are falling from the clouds above. One of Richard Dawkin's UV photons strikes an amino acid in the pool, giving it the energy it requires to somehow covalently bind to another AA. There are 20 different amino acids to select from in the pool. Remember there is no intelligence directing this show, it is simply blind mother nature at work. She has 20 different ways of selecting the first amino acid. Let's say she's lucky and it's a serine. The next amino acid she must strike to get the correct sequence is a glycine – again a 1 in 20 chance of getting it right – and again with the third amino acid threonine. She has been lucky so far, but what is the probability she will get it right all the way to the end of the sequence? There are 20 ways of choosing the first AA, and 20 ways of choosing the second AA and 20 ways of choosing the third AA. The word 'and' means we multiply to get the number of possible ways of choosing just 3 amino acids in the right sequence. For this example it is $20 \times 20 \times 20$ which is 8000. So to choose correctly the first three AAs is 1 chance in 8000.

WHAT ARE THE ODDS?



Now consider the probability of making by random combinations all 57 amino acids in the correct sequence to make the protein functional. The probability is 1 divided by 20 multiplied by itself 57 times. Rearranging, this probability becomes 1 in 10^{74} as shown in my paper on evolution. Or the same number as all the particles in the known universe! That is for one small protein that on its own has no ability to create life, out of the thousands that are encoded in the human genome. The numbers involved for even a moderately sized protein are mind boggling. Then you have to consider that these proteins do not act alone. They require the right environment and associated proteins and sometimes RNA to be fully functional.

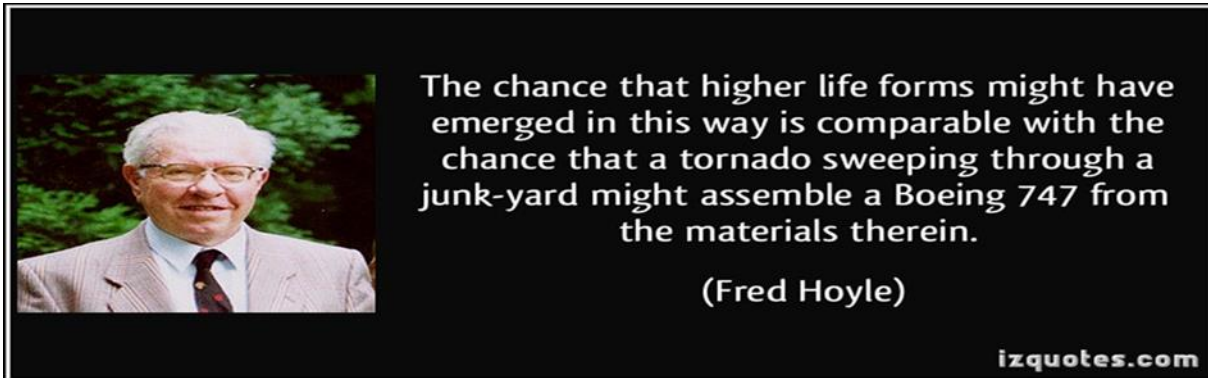
Keep in mind a trillion is 10^{12} !

And there is a further sting in the tail for Dawkins and others like him.

Entropy (With every energy exchange some energy is degraded and unable to do useful work) does not stand still. Once a protein is formed or partially formed, the same UV/lightning strike that formed it can just as easily destroy it. And finally neither can it reproduce itself.

Hoyle, wedded to panspermia inadvertently gave himself a home goal and Yah a victory for common sense: here I'm quoting from a Wikipedia article: Published in his 1982/1984 books *Evolution from Space* (co-authored with Chandra Wickramasinghe), Hoyle calculated that the chance of obtaining the required set of enzymes for even the simplest living cell without panspermia was one in $10^{40,000}$. Since the number of atoms in the known universe is infinitesimally tiny by comparison (10^{80}), he argued that Earth as life's place of origin could be ruled out. He claimed:

“The notion that not only the biopolymer but the operating program of a living cell could be arrived at by chance in a primordial organic soup here on the Earth is evidently nonsense of a high order.”



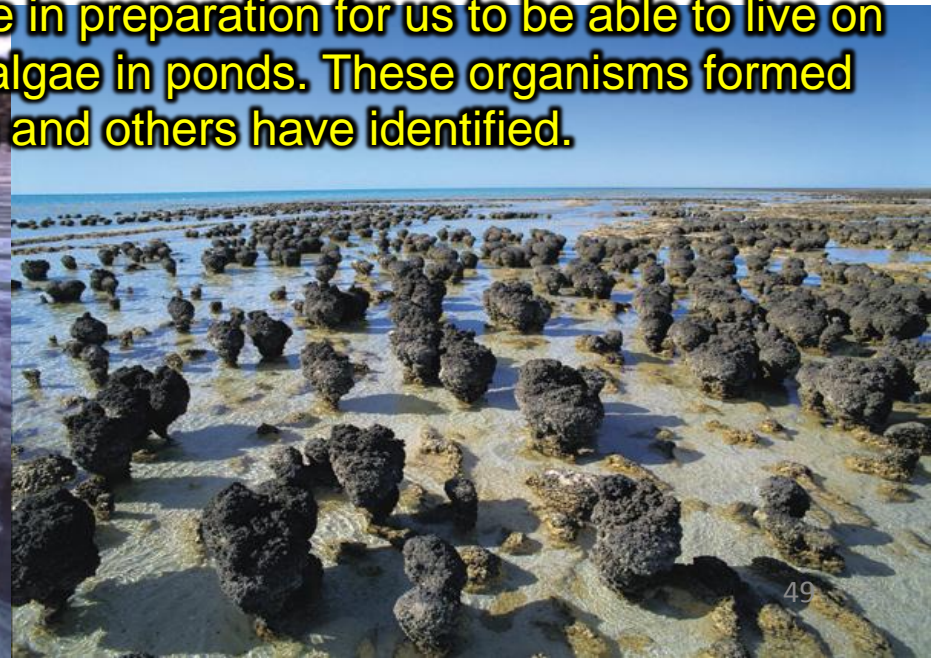
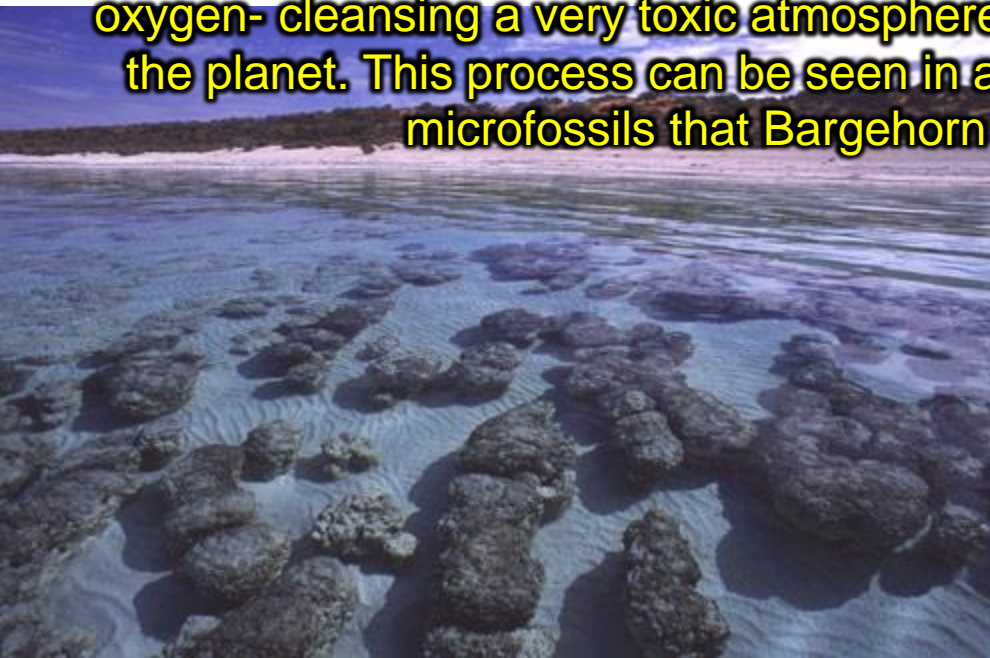
Keep in mind that even in the junk yard theory it was filled with things that intelligent design had made. Add to that we still don't fully understand the human body! Being able to map DNA and understand DNA is A huge difference.

There you have it. The fatal thrust against abiogenesis and not even delivered by some miserable, ignorant creationist but by one of the most eminent scientists of his age.

The other problem Dawkins has is time. There ain't enough of it. The time available from the cessation of the cometary bombardment was about 3.8 billion years. Seems a lot, doesn't it? Yet professor Bargehorn found microfossils in rocks at least 3.4 billion years old. That means that soon after the earth's crust was cool enough to support liquid water and hence life, life sprang into existence. Cyanobacteria were one of many different versions of archaebacteria.

We can still see them at work today in mushroom shaped mounds called [stromatolites in Shark Bay Western Australia](#). These mounds have their counterparts in the fossil record in ancient gneiss in Greenland.

Cyanobacteria are not sophisticated cells such as we possess but they were nevertheless fully functional working organisms with their own genome and protein array capable of fixing carbon dioxide in the primitive atmosphere, thereby releasing oxygen- cleansing a very toxic atmosphere in preparation for us to be able to live on the planet. This process can be seen in algae in ponds. These organisms formed microfossils that Bargehorn and others have identified.



When you consider the difficulties in forming just one protein let alone a whole suite of inter-relating proteins and the DNA/RNA structures that these organisms needed it becomes apparent that 400 million years is not enough time to make them by random chance.

With a desire to eliminate any god from consideration as the creator of life, various theories have been developed to try to get around the problems with abiogenesis that I have mentioned above. There are, for example, the RNA theory, the 'other type of nucleic acid theory' and the iron-sulphur theory. We will not explore these in this study.

From abiogenesis (spontaneous generation of life) we move to micro-evolution which is the more popularly understood version of evolution.

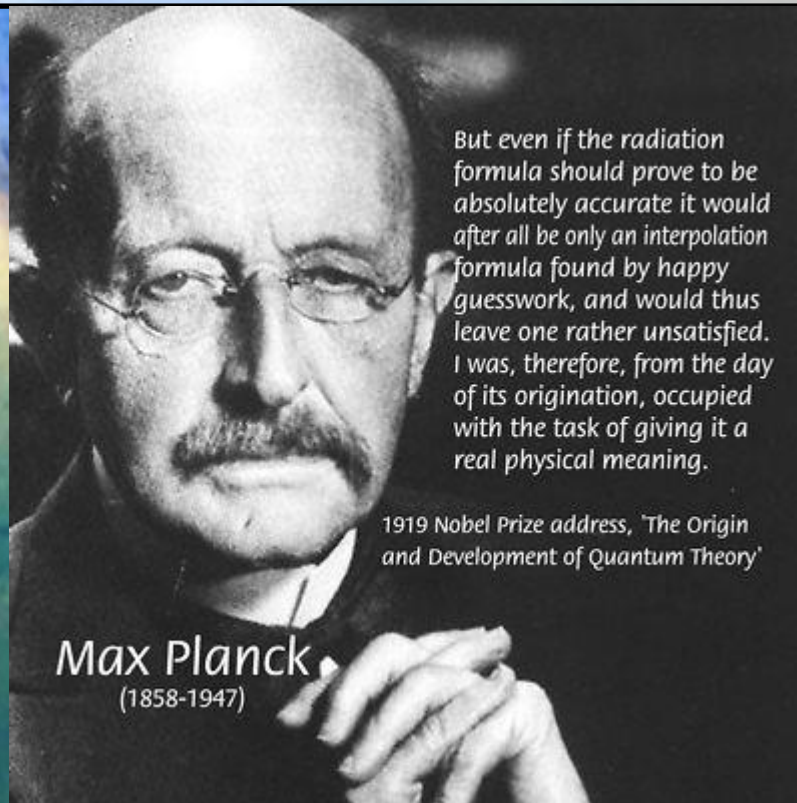
Yah created the universe so that it was indeterminate. That is, neither He nor we could predict the future from the beginning. If He intended to create life on this planet, then unless He was a fully hands-on creator He would have to devise life so that it would be self-replicating, self sustaining and self-correcting otherwise it would simply cease to exist at the first or second serious challenge.

Quantum uncertainty, chaos and thermodynamics are the reasons the universe is unpredictable. Quantum uncertainty is just Heisenberg's uncertainty principle. The uncertainty principle sets a fundamental limit to the knowledge we can have of our 3D universe. It was originally stated in terms of conjugate variables such as energy and time, momentum and position in the subatomic domain. That is, the simple act of observing the position of a particle using some kind of a probe means the particle's momentum is disturbed by the probe so that we can't know what it is.

In other words **we can know one variable but not both simultaneously**. It turns out that the lower limit to our knowledge on a small scale is related to the **Planck limit** and is related in turn to what is called superposition of the wave function of Schrodinger's equation. As an aid to understanding what that means Schrodinger himself used **the analogy of a cat in a sealed box**.

But the cat was not the only thing in the box.

There was a very small amount of a radioactive substance, a Geiger counter to detect any radiation given off and a poison that when activated would kill the cat. When the Geiger counter detects the radiation it activates the poison and kills the cat. Since radioactive decay is purely random we can't know from outside the box when the next burst of radioactive decay would occur and hence couldn't know whether the cat was alive or dead. **To us the cat was both alive and dead at the same time. It was only when the box was opened that the two possibilities collapsed into one of two states – alive or dead but not both. This is superposition.**



But even if the radiation formula should prove to be absolutely accurate it would after all be only an interpolation formula found by happy guesswork, and would thus leave one rather unsatisfied. I was, therefore, from the day of its origination, occupied with the task of giving it a real physical meaning.

1919 Nobel Prize address, 'The Origin and Development of Quantum Theory'

Max Planck
(1858-1947)

The wave function comes from the fact we are considering subatomic particles, not cats and until we try to discover the location or momentum of a particle to us it can be in any of a number of states defined by the wave function.

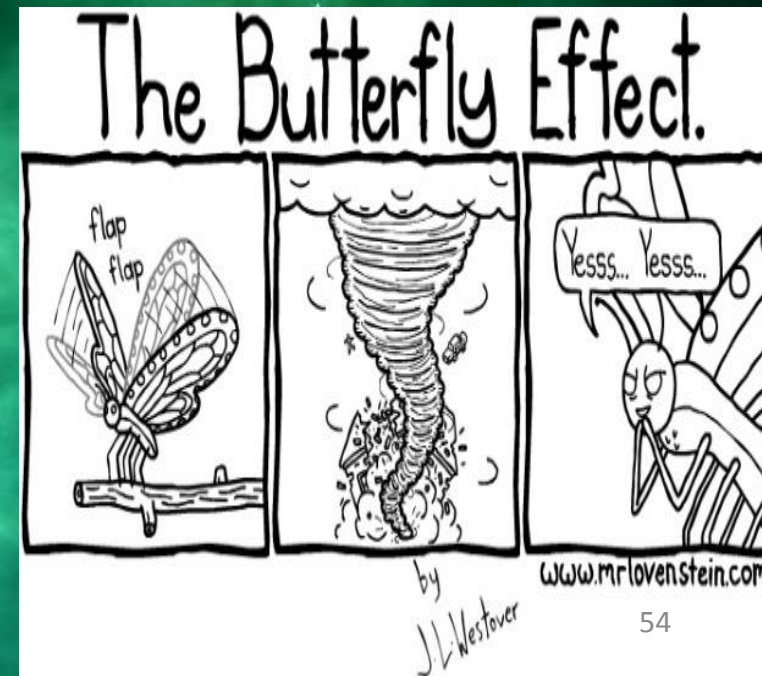
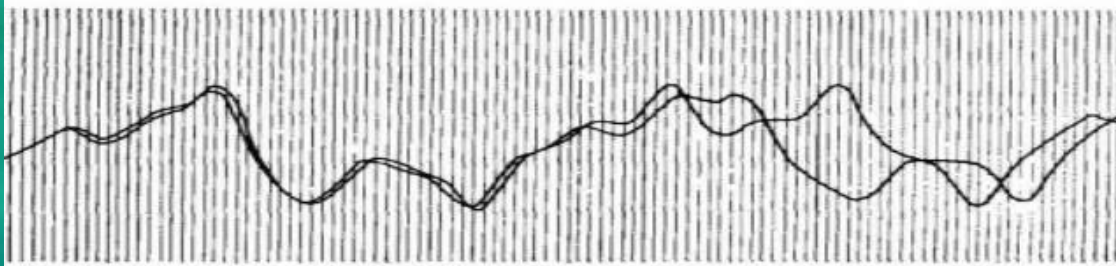
In classical Newtonian physics electrons are modelled like billiard balls, having a discrete position and momentum that we could know. However physicists found that Young's two slit experiment was not confined to light. Electrons when substituted for light also produced the interference pattern found in Young's experiments. De Broglie showed that all matter had an associated wave-like characteristic. Applied to electrons we know they have a wavelike property which allows us to use them as a very short wavelength probe in the electron microscope.

So an electron in an orbit around an atomic nucleus does not behave like a Newtonian billiard ball but has a smeared out location so that we cannot be confident of where it is or even how fast it is moving – until we try to discover one of those parameters by using a suitable probe. Then and only then, like Schrodinger's cat can we know just one of its possible states.

Chaos theory is a relatively new branch of science. Chaos is everywhere, even though we don't usually notice it. It is in the weather, the flow of traffic, the flow of fluids, people en mass, the stock market and biology to name a few of its manifestations. The cantor dust is another chaotic process that generates a type of random noise found in electronic circuits. Chaos exhibited by processes around us does not allow predictions, for example of the weather more than a few days in advance. Chaos exhibits sensitivity to initial conditions such that two different trajectories making prediction of the trajectories impossible.

WHAT IS CHAOS THEORY?

- Branch of mathematics that deals with systems that appear to be orderly but, in fact, harbor chaotic behaviors. It also deals with systems that appear to be chaotic, but, in fact, have underlying order.
- Chaos theory is the study of nonlinear, dynamic systems that are highly sensitive to initial conditions, an effect which is popularly referred to as the butterfly effect.
- The deterministic nature of these systems does not make them predictable. This behavior is known as deterministic chaos, or simply chaos.



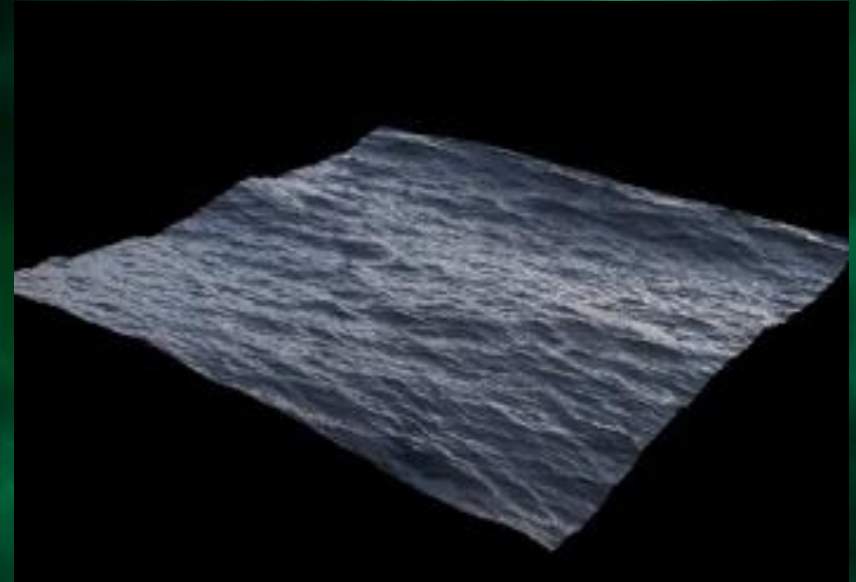
Even though on a small scale chaos makes accurate prediction impossible, on a much larger scale there can be islands of stability. For example in a roiling river, areas of calm water spontaneously appear and then just as spontaneously disappear as the parameters of the trajectory change.

Devils Pool –
Victoria falls



The Devils Pool itself is a deep natural pool that has been created by thousands of years of erosion, but what is unique about it is that there is a rock ledge on the lip of the Falls, where the water is only a few centimeters deep. This **natural barrier is what allows you to jump** into the deep pool but not get swept over the edge.

When we add quantum uncertainty, chaos, thermodynamics and time we end up with an unpredictable universe. Another way to look at it is that if we consider the modified Young's two slit experiment using electrons or light, firing a single electron or photon at the slits at a time, over a period of time from chaos emerges form and order. It's as if the universe has emerged with form and order from a sea of chaos like a whale rising from the sea.



We have shown above that it was impossible for macroevolution to have occurred. Therefore there is a creator. His name is Yahowah and He introduced himself to us in only one place – the pages of the Torah.

Why He did so we will examine briefly later on. The reason He created an unpredictable universe is so that we can have free will. If the universe were clock-work as Newton proposed then everything would be pre-determined and so free will would be impossible. Why we were given free will is another question requiring an answer.

The consequence of an unpredictable universe is that not even the creator can see the end from the beginning. From His position in a higher dimension, His time flows slower than ours so that He can see in His past our future – or in other words how our universe turns out.

Psalm 90:4–6

⁴ For a thousand years in Your sight Are like yesterday when it passes by, Or as a watch in the night. ⁵ You have swept them away like a flood, they fall asleep; In the morning they are like grass which sprouts anew. ⁶ In the morning it flourishes and sprouts anew; Toward evening it fades and withers away.

These concepts are important for micro-evolution.

You see, how would a designer design life when faced with all the uncertainties that go with an unpredictable universe? – and not be on hand at all times to keep life going when it meets an insurmountable hurdle. Clearly the ability to survive, prosper and to adapt to adverse circumstances must be built into the design of life from the beginning. A species of animal or plant that could not adapt would not be able to reproduce and would simply die out.

So immediately we have one of the design features for life – sexual reproduction.

It is true that some organisms reproduce by parthenogenesis i.e. non sexual reproduction but the vast majority of living creatures use sex. The reason for this is to defeat the effects of quantum uncertainty and its hand maidens chaos and thermodynamics. The genes Yah has provided can be shuffled, cut and rejoined – as they are during sexual reproduction - so that out of all the individuals alive some will have the ability to overcome an existential challenge taking those individuals into the future with a slightly different genetic makeup. In this sense Dawkins was nearly right but instead of a blind mother nature randomly doing the gene shuffling, the genes were initially set up by the creator to allow just that survival mechanism to happen.

Atheists such as Dawkins, of course contend that there was no designer; that the natural laws of the universe would combine to cause evolution to go onwards and upwards to better things all by themselves, using only natural selection as the designer. His book *Climbing Mount Improbable* was premised on this description with the addition of eons of time.

Mutation of the genetic code is at the root of the small changes proposed by Dawkins and others as the basis for micro evolution. Those ideas I have dealt with in my paper and I won't repeat them in detail here save to say that despite the popular view that all mutations have a beneficial effect, it has been shown by Behe, Sandford and others that this is not so. Beneficial mutations are extremely rare and are 'beneficial' not by improving the genome but by a loss of information conferring a survival advantage (such as sickle cell anaemia).



However, there is an element of truth to Dawkin's ideas. We know just by looking around that species do change in response to the environment. We do know that natural selection occurs with the extinction of some species because of natural changes or the predations of mankind.

So, in addition to sexual reproduction is there another way to design life so that it will adapt to changes in the environment, be self-sustaining and be self-reproducing?

Mike Gene in his book *The Design Matrix* proposed what I think is the remainder of the pieces of the puzzle as to how life can be created and at the same time evolve. His idea was that evolution was front-loaded into the genome when it was created or at the Cambrian explosion so that eventually all the forms of life that we have today would occur without further intervention on the part of the creator. This front-loading is in addition to the gene shuffling of sexual reproduction and relies on the chemistry the creator chose to build into our ancestor's bodies so that genes that code for one biochemical pathway may have hidden in them code for other protein structures that would give a survival advantage to organisms that expressed them at the right time.



As mentioned before we live in an island of stability in a sea of chaos. This stability combined with the nesamah Yah has given us has allowed us to advance very quickly technologically. In past eons these islands of stability in chaos would also have been present but could not have been exploited as we have done.

Nevertheless a stable environment would have permitted a species to increase in numbers rapidly before most succumbed to a serious adverse event marking the return to chaos. Such an event could have been an extinction event based upon deterioration of the genome within the species. Sandford in his book Genetic Entropy and the Mystery of the Genome explains this very well.

Within that species a few individuals would have changed genetically so that they had the ability to survive and continue life as a slightly different species when the next island of stability came along.

How would such a form of evolution show up in the rocks?

More or less as we see it. There are no Darwinian intermediates, just a series of jumps in the fossil record – punctuated equilibrium if you prefer.

A profound tie in with the Genesis account is that the atheist will say that it isn't credible because the primary argument is that plant life was bacterial and conceived by Yahuah and developed over the 3rd day is crazy because it says then on the 4th day the luminaries became visible as time measurements-and you need the sun for plant life. But that is exactly the way it occurred. This form of plant life, the bacteria cleaning up the carbon dioxide existed before the earths atmosphere became transparent. You needed the time to cool the atmosphere. Once you cool the atmosphere you could see the luminaries which relates to the science of what happened. In fact, plant life was conceived and plant life had an opportunity to flourish as bacteria and to consume these toxic materials and as a bi-product deliver oxygen into the atmosphere. Having done that atmosphere became transparent (a fog as it were lifted) and the luminaries became visible. Once that occurred it was time to start a new creation. And at this time it was very possible for Yah to have front loaded the DNA. But start being hands on in Day 5. That would explain the fossil record.

Much of this going further is speculation on my part and therefore could be wrong. But Shama/ Shamar it yourself.

Questions such as 'what is life?', 'what is a soul?' have not been addressed as they are not directly related to the physical development of life according to the parameters set by the theory of evolution. We have simply assumed that something called life exists as distinct from inanimate objects. The very word inanimate gives us a clue: not animated, not able to respond to the environment. Is life then simply the right ordering of molecules and atoms such that a creature exists that is able to respond to the environment?

If we look at the analogy of a computer that appears on the surface to be true. Ignoring how the computer came into being for the moment, we know there is an additional component that allows it to interact in a limited way with the environment – software. I say limited because our programs are still primitive.

Software 'animates' the computer. Software is not physical. If you added a program to a computer you could not detect even the slightest change in mass.

In religious terms you could call the software a soul.

Note that the software did not appear spontaneously in our example of the computer. So could software evolve? At the molecular level of life that is clearly impossible. Molecules simply interact according to the laws of physics and chemistry. (I suppose, upon reflection, you could call these 'laws' software)

At a higher level of organization we know e.g. that an amoeba will move away from an unpleasant stimulus or towards a pleasant one such as food. As we have demonstrated that Yah created the most 'primitive' life, He doubtless included programs of animation. Logically then, since microevolution is front-loaded and there is no further input from the creator, then the ability to evolve a soul for all forms of life must have been front-loaded as well. Even some plants have very primitive avoidance mechanisms (though we don't have triffids yet). Thus the physical microevolution and the metaphysical microevolution must have gone hand in hand. Primitive man eventually evolved with a sophisticated program (soul) which in Hebrew is called a nepesh. In computer terminology this is an operating system. In man, a very advanced and sophisticated system but still only an operating system. To get past the point of responding only to the basic needs of food, shelter, sex and survival, primitive man needed something else.

He needed in Hebrew the nesamah (in computer terms a plug-in). The nesamah was first given to Adam and from him the rest of humanity. This gave us the ability to think abstractly, to form concepts without apparent benefit and beyond the basic needs. It gave us the ability to wonder about the woods and trees around us without seeing them only as a source of danger or food. We could wonder at the sun, moon and stars and think about how they got there. We could think of a creator for everything we see, hear and feel. It gave the ability to detect the difference between right and wrong, good and evil and it gave the ability to choose between them. It gave free will. With a nesamah, we are still animals but with the ability to raise ourselves above the beast and to interact with the creator.)

The nesamah, then, would have been transmitted in the same way a nepesh is transmitted after Yah gave the nesamah to Adam and Chawah. So when they were ejected from the garden, they mated with the surrounding men and women, transmitting the nesamah down through their generations. To do this the nesamah 'gene' would have been dominant. The ability to think and plan ahead that the nesamah gave these people meant they could (and did) wipe out their human rivals both with the nesamah and without. So then we came to the time of Noah.

Evolution by definition is a brutal process. Life for most is short, brutal and over quickly. So why did Yah create the universe in this way? I believe He did because, to carry out His purpose, He had to. Muslims believe their 'god' (Satan) is unlimited in anything he can do. His will is arbitrary and fickle; to them he can make black white, 2 plus 2 equal 5. Such a 'god' would be the very definition of chaos. Even the process of thinking, of logical thought, could not occur because in our world we rely on the laws of physics to remain constant and unchanging.

The real Yahuah is, in fact, constrained by parameters that could be called universal. Logic and reason must be universal parameters for order to exist; likewise $2 + 2$ must always equal 4, not around 4, not a fuzzy 4, just 4. If Yah wanted to reproduce Himself by having a family, how would He do it? The duality of order and disorder (good and evil) are universal. Yahuah is am Almighty of order. He wants an ordered family. He could just create a clone of Himself and get a family that way but that would be like addressing yourself in a mirror. Your other 'self' always answers back in the way you would (and you know exactly how even before the other 'self' has opened its mouth) and is to all intents and purposes identical in thought, actions and appearance. That is clearly pointless. You might as well stay alone as have an echo chamber of your own thoughts. In a way it might be another form of hell.

So A being slightly different from you to be interesting but with your desire for order (good) must be created. But how? By creating a being with your ability to use logic and reason and that has the knowledge of order and disorder and can make a choice between them. (Disorder doesn't necessarily mean total chaos. There is a continuum from order to chaos with mixtures of both good and evil - order and disorder - so the individual and system the individuals create can still function but at lower efficiency.)

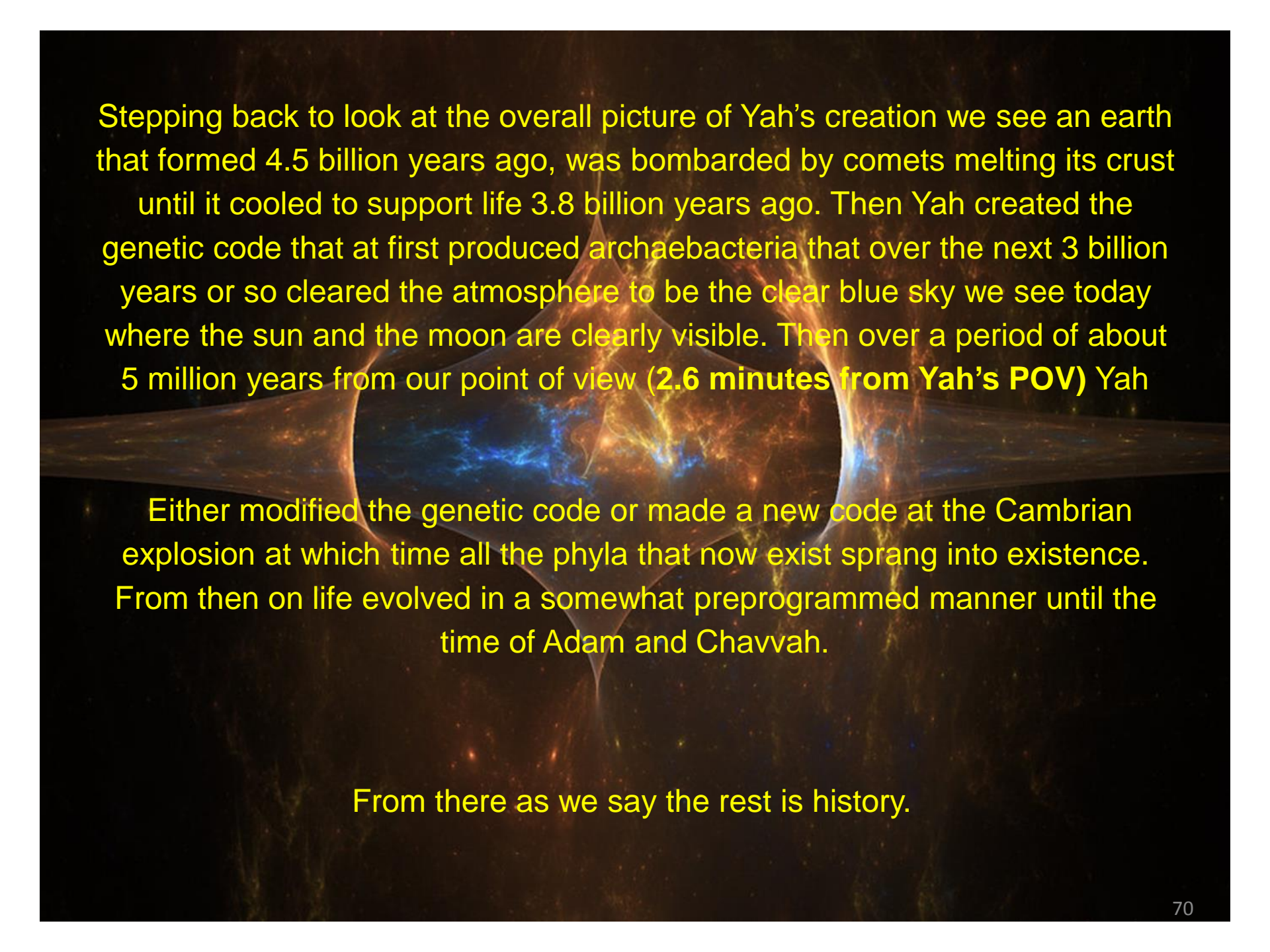
Those who have an enquiring mind, imagination, enjoy discovery, have the geography and genes implying a family background that allows an open mind and are willing to invest time to seek out a creator will do so as they will come to know there must be one. His name is Yahowah and his means of communication is the Torah. Those without the above characteristics will not and will be discarded.

They may have a pleasant but limited life and after that they and their nepesh are no more (Mizmowr / Song / Psalm 1:4, 5:5-6, 103).

Those with the 'correct' characteristics are who Yah is looking for. They are like but slightly different from Him, able to think and act independently yet enjoying order all the time. So in this sense microevolution is a sieve filtering out the gold from the dross. He knows His family members and will act to protect each one. He doesn't know the rest because they do not know or want to know Him. Would you act to protect the family of someone hostile to you (someone who may be a member of Satan's family) when you have your own family to protect?

The dross is discarded. Yet the dross (thinking humans but with the wrong way of thinking) would, of course, like to live forever in the way they think is best. Who wouldn't? So when Yahusha 'appeared', he selected those with the right way of thinking and at the same time spoke to the others in such a way that they could not be saved as they did not understand who he was and certainly did not and could not know Him. (Mattanyah / Yah's Gift / Matthew 13:15, Yahowchanan / Yah is Merciful / John 12:40)

Again weigh the previous out for yourselves.



Stepping back to look at the overall picture of Yah's creation we see an earth that formed 4.5 billion years ago, was bombarded by comets melting its crust until it cooled to support life 3.8 billion years ago. Then Yah created the genetic code that at first produced archaeobacteria that over the next 3 billion years or so cleared the atmosphere to be the clear blue sky we see today where the sun and the moon are clearly visible. Then over a period of about 5 million years from our point of view (**2.6 minutes from Yah's POV**) Yah

Either modified the genetic code or made a new code at the Cambrian explosion at which time all the phyla that now exist sprang into existence. From then on life evolved in a somewhat preprogrammed manner until the time of Adam and Chavvah.

From there as we say the rest is history.

Thank you for your consideration.

**THE TRUTH.
IT MIGHT JUST TAKE
A WRECKING BALL
TO YOUR
THEOLOGY.**