Creation Matters

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Book review

Review of "Faith, Form and Time"

by Ashby L. Camp, J.D., M.Div.

Faith, Form and Time: What the Bible Teaches and Science Confirms About Creation and the Age of the Universe
by Kurt P. Wise, Ph.D.
Broadman & Holman, Nashville,
2002. 287 pages, $14.99 (paperback)

Kurt Wise has a B.A. in geophysical science from the University of Chicago and an M.A. and Ph.D. in paleontology from Harvard University, where he studied under Stephen Jay Gould. He is an associate professor of science and director of the Center for Origins Research and Education at Bryan College. Wise is one of the leading thinkers among young-age creationists and has long been known in that circle for his impatience with sloppy science.

Included in the 287 pages (not counting the 16 pages of prefatory material) are five pages of selected bibliography, 26 pages of endnotes, and 11 pages of glossary. The book's 16 chapters are distributed through the following five parts: (1) God's Word on the Matter, (2) The Dating Game, (3) Creation Week, (4) From the Garden to the Grave, (5) From Noah to the New Earth. Twelve sidebars on various items of bio-evolutionary evidence are scattered throughout the book.

Faith, Form and Time is an outline of Wise's current conception of a recent-creation model. It is an introduction to the present state of the subject, not a detailed and thorough presentation, but it is loaded with information and insight. Wise combines broad knowledge with a refreshing willingness to think "outside

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Aspects of Deity Perceived from Natural Science, Part 1: God's Presence

by George F. Howe, Ph.D.

Just as human inventions portray the character of their inventors, the facts of nature provide instruction about God, the Divine Inventor. There is, of course, a distinction between the Creator and His creation, because He has existed before, apart from, and above all His handiwork. But even so, God maintains a closer relationship with His creation than any other inventor does with his inventions.

The Lord preserves, pervades, penetrates, perpetuates, and protects all His work (Psalm 145:9 and Colossians 1:17) because He is a "faithful Creator" (I Peter 4:19). This

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The Acquisition of Virus Resistance Does Not Provide Evidence for Macroevolution

by Jerry Bergman, Ph.D.

Abstract. *The development of resistance of viruses to anti-viral agents often is presented as a modern example of evolution by mutations and, by extension, as clear evidence for Darwinism. A literature review shows that many examples of the acquisition of resistance are not due to mutations, but in nearly all cases they are a result of complex, built-in genetic and molecular biological defense systems. The extant literature indicates that those examples that are due to mutations are in nearly all cases due to loss mutations and do not result in a gain of genetic information.*

One of the most common arguments against the creation world view is the well-documented development of resistance in many kinds of pathogens including viruses (Coyne, 2001; Crews, 2001; Ayala, 1978). Often the development of virus resistance is not due to classical mutations. For example, while influenza viruses are often said to have the ability to "mutate," they actually possess a genetic mechanism that allows them to systematically change the active site on their antigens. As a result of such changes they can re-infect a resistant host because the antibody memory cells do not recognize their newly altered antigens.

Once exposed to a flu virus, the body is immune to that specific "strain" only. When the flu viruses change their antigen active site, the antibody no longer recognizes them. For this reason a need exists for an annual revision of the influenza (flu) vaccine constituents. Antigens are like identification cards that enable the immune system of the host to determine if a large protein is a friend or foe. The immune system must be able to accurately identify enemies and not attack the host's "self" proteins. When they do attack self proteins, an autoimmune disease results, such as rheumatoid arthritis.

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the box." Everyone interested in the Bible and creation, except perhaps those closed to the possibility of a young creation, will want to read this book.

A nonnegotiable faith

The book is written with a nonnegotiable faith commitment that the Bible is God's written communication to mankind and is therefore truthful in all that it affirms. Wise elaborates on this in Part 1, titled "God's Word on the Matter."

Part 2 ("The Dating Game") addresses the age of creation — first from the Bible and then from science. Wise takes the Masoretic text of the relevant Genesis verses at "face value." This leads him to conclude that the creation week was seven 24-hour days, that 1656 years elapsed between the creation and the Flood, that 342 years elapsed between the Flood and the birth of Abraham, and that about 2000 years elapsed between the times of Abraham and Christ.

Wise believes "[a] face-value examination of the creation suggests it is millions or billions of years old," but he rejects the claim that this makes God guilty of deception. He shows from Scripture that God can and does create things that appear much older than they really are when it suits his purpose to do so. It is also possible for an incorrect understanding of history to lead one to a false conclusion about the age of creation.

Wise mentions several physical indications that the creation is only thousands of years old. He cites the young age of supernova remnants, the existence of certain kinds of comets, the presence in the solar system of certain-sized dust particles, and the decay of earth's magnetic field.

Designed for human existence

Part 3 ("Creation Week") deals, respectively, with the creation of the heavens, the earth, nonhuman organisms, and mankind. In the chapter on the heavens, Wise points out that the universe appears designed for human existence (the Anthropic Principle). In addition, several lines of evidence suggest that the universe had a beginning. This event would seem to have a cause, and there are a number of indications that this cause had attributes possessed by the God of Scripture. Wise rejects the Big Bang theory as inconsistent with Scripture.

In the chapter on the earth, Wise explains that the earth was created as a diverse, mature, and sustainable biosphere. All the organisms, features, phenomena, and cycles necessary to make it permanently habitable by an amazing variety of creatures were in place. And since God foresaw that he would have to curse the earth and judge it with a global flood, he also designed it to yield the right environment after the catastrophes of the Fall and the Flood.

The chapter on nonhuman organisms begins by showing how DNA, which exists in all organisms, shares a number of characteristics of human language. Since God is a communicating God, this comes as no surprise to creationists. The remarkable degree of integrated complexity at every level of biological organization bears further witness to God.

Successful interspecific crosses (hybridization) are more common and widespread than one would expect under standard evolutionary scenarios. This seems more in line with a recent diversification within created kinds (baramins).

Evidence of discontinuity among living things exists at many levels. Various groups of organisms exhibit fundamental differences that would be difficult to derive from one another.

God endowed separately created organisms with similar characteristics to indicate that they shared a common creator. However, these similarities can be reinterpreted as evidence of evolution by assuming they were the result of a common origin rather than a common creator.

One would expect members of separately created kinds that are similar in their adult forms to share similarities in development and chemistry. So it is not surprising that phylogenies of unrelated organisms that are based on similarity of adult forms bear a resemblance to phylogenies that are based on similarity of development and chemical structures. But since God also created organisms in a way to suggest that he created them, to suggest that different kinds are not genetically related, one might expect to find differences in details between phylogenies that are based on these different traits. And that is what one finds.

The young-age creation model would expect very few transitional forms in the fossil record, whereas evolutionary theory would expect multitudes. It turns out that there are no transitional species among the animals that are best represented in the fossil record—the shallow marine invertebrates that account for roughly 95% of fossils. In addition, entire organismal communities seem to appear suddenly in the fossil record. This is easier to explain under a young-age creation model than under conventional theory.

God designed ontogeny

Wise explains the general similarity that exists between an organism's development (its ontogeny) and its proposed evolutionary history (its phylogeny) by proposing that God designed ontogeny to efficiently derive the adult form from a single cell. Since evolutionary theory assumes that organisms evolved along an efficient path from a single cell (natural processes being likely to take the easiest path), similarities between ontogeny and phylogeny are not surprising.

On the other hand, God's love of diversity and his desire to be known might cause him to employ a variety of develop-

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mental details that would be unexpected if ontogeny was a product of evolutionary history. Such differences are in fact well known.

The beauty of the biological world is difficult to explain in evolutionary theory. It usually takes energy for organisms to generate their beauty, and yet that beauty does not seem necessary for survival.

If mutations have been accumulating for as long as suggested by old-age models, then all organisms probably would have died out from catastrophic errors in their DNA. Since organisms do not seem to be going extinct because of high mutational loads, those loads are probably more in keeping with expectations of a young-age model.

One would expect the God of Scripture to employ the best design at every level, but since we do not know all the design constraints, we cannot be sure what constitutes the best design. The task is complicated by the changes that have occurred (in the Fall and the Flood) since the original creation. But given the difficulty evolutionary theory faces in generating optimal or near-optimal structures (to be available for natural selection), if evolution were true, imperfection probably would be more common than it is.

Classification ambiguities

Under evolutionary theory, the classification of organisms should be relatively clear, showing few ambiguities. But ambiguities in biological classification are common. Incongruous traits (homoplasies) abound at both the morphological and genetic levels.

In the chapter on mankind, Wise explains that humans were created in the image of God and given dominion over creation. They began existence with the ability to speak, learn, and contribute to the culture.

Part 4 ("From the Garden to the Grave") addresses the time between the completion of creation and the Flood. In the chapter on the Edenian Epoch, Wise deduces from several texts that the upper limit of Adam and Eve's stay in the Garden of Eden was 70 to 100 years. He considers it likely that the world before the Flood had rain and climatic seasons.

The continental pieces at that time may have been a group of large islands, close together or possibly in contact, with extensive shallow seas between them and making up a large region of the tropical to temperate portion of one half of the southern hemisphere. The salinity of the oceans before the Flood is unknown, but Wise thinks they were probably salty. The prevalence of underground springs and their relationship to Edenic rivers are also unknown and, given the destructiveness of the Flood, may remain so. Earthquakes and volcanoes probably did not exist.

The organisms during the Edenian Epoch were quite different from those on earth today. Though the baramins to which they belong existed from creation, the particular species with which we are familiar today probably did not. They are the result of changes that occurred in the baramins after the Flood.

In the Edenic world, plants served as food for both animals and humans. Death, disease, and suffering were not part of the world until the Fall. This does not mean that things like plants and cells in fruit did not die; those things are not "alive" as the Bible defines life. The death that entered the world at the Fall relates to animals and humans.

Second Law essential for life

In the chapter on the Fall, Wise says the physical universe experienced a dramatic change as a result of mankind's sin. It was, for redemptive reasons, cursed so as to deteriorate. Wise does not believe this was accomplished by introduction of the Second Law of Thermodynamics, as that law is necessary for life to exist (e.g., it causes oxygen to pass into the blood from the air). Rather, he suspects it was accomplished by the suspension of some other law that counteracted negative effects of the Second Law.

After the Fall, genetic copying errors entered the world and began to accumulate in the DNA of organisms. Mutations transformed some organisms into parasites and pathological bacteria. The controls on the production of offspring that likely were part of the original creation may have been changed (i.e., overproduction introduced) to counter the threat death and disease posed to existence.

God intended the organisms he created to survive the post-Fall changes that he knew were coming and thus endowed them with a great capacity to change and to pass those changes on to the next generation. This hereditary variation, combined with overproduction, resulted in what is known as "natural selection." In young-age creation theory, it is a means to preserve the variety of organisms in the face of mechanisms that tend to destroy it.

It seems that thorns and tannins were given to protect plants from extinction threatened by overgrazing (that resulted from overproduction). Carnivory may have been introduced to limit the harmful effects of disease on a population.

It is not clear whether the changes resulting from the Fall were introduced immediately or over centuries. Based on fossils in what Wise interprets as Flood sediments, disease and carnivory were widespread by the time of the Flood.

The pre-Flood world

In the chapter on the antediluvian world, Wise makes the intriguing suggestion that the pre-Flood world included a floating forest that was subcontinent-sized or even continent-sized. Somewhat similar to the "quaking bogs" of lakes in the upper midwestern United States, it was a complex, floating ecosystem, complete with bacteria, protists, algae, fungi, plants, and animals. The choppy seas of the Flood probably destroyed and buried the floating forest from the outside in. This hypothesis explains a number of features of the fossil record of the Primary (Paleozoic).

The fact dinosaurs tend to be found with animals and plants that are absent or rare on earth today, suggests they lived at a separate location from humans. Wise suggests that one or more island continents housed the gymnosperm-dinosaur biome, while others housed the angiosperm-mammal-mankind biome. If the gymnosperm-dinosaur biome were located at a lower latitude or closer to the shore of the antediluvian world, it would explain why its members are consistently buried beneath members of the other biome.

The antediluvian world may also have had continent-ringing hydrothermal biomes. These wide zones of hot springs would have generated ideal living conditions for algae and bacteria to produce

extensive stromatolite reefs. Perhaps the strange animals that got preserved in the lowermost Flood strata existed in warm lagoons between these reefs and the shore.

Wise thinks it probable that the decline in life spans following the Flood was related to genetic changes rather than to environmental changes. We do not yet understand how the genetic programming was altered, but it was probably done to curb potential evil.

Flood and post-flood

Part 5 ("From Noah to the New Earth") addresses the world-changing catastrophe of the Flood in the days of Noah. Scripture is clear that the Flood was global. It came about through the breaking up in a single day of springs on the continents and in the oceans. That may have been when the earth's crust was broken into its present plates. The motion of these plates would be expected to produce certain effects, all of which are found in the geology of the earth's oceans.

Over the last few years, a number of young-age creationists have developed a variation of the theory of plate tectonics called *catastrophic* plate tectonics. According to Wise, "It explains all the evidence answered by slow plate tectonics and more, producing directions and relative rates of motion that no other plate tectonics modeling has been successful in doing," and it does so within the temporal framework of Scripture.

A global flood seems better able to explain why Primary and Secondary (Paleozoic and Mesozoic) sediments "are often deposited in great thicknesses, with remarkably uniform compositions, spread over very large areas, and many times displaced hundreds of miles from their source area." It is also better able to explain why water currents evidenced in Primary and Secondary rocks flowed largely in one direction.

The fossil record favors Flood theory in that it is rare for organisms to be found in the order predicted by evolutionary theory, intermediates are rarely found between proposed ancestors and descendants, organisms usually show stasis through the fossil record, and organisms are markedly different from the very beginning of the record. The abundance of well-preserved fossils and fine sedimentary layers and the seemingly high percentage of species preservation in the fossil record are also more easily explained by Flood theory.

Months vs millions of years

The tight folding of multiple sedimentary layers suggests they were laid down only months apart during the Flood rather than millions of years apart as indicated by radiometric dating. The "missing" layers in the rock record are easier to explain by young-age creation theory, as are the number of earthquakes associated with mountain ranges like the Appalachians.

Wise recognizes that young-age creation geology has its own areas of weakness and that much research is needed to provide adequate reinterpretations of these issues. He nevertheless speculates briefly about possible answers to some of these challenges. He addresses fossil forests, coal beds and the trees associated with them, coral reefs, trace fossils, chalks and other microfossil accumulations, and the existence in Flood sediments of alleged desert dunes, tidal flats, mud cracks, soils, and caves.

There is evidence that the judgment of the Flood included a cosmic dimension. Flood sediments appear to have scores of craters created by meteors or asteroids, and there is some evidence that the moon was also bombarded at that time.

As the earth rebounded from the extreme jolt of the Flood, incredible amounts of energy were unleashed. There were massive earthquakes, and several types of volcanoes were created by changes generated by the Flood and its aftermath. This explains the huge volumes of volcanic ash in Secondary and Tertiary sediments and created ideal conditions for fossil burial and preservation. As expected by young-age creation theory, these volcanoes decreased in size and frequency through time.

The oceans that had been heated during the Flood generated huge amounts of precipitation, which caused accelerations in both erosion and sedimentation. The water could flow in sheets over the earth's surface, thereby eroding sediments in some areas in a planar fashion. In other areas, it may have slowed enough to begin dropping its sediments. As the earth gradually dried in the centuries following the Flood (through less precipitation because of the ocean cooling), deposition and erosion would occur over smaller areas.

The high precipitation would produce lakes (many are evidenced in Tertiary sediments) and may have overfilled many of them. The result would be a quick cutting through the dams, rapid draining of the lakes, and spectacular canyons.

As the earth dried, there was a change in vegetation. Woodlands were caused to dwindle, being replaced by extensive grasslands. Eventually this drying created the current deserts, which explains why the Sahara Desert has evidence of rivers and forests beneath it.

When the oceans had cooled sufficiently, the precipitation at high altitudes and latitudes fell as snow. It fell so fast that it accumulated into huge ice sheets, which advanced over the course of a couple decades and then melted in another couple of decades. This Ice Advance model is better able to explain the data in a number of particulars.

God created organisms so they could adapt to the changing world conditions that he knew would follow the Flood. Toward that end, God may have created "altruistic genetic elements" (per Todd Wood) with the ability to trigger favorable changes programmed into the genome. These beneficial genetic elements may have been designed to multiply and move around, both within and between organisms. Something like this would permit organisms to change quickly and dramatically in the centuries following the Flood. The sediments of the Tertiary and Quaternary may document some of these rapid changes (e.g., those within the horse, camel, rabbit, and elephant baramins).

Vestigial structures

Hip and leg bones that appear in some fetal sperm whales are vestigial structures suggesting that they might be descendants of whales that had limbs. The fact modern horses are sometimes born with multiple toes (a genetic throwback) suggests they might be descendants of horses that had multiple toes. Since the genetic information needed to build complex structures that provide no advantage to the organism tends to get destroyed rapidly by mutation, the existence of vestigial structures and

genetic throwbacks suggests that the transformations were made recently.

If the oceans of the post-Flood world were too choppy for the floating forest to develop again, it would explain why all or nearly all of the plants and animals of that environment become extinct. If the hydrothermal zones of the pre-Flood world were gone, organisms that once flourished there may have been reduced to isolated places in the post-Flood world. The slower reproductive rate of gymnosperms may have led to their being crowded out by flowering plants, which could have made the dinosaurs prone to extinction.

It was God's will that the survivors of the Flood repopulate the earth, and consistent with that will, the animals soon began spreading over the globe. This migration may have been facilitated by the existence of parallel climatic zones, a drop in sea level that opened land bridges, and the presence of plant rafts.

Wise estimates that the Babel dispersion occurred between the second half of the second century and the first half of the fourth century following the Flood. He suggests that God divided not only the language of the people but their perspectives as well. This combination led to the rapid origin of the world's distinct cultures.

The breakdown in communication caused the dispersed families to spread across the earth in isolation from each other. Genetic drift within these populations caused unique combinations of essentially neutral traits (e.g., skin color) to develop. Once particular traits were fixed in a group, they may have influenced where that family chose to live.

After the Flood, food would have to be gathered where it could be found, tools would have to be fashioned from crude materials, and shelter would have to be secured in different ways and places. In the span of decades to centuries, these "primitive" societies would change into agricultural, copper-tool-based and then iron-tool-based, city-dwelling societies. This led to the foundation of Babel's civilization.

Human dispersal

When the families were dispersed in the Babel event, each one would find itself in the same situation again. The process of cultural development (or recovery) would begin anew at each location, with considerable variation in rate. Cave paintings are rather sophisticated works "of a culturally capable people forced to survive in caves, forced for a time to eat what they could hunt and gather."

Because post-Flood humans initially congregated at Babel, in violation of the Lord's command, they arrived at locations around the world well after the animals that dispersed from the ark. That is why animal fossils, including ape fossils, are found below the first evidence of humans.

Fossils dubbed *Homo erectus* and archaic *Homo sapiens* are almost certainly humans who lived during the first couple of centuries after the dispersion at Babel. Their morphological differences from modern humans, which relate mainly to the skull, may be related to a slower rate of development (linked to their longer life spans) or to differences in diet and climate. Other fossils that have been interpreted as humans or as ancestors of humans are extinct apes that lived in the post-Flood world with humans.

The final chapter explains that this cursed creation will be redeemed when the Lord returns in judgment. It is an appeal for the reader to be prepared for that day.

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God's Presence

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article is the first in a series of essays analyzing science and scripture to discuss attributes of God that can be directly deduced from His handiwork. A close look at nature reveals definite facets of God's character.

Invisibilities

Romans 1:20 says that the *aoratos* (Greek) of God can be clearly perceived from God's created workmanship. *Aoratos* is an adjectival noun which literally means "invisibilities," but English has no such single word referring to "imperceptible attributes." The word "things" was inserted by the King James translators in an attempt to put *aoratos* into better English ("invisible things"). But *aoratos* does not correspond well to the English word "things" because it has no reference to objects we ordinarily call "things": rocks, sticks, tree stumps, etc.

Instead, *aoratos* denotes imperceptible traits like God's (1) divine nature, and (2) His power (Romans 1:20). We are being told that if we do study created "things," as in science, we will be brought face-to-face with God's otherwise invisible characteristics. And, at the same time, this puts a Biblical stamp of approval on the practice of starting with perceptible, natural phenomena and reasoning from them to a knowledge of the Creator's "invisibilities."

> "From this text there is a clear implication that phenomena in the world, things that are finite and observable, imply an infinite cause! ... It seems clear that God himself expects a process of thinking and reasoning that moves from created finite things to an intellectual perception of certain traits of His being that are infinite." F. R. Howe (1982, p.83).

> "We must not tone down the teaching of the apostle in this passage. It is a clear definition of the effect that the visible creation as God's handiwork makes manifest the invisible perfections of God as its Creator, that from the things which are perceptible to the senses cognition of these invisible perfections is derived, and that thus a clear apprehension of God's perfections may be gained from his observable handiwork. Phenomena disclose the noumena of God's transcendent perfection and specific divinity…This is but another way of saying that God has left the imprints of his glory upon his handiwork and this glory is manifest to all…" J. Murray (1968, pp. 39-40).

A number of such divine characteristics emerges from scientific study, several of which start with the letter "p." These

include God's presence, purpose, providence, and power. Then too, science discloses some problems, parallelisms, and pulchritude, which also arise from God's being and His nature. In this paper, we will consider the first attribute: His presence. It is planned to discuss the other six in later articles.

Evidence of God's Presence

The heavens are teaching us that a personal God exists. The skies are communicating this knowledge worldwide, day and night, with an inaudible but clearly intelligible voice:

> Day after day is uttering a saying,
> And night after night is disclosing knowledge.
> There is no audible saying, and there are no words;
> Their voice is unheard.
> Yet into the entire earth their voice goes forth,
> And into the ends of the habitance their declaration.
> Psalm 19:2-4a Concordant Version of the Old Testament (1994)

And there is, incidentally, no excuse for missing this point (see Romans 1:20b).

Psalm 19:1 says that the heavens are an expanse (*raqia* – Hebrew), not a firm, hard, dome-like "firmament" with peepholes of light, as some ancient people believed:

> The heavens are telling of the glory of God;
> And their expanse is declaring the work of His hands.
> Psalm 19:1. New American Standard Bible (1997)

The message communicated in astronomy shows the glory (splendor) of God and does so with a numerical emphasis. Thus the Concordant Version (1994, Psalm 19:1) says, "the heavens are recounting" God's glory. Strong (1890, p. 84) also writes that "declare" (*caphar* – Hebrew) means to "… score with a mark as a tally or record … enumerate … recount." And count as we will, the number of galaxies is beyond all comprehension.

Psalm 97:6 becomes quite specific by stating that the heavens also herald God's righteousness. The word for righteousness here (*tsedeq* – Hebrew) is amplified by

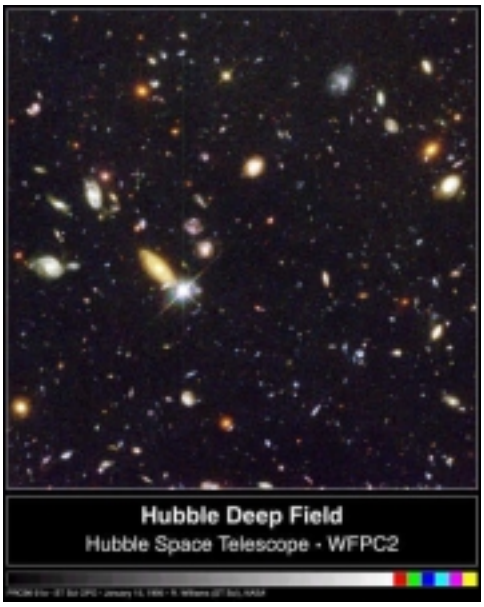

Figure 1. Hubble Deep Field. January 15, 1996. R. Williams (ST Sci), NASA.
http://imgsrc.stsci.edu/op/pubinfo/hrtemp/96-01a.jpg

Figure 2. Hubble Deep Field Details. These are close-ups of certain portions of Figure 1.NASA.
http://imgsrc.stsci.edu/op/pubinfo/hrtemp/96-01b.jpg

Strong (1890, p. 98) to include equity and justice. Goodrick and Kohlenberger (1999, p. 1478) indicate that the word righteousness (t*sedeq* – Hebrew) encompasses:

> "…acting according to a proper (God's) standard, doing what is right, being in the right."

This righteousness beams forth at night from the star-studded skies. Perhaps righteousness and equity as seen in the matchless heaven were among the factors that led to Abraham's courageous, intercessory outburst before God on behalf of Lot:

> "Shall not the judge of all earth do right?" (Genesis 18:25, King James Version.)

Hubble Deep Field Photographs

The awesome glory, splendor, wealth, magnitude, and righteousness that herald God's presence are displayed in the distant galaxies visible in the Hubble Deep Field photographs (Villard and Williams, 1996; see figures 1 and 2). A member of their research team had this to say about the project and its results:

> "One of the great legacies of the Hubble Telescope will be these deep images of the sky showing galaxies to the faintest possible limits with the greatest possible clarity from here out to the very horizon of the universe." (Villard and Williams, 1996, p. 1.)

After examining the "…deepest pictures ever taken of the heavens," Williams exclaimed that "the past ten days have been an unbelievable experience." (p. 3.) In their photographic data, they noted that "Galaxies are not randomly distributed on the sky, but form great clusters, walls, and sheets" (p. 2). Some of these non-random clusters were "…vast filaments of galaxies."

The galaxies seen in the Hubble pictures have a "…bewildering variety of shapes and also sizes. Some had the familiar elliptical and spiral shapes seen among normal galaxies, but there were many peculiar shapes not commonly seen in the local universe" (p. 1). Those other galaxy forms are "elliptical, football-shaped aggregates of stars…" concerning which there is currently much debate as to when they formed (p. 3).

Although their interpretation of these awesome pictures is in keeping with the Big Bang view, vast theoretical ages of time, and the supposed "evolution" of galaxies, Villard and Williams (1996, p. 2) have expressed openness and a readiness for others to reinterpret the photographic data:

> "With these observations, astronomers aim to provide a solid test-

ing ground for competing 'world models.' "

For this reason, the coordinators of the Hubble Deep Field project made the images available immediately "…to astronomers around the world to pursue research on the formation of galaxies…" (p. 2).

The competing world model in which deep space testifies to the existence and attributes of the biblical God pushes all others into the background! Are you looking for evidence of God's presence? Just look into the Deep Field!

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Viral Resistance

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Changes in the antigenicity traits of pathogens (such as the influenza viruses) is a critical factor in the recent reemergence of older diseases. This problem is a major concern in the development of vaccines against pathogens (like AIDS) that reduce the body's ability to provide natural immunity (Barbour and Restrepo, 2000). The same mechanism that causes drug resistance in viruses also can cause virus resistance to human defenses. Viruses can change to evade the victim's immune system through means similar to those employed by bacteria. This is accomplished primarily by swapping whole genes (or part of a gene), and by a complex process called reassortment, in which antigen segments are shuffled, like one would shuffle a deck of cards, to create a new antigen shape. A similar process is used in vertebrates to produce the levels of antibody variety required for survival.

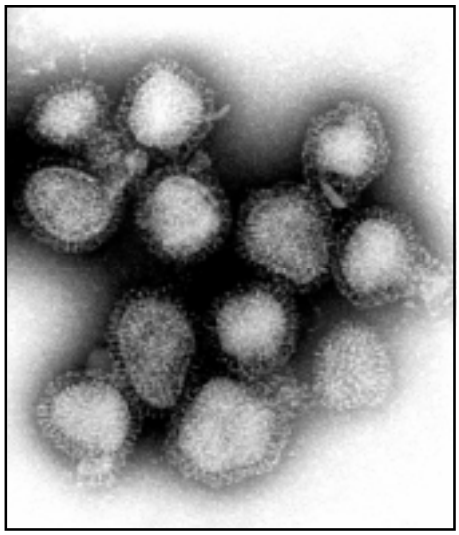
Evading the immune system

Also, point mutations are more common in viruses because virus genes are not repaired by a cellular editing or proofreading system, as is the situation in eukaryotes. As a result, in each new virus generation there exists a large amount of genetic variability that can alter antigens so they are not recognized by the host's immune system. As a result, viruses can effectively evade the immune system. In spite of this ability they have remained viruses for as long as they have existed. They are not evolving, but are only doing what is necessary to survive (for a discussion of the purpose of viruses, see Bergman, 1999).

AIDS (acquired immune deficiency syndrome) was first formally identified on June 5, 1981. According to the United States government Centers for Disease Control, AIDS has already killed an estimated 22 million people worldwide. It has infected almost 800,000, and so far has killed 450,000 Americans. HIV (human immunodeficiency virus), the virus that causes AIDS, rapidly becomes resistant to new drugs for several reasons, including the fact that it has a complex built-in mechanism designed to produce a variety of antigen shapes, enabling it to escape identification by the immune system.

An alteration of the cell-surface binding site can result in resistance to antibiotics to some organisms, but it also can confer protection to viral diseases such as AIDS. If the structure of the binding site is altered sufficiently, the drug no longer can enter the cell to kill the virus.

In humans, HIV can infect only cells with CD4 receptor surface markers. Cells in humans with this receptor in sufficient numbers to become infected include primarily helper T-cells (also called T H cells, T4 cells and CD4+ cells) (DiSpezio, 1998, p. 72). If CD4 and/or its co-receptor are defective or lacking, the cell cannot normally be infected with HIV. The virus can replicate in cells without CD4 markers only if it is injected artificially, but it cannot enter a cell without the CD4 marker and one or more of its co-receptors. Other cells, including cells in the vaginal lining, the intestine, and even some cells in the retina, also have CD4 markers, but they contain far fewer of them than T-cells. For this and other reasons, HIV cannot normally infect these cells. T-cells have about 10,000 copies of a CD4 marker scattered over the cell surface and for this reason are far more susceptible to infection.



***Influenza virus**, A/Hong Kong/1/68, the causative agent of the 1968 global epidemic. Negatively stained virions showing surface projections which contain the receptors by which the virus attaches to host respiratory tract epithelial cells. Magnification: approximately x70,000. Micrograph from F. A. Murphy, School of Veterinary Medicine, University of California, Davis. Used by permission.*

The CD4 marker makes a cell susceptible to HIV infection because it is one of the "keys" required for HIV to pass through the cell membrane barrier into the cell. The HIV structure that binds to the CD4 marker of the cell is the virus envelope gp120 cup (the exposed part of the viral stud) that is a complement to the CD4 marker. When these two parts come into physical contact, they bind chemically. This chemical binding is required in order for HIV to gain entrance into the cell. When this "key" is chemically stimulated, the cell membrane changes and "absorbs" the particle that is attached to the CD4 marker by endocytosis.

The contact between a CD4 marker and a gp120 viral stud is a chance occur-

rence. As far as is known, HIV is largely inert and does not actively seek out the CD4 binding site, nor does it even seek out the outside of a cell (DiSpezio, 1998; p. 75). Since the macrophages are usually the first CD4-bearing immune cells to respond to an infection, it is often this cell type that first becomes infected. If an important receptor is damaged, the virus may not be able to enter the cell, conferring immunity to it.

One of the most important and most studied cell receptors is the cell-surface chemokine receptor 5 (CCR5). CCR5 functions as a receptor for chemokines, and also affects a cell's susceptibility to HIV infections (Schliekelman, et al., 2001). A mutation in the receptor that leads to the loss of a 32 base-pair section (called a 32 mutation) results in a non-functional receptor. As a result, the cell is largely immune to the AIDS virus.

This mutation is believed to have been selected for in Europe during the last 700 years because it also evidently reduces susceptibility to bubonic plague (Schliekelman, et al., 2001). Schliekelman, et al. (2001) conclude that even heterozygous CCR5 carriers are completely resistant to the plague organism or similar pathogens. This damaged receptor also makes the cell less fit in a virus free environment, but in a pathogen-rich environment it can survive.

Implications

Recent research into the development of virus resistance does not support Neo-Darwinism which is classically defined as the natural selection of mutations. Macroevolution requires information-building mechanisms that add ***new*** information to DNA. In virtually all cases, resistance is a result of the exploitation of existing systems, or is due to a transfer of genes. In the rare cases where a mutation is involved, development of resistance involves only a ***loss*** mutation, such as a deformed cell receptor.

This conclusion is confirmed by the fact that resistance is acquired very rapidly, in far too brief a period for the emergence of complex biochemical or physiological systems by evolution. Furthermore, mutation-caused resistance results in less viability in the wild and, as a result, the resistant strains cannot compete in a normal environment (Spetner, 1997). The acquisition of resistance does not provide evidence for macroevolution, but rather provides support for intelligent design (Cornaglia, et al., 2000).

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3. Entries will include the Author's name, age, home address, phone number, email address, school. Specify Junior High or Senior High Level.

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   - Creativity shown in the presentation
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A. Scientific Challenges to Creation / Macroevolution.

Sample topics inspired by this theme:

- Thermodynamics and the Origin of Life
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- K40/Ar40 Dating of Historical Lava Flows

B. Creation / Macroevolution in Primary and Secondary Education

Sample topics inspired by this theme:

- A Student's View of macroevolution in (Public, Christian, Home) Education (write from your own educational context, how things are, how things should be)
- Science Education — Its Methods and Purpose
- Recognizing Bias and Circular Reasoning in the Science Classroom

Midwest Creation Fellowship

Through Him all things were made; without Him nothing was made that has been made. — John 1:3

Does Creation Matter?

by Don B. DeYoung, Ph.D.

Why all the fuss about creation details and the age of the earth? Does it really matter in this "scientific age"? The answer is a strong yes, as evidenced by four decades of research and publications from the Creation Research Society. Let's consider nine distinct areas where creation does indeed matter today.

The classroom

We begin with the education at all age levels, from lower grades through graduate school. All subjects also are included; however, science will be emphasized here.

1. Foundation. No topic is adequately taught without explaining its beginnings or roots. And when one looks at the foundation of science, a creation heritage appears throughout. It was the creation worldview, especially in the 1600s, which led to the realization that nature was designed, dependable, and decipherable. Science pioneers, both men and women, were nearly all strong creationists. They demonstrate that the Bible and science are entirely compatible. When creation is expelled from the classroom, science teaching is impoverished.

2. Clarification. Creation in the classroom can actually help students better understand evolution theory. Two competing issues — creation and evolution — are better than one since "iron sharpens iron." One comparison involves observing biological variation in nature, then determining whether they are microscopic or macroscopic changes. Another comparison involves homologies, or similarities between animals and people, indicating either a common ancestor or common Creator.

3. Correction. Many textbooks contain misleading ideas about evolution evidence. Creationists serve as "whistle blowers" by explaining the weaknesses of embryology, horse evolution, the peppered moth story, vestigial organs, as well as problems with the big bang and stellar evolution. Also could be added problems with big bang cosmology and stellar evolution. We strive to restore integrity to science classrooms and texts.

The laboratory

4. Budgets. There is great competition today for research funds with the majority of proposals being turned down. Meanwhile, evolution thinking leads to some very questionable major expenditures. Consider the Mars meteorite found in Antarctica in 1996. For six years scientists have debated the possible evidence for life within this space rock. The research cost is $50 million so far and increasing daily. Also, space probes costing more than $10 billion have searched for Martian life with zero results thus far. This amounts to more than $100 from every taxpayer in the U.S. There is a surprising lack of criticism of this futile investment of tax funds. I am in favor of space exploration, but some projects surely could be directed more wisely.

5. Crosscheck. Many doubtful assumptions control science thinking today. These include a 4.6 billion-year age for earth, a spontaneous origin of life, and an animal ancestry for people. Creationists seem to be the only group challenging these ideas. I realize that the majority of scientists accept evolution, but the majority is often wrong. Creation provides a much-needed healthy assessment of current science assumptions.

6. Biblical information. For the creationist, the Bible is a unique book; it is inspired and absolutely truthful. Therefore this manual is helpful whenever it touches on nature topics. In medicine, for example, the removal of blood was once a common practice. George Washington was actually bled to death in 1797. However, 2500 years earlier, written in Leviticus 17:11 is the statement that "life is in the blood." Another example involves dinosaurs. Job 40:17 tells us why dinosaur "tail drags" are seldom found with their footprints in hardened sediment. Sauropod dinosaurs held their tails horizontally in the air where they swayed "like a cedar," not touching the ground. There are dozens more such examples of valuable scientific "anticipations" throughout Scripture.

The home

7. Outreach. Both Francis Schaeffer and Ken Ham have pointed out the importance of creation in evangelism. Many people today have a dismal knowledge of the Bible. Furthermore, television, movies, and scandals have given a totally false impression of authentic Christianity. In contrast, Genesis is an excellent starting point in talking about creation, the curse, and our responsibility before God. The message of hope that people desperately need to hear begins with Genesis.

8. Family values. Certain professors can be merciless in attacking the faith of students. And even more erosive is the nonstop evolutionary influence of the news, entertainment, nature programs, museums, etc. For anyone who wants to grow in creation knowledge, encouragement is desperately needed. For this purpose, resources include creation seminars, tours, and materials including Creation Matters and the CRS Quarterly.

9. Society. Social Darwinism seeks to reform society in some very disturbing directions. For example, selfishness is said to be no one's fault since the "reptile portion of our brain is very territorial." And rape becomes expected practice since the male is programmed to pass his genes on in any way possible. In refreshing contrast to these pathetic and dangerous ideas, creation thinking is surely essential to the future of families.

Creation does indeed matter greatly in the classroom, in the laboratory, and in the home.

Committee Provides Direction for Van Andel Creation Research Center

CRS Research Center Committe, left to right:
Dr. Don DeYoung, Dr. George Howe, Dr. John Meyer (Director), Rev. Robert Gentet, Dr. Russ Humphreys, and Mr. Hank Giesecke (Assistant Director)

During the last weekend in October, four CRS board members visited the Van Andel Creation Research Center. Charged with providing oversight of the Research Center, this lab committee assists with preparation of the Center's budget, provides encouragement to the staff, and develops long-range plans for the Center.

The committee heard reports on current and developing research plans, was apprised of outreach opportunities and possibilities, and carefully considered several candidates for the position of Director. Dr. Meyer, current lab Director, noted that the Center continues to experience an increasing number of visitors. A new brochure entitled *God Created Plants* has been used by many visitors who tour the greenhouse, providing them with an opportunity to study unique design features and the limits of variation in cacti.

A report was given on the Center's sponsoring of a booth at the local county fair. There were many positive contacts as workers distributed nearly 800 copies of a pamphlet entitled *Why 600 Scientists Reject the Theory of Evolution.*

Additional outreach opportunities were presented. A series of automobile field guides, suitable for lay persons, is being developed for the Southwest. Each guide will provide a creationist interpretation of important natural history features.

Earlier this year the Center participated in a brain-storming session with representatives of three other Arizona-based creationist groups. This confab was immensely helpful in providing new, creative ideas for outreach. Perhaps this will set the stage for continuing assistance and information for other local creation groups throughout the country.

It was also noted that each year nearly 80% of the finances for the Research Center operation and outreach are received during December. This obviously makes budgeting for the preceding 11 months a challenge. Nevertheless, the Lord has blessed, and neither the Society in general nor the Center in particular have ever operated in a debt mode. Nearly forty years of research, publication, and outreach have established the Creation Research Society as one of the foremost technical creationist groups in the world.

With the business and financial background of Mr. Giesecke, the new Assistant Director, the Center is now able to provide additional assistance to those who wish to utilize deferred giving programs, including wills and trusts. Regular giving through the automatic transfer program provides much-needed cash flow through the year.

Perhaps the Lord would lead each CRS member to consider a generous donation as we approach the end of the year. Partnering together with the Society and the Research center, we can continue to accomplish much for the work of the Lord in creation ministries and research.

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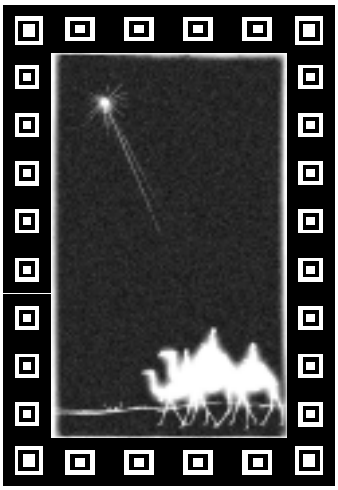
Christ our Saviour is Born

Merry Christmas from the editors of

CRS Quarterly

and

Creation Matters



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October / November / December 2002
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Creation Calendar

Note: Items in "Creation Calendar" are for information only; the listing of an event does not necessarily imply endorsement by the Creation Research Society.

2003

May 29 - May 31
Annual Meeting, CRS Board of Directors
Concordia Univ. of Wisconsin, Mequon, Wisconsin