

GOD'S HAND
OR
NO HAND?

*Evidences for the Hand of God
in all that Exists*

Dr. Glover Shipp

Drawings by the author

J.C. Choate Publications

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Dedication

Dedicated to our great Creator God,
who provides us with countless examples
of His signature in all of nature,
and to all who have gone before in the battle
to build a case for the existence and power
of our Creator.

Publisher's Statement

In this age of information, and of growing knowledge concerning the unseen world that is within each particle of matter and that stretches to the expanses of the Universe, a study such as **God's Hand or No Hand?** is welcomed. Brother Shipp has done a thorough and scholarly job of covering the materials in each chapter. Readers will appreciate his clarity in presenting these wonderful and amazing facts concerning God's creation.

Beginning with a study of the nature of God, brother Shipp goes on to cover the cosmos, the earth, and the physical world. Then he writes in detail about the wonders of the human body, followed by an overview of the evidences for God's hand in plant and animal life. In a concluding chapter, he shows that history, geography and archaeology work together in their support of the biblical record of creation.

Of great value, also, is the chapter on the "Operating Manual" — God's gracious book of directions, providing His guidance for living in this world that is the work of His hands. We are happy to be making this book available to readers who are honestly asking the question, **God's Hand, or No Hand?**

Mrs. J.C. Choate
Winona, MS 38967
October 1, 2009

Credits

I owe Betty Choate a bouquet of gratitude for suggesting that I write this manuscript and for her work on preparing it for printing. Many researchers and authors on Christian Evidences have helped make possible this work, notably Lee Strobel, J.B. Phillips, Grant Jeffrey, Michael Behe, Michael Denton, Phillip Johnson, John Klotz, Germaine Lock-wood, Josh McDowell, Hugh Ross and Merrill Unger. John Clayton was especially helpful in reading part of this material and giving me new insights.

A big “thank you” to biology teacher Michelle Mallett, to Dr. Len Feuerhelm, professor of Physical Sciences at Oklahoma Christian University, to my colleague Russ Sharp, who is knowledgeable in various fields of science, to my In-Depth Bible Class at the Edmond, Okla., Church of Christ, for patiently sitting through this course in draft form and offering suggestions, and to my long-suffering wife, Margie, who puts up with my countless hours of research and writing.

Special Preface

Charles Darwin, father of the theory of evolution bearing his name, was born February 12, 1809. His seminal work, *Origin of the Species*, caused a tremendous stir and was denounced by many, especially religious leaders. However, today he is being heralded as one of greatest men of all history. Even some religious leaders are calling for a mutual hug with scientists — a marriage, so to speak of evolution and religion. An organization now exists to foster such a marriage. It is called “Jesus Believes in Evolution.” It may be accessed at jesusbelievesinevolution.org.

Due to the renewed push for evolution and such attempts as this to legitimize the theory and make it palatable to Christians, it may be providential that this book, *God's Hand or No Hand*, should be published at this particular time.

Introduction

“Just who do you think you are, attempting to argue on behalf of God’s existence and creation of all things?” Good question. If God exists, does He need my help to prove the fact? No, but people do. Some are atheists, who believe in no god at all. Some are deists, who believe that there may have been a God who set everything into motion, but then left it to its own devices. Some are pantheists, who believe that everything is God, or rather, gods. Many are evolutionists, attributing all that exists to chance mutations. Some are theistic evolutionists, believing in God as the original Creator, but then in evolution as the process He used for developing the many plant and animal forms. Some are worshippers of science, believing that science alone can answer all questions about life and the origin of everything that exists. And some are skeptics, who are not sure what they believe about God.

To all of these, and to all who believe in God but have few sound arguments to advance for their belief, I offer the evidences included in this book. They are not new with me, but have been gleaned over time from numerous sources, including, of course, the Bible. My study of ancient history, Bible lands, Bible manuscripts and translation, astronomy, biology, chemistry and archaeology, along with other subjects, aided me in my research.

While serving for 18 years as a publisher of Christian materials in Brazil, I discovered that then there were few well-written sources available at that time on Christian evidences in the Portuguese language. Through extensive research and painful effort, I produced a course on the subject. It was followed later by a like-course in English.

Recently, when I was preparing a book on *In the Storms of Life. Do We Have a Shelter? — Basics of the Christian Faith*, I planned to include a section on Christian Evidences. My publisher had another idea: “Why not write a separate book on evidences?” “OK,” I responded and proceeded accordingly. This title, *God’s Hand or No Hand?*, is the result. It is not a work for the professional scientist but, rather, for the non-scientist who wants to know more about reasons for believing that God’s Hand is in everything that exists.

I claim no divine inspiration or infallibility for this work, but do affirm that it is the best I can produce at this stage in my literary and spiritual journey through life. My prayer is that it will be of some help to you in your journey.

— Dr. Glover Shipp

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GOD'S HAND

Studies in Christian Evidences

Evidence 1

The Battle Over God's Hand vs. No Hand

Introduction

The battle — or should I say the war — over the source of all things in the universe, and their development, has been raging for generations.

On one side are creationists, who believe in an Intelligent Mind behind all that exists — in other words, God. They point to the amazing complexity in all of life and the essential symbiotic relationships between kinds of life, or within a particular kind, as proof that there was a designer at work.

On the other side are evolutionists, who believe that all of creation was an accident — life coming out of a primordial mass (a prebiotic soup) or out of pure energy and evolving over eons of time into the universe that we see today. In other words, there is no place in their agenda for God (or any divine power) at work in creation.

Neither side can point to a visible physical being or an inanimate energy source as the originator of all that exists. Both positions require faith, because neither can explain from where God came or from where the initial energy or molecular “soup” came.

Some evolutionists have modified the original Darwinian theory of evolution, teaching that there was some kind of cataclysm that first initiated life. They recognize that there had to be some “triggering device” to jump-start the process of turning non-life into life.

Up until the 19th century most western peoples believed in a Creator God, basing their faith on the Bible's statements about the creation — for example, Genesis, chapter 1; Psalm 19:1-6; John 1:1-5; Acts 17:24-28; and Romans 1:18-25.

In 1859 Charles Darwin, an English student of natural history, wrote a watershed book on his theory about evolution, *The Origin of the Species by Means of Natural Selection*. He had devoted five years to worldwide research into plant and animal life, traveling on a British naval vessel, H.M.S. Beagle. During that time he identified a rich treasure of new species of plants and animals, especially on the Galapagos Islands.

Darwin's research and conclusions caused a tremendous upheaval in the scientific world. The above-mentioned title presented his Theory of

Evolution (which has remained, until the present day, still a theory). His argument was that all that exists in the animal and vegetable realms can be attributed to natural selection and not to any act or miracle on the part of a divine being. His central idea was that all forms of organic life are derived from a very limited number of primitive types. Owing to hereditary, climatic and dietary influences, along with natural laws that were adapted in certain epochs and situations, there was a modification among species and within species. This process required an incalculable period of time, hence millions of years, to have occurred.

Arguments for Evolution

The evolutionists (Darwin's disciples) present various arguments for their case:

- ***Variety in nature***

No two leaves from the same tree are exactly identical. This individual variation is reinforced in the reproduction process. The variety is greater where there is a major geographical extension of that particular type of tree. Therefore, future modifications will be greater yet.

- ***The battle for survival***

All types of organisms tend to multiply rapidly. If this numerical growth were not controlled, the world would become overloaded with certain types of life. However, natural systems control this growth. The fight for food and survival brings difficulties to some species, which decrease in number, leaving room for other and stronger species to proliferate.

- ***Natural selection (survival of the fittest)***

Natural selection is the process by which the stronger species, or individuals within a species, dominate. Some species cannot adapt to changing environments and die out. Others adapt and survive. The circumstances that produce these modifications stimulate improved organization and capacity in a particular species. These include great variety within the species, a large number of individuals within the species, interbreeding of some types, isolation, climatic changes, geographical shifts and upheavals, along with an enormous lapse of time.

- ***Sexual selection***

The males of a species battle among themselves for dominance and, thus, sexual domination over the females. The strongest win out and in this way bring the best genetic influences to bear on the future of the species. (This point is true in part, since in a herd or pride the strongest

male mates with the females. However, some species mate for life — for example, penguins, wolves and Canada Geese. These cases make sexual selection through overpowering competitors invalid.)

- ***Laws of variation***

There is a tendency to return to genetic characteristics of the past, thus re-introducing them to future generations. An example is the stripes on zebras. (This sounds more like a law of continuity of a species' nature than a law of variation.)

- ***Geological succession***

The most ancient forms were quite different from those of today, but demonstrated intermediate characteristics among types now separated geologically — “links” between the types and species. Darwin believed in the idea of an almost infinite number of generations of ancestors of present-day birds, linking them to reptiles of the dawn of life. Again, this would require millions of years. (Evolution cannot explain, however, the existence of such “primitive” types today as alligators. Why were they not drastically changed, if evolution is the norm?)

- ***Geographic distribution***

The species are related in identity and appearance in proportion to the presence or absence of barriers to migration in a determined region of the earth.

- ***Morphology***

Every type of life is classified in groups such as varieties, species, genera, families, orders and great classes. The relationship among these categories indicates to us a descent from ancestral roots in common. For example, the hand of a human, the leg of a horse, the wing of a bat, etc., operate in the same general manner, proving the existence of an ancestor in common. Does it really? Or does it prove a Creator in common? (See Appendix 3 for further classification details.)

- ***Serial homology***

Every embryo of whatever creature passes through stages that are almost identical in form, appearance and function, thus proving an evolutionary relationship among them. (The problem here is that the “great leaps” necessary for evolution to arrive at the extremely complex forms we know today have never been found and are almost inexplicable. This is due to the genetic code built into each type that severely limits the possible modifications. In fact, many geneticists are now questioning the validity of Darwin's theory.)

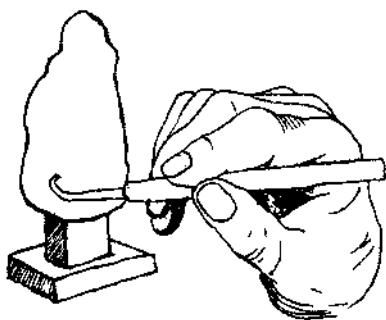
Conclusion

Today, evolution is presented in museums, publications and school textbooks as absolute fact, when it has never been more than a theory. Its graphic presentations appear to be very convincing. Meanwhile, creationism is scorned and tossed aside as unscientific and unscholarly. Even top scientists who believe in our Creator God are often held up to ridicule. For instance, Keith Robison, professor at Harvard University, says this about the research of biochemist Michael Behe into Irreducible Complexity (that living systems are so complex that they cannot be reduced beyond the point at which they can no longer function):

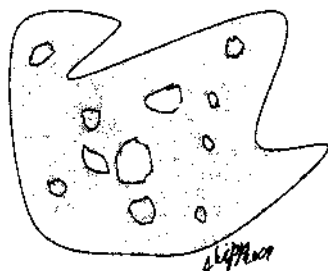
“Most science books for popular audiences focus on the frontiers of knowledge: what do we know, what does it suggest, and where is it likely to take us? In contrast, I would characterize Behe’s book as an exposition of the Frontiers of Ignorance: what do we not know, and how can we blind ourselves with that lack of knowledge.”

Another attack on creationism comes from Richard Dawkins, British evolutionist and opponent of God and Christianity:

God's Hand vs. No Hand



Order out of chaos —
Intelligent Designer



Primordial soup —
accident of evolution

“Never say, and never take seriously anyone who says, ‘I cannot believe that so-and-so could have evolved by gradual selection.’ I have dubbed this kind of fallacy ‘the Argument from Personal Incredulity.’”
(Richard Dawkins, *River out of Eden* 1996).

As pointed out above, there are some critical errors in the theory of evolution. No evolutionist can explain, for instance, how the human eye came to be, when all of its elements had to be present at the same time for it to function.

Nor can any evolutionist disclaim the physics of entropy (from the Second Law of Thermodynamics— that everything decays over a period of time, rather than improving. For instance, the famed Golden Gate Bridge in California requires constant painting, to protect it from the damage caused by ocean spray and weather conditions. Another example: I have the fingers of an artist, yet I realize that they are losing their capacity to feel and to handle a brush well. And another: The house in which my family lived when I was about four is now nothing but a small mound of debris. Entropy, in itself, disproves the sweeping Theory of Evolution.

In the final analysis, evolution requires supreme faith in *no hand* in the creation or development of all life. In other words, supreme faith in nothing, but without being able to explain from where that nothing came. Evolution requires great faith in nothing. Creationism or Intelligent Design requires great faith in someone — *in God's hand*. We creationists cannot explain the source of God, but believe our position to be infinitely more logical than that of the evolutionists, due to the great complexity of all that exists. We see intelligent design, rather than chance, in everything about us.

This should not be surprising, because the music creator “hears” the music in his or her head in complex fashion. The artist “sees” a creation in his or her mind. The botanist sees design in all of plant life. Gerard Manly Hopkins, Nineteenth Century British poet, penned, “The world is charged with the grandeur of God.”

Design begs a designer and every effect has a cause. These are facts that hundreds of scientists are now accepting as much more logical than mere chance. The heavens still declare the glory of God, the composer of all things, as stated in Psalm 19:1-4:

“The heavens declare the glory of God; the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they display knowledge. There is no speech or language where their voice is not heard. Their voice goes out into all the earth, their words to the ends of the world.”

The heavens and the firmament still show His handiwork. Day unto day they still pour out speech, if we would but listen to it, and night unto night they still display knowledge. Their voice is heard everywhere; it goes to the ends of the world. On a clear night in the fields of Bethlehem,

David, the composer of this psalm, could see no more than 6,000 or so stars and only five planets. Yet, their grandeur spoke loudly to him of a supreme creative hand behind them. How much more would he be astounded today by the awesomeness of our known universe, with its billions of galaxies? How much more would he sing psalms of praise to his Creator? God has “grown” vastly through the lenses of powerful telescopes. Has our faith grown in proportion?

Further reading from God’s Word about His creation — Genesis 1 and 2, Job 38-41, Psalm 8, Psalm 14:1-5, Acts 17:24-31, Romans 1:18-21

Evidence 2

Your God Is Too Small

Introduction

God is under attack. Every effort is being made, on the premises of “separation of church and state,” “inclusiveness in the realm of religion” (to embrace every kind of religion and philosophy that exists) and “political correctness,” to remove God from all public buildings, institutions, documents, our currency, museums, school textbooks and other areas of life. Separation of church and state is a bogus weapon of attack against God. A private letter by Thomas Jefferson stated that “There is a high wall of separation between church and state.” Those opposed to Christian expression of any kind in public latched onto that statement and have used it ever since as if it were basic constitutional law. Nowhere in the Constitution or Bill of Rights is there any mention of a “high wall of separation” between the two. Our Founding Fathers wished to guard against the idea of an official state church, as existed in England, and, at the same time, to guarantee religious freedom, something many new Americans had not experienced in Europe. Specifically, the First Amendment says,

“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof”

That is all our Constitution says about religion. It restricts Congress in the realm of religion, while guaranteeing our right to religious freedom. Yet, our religious freedom is being undermined continually by those who want an absolute separation between church and state; indeed, a curtailment of religion and, specifically, the Christian religion. (Nothing, really, is said about practicing Islam or Buddhism in public in our nation.) The founders of our nation had no such idea in mind. Most had a strong faith in God and invoked Him in their speeches and documents.

Some Statements about God by our Founding Fathers

“We Recognize No Sovereign but God, and no King but Jesus!” (John Adams and John Hancock, April 18, 1775).

“The general principles upon which the Fathers achieved independence were the general principals of Christianity I will avow that I believed and now believe that those general principles of Christianity are as eternal and immutable as the existence and attributes of God” (John Adams in a letter written to Abigail on the day the Declaration of Independence was approved by Congress).

“No truth is more evident to my mind than that the Christian religion must be the basis of any government intended to secure the rights and privileges of a free people” (Noah Webster 1828, in the preface to his *American Dictionary of the English Language*). (Additional quotes in Appendix 4.)

Why the Freeze-out of God?

Obviously, our Founding Fathers had a deep faith in God, forming our nation on the foundation of that faith. But in more recent times their faith has not been transmitted to our government and society. In fact, concerted efforts are being made by a very vocal minority to delete God and the Christian religion from government and, even further, from all aspects of life. Yet, God stubbornly refuses to go away. Just today I witnessed the commissioning of the nuclear carrier, U.S.S. George H.W. Bush. Would you believe that prayer was offered to God and that our president invoked the blessings of the Lord on that great ship, the 6,000 people manning it, our armed forces worldwide and our nation?

Yet, a small minority continues to attack God on every front. Why has this freezing out of our Creator and the Christian religion come about? There may be many reasons, such as the prevailing attitude today of inclusiveness, which opens the door to any religion or to no religion. Many feel that we should not judge anyone else's religion or philosophy, but be accepting of all. Another reason may be the absurd number of divisions within Christendom, far more than with any other religion, which, to the world makes us appear fractured in every direction, inconsistent in our message and in the expression of our faith. Another reason is our inadequate presentation of the truths found in the Bible, in a day when doctrine is downplayed as no longer essential to our lives and faith. A strong doctrinal stance, some feel, is negative and judgmental. Yet another is the gross misbehavior of church leaders and even of people in the pews. The non-believer sees us as not practicing what we preach and, therefore, as being hypocritical.

One other noteworthy cause is the attitude that we Christians may have about God.

The traditional God of many of us doesn't fit, some feel, within the knowledge that exists today in the sciences. Some believe that God was alright for a pastoral society, but not for our technological age. Much is known about our universe, with more being discovered continually. Because of these breakthroughs in the various fields of science, the “Ancient God” of Christians seems to have grown rather small and weak. Many have come to doubt or even lose their faith in a God who disappoints them or who no



Some make Jesus too meek, gentle,
and almost effeminate to be master of
the universe.

longer appears to be able to mastermind our complex cosmos. (See Appendix 1 for further information on Darwinian Evolution's legacy.)

A conversation on talk radio between the host and a young man who was brought up Christian, but who no longer believes in God, Christ or the Bible, made it clear that the guest had been disappointed in God's "lack of presence or performance" in his life. Weeks earlier I heard a young woman describe the book that she had just written, telling God good-bye. Her reasons for abandoning the Lord were much the same as his. Finally, a humanist group

has blanketed Washington, D.C., with billboards and placards announcing, "There Is No God. Just be good and be happy." Problem Here? If there is no God, there is no real standard for goodness and no real reason for happiness. The Apostle Paul had an answer to this kind of mentality:

"The wrath of God is being revealed from heaven against all the godlessness and wickedness of men who suppress the truth by their wickedness, since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities — his eternal power and divine nature — have been clearly seen, being understood from what has been made, so that men are without excuse.

"For although they knew God, they neither glorified him as God nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened. Although they claimed to be wise, they became fools ... " (Romans 1:18-22).

Actually, our Creator God has always been present. He has always performed His divine task. He has been all-powerful, as indicated in these passages from the Bible:

"When I consider your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him ...?" (Psalm 8:3-5).

"The heavens declare the glory of God; the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they display knowledge. There is no speech or language where their voice is not heard" (Psalm 19:1-3).

"In the beginning was the Word, and the Word was with God, and the Word was God. He was with God in the beginning. Through him all things were made; without him nothing was made that has been made" (John 1:1-3).

"The God who made the world and everything in it is the Lord of heaven and earth..." (Acts 17:24).

Despite such words as these, many Christians have attempted to either grow under their own power to be equal with God or have diminished Him to a ridiculously small size, in order to fit Him within the box of their own opinions and preconceptions. They need to begin thinking "outside of the box." The famous author, J.B. Phillips, in his book, *Your God Is Too Small*, lists some of the false portrayals of God which have caused many to turn away from Him:

God Falsely Perceived As

- ***A Heavenly Policeman*** (always handing out fines and punishment).
- ***A Grand Old Man in the Sky***, who can't be expected to understand our contemporary world.
- ***The Pallid Galilean***, referring to Christ (humble, calm, almost effeminate, as portrayed in many paintings and illustrations).
- ***Absolute Perfection*** (too far removed from us and our troubles; inaccessible to mere human beings).
- ***The Heavenly Provider*** (giving us everything we expect and demand of Him).
- ***God-in-a-Box*** (bringing God down to our size and attempting to control Him).
- ***Heavenly Manager*** (keeping us from all harm).
- ***A Used God*** (received secondhand from parents or others, and therefore of little personal advantage to us).

- *A Perpetual Critic* (jumping onto us about everything; treating us unjustly).
- *A Projected Human* (attempting to make God over in our own image).
- *A Hurry-up God* (wanting Him to respond now to our every demand).
- *God for a Special Class* (favoring only a certain race or social, educational or economic level).
- *The God of Bethel* (like Jacob in Genesis 32:22-28, determined to fight with Him for all of His “failures” and somehow win the battle).
- *A Depersonalized God* (an essence or force, but not a divine Person).
- *A God of the State, Education, Business, Beauty, Power, Security, Money*
- *An inheritance from our parents* (who, obviously, lacked the knowledge that we have).
- *Entertainment* (guaranteeing success in our profession or situation in life).

However, we are not the only deluded souls who diminish God. The atheist attempts to eradicate Him totally. The deist makes Him a god who wound up the universe and then abandoned it to its own devices. The skeptic doubts that He exists. The Muslim robs Him of His Son. The Hindu reduces Him to being only one of many gods. The evolutionist makes Him unnecessary by attributing all creation to happenstance. So we all take a hand at reshaping God. He can never be fitted into a box of our own design or dimensions, so why do we play god and attempt to do so?

Conclusion

All of these are false gods, or at least false conceptions of God, inadequate for our needs and salvation. Because of our lack of understanding of the living God, we turn others (and sometimes ourselves) into unbelievers. We need to learn who is the God of creation and of the entire universe, who is certainly worthy to be the God of all human beings. And then, we need to share this God with others.

This true God is very different from the “god” or “gods” we frequently show to the world. As we shall see in the following chapters, the One and Only God has a mind and creative power above anything we can imagine.

Further reading on the dimensions of our Eternal Creator God — Psalm 8, Psalm 19:1-6, Isaiah 6:1-4, Acts 17:24-28, Romans 1:18-20, Revelation 4.

Evidence 3

God's Hand Seen in Proofs of His Nature

Introduction

The Bible says that no one has ever seen God (John 1:18). The closest anyone has come to see him, apart from Jesus Himself, was when Moses was permitted to see God's "back" (Exodus 33:18-23) and when Isaiah saw His glory (Isaiah 6:1). Therefore, it is necessary to use indirect testimony, rather than direct, about the existence and work of God. Jesus revealed Him to us, according to John 1:18, 14:8-14. Although we have not seen Him directly, we believe because Jesus knew His Father intimately and shared some of what He knew with us. This, then, is one way of knowing that God exists.

Another method that we may use to determine that God exists is philosophical. Using reason and the deductive method, it is possible to show to others that it is perfectly logical to believe in God and that not to believe is illogical.

Following are philosophical arguments that can be used to prove God's existence and power.

Six Philosophical Proofs about God

• ***The cosmological argument.*** The "cosmos" exists and demands an explanation as to its origin and complexity. This argument says that the world did not begin by chance, nor did it develop by chance. There must be a Great Cause, more complex than the creation itself. The Apostle Paul used this argument in Romans 1:20:

"For since the creation of the world God's invisible qualities — his eternal power and divine nature — have been clearly seen, being understood by what has been made, so that men are without excuse."

The logic frequently used is that a fine watch, such as a Rolex, has a creator. Then, by the same token, the finely-tuned world has a Creator. There are many scientific proofs of the hand of a Supreme Intelligence who planned all that exists — the perfect cycles of water, carbon, oxygen, hydrogen, nitrogen and other elements essential to all life.

• ***The teleological argument.*** The "teleos," the entire universe, has both design and function that go well beyond mere chance. Because of

this, there must be a Grand Designer behind it. This is the argument used in Psalm 19:1-2:

“The heavens declare the glory of God; the skies declare the work of his hands. Day after day they pour forth speech; night after night they display knowledge.”

• **The rational argument.** The universe and our world function in an orderly way, according to natural law, which can be understood and researched. There are people, however, who reject this argument, preferring to believe that everything is the result of a fortunate accident!

Scientist and professor A. Cressy Morrison, former president of the New York Academy of Sciences, shows us what would happen, if the design of the universe were altered only slightly: For example, the earth turns on its axis over a 24-hour period at about 1,000 miles per hour. Why doesn't it turn at a velocity of 100 miles per hour? If it did, days and nights would be ten times longer than they now are, roasting everything during the day and freezing everything during the night. Let us imagine that the earth moves 17 times faster than it does. At the equator, then, there would be neither gravity nor centrifugal force, because they would counterbalance each other. This would mean no weight, no ability to even use a hammer, no capacity for physical labor of any kind (from Morrison's *“Seven Reasons Why a Scientist Believes in God,”* October 17, 2004).

It is no accident that the earth acts as it does, circling around the sun and tilting on its axis, thus giving us days and nights, as well as seasons. Nor is it an accident that the moon is located where it is in relationship to the earth. If it were closer, there would be daily hurricanes and the ocean's tides would be so high that much of the earth would be inundated.

• **The ontological argument.** We humans are able to perceive the idea of perfection; that is, God. All races, historically, as well as currently, seek after a higher power? Anthropological research has shown that we are incurably conscious of God (or of a god or gods). In Acts 17:16-28, the Apostle Paul was reasoning with a group of Athenian philosophers. He used the fact of an altar's inscription “To the unknown god” to teach them about the true Creator God. This consciousness of God has been perverted and twisted out of shape, but the basic desire of humans to seek after God still remains. God placed within us an imagination and the capacity to understand that there is a Higher Power and to seek after Him. In the case of atheists, they often vehemently deny Him. If they had no inner impulse to believe in or deny God, why are they so preoccupied with Him?

• **The moral argument.** We have built within our psyches a sense of good and evil. No one can explain the existence of this sense, except through the influence of Someone who placed within us, from the very beginning, this consciousness. Romans 1:18-22 tells us that we can know sound moral and judicial principles, but when we turn our backs on God, He gives us over to a depraved mind.

Yet, we are often involved in arguments or judicial cases about the justice or injustice of certain acts. We criticize others over their lack of judgment, justice or faulty social behavior. In doing this, we are saying that others should heed the commonly-accepted norms of fair and reasonable behavior. From where came this notion that there is a basic sense of justice and moral behavior — of what is right or wrong — unless it came from God? Mere chance or accidents of evolution could not have brought about such a sense.

• **The argument from the Bible.** The Bible has been proved, over and over, to be the Word of God, as we will further point out in Chapter 13. The Bible affirms, repeatedly, that God is, that He created all things, that He cares for all things and that He expects from His human creation a positive response to Him. In Hebrews 11:6 the writer declares,

“And without faith it is impossible to please God, because anyone who comes to him must believe that he exists and that he rewards those who earnestly seek him.”

Conclusion

These arguments concerning the existence of God are valid, but still may not convince anyone who is determined not to believe. The Bible warns us, *“The fool has said in his heart, ‘There is no God’”* (Psalm 14:1). Much learning may not necessarily guarantee that the incredulous investigate the evidence that can lead him or her to God. Lee Strobel is an exception. He began his research as an atheist and ended it as a believer in Christ.

Finally, whatever we believe, whether skeptic or believer in God, is a matter of faith. No one saw the creation or the early development of the universe. The evolutionist must have an extremely high level of faith (more than I have) to believe in chance and the long, slow change of inanimate matter eventually into the complex being that is human. The believer must also have faith — faith in the hand of God behind and in all that exists (Hebrews 11:1-3). I prefer to base my faith in a Supreme Intelligence who was pre-existent, than in mere chance and a random

quantity of strangely “self-created” and “self-existent” prebiotic soup, out of which came all life. John Clayton, former atheist and now ardent speaker and writer on God and Divine Creation, said this:

“One question which inevitably comes up in a discussion of this nature is, ‘What is the origin of God?’ If God created matter/energy, and designed the systems that have propelled matter into its present arrangement, who or what accomplished that for God? Why is it any more reasonable to believe that God has always been than it is to say that matter has always been?” (Clayton 2009, paper on “Does God Exist?”)

Carl Sagan has said, “If we say that God has always been, why not save a step and conclude that the universe has always been?” (Sagan, 1980:257).

Further reading on the nature of God — Exodus 3:14, Joshua 1:11, 2 Kings 19:15, 1 Timothy 1:17, Hebrews 11:1-3, Revelation 19:6

Evidence 4

God's Hand Seen in the Cosmos

Introduction

Our eternal Creator God doesn't need defending, as mentioned in the Introduction, but "fools rush in where angels fear to tread." I will therefore attempt to build a case for God in this chapter and all that follow. A major reason for doing so is that the Theory of Evolution, which leaves God out of creation and the ongoing of all life, has been presented for 150 years (since 1859) as fact. The media is saturated with it. Books, and especially schoolbooks, are filled with it. Natural History museums present it in convincing detail. Evolutionary biologist Earnst Mayr flatly states,

"No educated person any longer questions the validity of the so-called theory of evolution, which we now know to be a simple fact" (*Scientific American*, July 2000).

No educated person? What an uneducated statement! I consider myself reasonably well educated, with five college degrees. In bucking the well-entrenched doctrine of evolution, those of us "educated persons" who believe in Intelligent Design and Designer are swimming against a strong current to the contrary. However, our numbers are growing. Former atheist and evolutionist Lee Strobel notes that hundreds of leading scientists are now taking their stand to question or even deny evolution. Their statements include,

"We are skeptical of the claims for the ability of random mutation and natural selection to account for the complexity of life" (A Scientific Dissent from Darwinism," *The Weekly Standard*, Oct. 1, 2001).

"Scientists who utterly reject evolution may be one of our fastest-growing controversial minorities ... Many of the scientists supporting this position hold impressive credentials in science" ("Educators Against Darwin," *Science Digest*, Winter 1979).

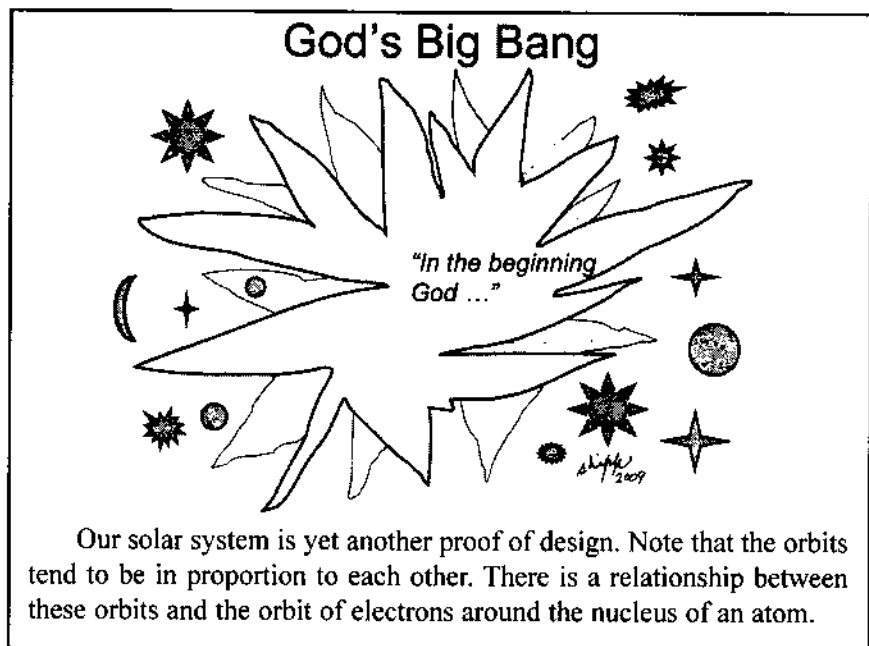
So, not only religious conservatives, but also prominent scientists, are now coming to believe in creation, rather than evolution. Thus, they hold to faith in a creative mind behind all that exists. This is nothing new, since 3,000 years ago the psalmist penned, "*The heavens declare the glory of God; the skies proclaim the work of his hands*" (Psalm 19:1). And much earlier the writer of Genesis affirmed, "*In the beginning God created the heavens and the earth*" (Genesis 1:1).

Did the Universe Happen by Chance?

Let us look at one reason why one noted scientist believes in the God of creation, rather than creation by chance. A. Cressy Morrison says:

“By means of an invariable mathematical law, we are able to prove that the universe was designed; said design executed by an incredible intelligence.

“Let us suppose that you place in your pocket 10 identical coins, numbered in sequence. Now, take them out, one by one, in the correct sequence. Do you know what your chances are to do this? One in 10 million! What about the chances of winning big in a national lottery? Extremely slim! Different entities offer us a chance to win in a sweepstakes. Have you read the fine print? Your chances are 1 in perhaps 300 or 400 million. Even in such a simple test as drawing 10 coins out of your pocket in sequence, we can see that mere chance doesn't have a chance”
(*op. cit.*)



How Vast Is the Universe?

In my lifetime, and especially in the past 30 years or so, knowledge about the universe has multiplied many times over. Due to the Hubble Space Telescope, along with x-ray, radio and infrared cameras, our knowledge of

the dimensions of space has constantly expanded. In 1999 the Hubble Space Telescope astronomers estimated that there were 125 billion galaxies in the universe, and recently, with a new and more powerful camera, HST has observed far more. As observations continue and astronomers explore more of our universe, the number of galaxies detected increases. A recent German super-computer simulation estimates that the number may be as high as 500 billion! (NASA's Imagine the Universe Website, Nov. 27, 2002).

Can you imagine 500 billion of anything, except perhaps bail-out government funds to aid ailing banks and industries? Five hundred billion galaxies are almost beyond our ability to visualize. The Milky Way itself is a barred spiral galaxy with four distinct arms and containing from 200 to 400 billion stars. Uncertainty about the number is due to galactic dust and dark matter which partially obscure the galaxy from our view. The Milky Way is so huge that it is about 100,000 light years across and 3,000 light years thick. It turns as a cartwheel majestically through space and is but one member of a cluster of nearby galaxies called the Local Group.

Not only do the heavens hold visible galaxies and perhaps many more yet invisible, they also contain mysterious stars such as quasars, and forces such as Black Holes, still not understood. There are planets beyond our solar system. Other suns in the Milky Way have been found to have their own planets. So the complexity of space continues to astound us.

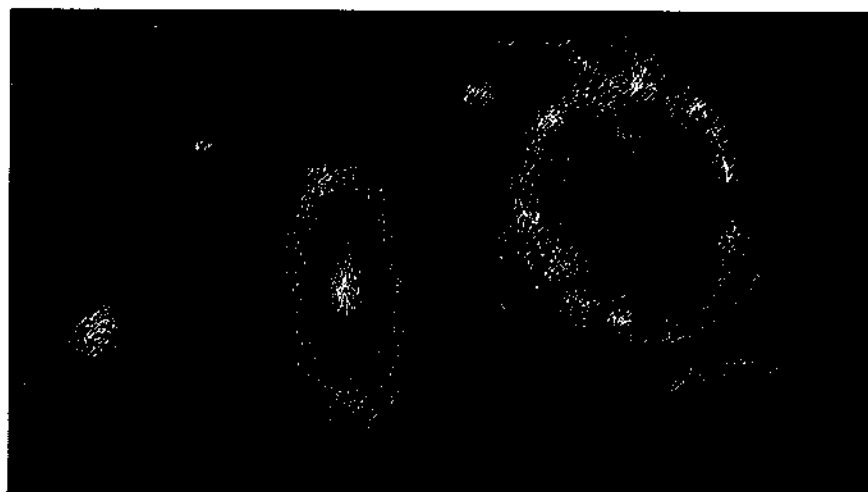
The following figures are from the Astronomy Dept., Cornell University, on NASA'S "Imagine the Universe" website, under "Ask an Astrophysicist".

"In Genesis 15:5 God asked Abraham if he could count the stars. About 5,000-6,000 are visible with the eye, depending on locations in the world. With a small telescope, hundreds of thousands of stars can be seen.

"The largest telescopes, with the use of radio, infrared and x-ray cameras, disclose an estimated 125 billion galaxies, which may each contain more than 200 billion stars. The largest stars, if placed at the Sun's position, would easily engulf Earth, Mars, Jupiter, and Saturn. The smallest white dwarf stars are about the size of Earth, and neutron stars are less than about 10 miles in diameter.

"How far away are the nearest stars? Imagine you are traveling at the speed of light — 186,000 miles per second. In 8.3168708 minutes on the average, you would pass the sun. Then you would have to travel for more than four years to arrive at Proxima Centauri, the nearest star to the sun. But, in comparison to the whole universe, Proxima Centauri is the sun's next-door neighbor."

How Many Stars Are There?



"The heavens declare the glory of God; the skies proclaim the work of his hands" (Psalm 19:1).

"When I consider your heavens, the work of your fingers, the moon and the stars which you have set in place, what is man that you are mindful of him ... ?" (Psalm 8:3-4).

"He (God) determines the number of the stars and calls them each by name" (Psalm 147:4).

Astronomers believe there are more than 1×10^{22} stars in the universe (this number is very large, a 1 followed by 22 zeros), and the estimate increases continually.

This is just the beginning, however. There may be millions of galaxies, all moving through what appears to be an expanding universe. How many stars are there? Perhaps more than 10 octillion; perhaps there are as many as there are grains of sand on all the world's beaches. No one may ever know. Yet, the Bible says that God knows all of the celestial bodies. Psalm 147:4 says, "He (God) determines the number of stars and calls them all by name." Astronomers can't begin to do that, not even with galaxies, yet their Creator has an intimate knowledge of them all.

What a phenomenal mind and memory! And there are black holes, anti-matter, pulsars, quasars, radio-stars and many other strange things out there that astronomers cannot yet fully understand.

How big are the stars? If the sun were hollow, it could contain a million earths. However, some stars are so big that a half-billion of our suns could fit within them.

The Precision of the Universe's Movements

All of the universe, far more enormous than anyone can even imagine, is turning through space with a precise rhythm. All of the parts of this vast universe are connected with all of the other parts, according to a mathematic formula. Yes, galaxies and bodies within them may collide, but that doesn't negate the principle of movement throughout the universe. Is there a grand Intelligence behind all of this?

In order for astronauts to land on the moon, a total of 8,000 mathematical formulas was worked out. These formulas could be developed and the results calculated with precision, because the universe obeys strict physical laws. Scientists could know exactly where the moon would be in relation to the earth at the moment of a rocket's landing there. Eclipses of the sun and moon, and the appearance of comets, can be predicted to the minute, centuries in advance. The movement of stars, double stars and pulsars can be measured. This is true because there is order in the universe. Who put all of this in order, an Intelligence or blind chance?

The Precision of the Universe's Makeup

Apologist John Clayton describes the composition of the cosmos in these words:

"... matter in the creation exists in four states ... The liquid state is the least common of these four states. We rarely find liquids in space.... A moon of Saturn has a liquid surface of methane; and, of course, the earth has a liquid surface of water, but these are rare situations. Solids are the next most common form of matter in the cosmos, but even solids exist in very few places. We have a few rocky planets like Earth, Mars, Venus and Mercury. We have some moons of our planets that are solid [and] the asteroid belt between Mars and Jupiter has a great deal of solid material. However, this form of matter is rare compared to the last two forms of matter.

"Gases are the most abundant form of matter in the cosmos. ... We not only have the atmosphere of planets ... but stars like our sun have a corona which is a gaseous area above the photosphere, the luminous surface. Clouds of gases are also seen in free space. ...

"However, the most common form of matter in the cosmos is plasma.

A plasma is made up of atoms that have had their electron stripped away from them. We see plasma in florescent lights. ... The sun is a huge plasma, as are all of the stars, and massive plasmas exist in various nebulae in space.

“It is interesting to note that the most common form of matter on earth (liquid) is the least common form of matter in the cosmos as a whole. ...

“When we understand the cause and nature of plasmas, we realize that life could not exist without them. Liquids, on the other hand, offer an enormous potential in not only allowing life to survive, but allowing it to propagate and be stable in the creation. We live on an incredibly unique planet, with conditions that are remarkably suited for life. The more we learn about matter, the states of matter, and the composition of the cosmos as a whole, the more we can appreciate what God has done, and see that a wonder-working hand has gone before” (Clayton 2009:19-20).

Theories about Creation

Two principle theories exist in the scientific world about the creation of the universe. One is the “Big Bang” Theory and the other is the “Contraction-Expansion” Theory. The first says that suddenly concentrated energy exploded, to create the universe. No one holding this view, however, can ascribe a source to this vast storehouse of energy. Perhaps God? The other theory says that the universe has been expanding and contracting forever, but this doesn’t explain the source of the universe.

Back to the Beginning — How Did It Occur?

How did all of this come about? The prevailing major theory is that of The Big Bang, when an overwhelmingly powerful explosion at a point in time rocked space and sent debris flying in every direction. Astrophysicist and believer Dr. Hugh Ross says about the Big Bang:

“The universe can be traced back to a single, ultimate origin of matter, time and space ... The cause of the universe — i.e., the Entity (Creator) who brought the universe into existence — existed and created from outside (independent) of the matter, energy and space-time dimensions of the universe” (Ross 1994: 126-127).

This matter, it is claimed, coalesced into stars and eventually into their planets. Astronomers still cannot explain the source of this powerful explosion or of the ingredients that made it up.

On the complexity of the universe, Ross notes,

“The universe, our galaxy and our solar system exhibit more than 60

characteristics that require exquisite fine-tuning for their very existence ... The Entity (Creator) who brought the universe into existence must be ... personal, intelligent and powerful, for only a super-intelligent, super-powerful Person could design and manufacture what we see ... (*ibid.*)

One explanation for all of this eludes many who do not believe in the hand of God in creation: *God spoke it into existence!* In fact, there are three aspects to all that occurred in the formation of the universe and earth: God created, made and spoke.

First, He created, then He spoke and formed out of what He had created all that exists.

When Did It Occur?

Since no human was there to record the beginning, any precision at pinpointing the exact age of the universe is impossible. However, We know that light travels at approximately 186,000 miles per second. Therefore, it takes only 8 plus minutes for light to travel from the sun to the earth.

Measuring the speed of light from another galaxy, or even the nearest sun, to the earth gives us an idea of the astronomical distances involved and hence, the time involved for that light to get to us. The nearest stars to the sun are the Centauri system of three stars. The nearest of the three is Proxima Centauri, which is 4.3 light years away (the distance light travels in a year, or 5.88 million million miles (9.46 million million kilometers). One light year is 5,880,000,000,000 miles (5,880 trillion miles) in distance. So 4.3 light years to the nearest star is a vast distance, indeed.

How far away is the most distant known galaxy? Named Abell 1835 IR1916, a newly discovered galaxy ... is located about 13,230 million light-years away. That is a long distance away, its light having started its journey to us at least 13,230 million light years ago (if the speed of light has remained constant since the beginning and measuring methods are anything like accurate). Now we are getting into very mind-boggling stuff!

Some scientists and philosophers attempt to explain away such enormous distances by claiming that at the time of, and following, the creation, light may have moved at a far greater speed than now, thus telescoping time. Some say that scientific measurements of such distances are inaccurate. However, even if they are off by 50 percent, that still would make such objects vastly far away and formed long ago. Some even suggest that far-away galaxies just appear to be far away; that God may have

left us an illusion, to fool the unwary. Hold on, there! My God may not be charged with using illusion or deceit about the beginning of all things.

A far more sensible and simple explanation is that the question of distances and light fits with what we know by revelation about the earth's creation. Everything was created in a mature state — trees bearing fruit and seeds, animals and humans full grown, the entire interwoven creation being mature and able to make its contribution to the working and existence of all the other parts. This was not “deception” about age; everything had to be full grown in capability in order to function. In the same way, God created the bodies in the heavens with their light “mature” — already reaching the earth — to serve as life-sustaining light and for signs and seasons, as Genesis 1:14-18 reveals.

Conclusion

Is it not true that a primary *law* of science says that life cannot come from non-life? Isn't it also true that there is another *law* of science — the Law of Entropy — which says that everything is moving from order to disorder, “running down”? If these are two *laws of science*, the *theory of evolution* is contrary to these laws and cannot, therefore, make a claim of being “scientific”.

Paul said in Romans 1:18-22: *“The wrath of God is being revealed from heaven against all the godlessness and wickedness of men who suppress the truth by their wickedness, since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities — his eternal power and divine nature — have been clearly seen, being understood from what has been made, so that men are without excuse. For although they knew God, they neither glorified him as God, nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened. Although they claimed to be wise, they became fools ... ”*(See also Acts 17:24-28.)

Paul argued that if we cannot see God's clear creative signs for what they are, we are without excuse. Author Max Lucado explained it this way:

“Nature is God's first missionary. Where there is no Bible, there are sparkling stars. Where there are no preachers, there are springtimes. Where there is no testament of Scripture, there is the testament of changing seasons and breathtaking sunsets. If a person has nothing but nature, then nature is enough to reveal something about God” (1999:103-104).

If we diminish God and His enormous power in any way — if we make Him too small to have created our vast universe, or if we deny His

existence — we have become fools. This is not surprising, for education and scientific savvy may make us feel independent of God — we are convinced that we can chart our own course through life. This is what Forrest Church, minister of a large, wealthy church in New York City, observed:

“The rich and the highly schooled are ‘masters of the universe.’ They don’t need anybody” (Church, *AARP Magazine*, January/February 2009).

Oh, but they do! There is only one Master of the universe and they are not He. No matter their station in life, they will have to give account of their lives to God (Romans 14:11-12).

When we look at the stars, which God has ordained, who are we, that He is even mindful of us? (Psalm 8:3-5). Yet here, on a very small planet circling around a moderate-sized sun out in an arm of a very large galaxy, He has placed us here and has given us all things that pertain to life and godliness (2 Peter 1:3). How do we respond to the Great Creator who brought everything into existence? He must shake His head at our puny little wars, empires and self-glorification. Let us all show sincere reverence before Him:

“Come, let us bow down in worship, let us kneel before the Lord our Maker; for he is our God and we are the people of his pasture, the flock under his care” (Psalm 95:6).

Further reading on the wonders of our universe — Genesis 11-2:1; Job 3:8; Psalm 19:1-4, 136:9, 147:4-5

Evidence 5

God's Hand In Forming the Earth

Introduction

In Good Hands



Once my family and I were visiting Iguazu Falls, at a spot where Argentina, Paraguay and Brazil intersect. The falls is actually 127 different cataracts, their water cascading down into a long cleft in the earth's surface. The falls are located on both sides of the cleft. At the end is the Devil's Throat, where a huge volume of water, especially in the rainy season, plummets downward, creating a great cloud of spray. I was on a catwalk, as close as I could get to the Devil's Throat. A distinguished Brazilian gentleman nearby turned to me and asked, "How can anyone not believe in God, when He left a calling card like this?" Precisely! I wish I had thought to say it.

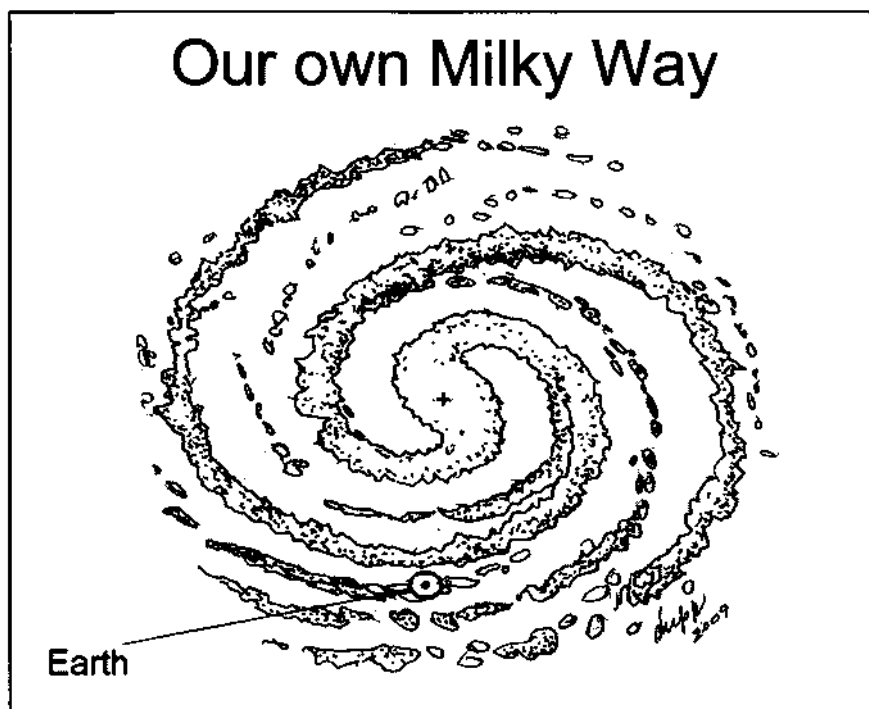
Iguazu is not the only grand example of creation at work. Yosemite, Yellowstone, Grand Canyon, Arches, the California Big Trees, Crater Lake, Mammoth Cave and so many other wonders, both in our country and around the world, attest to His artistry. Some object that these phenomena are simply the result of eons of time and catastrophic upheavals, perhaps volcanoes or the action of cyclonic storms, water and wind, that formed all of this. Yes, but who put the water here? Who caused the vol-

canic action or the erosion caused by wind, snow and ice?

The Shaping of the Earth

At first, our earth was not in its present shape. Genesis 1:2 says. “... *the earth was formless and empty, darkness was over the face of the deep ...*” “Formless” means that as yet it had no definite shape, nor was there any light to illuminate it. It was an empty glob, if I picture it correctly. But it didn’t remain in that condition. It became a globe of just the right size, covered with water, as Genesis 1:2 notes. Only later, in the process of making the earth habitable, did the Lord separate land masses from the primordial waters (Genesis 1:9-10).

The earth is a perfect distance from the sun for life to exist here. It tilts on its axis, to give us the seasons. It has oxygen, hydrogen, nitrogen, carbon, water and energy sources. The amount of solar energy falling to the earth in 40 minutes is sufficient, if harnessed, to provide the entire



God's creative power is seen in His forming the earth, placing it just the right distance from the sun and tilting it at the precise angle to guarantee the seasons.

globe with its energy needs for a year! Regarding the relative position and nature of the earth, Jeffrey writes,

“If our earth were located much farther away from our sun we would freeze like the planet Mars. If it were much closer to the sun then we would be a furnace like the hot surface of Mercury or the 860-degree temperature on Venus. If the magnetic forces within our planet were stronger or weaker, life could not exist. If our earth did not revolve every 24 hours then one-half of the planet would be in darkness without vegetation ... the other side would be an uninhabitable desert ... If our earth were not tilted at 23 degrees, we would not have the seasonal variation that produces the incredible abundance of crops ... If the earth were significantly smaller, the lessened gravity would be incapable of holding the atmosphere that is essential for breathing ... If our planet earth were twice as large, the effect of increased gravity would make everything on the earth’s surface weigh eight times what it weighs today” (Jeffrey 1996:116).

If the earth were closer to the sun, it would melt. If it were farther away, it would be lifeless and even a frozen wasteland. All of the earth’s movements are precise and predictable. Can this even begin to be accidental?

God’s creative power is infinite. Recently I viewed on the History Channel a story about our sun. Apart from affirming that it is billions of years old, which cannot be proved, the scientists involved gave us a powerful course on the nature of the sun. It is our original fusion furnace. As it burns, it fuses hydrogen and oxygen, to release vast amounts of energy, but it also recreates these elements, to give us an unending source of heat and light. It is just the right star, in the yellow star sequence, to make possible life on the earth.

Sometimes I wish I could have seen the creation in process, but of course, no one has. The Lord asked Job,

“Where were you when I laid the earth’s foundation? Tell me, if you understand. Who marked off its dimensions? Surely you know! Who stretched a measuring line across it? On what were its footings set, or who laid its cornerstone ... ? (Job 38:4-6).

Job had no answer, nor do we. We only know what we can observe today — that the earth is a pretty hospitable planet, all told, for us to flourish on it.

Do you see how perfectly placed and angled the earth is for life to exist here? And not only this: It has a perfectly-placed moon to control the tides. This has to suggest intelligent design behind it. Referring to the

creation in Genesis 1:31, "God saw all that he had made, and it was very good." Nehemiah declared,

"You alone are the Lord; you have made heaven, the heaven of heavens, with all their host, the earth and everything on it, the seas and all that is in them. And you preserve them all ..." (Nehemiah 9:6).

The Age of the Earth

Here we are faced with much controversy. Anglican Archbishop James Ussher's famed dating of the creation to 4004 BC, and published as page headings in most editions of *the King James Version* of the Bible, became in the minds of many people Scripture, which it never was. Would anyone claim divine inspiration for the dating calculations of an Anglican cleric? Yet many do. *Young's Analytical Concordance of the Bible* (1970), has a long list of sources from all over the world assigning dates to the creation event. These vary considerably. How did Ussher arrive at his date? By adding up genealogies from the Bible. Yet, various genealogical lists in the Bible are not in harmony with each other (for example, Genesis 5:1-32, Genesis 10 and 11; 1 Chronicles 1:1-4; Ezra 7:1-5; Matthew 1:1-17; Luke 3:23-38).

Moreover, "father-to-son" lists can easily mean in Hebrew ancestor to descendant. For instance, Matthew 1:1 says that Jesus Christ is the son of David, the son of Abraham. This is a very simplified use of genealogical lineage, because Jesus was a descendant of both David and Abraham, but these were not His literal fathers. In Daniel 6 Babylonian King Nebuchadnezzar was called the father of King Belshazzar. Nabonidus was Belshazzar's father and there were three other rulers between Nebuchadnezzar and Nabonidus — Amel-Marduk, Neriglissar and Labasi-Marduk. Moreover, Belshazzar was not directly of Nebuchadnezzar's family, but the son of Nabonidus, a usurper who took the throne with a coup d'état. It is possible that Nabonidus had married into Nebuchadnezzar's family, to legitimize his right to the throne. Calling Nebuchadnezzar Belshazzar's father merely indicated that Belshazzar was in the line of Babylonian kings following the illustrious Nebuchadnezzar and was co-regent with his father Nabonidus, who preferred campaigning, digging into historical records and meditating far from the capital over administration of the empire.

Another factor to consider is the use of the word *yom* in Hebrew for "day." *Yom* could mean, even as in English, more than a 24-hour period. We may say, "in my day," meaning "in my time." In Isaiah 7:18-25, the expression "in that day" means "during that period" and not a precise 24-

hour day. So *yom* can mean periods of time longer than a 24-hour day as such. Genesis 2:4 in the King James Version uses the word “day” for the creation of the heavens and the earth to mean a non-specified time. That brings us back to the creation of the earth. Suffice it here to say that *yom* can mean periods of time other than 24-hour days, especially before the sun (which governs our time-keeping) came into existence.

On the other hand, the six days of creation must have been 24-hour days, because God is capable of that kind of intensive creation and the Bible declares that He created the earth in a precise sequence of short periods of time. For instance, there are three pairs of creative acts. The creation of light (day one) has its parallel in making the sun, moon and stars (day 4). Separation of the water on the earth from that of the sky (day 2) has its parallel in making the birds of the air and fish of the sea (day 5). Separation of land from water and subsequent vegetation (day 3) is paralleled by making animal life (day 6). In each case of these three series the second act of making was dependent on the first act in the series.

Did you notice that I used the word “make” in the above cases? That was deliberate. Clayton pointed out the difference between the Hebrew word “create,” which is *bará*, and the Hebrew word “make,” which is *asah*. In the first three verses of Genesis the word is “create,” but in the remaining verses when something was done by God, other than His speaking the word, the expression used is “made.” Note that in Genesis 1:31, the word used is *asah*, or made. Clayton argues that the period before the days of speaking or making out of what had earlier been created cannot be known time-wise, but the period of making is firmly stated time-wise (Clayton, 2009, Appendix 1. For details see *God’s Revelation in His Rocks and His Words*, doesgodexist.org.) I am not endorsing one explanation here over another. My purpose is to present different views and let you, the reader, ponder them.

Since plant life preceded that of the sun, and since vegetation requires sunlight (or at least light) to survive, how could plant life survive for thousands or millions or years without it? Klotz says in this regard:

“An earth that is relatively young is unfavorable to the evolutionist. An old earth suits his purposes much better. It would be very difficult to have evolution occur in six or seven thousand years (not to mention six days) ... ” (Klotz 1970:115).

Another factor to consider here is the fact that the Sabbath Day was instituted to honor God’s resting on the seventh day after His intensive creative efforts. The Sabbath was one day out of each week, not a pro-

longed period of time (Exodus 20:8-11).

Population of the Earth

If evolution were correct and humans have been on the earth for more than a million years, and if the average life span has been 43 years, with an average of 2.5 children per family (I'm concerned, though, about that .5 child! I know some who may fit into that category.), we would have a population today of trillions x trillions x trillions of people (based on figures in Jeffrey 1996:126). Instead, as of January 2009, only 6.7 billion people live and breathe here on our globe (from U.S. Government *World Factbook*, January 2009).

But How Old Is It?

This means that the earth cannot be anything like as old as evolution requires for the supposed extremely slow process that brought humans into existence. But how old is it? The Bible doesn't reveal this information. It merely says that "*in the beginning God created the heavens and the earth*" (Genesis 1:1). Furthermore, the earth was formless and empty, and darkness prevailed over it (Genesis 1:2). How long a time was involved here? No one knows. It may have been a brief period or a prolonged period. It doesn't really matter. God created it, period, and He left us little further information on the subject.

If the earth is older than 4004 BC, and it could be older, that can account in part for the amazing and prolonged work of volcanic action, wind, water, ice and heat, as well as the great flood, to carve out such places as the Grand Canyon, Monument Valley, the arches in Arches National Park and countless other such natural monuments to our Lord's creative hands. When He set everything in place, He established natural laws to govern it — the general rate of erosion, entropy (decay) and the power of the elements to change the face of the earth. We see no indication that He dug the Grand Canyon in a few days (unless this occurred during the Great Flood). How long did it take, then? No one can say with precision.

There are many theories about the age of the earth. Today the most-used methods to calculate the earth's age are:

- ***Uranium time clock*** — determining the age of rocks by the relative loss of uranium and its 16 known stages of decay, finally ending up with Radium G, or Uranium Lead. This loss rate appears to be steady.

- ***Uniformity and uniformitarianism*** — determining the age of the

earth by uniformity within the process of life and decay. Uniformity? That sounds like design, which calls for a Designer.

- **Non-radiogenic lead calculation** — an attempt to compute the percentage of lead in rocks not produced by radioactivity.

- **Meteorite testing** — comparing the lead found in meteorites to that found on earth.

- **Fluoride dating** — measuring the level of fluoride content in human or animal bones.

- **Radiocarbon testing** — This measures the amount of C^{14} (radioactive carbon) still in human or animal tissues.

- **Study of tree rings and sediment layers** — Counting the rings on a tree (one for each year), used primarily for counting fossilized trees. Sediment layers from the land or ocean depths are examined to determine the age of the earth (This list is from Klotz 1970:94-114.)

These may have their usefulness, but all have serious drawbacks. For instance, radiocarbon is supposedly valid only up to 25,000 years. What does meteorite testing have to do with the age of the earth? How can a researcher be sure that sediments were laid down at a uniform rate and with a uniform composition?

Conclusion

The first couple, Adam and Eve, were placed in a beautiful natural garden, apparently somewhere in the Mesopotamian Valley, to care for it (Genesis 2:8-15). They were told to increase in numbers and subdue the earth (Genesis 1:28). This their descendants have done with a vengeance. We have filled the earth with our six-plus billion inhabitants, while at the same time destroying much of it. The Amazon Rain Forest is the world's greatest producer of oxygen, yet millions of its acres are being destroyed each year, to make room for crops. However, the topsoil is so leached out from constant rains over the centuries that it soon loses its limited capacity to grow field crops.

The tree huggers may have a point here. Unless we quit soiling our home planet, we run the risk of making it increasingly uninhabitable. The cartoon movie *Wall-E* depicts a future world destroyed by trash, with humans having fled to a giant space station. Could our earth drown in its own garbage? Could it die from a lack of oxygen-producing trees or from overuse of farm land? Yes, it could. The earth is the only current home we have, so we must return to caring for it, as our Creator intended. The

Lord commanded Israel to let its farmlands rest one year out of each seven (Exodus 23:10-11). Why? So as not to wear out the soil. My farming grandfather even went beyond that. He planted oats or wheat for three years, followed by a year of rest for a field, and then planted alfalfa, clover or vetch, which restored nitrogen to the soil. After three years of that cycle, he would plow the crop under and return to planting grain. He had limited formal education, but he knew his soil and kept it producing well. If such a plan were only followed today!

The Lord expects us to care for this world He has created and which He maintains through His Son:

"He (Christ) is the image of the invisible God, the firstborn over all creation. For by him all things were created; things in heaven and on earth, visible and invisible ... all things were created by him and for him. He is before all things, and in him all things hold together" (Colossians 1:15-17).

We can safely say that Christ is the mainspring of the universe, the power that keeps it functioning in an orderly fashion. The Lord placed us here as gardeners of it, to draw its blessings out of the ground, but never to rip it off. It is not, nor has it ever been, our property. It is merely loaned to us for a time. Let us use it wisely, as people who must answer to our Creator for its use.

"To the Lord your God belong the heavens ... the earth and everything in it" (Deuteronomy 10:14).

Further reading on the formation of the earth — Genesis 1:1, Psalm 19:1-4, Nehemiah 9:6

Evidence 6

God's Hand in the Physical World

Introduction

The Bible says that we are “*fearfully and wonderfully made*” (Psalm 139:14). Some of us may look more fearful and others more wonderful, but we were all constructed in the same amazing way. In *National Geographic*, September 2008, genetic researchers were reported to have drawn DNA from the bones of Neanderthals and found them to follow precisely the same genetic code as mankind today. They even surmise that there may have been some interbreeding among them and Homo Sapiens, finding them to have been redheaded and ruddy in complexion (Hall 2008:34-59). If this is so, there was not as great a difference between the two supposed “species” as once thought, thus blurring some of the lines of “evolution.”

Charts and paintings present a sequence of steps from the first hominids to the present time (*Smithsonian*, February 2009:47). It all looks logical, except that most of it is conjecture, based on the Theory of Evolution, and now being presented, not as theory, but as fact. The geneticist Theodosius Dobzhansky wrote in 1973, “Nothing in biology makes sense except in the light of evolution.” Commenting on this, Thomas Hayden observed, “He could not have been more right — evolution is quite simply the way biology works, the central organizing principle of life on earth” (Hayden, *Smithsonian*, February 2009, p. 42).

Those of us who believe in Intelligent Design (and Designer) object strongly to such a statement, because it implies that there is no organizing principle of life except random chance advocated by evolutionists. Science and scientists are elevated in evolutionary thought to a supreme position of holding the key to life.

I am reminded of the scientist who announced to God that he, too, could create a human being. The Lord told him to go ahead and try it. The scientist began to gather up some mineral soil. “What are you doing?” God asked. “Collecting soil for my human.” “No you don’t,” answered God. “Get your own dirt.”

The Theory of Natural Selection

Darwin’s theory is the widely held notion that all life is related and has descended from a common ancestor: the birds and the bananas, the fish and

the flowers — all related. It presumes the development of life from non-life and stresses a purely naturalistic (undirected) “descent with modification.” That is, complex creatures evolve from more simple ancestors naturally over a vast amount of time. In a nutshell, as random genetic mutations occur within an organism’s genetic code, the beneficial mutations are preserved because they aid survival — a process known as “natural selection.” These beneficial mutations are passed on to the next generation. Over time, beneficial mutations accumulate and the result is a different organism (not just a variation of the original, but an entirely different creature).

Darwin’s Claims — A Theory in Crisis

Darwin’s Theory of Evolution is in crisis in light of the tremendous advances that have been made in molecular biology, biochemistry and genetics over the past 50 years. We now know that there are in fact tens of thousands of irreducibly complex systems on the cellular level. Specified complexity pervades the microscopic biological world. Molecular biologist Michael Denton wrote,

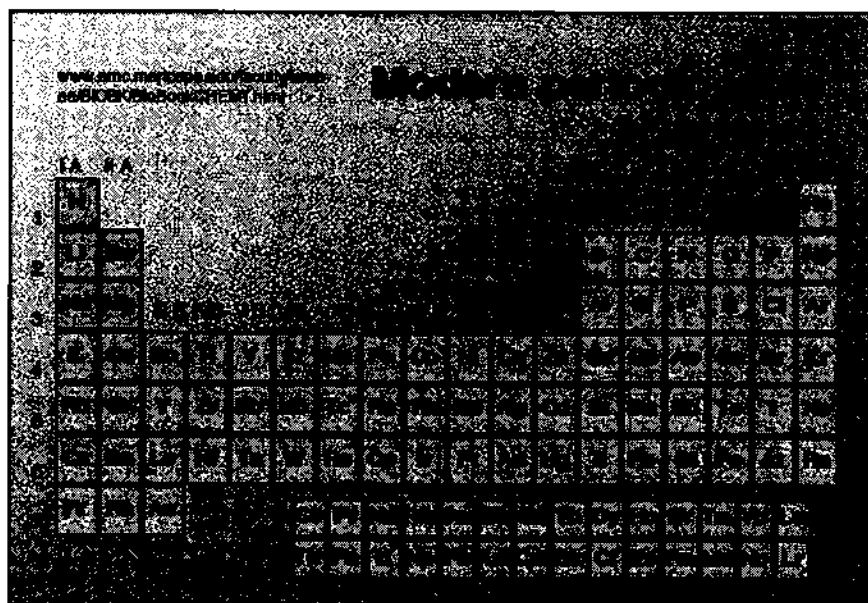
“Although the tiniest bacterial cells are incredibly small ... each is in effect a veritable micro-miniaturized factory containing thousands of exquisitely designed pieces of intricate molecular machinery, made up altogether of one hundred thousand million atoms, far more complicated than any machinery built by man and absolutely without parallel in the non-living world” (Denton 1986:250).

And we don’t need a microscope to observe irreducible complexity. The eye, the ear and the heart are all examples of irreducible complexity, though they were not recognized as such in Darwin’s day. Nevertheless, Darwin confessed, “To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, absurd in the highest degree” (Darwin, from Eva Jablonka and Marion J. Lamb (1995). *Epigenetic Inheritance and Evolution: the Lamarckian Dimension*, Oxford University Press. 1859:155). Yet, highly skilled scientists still hold tenaciously to Darwin’s theory. Hayden says, “How right he (Darwin) was that ‘man is the modified descendant of some pre-existing form ...’” (*Smithsonian*, February 2009, p.47).

Molecular Complexity

The entire universe is composed of chemical elements — a total of 118. As I recall, back in my college chemistry class, periodic charts of the

elements listed 92, so the number has grown significantly. These are the building blocks of everything that exists. The simplest atom is hydrogen, containing one proton in its nucleus and one electron circling around the nucleus. The most complex discovered until now is ununoctium, containing 118 atoms. It has 118 protons and 176 neutrons, making it the heaviest known element (Stone, *Discover*, January 2007: 64). Each element has one more proton than the one preceding it. Add one proton to an element and it becomes another element. Subtract one proton and it becomes the next simpler element. Astronomers know that the stars are made up of these same basic elements, as indicated by analysis of the light that they emit.



Each element is always the same, when pure and separated from other elements. Each of them is a complete universe of cells, with their atoms composed of electrons circulating rapidly around a core of protons and in some cases neutrons, and containing enormous energy. For instance, a pint of water contains as much potential nuclear energy as approximately 2.4 million pints of gasoline. Each element has its own composition of atoms. There can be slight modifications of them called ions and isotopes, yet they remain the same element. Even smaller particles have now been found in atoms. These are called nucleons and quarks. Talk about God's mathematics! The elements build from the simplest to the most complex

in a perfect symmetry of relationships. And beyond the elements, there are thousands of compounds and isotopes.

All material obeys the basic laws of the physical universe. For instance, water, wherever it may be found in the universe, can exist in only three states — vapor, liquid or solid. But in all of these states it is still water, composed of two atoms of hydrogen and one of oxygen, which combine to form one molecule of water. Within that molecule are all of the atoms necessary for the existence of that so-essential molecule.

Scientists have come to the conclusion that the structure of atoms is much like that of the solar system. Each has a nucleus, corresponding to the sun, with electrons in orbit around the nucleus, just as planets circle the sun. The proportion between the diameter of the earth and that of its orbit around the sun is almost exactly the same as the orbit of electrons around the nucleus of an atom. Can this be the result of mere chance?

We recognize daily the law of “cause and effect.” As fire gets out of control, it burns houses. As water gets out of control, it damages property. Ignoring the laws of physics can cause all kinds of difficulties. In nature there is an incredible process of cause and effect. In a sense, then, there is no such thing as an accident. What happens is the result of a cause. If two cars collide, the damage can be verified, depending on the weight of the vehicles, their combined speeds and angle of impact. A law of physics is at work — for every action there is a counteraction — and the result is no accident. We can see the consequences and attempt to reach backward to the cause. Behind the cause — mere chance or an incredible Intelligence?

Physical Laws

Almost countless physical laws govern all that exists. For example, we understand the law of gravity and have proved it, often to our harm. We understand centrifugal force, which gives dizzying theme park rides their attraction. We know the damage that fire, wind and water do when unharnessed. We recognize thermodynamics (the conversion of heat into other forms of energy and the attendant loss of heat), entropy (the measure of disorder and loss of energy or structure in a system), the slow decay of all that exists, the speed of light and sound, and so many others. These have been around since the dawn of time, as far as we know. What or who controls the precise movement of the earth around the sun, the sun in its position in the Milky Way, the movement of the galaxies? Who or what controls the functioning of all life and the resources necessary to its exist-

tence? Who or what provided the minerals so necessary to life and so relatively easy to obtain? Who or what provided so-essential oxygen, hydrogen, water, nitrogen, carbon and other elements essential to life?

Strobel notes that “one of the most striking discoveries of modern science has been that the laws and constants of physics ... conspire in an extraordinary way to make the universe habitable for life. ... One expert said that there are more than thirty physical or cosmological parameters that require precise calibration in order to produce a universe that can sustain life” (Strobel 2004:280).

Conclusion

I can only conclude that the universe functions according to precise physical laws that make life possible. We haven't talked yet about the “miracle” that is the human body, or the rich variety of animal and plant life, but will in later chapters.

In the early years of genetic engineering, researchers introduced foreign genes into the DNA of animals and plants, but noticed that something strange was going on. These foreign genes attempted to work at first, “but then suddenly they were silenced, and that was it, generation after generation” (Eva Jablonka, a theorist and geneticist at Tel Aviv University in Israel. Jablonka and Lamb:1995. *Epigenetic Inheritance and Evolution: the Lamarckian Dimension*, Oxford University Press.). The host switched off the alien cells that made them inoperable. What does this say about laws of physics that protect a species from being altered? And what does it say about the unlikelihood of genetic changes from one species to another? By the way, chromosomes have a precise number in each kind of life, another barrier against one species mutating to another. God is in charge of His universe, which operates according to His laws, not ours, and these laws are immutable.

Why, then, do Darwinian evolutionists hold so strongly to their position? Stephen C. Meyer, director and senior fellow, the Discovery Institute's Center for Science and Culture, has a fascinating insight into this:

“Darwinists say they're under some sort of epistemological obligation to continue trying to explain the biological world of the information age, because to invoke design would be to give up on science. Well, I say it's time to redefine science. We should not be looking for only the best naturalistic explanation, but the best explanation, period. And intelligent design is the explanation that's most in conformity with how the world works” (cited in Strobel 2004:243).

Science, as much as I appreciate it, is not God and can never be God. It is not the final answer to all questions. It exists only because there is so much of God's handiwork out there to examine — an inexhaustible supply that will never be fully understood. God asked Job if he had been there "*when I laid the earth's foundation? Tell me if you understand*" (Job 38:4). We must answer with Job, "No, I wasn't there, so my knowledge will never be complete and the best of my scientific understanding will never be able to answer your questions."

To greatly modify Dobhansky's statement, I must say at this point, "Nothing in biology makes sense except in the light of God's creative Intelligence."

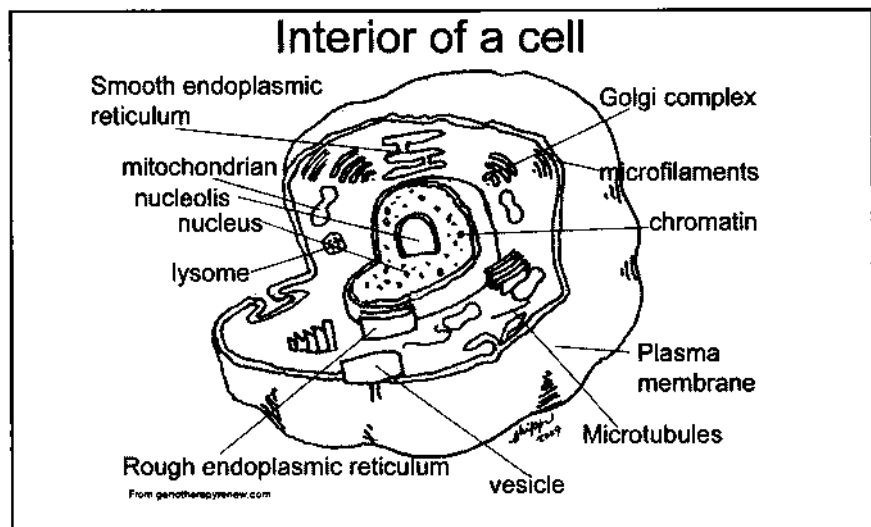
Further reading on the physical realm: Genesis 1:1-13; Job 9:1-10, 38:1-38; Psalms 8, 19:1-6, 139:14; Acts 17:24-28

Evidence 7

God's Hand in the World of Cells

Introduction

In researching this book I have become more and more amazed at the complexity of all things. When I dug into living cells, my amazement grew even more. It turns out that each cell is an extremely complex universe in itself, driven by mechanisms that must function in concert. Michael Behe, an internationally prominent molecular biochemist, explains more about a living cell:



“Now we’ve probed to the bottom of life, so to speak — we’re at the level of molecules — and there’s complexity all the way down. We’ve learned the cell is horrendously complicated, and that it’s actually run by micromachines of the right shape, the right strength, and the right interactions.” (Behe, quoted in Strobel 2004:197).

What does he mean by micromachines? Let’s try to explain in terms that we non-biologists can understand.

Structure of Cells

Terry Brown has a series of diagrams in his article on cell structure that facilitates our understanding of the world inside a cell (Brown, “Cell Structure and Processes,” 1999, an Internet entry under *Structure of Cells*.) He lists the components of a single cell as:

- Unit membrane
- Cell membrane
- Cell wall (in plant life)
- Organelles
- Cytosol (liquid in which organelles float)
- Vacuole
- Nucleus
- Chloroplast
- Centriole
- Endoplasmic Reticulum
- Ribosomes
- Golgi Apparatus
- Mitochondrion
- Lysosome

The nucleus of the cell, in turn, contains a Nuclear Envelope, Nucleolus, Chromatin and Nucleoplasm. Now what do all of these words mean and how do they function?

Outer Cell

- ***Unit Membrane*** — composed of protein, carbohydrates and fat molecules. Ahh, so there are some of those stubborn fat molecules, hiding out for future addition to our weight!

- ***Cell membrane*** — acts as a protective wall around the fluids in the cell, but is able to select which chemicals enter or leave the cell. You might call this a border guard.

- ***Cell wall*** — multiple layers of cellulose in plant life to provide strength to the cell and to protect it from injury. Able to absorb the necessary chemicals and nutrients required by the cell.

- ***Vacuole*** — a membrane that encloses cellular fluid in a sac. Provides pressure against the cell wall for support, stores water and other chemicals. There you have it — water storage deep within cells.

Nucleus

- ***Nuclear envelope*** — a two unit or layer membrane filled with nucleoplasm or fluid, permeable, to control movement of the “soup” within the cell and nucleus.

- ***Chromatin*** — long strands of DNA that control both heredity and

metabolism. This is the culprit that predetermines some of what we are and how our bodies function. If we don't like being overweight, too short or too tall, too handsome or ugly ... chromatin can be a convenient scapegoat. Of course, some other factors, such as eating habits, exercise and proper care of our bodies, enter into the picture.

- **Nucleolus** — matrix of RNA and protein. Disintegrates during cell replication and then reassembles itself. Copies DNA and participates in the synthesis of proteins. Like making a backup copy of a file on the computer, RNA makes backup copies of DNA within the nucleus itself.

- **Endoplasmic reticulum (ER)** — Not to be confused with Emergency Room, this is a tubular network in the cell. Carries chemicals throughout the cell and between cells. Rough ER makes proteins. Smooth ER detoxifies the cell. Especially concentrated in the liver.

- **Ribosomes** — tiny spherical objects attached to the ER in the nucleus. Absorbs proteins and synthesizes them into new proteins.

- **Golgi apparatus** — stacks of flattened sacs that modify chemicals to make them function properly. Stores and secretes chemicals. If we ingest harmful or doubtful chemicals, the Golgi apparatus goes to work, trying to make them usable.

- **Peroxisome** — helps metabolize fat. We need a lot of these little creatures at work.

- **Mitochondrion** — double-walled membrane that releases energy from food.

- **Lysome** — A membrane bag that breaks down large molecules into small molecules through introducing water into the membrane.

- **Chromosomes** — house DNA and RNA. (More about this in the next chapter),

Molecular Machines at Work

When asked if there are a lot of different kinds of biological machines at the cellular level, Behe replied,

“Life is actually based on molecular machines. They haul cargo from one place in the cell to another; they turn cellular switches on and off; they act as pulleys and cables; electrical machines let current flow through nerves; manufacturing machines build other machines; solar-powered machines capture the energy from light and store it in chemicals. Molecular machinery lets cells move, reproduce, and process food. In fact, every part of the cell's function is controlled by complex, highly-calibrated machines” (Behe, quoted in Strobel 2004:198-199).

To use a modern metaphor, we can say that miniature trains in a cell zip along miniature tracks, loading and unloading precious cargo. To make matters even more complicated for these trains, cells may have 20 different compartments. The trains must be coded for a particular compartment, with a corresponding code in that compartment to receive a particular shipment. It is something like a shipping dock filled with hundreds of large cargo containers. Each has to be programmed for a distinct destination.

Proteins by the Thousands

Proteins are compounds consisting of amino acids. Some are joined in a linear chain, held together by peptide bonds. Others are globular in nature. The amino acids are defined by the sequence of a gene, encoded within the genetic map governing the cell. Proteins are essential to all organisms, participating in every function within a cell. Many are enzymes that are vital to metabolism. They have mechanical functions in muscles and the skeleton, signals within cells, immunity, cell adhesion and the entire cycle of a cell. There appear to be literally tens of thousands of proteins and protein families.

According to L.E. Downs "Within each living cell are quantities of proteins; 53 billion in a single liver cell" (in Utt 1971:68-71). He goes on to explain that the human hemoglobin molecule, for instance, has 574 amino acids arranged in four polypeptide chains — two with 141 each and two with 146 each. Major variations from this formula make it impossible for that particular protein to function.

Different species have different protein and amino acid counts. In addition, precise sequences of amino acids are essential, if the species is to survive. Downs notes,

"... each hemoglobin is precisely tailored to function in the red cells of the species in which it is found. It would probably not function in the red cells of another kind of animal" (*ibid.*)

Nucleic Acids and Polysaccharides Have their Input

Nucleic acids (DNA and RNA) are vital to passing along the hereditary characteristics from parents to children. In the next chapter we will explore further these marvelous heredity-transmitting acids.

Polysaccharides are complex carbohydrates that store energy for the body's use. One of its branches is glycogen. It is stored mainly in the liver and muscles, acting as a reservoir for glucose when the body is

starved for nourishment or is being exercised excessively. (The above information was condensed from Internet sources *Wikipedia*, Suite 101.com, Terry Brown's "Cell Structure and Processes," and Michael Bede's comments in Strobel 2004:Chapter 8.)

The Body's Amazing Sugar Factory

Paul DeAngelis, co-founder and co-chief scientist of Hyalose LLC, says this about the complex functioning of sugar cells in the human body:

"We know that sugars are used as fuel, but they're also signal molecules or building blocks for structures [in the body]. The so-called sugar code is how cells tell each other, 'You should grow, you should die, you need to move over there, you say here ... you stay a stem cell, and you develop into something else'" (DeAngelis 2009, *Distinctly Oklahoma Magazine*, 34).

"DNA, protein, lipids and sugars are the major kinds of human molecules," says Debra Levy Martinelli, "but because sugars are powerful and plentiful, scientists are just beginning to figure out the various ways they are used in the body" (ibid.)

Blood Clotting

Added to the already-phenomenal functioning of cells, we need to mention in passing their capacity to clot blood, heal wounds and set up immune systems.

These, too, are complex reactions which help protect and renew the body.

Blood clotting is a very rapid process that reacts to loss of blood from a vessel. Thirteen different steps are involved, so what starts as a simple reaction suddenly becomes complex. In the process blood platelets are positioned over the wound to seal it, with more platelets called out of the blood stream, if necessary, to add to the sealing process. A blood clot consists of

- a plug of platelets enmeshed in a network of insoluble fibrin molecules.

Platelet joining and fibrin formation require the proteolytic enzyme thrombin. Clotting also requires:

- calcium ions (Ca^{2+}) (which is why blood banks use a chelating agent to bind the calcium in donated blood, so that the blood will not clot in the bag).

- about a dozen other clotting factors. Most of these circulate in the blood as inactive precursors. They are activated by proteolytic cleavage becoming, in turn, active proteases for other factors in the system.

Clotting goes through a cycle. When a wound occurs, blood comes into contact with collagen, causing blood platelets to begin secreting inflammatory factors. Fibrin and fibronectin cross-link, forming a plug that prevents further blood loss.

The clot is eventually replaced with granulation tissue and then collagen. Growth factors in the blood stimulate cells to reproduce more rapidly. The factor histamine causes blood vessels to become porous, which allows agents such as leukocytes to enter the wound.

Within an hour after the wound occurs factors called PMNs (polymorphonuclear neutrophils) arrive to remove debris and kill harmful bacteria, as well as to break down damaged tissue. Following other stages, fibroblasts accumulate in the wound and deposit ground substance and collagen. Granulation tissue, composed of new blood vessels, fibroblasts, inflammatory cells and other substances grow until the wound is covered. A barrier is formed to protect the wound from the environment. Finally, contraction takes place to reduce the size of the wound. (The above material is condensed from Bauer, S.M.; Bauer, R.J.; Liu, Z.J.; Goldstein, L.: and Velásquez, O.C., 2005. Updated on *Wikipedia*, February 2009.)

We note in passing that long ago the Lord ordained circumcision of all male babies on their eighth day (Genesis 17:12). Why the eighth day? Because babies' blood clotting capacity does not kick into force until the end of their first week of life, and circumcision involves bleeding.

Next time you are wounded, thank the Lord for this amazing process of clotting and healing, and then watch its various stages of healing taking place.

Immune System

The immune system, which is made up of special cells, proteins, tissues, and organs, defends against parasites and microorganisms every day. In most cases, the immune system does a great job of preventing infections. When it recognizes a "bug" the body has already suffered, or when the body has been introduced to a new bacteria, germ or microbe, the immune system goes to work.

What the Immune System Does

The immune system is a defense against infectious organisms and

other invaders. Through a series of steps called the immune response, the immune system attacks substances that invade our bodies and cause disease. The immune system is made up of a network of cells, tissues, and organs that work together to protect the body.

The cells that are part of this defense system are white blood cells, or leukocytes. They come in two basic types (more on these below), which combine to seek out and destroy the organisms or substances that cause disease.

Leukocytes are stored in many locations throughout the body, including the thymus, spleen and bone marrow. For this reason, they are called the lymphoid organs. There are also clumps of lymphoid tissue throughout the body, primarily in the form of lymph nodes that house leukocytes.

Leukocytes circulate through the body by means of the lymphatic vessels. Leukocytes can also circulate through the blood vessels. In this way, the immune system works in a coordinated manner to monitor the body for germs or substances that might cause problems.

The Two Basic Types of Leukocytes:

- phagocytes, cells that chew up invading organisms
- lymphocytes, cells that allow the body to remember and recognize previous invaders and help the body destroy them

The most common type of phagocyte is the neutrophil, which primarily fights bacteria. Other phagocytes make sure that the body responds appropriately to a specific type of invader.

There are two kinds of lymphocytes: B lymphocytes and T lymphocytes. Lymphocytes start in bone marrow and either stay there and become B cells, or go to the thymus gland, where they become T cells — killers of dangerous aliens running around the system.

Antigens are foreign substances that invade the body. When an antigen is detected, several types of cells work together to recognize and respond to it. These cells trigger B lymphocytes to produce antibodies, specialized proteins that lock onto specific antigens. Antibodies and antigens fit together like a key and a lock.

Once the B lymphocytes have produced antibodies, these do not remain in a person's body. The B cell creates a "memory" cell, which stays alert the rest of the body's life. If the same antigen is presented to the immune system again, the memory cells are already there to do their job. That's why if someone becomes ill with a certain disease, such as

chickenpox, that person typically doesn't catch it again. This is also why we use immunizations to prevent getting certain diseases. The immunization introduces the body to the antigen in a way that doesn't make a person ill, but it does provoke the production of memory cells that will then protect that person from future attack by that particular disease.

Although antibodies can recognize an antigen and lock onto it, they are not capable of destroying it without help. That is where T cells come in. T helper cells, sometimes called "Killer cells," are part of the system that destroys antigens. They cause B cells to speed up the production of antibodies. T cells are also involved in signaling other cells (like phagocytes) to do their jobs.

Antibodies can neutralize toxins produced by different organisms. They can also activate proteins called complement that are also part of the immune system. Complement assists in killing bacteria, viruses and infected cells.

All of these specialized parts of the immune system offer immunity protection against disease. (Digested from Dowshen 2007.) Incidentally, biology teacher Michelle Mallet (who reviewed this chapter) notes that the AIDS virus destroys T helper cells, thus neutralizing the body's ability to fight against this virus and other diseases.

How Many Atoms in a Cell and How Many Cells?

With all of these countless kinds of cells at work in our bodies, how many are there? Scientists estimate 7 quadrillion atoms per cell (Answer Bag.com). That is staggering! Yet a typical cell is so tiny it can be seen in detail only through powerful microscopes. It is estimated that there are 100 trillion cells in our bodies. This is all extremely complex. I cannot even envision a trillion of anything.

The Matter of Irreducible Complexity

And that, greatly simplified, is what goes on in a living non-plant cell. The important thing to remember here is that each of these parts of a cell must function in harmony with all of the other parts. This is an example of what scientists call *irreducible complexity*. All of the components must be present and functioning simultaneously. A cell cannot be reduced to a simpler cell and so on backward to the very first supposed primitive cell that existed. If a cell requires all of these elements in order to function, how did all of this come about, by mere chance, or by design?

There is such a thing as natural selection, but it can only modify, with-

in its family, what already exists. It cannot generate new DNA information. It cannot effect a radical design change, nor can a small creature develop into a massive creature because of critical size and weight problems, as pointed out by Robert E. D. Clark (Utt 1971:84).

The Bible says that man is "*fearfully and wonderfully made*" (Psalm 139:14). It also says that humans were made in the image of God (Genesis 1:26).

I see God's hand in the design and functioning of all living cells. Do you?

Further reading on the complexity of our inner being: Genesis 1:26, Psalm 139:14, Acts 17:26

Evidence 8

God's Hand

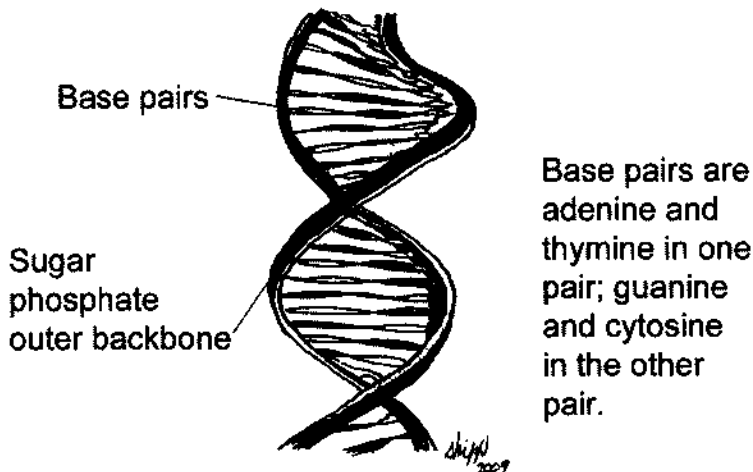
in the Amazing Double Helix

Introduction

I know two couples, with both of the wives being redheaded sisters. Most of the children in these two families inherited the red hair of their mothers, rather than the brown hair of their fathers. Designer genes, right? More accurately, designer DNA.

A nephew hadn't seen me for many years when we met in Seattle. He took one look at me and said, amazed, "Grandpa!" He saw in me the stamp of my father. Not only do I carry the genetic components of my parents, but also my grandparents, great-grandparents and other ancestors back and back into history. It is conceivable that I have some genetic traces all the way back to Adam and Eve. Designer DNA, right?

The amazing double helix



The double helix is the basic structure of DNA.

DNA (deoxyribonucleic acid) is often called the blueprint of life. A blueprint is a schematic that acts as a master plan for construction of a building or a machine. But let's back up a bit, to look at the packaging in which the DNA is housed.

Those Vital Chromosomes

DNA is housed in chromosomes, which number in humans 46, and which appear in various sizes and functions, including two sex chromosomes — XX in females and XY in males. There are actually 23 pairs in every cell, except in the division of germination cells, which are 23 in each sex. When the two sets of 23 are joined in a fertilized egg or ovum, the number again becomes 46. The sex of a fetus is determined by the male's sperm, which contains either an XX chromosome or an XY chromosome.

Chromosomes are divided into eight groups: A (1-3), B (4-6), C. 6-12), D (13-15), E (16-18), F (19-20), G (21-22), XX or XY. These divisions are based on size and shape.

The total chromosome number varies in different species. For instance, the ape family has 48, the cat has 38, the cow 60, the dog 78, the horse 64, the pig 38, and the sheep 34. Horses and donkeys can mate, producing mules. However, mules are sterile, because the number of chromosomes are not identical between the horse and the donkey, even though they are related, the horse having 64 chromosomes and the donkey 62. Do you see here how the Creator placed a roadblock in the way of interbreeding? In Genesis, Chapter 1, time and again the Bible says that each animal and plant was to produce "after its kind." In Chapter 6 we quoted Eva Jablonka, biologist at Tel Aviv University in Israel, in which she said that foreign genes introduced into a cell resulted in the host switching off the alien cells that made them inoperable. What does this say about laws of physics that protect a species from being altered? And what does it say about the unlikelihood of genetic changes from one kind to another?

A Description of DNA

Watson and Crick, pioneers in pinpointing the nature of DNA, reported, "This (DNA) structure has two helical chains each coiled round the same axis ... Both chains follow right-handed helices ... the two chains run in opposite directions ... The bases are on the inside of the helix and the phosphates on the outside ..." (from Pamela Peters, Access Excellence, Genentech, Inc.).

A helix is a twisted shape, such as in a rope. A double helix is two twisted shapes forming around each other in a right-handed fashion and circling in opposite directions. If the spirals were stretched out in a line, they could be feet long. The spirals are made up of smaller units called nucleotides. Each nucleotide is made up of sugar, phosphate and a base.

The base is like the steps of a ladder, joining together the helices. Did you know that we have a lot of sugar in our system?

Each DNA molecule has four different kinds of bases:

- Adenine
- Cytosine
- Guanine
- Thymine

These are nitrogen-based and are bonded by hydrogen. The fascinating thing about these bases is that they are joined in the middle to a specific partner base. For instance, Adenine will join only with thymine and cytosine will bond only with guanine. All genetic information from all of our ancestors is stored in the bases.

Another factor involved here is that the bases vary greatly between species, thus separating them from each other and, at least without human genetic tampering, guaranteeing the permanence of each species and its nature.

DNA, a Genetic Library

In DNA there are long strands of the four above bases, A, C, G and T, for short, containing all of the hereditary information of that particular life, plus all of the necessary instructions for it to function. If all of the DNA strands in our bodies were stretched out in a single line, they would be billions of miles long! Yet, they are so tiny that they can be detected only through a powerful microscope. The DNA strands are arranged in such a way so as to create proteins. To build one protein, says Meyer, the body needs 1,200 to 2,000 bases (cited in Strobel 2004:225).

How many proteins are there in a human body? An estimated 45 percent of the body is composed of proteins, so that means literally millions of them. Proteins are formed out of one or more of 20 basic amino acids, which receive their instructions from DNA bases. Proteins are complex in structure and without them we could not function. Even the membrane around our cells is protein. Diane Dooley, Professor of Food Science and Human Nutrition at the University of Hawaii, explains:

“Protein is essential for humans. ... That means that we can’t do without it in our food and in our bodies, in part because of the nitrogen it contains (the major source of nitrogen for the body) and in part because of the particular building blocks that make up protein. Protein is made up of twenty different building blocks, called amino acids, arranged in thou-

sands and thousands of different ways. Every cell in the human body contains protein as part of its structure (cell membrane and other structures). It also serves to build strong structures in the body, as a whole (bones, muscles, tendons, and ligaments); it makes up the compounds that your body uses to make the biochemical reactions occur in your body, called enzymes; it is found in your blood as parts of the red blood cells (hemoglobin) and as carriers for other materials (transport proteins); and it is part of the immune system (antibodies) that helps protect your body from foreign invaders, such as bacteria, viruses, and toxic substances.

“Some proteins help keep the fluid in your body where it should be, such as the proteins in your blood. Some proteins in your blood and other tissues help keep the acid-base balance in your body in ranges that allow you to stay alive ... The structure of proteins causes them to act as either acid or base...and they can break apart in the body to help neutralize too much base or acid, especially in the blood stream” (Dooley, MadSci Network, May 8, 2003).

Some hormones are built up of proteins ... For example, insulin, a hormone important for keeping the glucose level in your blood stream at a healthful level, is a protein.

The body ‘prefers’ to use carbohydrates and fat for energy. However, in certain situations, such as illness, the body will use protein for energy, when the supply of the other two nutrients becomes low or is not available.

Microsatellites

Microsatellites are “short, repetitious sequences of DNA — CACA-CACA for instance — in which the number of repetitions can change from one generation to the next and often does. ... the chance that a given microsatellite will change from, say, 11 CA(cytosine and adenine) repeats to 12 is on the order of one in a few hundred. That is why a particular pattern of microsatellites can profile a particular individual” (Hunzig, *Discover*, December 2004:36).

RNA, DNA's Transcription Agent

DNA is situated in the nucleus, organized into chromosomes. Standing by is ribonucleic acid (RNA). When proteins are needed, the corresponding genes are transcribed into RNA (transcription). The RNA is first processed so that non-coding parts are removed (processing) and it then goes out of the nucleus (transport). Outside the nucleus, proteins are

built, based upon the code in the RNA (translation). Here are details:

- **Messenger RNA (mRNA)** is the RNA that carries information from DNA to the sites of protein synthesis (translation) in the cell. The coding sequence of the mRNA determines the amino acid sequence in the protein that is produced. Many RNAs do not code for protein, however. The most prominent examples of non-coding RNAs are transfer RNA (tRNA) and ribosomal RNA (rRNA). There are also non-coding RNAs involved in gene regulation, RNA processing and other roles. These are busy little RNA strands!

- **Transfer RNA (tRNA)** is a small chain of some 80 nucleotides that transfers a specific amino acid to a growing polypeptide chain at the ribosomal site of protein synthesis during translation.

- **Ribosomal RNA (rRNA)** is the catalytic component of the ribosomes. Eukaryotic ribosomes contain four different rRNA molecules: 18S, 5.8S, 28S and 5S rRNA. Three of the rRNA molecules are synthesized in the nucleolus, and one is synthesized elsewhere. In the cytoplasm, ribosomal RNA and protein combine to form a nucleoprotein called a *ribosome*. The ribosome binds mRNA and is responsible for protein synthesis.

- **Transfer-messenger RNA (tmRNA)** tags proteins encoded by mRNAs to prevent the ribosome from stalling (The above information on RNA is in part from Nissen P, Hansen J, Ban N, Moore PB, Steitz TA 2000). “The structural basis of ribosome activity in peptide bond synthesis”. *Science* 289 (5481): 920–30).

Conclusion

Matt Ridley, writing in *National Geographic*, February 2009, said two things that must be noted before we close this chapter:

- “To understand the story of evolution — both its narrative and its mechanism — modern Darwins don’t have to guess. They consult genetic scripture” (Page 59).

- “What better evidence for Darwin’s belief in the commonality of all species than to find the same gene doing the same job in birds and fish, continents apart?” (op. cit:71).

Darwinians, then, have a scripture. To them, genes apparently are holy writ and therefore the final answer to all questions about life. Genes are not the final solution, for they leave unanswered the ultimate source of the entire genetic system. As for his second point, what better evidence for

Intelligent Design and Designer than to find commonality among all species? Why could not the Creator use interchangeable or like parts in various species? When a child on the farm, I witnessed the slaughter of animals and their being cut open. Amazingly, the organs of a pig looked like pictures I had seen of human organs. Even if some people act like pigs, having systems like those of a pig doesn't change their physical nature.

DNA, which can have an infinite number of combinations, has in its bases just four letters — A, C, G and T. From these combinations come all of our genetic characteristics, our supply of proteins and other essential functions. The U.S. Government's Human Genome Project's 13-year research, completed in 2003, calculated up to 25,000 genes in human DNA, with some 3 billion chemical base combinations. Truly amazing! How could all of this come about by mere chance?

Further reading on our complex DNA and RNA — Genesis 1:26-31, Job 31:15, Psalm 139:14, Isaiah 44:2, Jeremiah 1:1-5

Evidence 9

God's Hand

in Sculpting the Human Body

Introduction

For many scientists and professors, man is nothing more than an intelligent animal most closely related to the chimpanzee; a human animal that came to evolve, by mere chance, all of the physical, mental and emotional capacity that he or she now has. It is claimed that this took place through millions of years, beginning with a mass of energy, prebiotic soup or perhaps a single protoplasm. Right! And what was the source of this initial energy or protoplasm? Those who hold this position have no answer. They believe it was just there — that it was eternal.

So they accept this mysterious energy source on faith. Ah, faith! Doesn't it make more sense to believe in a Divine Intelligence behind all of creation, than to believe in *blind, unthinking nothing* as the originator of all that exists?

Recent discoveries by paleontologists have revealed the bones of primitive human beings, short of stature, but essentially akin to today's human types. They were obviously intelligent because they buried, along with the body of the deceased, decorated vases, flowers and other objects that demonstrated their power to think and create. In one case, the remains of a little girl were found, with a sea shell clutched in her hand.

Humans have always been intelligent and not simply animals, even though some act like animals. I am reminded here of the poem which has two monkeys observing humans and saying, "Yes, man descended, the ornery cuss, but brother, he didn't descend from us!" Humans have always had a creative capacity far surpassing that of the most intelligent animals. It is precisely this that the Bible declares. In Genesis two to four we see individuals capable of reasoning and determining their course of action as responsible beings before God. They enjoyed His fellowship and were told that they could eat of everything in the garden He had prepared for them, except for the fruit of a certain tree — the Tree of the Knowledge of Good and Evil. You know the story. That was the very fruit Eve coveted and so ate of it and shared it with Adam. They had the ability to discern, but they chose the wrong and were punished for it. In fact, the Bible tells us that all of us are punished for their sin — not the guilt of it, but the consequence of it, which is death (Romans 5:12-18).

Mere chance can never lead one to have a creative mind, a conscience, a desire to worship or to do any one of the multitude of things that human beings can do, such as dream, think, plan and carry out their plan.

The Human Body a Physical and Mental Machine

Life Science Library's *The Body* quotes Thomas Jefferson on this subject in 1814:

“ ... no knowledge can be more satisfactory to a man than that of his own frame, its parts, their function and action” (1964:9).

Author Alan E. Nourse notes:

“ ... the bodily mechanism is a masterpiece of precise planning. A delicate and complex apparatus whose various components work as a unit ... ” (*ibid.*)

Each human being is a physical and mental machine of great complexity. In comparison to other types of life, humans are in a totally different class. In Genesis 1:26-27 we read that God created the world and all that is within it. Psalm 8:3-8 says that God created human beings to be responsible and honored here on the earth. Genesis 2:7 states that when He formed the first human being, God breathed into man the breath of life, thus turning His creation into a unique being, made in His image, a living soul. Humanity has, then, a dimension of life that is higher than that of the animals, despite the fact that genetically, we are similar to such beings as gorillas, chimpanzees and even pigs.

What is the real nature of the human body? First, its skeleton is formed in such a way that it can walk upright, thus freeing the hands to do more than simply help move the body. Another interesting structural fact: The thumbs are in opposition to the fingers, an enormous advantage for the human. Both the body and the brain are highly complex machines, designed to do perfectly what God intended.

A Machine of Trillions of Cylinders

An adult has one quadrillion cells, each one of which burns a combustible (oxygen), which requires air-conditioning and releases wastes and gasses. The body cares for its own refrigeration, ignition, lubrication and many other functions — all within one very extensive system: the blood stream. This system functions continually, 24 hours a day, during the entire lifetime of the body.

Our Amazing Blood and Its Pump

Blood is a marvelous substance. Its red color is produced by an

immense number of red blood cells — 30 million in each drop of blood, and floating in a pure liquid, plasma. Blood runs throughout the entire body, passing through a network of mini-tubes, thousands of miles of them, but the entire cycle of going out through the arteries and returning through the veins, is completed in 18 seconds! There are millions of valves that control pressure and circulation. However, all of this system can be influenced by a single thought, emotion or exercise. All of the blood passes through the heart, a marvel of engineering. The heart beats more than 100,000 times a day, resting between each beat. Blood is a perishable fluid, but the heart acts as a perfect pump, with valves that open and close so gently that they don't harm the blood globules.

Blood carries to each cell of the body all of the chemicals and enzymes that control the various bodily processes and, along with these, a vast number of antibodies (guards) that protect the body against infection, hemorrhage and other dangers. It also maintains a reserve of fuel to the cells to be used during the night, between meals and during moments of stress or exercise.

But the most marvelous fact about all of this is the chemical process that occurs continually. The body needs at least 16 quarts per hour of oxygen during periods of rest and up to 300 quarts per hour during intense activity, such as running or playing basketball. However, all of this oxygen cannot be carried in the blood stream in the form of a gas. It must be combined chemically with hemoglobin to form an extremely complex molecule:

C3032 H4812 N580 Fe4 O880 S12 — 3032 atoms of carbon, 4812 atoms of hydrogen, 580 atoms of nitrogen, four atoms of iron, 880 atoms of oxygen and 12 atoms of sulfur.

There are 9520 atoms in just **one** blood cell and these must be maintained at this level constantly. Without iron or oxygen, what would happen to the blood? I tend toward being anemic, which means that my body doesn't absorb, without some help, the level of iron content that it needs. If not treated, the result is extreme tiredness. I take iron supplements to help maintain the necessary level of iron in my system.

The blood obtains a steady supply of oxygen from the lungs, carrying it to all parts of the body and bringing back to the lungs the end product of this oxygen combustion — a poison, carbon dioxide. Although separating the carbon dioxide from other substances is difficult, this is done in the lungs in a third of a second, freeing the poison to be exhaled and picking up a new supply of oxygen. To do this the body produces 2 million red blood cells per second, each identical and perfect!

The Prodigious Heart

Until something goes wrong with it, our heart is pretty much ignored. We're vaguely aware of it, but give it little thought, assuming that it will continue pumping "forever." Here are brief descriptions of this amazing organ:

"From the moment it begins beating until the moment it stops, the human heart works tirelessly. In an average lifetime, the heart beats more than two-and-a-half billion times, without ever pausing to rest. Like a pumping machine, the heart provides the power needed for life" (The Franklin Institute's "Home Is Where the Heart Is." Human Heart Web Page).

"The heart weighs between 7 and 12 ounces (200 to 425 grams) and is a little larger than the size of your fist. By the end of a long life, a person's heart may have beat (expanded and contracted) more than 3.5 billion times. In fact, each day, the average heart beats 100,000 times, pumping about 2,000 gallons (7,571 liters) of blood" (Texas Heart Institute).

The heart is composed of four chambers — the left and right atria, and the left and right ventricles.

- ***Left atrium*** — collects oxygen-rich blood from the lungs and pumps it into the left ventricle.

- ***Right atrium*** — collects oxygen-poor blood from the body and pumps it into the right ventricle.

- ***Left ventricle*** — largest and strongest chamber, pumping blood through the aortic valve into the entire body.

- ***Right ventricle*** — pumps oxygen-poor blood through the pulmonary valve into the lungs.

The heart is supplied with blood by large arteries and veins. The aorta is the principle artery that carries blood from the heart to the body. Isn't this an amazing machine, one which provides the entire body with life, through a vast system of arteries and capillaries, then returning it through a vast system of veins? Is there design to all of this, or has it come about just by chance?

The Amazing Human Eye

Evolutionists believe that all life has occurred by random chance, over millions of years of time. Yet David declared, "*You [God] created my inmost being; You knit me together in my mother's womb. I praise you because I am fearfully and wonderfully made ...*" (Psalm 139:13-14). Applying this principle of being wonderfully made to the human eye. Jeffrey observes:

“ ... ask yourself whether or not such an astonishingly complex system could have occurred by chance alone. When a baby is conceived ... the genetic code governing the eye programs the baby’s body to begin growing optic nerves from ... the brain as well as from the eye. Each eye will have a million nerve endings that will begin growing ... toward the baby’s brain. Simultaneously, a million optic nerves will begin growing ... towards the baby’s eye. Each of the million optic nerves must find and match up to its mate to enable sight to exist. Note this:

“The human eye has the ability to transmit to the brain more than one million and a half messages simultaneously. ... The retina [of the eye] contains more than 137 million nerve connections which the brain uses to evaluate data ... ” (Jeffrey 1996:128,137).

And if this weren’t amazing enough, the eye also distinguishes relative distances, relative darkness and lightness, and infinite shades of color. It is able to transmit symbolic signs, such as letters, words, mathematical equations, musical scores ... And someone says, “Pure random chance!” Not a chance!

Kyle Butt has this statement about design of the human eye:

“The argument is relatively simple. Everything that exhibits design must have an intelligent designer. Systems in nature (like human vision) exhibit design. Therefore, systems in nature (like human vision) have a designer. This classic syllogism is unquestionably valid. But the evolutionists argue that it is not sound. They would suggest that the second premise, ‘things in nature (like human vision) exhibit design’ is not a provable statement. In fact, Richard Dawkins wrote an entire book, *The Blind Watchmaker*, in which he attempted to disprove the idea that design is found in nature. In the prefatory pages that provide commendations about the book from various high-profile authors, Michael T. Ghiselin, a writer for the *New York Times*, stated that Dawkins ‘succeeds admirably in showing how natural selection allows biologists to dispense with such notions as purpose and design and he does so in a manner readily intelligible to the modern reader’ (as quoted in Dawkins, 1996). Dawkins even includes a rather lengthy section in which he attempts to prove that human vision does not possess traits that would demand the conclusion that it had a designer.

“Dawkins does this at the peril of being found guilty of ... irrationality, since it can easily be proven that systems (like human vision) have design. In syllogistic form, the argument looks like this: Complex structures such as video cameras or computers made by intelligent beings (i.e.,

humans) exhibit recognizable characteristics of design (If they did not, no one would be able to tell the difference between a camera designed by engineers and a rock). Biological structures (such as human vision) exhibit the same recognizable characteristics of design. Thus, biological structures (such as human vision) were designed by an intelligent designer. After establishing the validity of this argument, we need only to prove that human vision exhibits the same characteristics of design that are recognized in man-made mechanisms such as cameras and computers.

“With that in mind, we turn to a recent article in *Technology Review* titled, ‘Biologically Inspired Vision Systems.’ Duncan Graham-Rowe, the author, explained: ‘Neuroscientists at MIT have developed a computer model that mimics the human vision system to accurately detect and recognize objects in a busy street scene, such as cars and motorcycles’ (2007). He further noted that scientists have been attempting to copy biological vision systems for many years because these systems ‘are so good’. A large portion of the article discusses challenges to programming a computer system with the ability to recognize and identify objects to any useful degree. Graham-Rowe then documented how researchers used human vision as a model for a visual computing system.

“This system, based on the properties observed in human vision, worked remarkably well in several performance tests. Graham-Rowe quoted David Lowe, a computer vision and object recognition specialist from the University of British Columbia in Vancouver, who said: ‘Maybe we shouldn’t be surprised. Human vision is vastly better at recognition than any of our current computer systems, so any hints of how to proceed from biology are likely to be very useful.’

“In the final paragraph of his article, Graham-Rowe stated: ‘At the moment, the system is designed to analyze only still images.’ So we have a visual computing system that is designed by intelligent humans who took their ideas from characteristics of the biological system of human vision, which is still vastly better than the computer. The evolutionist’s conclusion is that the one made by humans is designed, but the vastly better one found in the human eye, even though it possesses similar (although superior) characteristics, is *not* the product of design. An honest observer would be forced to recognize the heinous irrationality of such a conclusion. Indeed, the rational conclusion is the one recorded by the Proverbs writer so many years ago: ‘*The hearing ear and the seeing eye, the Lord has made both of them*’ (20:12)” (Butt n.d., Apologetics Press).

The Human Nervous System

The nervous system is an information highway, responsible for controlling all the biological processes and movements in the body, and it can also receive information and interpret it via electrical signals that are used in this nervous system.

It consists of the Central Nervous System (CNS), essentially the processing area, and the Peripheral Nervous System which detects and sends electrical impulses that are used in the nervous system

The Central Nervous System is effectively the centre of the nervous system, the part that processes the information received from the peripheral nervous system. The CNS consists of the brain and spinal cord. It is responsible for receiving and interpreting signals from the Peripheral Nervous System and also sends out signals to it, either consciously or unconsciously. This information highway, called the Nervous System, consists of many nerve cells, also known as neurons, as seen below.

The Nerve Cell

Each neuron consists of a nucleus in the cell body, from which outgrowths called processes originate. The main process is the axon, which is responsible for carrying outgoing messages from the cell. The axon can extend all the way to the body's extremities, providing a highway for messages to go to and from the CNS to these extremities.

Dendrites grow from the cell body and axon. On the end of these dendrites lie the axon terminals, which 'plug' into a cell where the electrical signal from a nerve cell to the target cell can be made. This 'plug' connects into a receptor on the target cell and in this way can transmit information between cells.

The Way Nerve Cells Communicate

Nerve cells use an on / off signal (like a digital signal) so that the message can remain clear and effective from its travel from the CNS to the target cell or vice versa (adapted from Biology Online, a production of biology-online.org).

Other Amazing Bodily Functions

Other fantastic and complex bodily functions are provided by the lungs, digestive system, pancreas, liver and kidneys. All of these work in concert with all of the others systems in the body.

Caution! Designer Genes at Work

In the genetic realm, each human possesses 46 chromosomes, which

split into two equal halves. The split-off 23 chromosomes are involved in reproduction, with the male furnishing 23 and the female 23, thus bringing the resulting new life to 46 chromosomes. This process guarantees that only a human will result from the mating of a human male with a human female.

Within each cell there are millions of genes that are codes for transmitting all of the hereditary characteristics from past generations for present and future generations. These millions (perhaps trillions) of genes control all of the genetic codes from the first male and Adam and Eve in all of us, for good or bad.

There is one gland in the female body that functions only twice, once at birth and once at puberty. Other glands function at various times or continually. These glands control sexuality, weight, metabolism and many other bodily functions.

Conclusion

All of the reproductive system, the maintenance of cells, the manufacturing of antibodies, the nature and function of DNA, and the production of enzymes and hormones — this is all so complex that not even geneticists understand much about it. Some genetics engineers are beginning to say, “We know almost nothing in comparison to that which is yet to be learned in this field. But we can already see that genetic laws prohibit the great leaps required by evolution, in order for life to change from one type to another.”

Therefore, we can conclude that the human body is a marvel, created by God for His glory. Certainly, “*We are fearfully and wonderfully made.*” Therefore, we ought to honor our God with our bodies, minds and spirits, according to the norms that He has ordained for us.

Further reading on what God says about this especially crafted human body — Psalm 139:13-14, 1 Corinthians 3:16-17, 1 Corinthians 6:19-20

Evidence 10

God's Hand

in Powering the Human Mind

Introduction

Ah, the human mind — capable of the loftiest thoughts and greatest creations, but also capable of the lowest kind of immorality and unspeakable crime! We are a real paradox, at times almost God-like and at other times almost (or totally) Satanic. Humans are capable of the noblest thoughts and creations, and of amazing inventions. Yet they are also capable of lying, cheating, scamming, stealing, killing, and the most perverse sexual behavior. The human mind can produce such unspeakable places such as the German death camps, the atrocities in Rwanda, Zimbabwe, Darfur, and so many others. It can also produce bloodthirsty pirates out of Somalia. On the other hand, the human mind can also paint a Sistine Chapel ceiling, write a magnificent symphony or create a classic piece of literature.

It is our minds that set us apart from the animals, even though at times we act like animals. Of course, as we will point out, our minds are far more than just a vast collection of brain cells. But, first, those brain cells:

The Human Brain

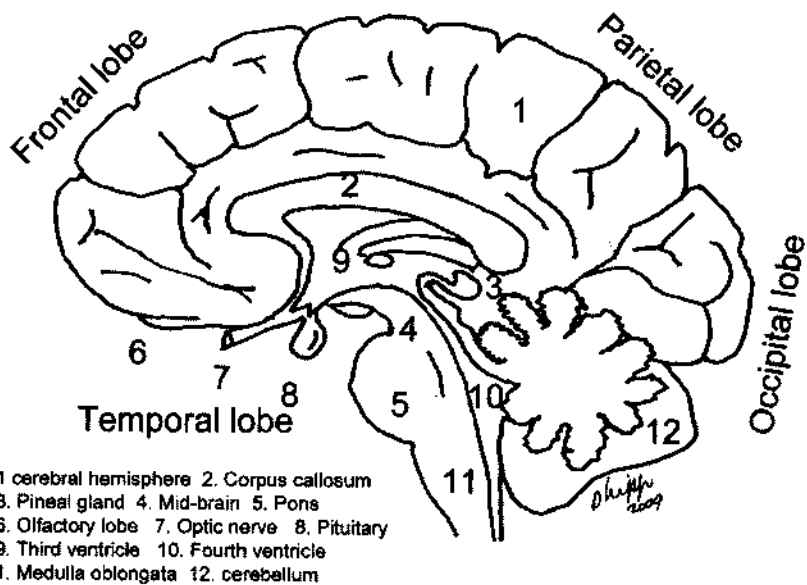
The adult brain weights just 1,300 to 1,400 grams. However, it is moderate in size only when compared to the brain of a sperm whale, which weighs 7,800 grams, or an elephant, with 4,783 grams. In contrast, our brain is larger than that of the horse, with 532 grams, the gorilla, 465-540; the chimpanzee, 420; the lion, 240; the pig, 180; and the orangutan, 170.

The human brain has 100 billion neurons (structural and functional units of the nervous system). It also has multiplied billions of glia (neuralgia) cells, which furnish nutrition to the neurons. Hundreds of thousands of nerves branch out from the brain to all parts of the body. All of these nerves have thousands of fibers — the optic nerve alone containing 1,200,000 fibers.

Nerve Makeup

Neurons are nerve cells that transmit messages to and from the brain at up to 200 mph. The neuron consists of a cell body (or soma) with

The human brain



branching dendrites (signal receivers) and a projection called an axon, which conducts the nerve signal. At the other end of the axon, terminals transmit the electro-chemical signal across a synapse (the gap between the axon terminal and the receiving cell).

The axon, the nerve cell extension, takes information from the cell body. Bundles of axons are known as nerves or, within the central nervous system, as nerve pathways.

Myelin coats and insulates the axon, increasing transmission speed along the axon. The cell body (soma) contains the neuron's nucleus (with DNA and typical nuclear organelles). Dendrites branch out from the cell body and receive messages.

A typical neuron has 1,000 to 10,000 synapses, facilitating communication with 1,000-10,000 other neurons, muscle cells, glands, etc. (From Enchanted Learning Website).

Major Elements of the Human Brain

Our brains are composed of three major elements — the Central Core, the Limbic System and the Cerebral Cortex.

- **The Central Core**, deep within our heads, has five main regions:

• **Thalamus** — begins processing of sensory information, determines whether something is good or bad (such as hot or cold), forwarding that information to the cerebral cortex, where the processing of information continues.

• **Pons** — involved in dreaming and awakening from sleep. Sometimes our pons is wild in programming dreams (or nightmares) and pretty lazy about waking up.

• **Cerebellum** — controls body posture, movement and equilibrium. If we have frequent dizzy spells or falling, the cerebellum may not be functioning well.

• **Reticular Formation** — warns the cerebral cortex of new stimulations and keeps it alert, whether we are awake or asleep. This is the function that tells us something is wrong, such as a fire, even when we are sleeping.

• **Medulla** — center for breathing, sleeping, waking and heartbeat. It operates, thankfully, without our even realizing it. We become aware only when one of these functions is not working properly.

The Limbic System, also deep within our heads, has three components:

• **Hippocampus** — has an important role in emotions, learning and memory. No, it has nothing to do with hippos or colleges. It has everything to do with our response to emotional situations, learning situations and the ability to memorize. If you can't remember your own phone number, blame your hippocampus.

• **Amygdala** — has a role in aggressive behavior, eating, drinking and sexual activity. It tells us when danger is present, when to eat or not, when to drink or not and when to seek sex. Of course, there are the matters of common sense and our moral compass, which should help control all of these urges.

• **Hypothalamus** — maintains proper levels of sugar and salt in the body, as well as blood pressure. It also connects to the nervous and endocrine systems, to help regulate all bodily functions. Blood pressure problems are due in part to malfunctioning of the hypothalamus, or to plaque or other restrictions of the arteries. Obesity, drug use, stress and emotional problems may also cause high blood pressure.

The Cerebral Cortex fills up most of the brain case and is composed of two hemispheres, each of which has four lobes:

• **Frontal lobe** — has to do with motor control and with such things

as planning, decision making, goal setting and envisioning the future. These functions really set the human brain apart from that of animals. (We will talk more about this later.)

- **Occipital lobe** — interprets what the eye passes on to it and transmits this information to the last two lobes. This interpretation includes determining colors, distances, shapes, sizes and potential dangers.

- **Parietal lobe** — analyzes sensory images, spatial distances, attention to detail and language. If some of us have difficulty in learning our own or other languages, blame the parietal lobe.

- **Temporal lobe** — listening perception, language understanding and visual recognition. (The above information was adapted from Discovering Psychology Home Page.)

All of these parts of the brain are essential to our functioning correctly, physically and mentally. If the brain is injured, partially destroyed or is a victim of a tumor or stroke, radical changes in bodily function and behavior can be the result.

The Human Mind, Conscience, Soul and Spirit

Despite the highly complex structure and functioning of the brain, there is more to it than merely cells and nerves. There are also a mind, a conscience and a soul. Humanists and many evolutionists deny that there is any more to the human brain than mere cells and nerves. Well, let's take a look at the matter:

- **The soul.** J.P. Moreland describes the soul in this way:

"The soul is the ego, the 'I,' or the self, and it contains our consciousness. It also animates our body. That's why when the soul leaves the body, the body becomes a corpse. The soul is immaterial and distinct from the body" (quoted in Strobel 2004:254).

This has been the view of Christians for 2,000 years. Jesus taught that body and soul were separate, saying: "*Do not be afraid of those who kill the body but cannot kill the soul*" (Matthew 10:28). He encouraged the repentant thief on the cross that "*Today you will be with me in Paradise*" (Luke 23:43). Paul reminded us that to be absent from the body is to be with the Lord (2 Corinthians 5:8).

There is a soul, separate and apart from the body or the brain. It is the eternal dimension of our life, which extends beyond the merely physical. Our souls are capable of moral action and reflection — of thinking about and weighing the consequences of possible actions.

• **The spirit.** According to 1 Thessalonians 5:23, we have a body, a soul and a spirit. The Greek word for spirit is *pneuma*, which means life or breath, from which we get such expressions as pneumatic or pneumonia. Our spirit, then, is our life force; our very breathing. When our spirit leaves our body, we are mere corpses.

Yet, there is more to our spirit than just the breath of life. Our spirit somehow responds to God and is answerable to Him. Hear what the Apostle Paul says in 2 Corinthians 4:13,

"It is written: 'I believed; therefore I have spoken.' With that same spirit of faith we also believe and therefore speak ... "

It is our spirit, again setting us apart from animals, that moves us to seek God and respond to Him. But there is still more to this matter. Those of us who are faithful Christians are hosts to God's Spirit, who gives us guidance and strength:

"Repent and be baptized, everyone of you, in the name of Jesus Christ for the forgiveness of your sins. And you will receive the gift of the Holy Spirit" (Acts 2:38).

"You ... are controlled not by the sinful nature, but by the Spirit, if the Spirit of God lives in you" (Romans 8:9).

Finally, Paul joined our spirits with the Spirit of God, saying,

"The Spirit himself testifies with our spirit that we are God's children (Romans 8:16).

• **Consciousness.** J.R. Smythies observed concerning consciousness:

"The consciousness of other people may be for me an abstraction, but my own consciousness is for me a reality" (Smythies 1969:235).

Consciousness is awareness of one's own feelings; of what is going on around one, both in action and thought; the totality of a person's thoughts, feelings and impressions (*Webster's New World Dictionary*, 1986). Consciousness exists in animals, but not to the extent that it does in humans. Because we are conscious beings, we are held responsible both by law and by God for our actions.

How did this dimension of the human come into existence? For that matter, how did brain power come into being in all living creatures? Moreland says, *"You can't get something from nothing ... If there were no God, then the history of the entire universe ... would be a history of dead matter with no consciousness. You would not have any thoughts, beliefs, feelings, sensations, free actions, choices or purposes. There would be simply one physical event after another physical event ... "* (Moreland, *op. cit.*263).

• **Conscience.** And then there is the matter of conscience, another facet of human beings that appears to be lacking in the animal kingdom. We have a built-in response to thoughts and actions that tells us whether or not we are doing right. Our conscience is there from early in life, but it can be trained to be more in tune with the expectations of God and other people, as we develop and age.

In Romans 2:12-15, the Apostle Paul talked about Gentiles (those not under the Jewish law) having a conscience which bears witness to the presence of God in the world. Our conscience may uphold our behavior or condemn it. From a lack of adequate understanding, we may live in good conscience, but at the same time be acting in a wrong manner. This same Paul had persecuted Christians before he met the risen Lord Jesus. When he learned that he had been absolutely wrong in his understanding, attitude and behavior, he changed immediately. That is why he could say he had lived in good conscience throughout. Our conscience functions in a Godlike manner only when it is trained in God's way.

• **The mind.** Darwinian philosopher Michael Ruse notes about the human mind:

"Why should a bunch of atoms have thinking ability? ... No one, certainly the Darwinian as such, seems to have any answer to this. ... The point is that there is no scientific answer" (Ruse 2001:73).

This underscores the dilemma faced over the location and nature of the mind. Some try to get rid of the mind and consciousness by claiming that our minds are just mechanical computers or that they somehow emerged from non-living chemicals. Yet, we all know that our thinking, creative minds are still there. Jesus distinguished between mind and body when He said, "*Love the Lord your God with all your heart and with all your soul and with all your mind*" (Matthew 22:37).

Creativity, a Capacity Unique to Humans

Animals can learn to use simple tools, such as a stone or stick, to accomplish certain ends. However, this is a far cry from the creative ability of humans. Mozart created his first symphony at five years of age and filled a relatively short life with sublime musical accomplishments. Consider the genius of Michelangelo or Leonardo da Vinci. Da Vinci was an amazing inventor, as well as artist. Consider Albert Einstein's breakthroughs in physics. Consider Frank Lloyd Wright's or Herod the Great's architectural genius; Santos Dumont, the Wright brothers and other pioneers of flight; the inventors of the automobile; Watson and Crick's dis-

covering the secret of DNA; Sir Alexander Fleming's discovery of penicillin; Bill Gates, Steve Jobs and colleagues' breakthroughs in computer technology ...

Conclusion

The list could go on and on, but you get the point. Creative genius lies within the human mind and it can be used to better or worsen the human race. It didn't just happen, but was built into us. Yes, our minds, consciences, consciousness, souls and spirits set us apart and make us answerable to a Higher Power for their use. We are unique among all living creatures, being the only ones originally stamped with the image of God (Genesis 1:27). Therefore, He has high expectations for us. May our entire body, soul and spirit be dedicated to His purposes.

To the disbeliever, all of this may be gibberish, but that makes it no less true. We are more than body *only* or brain *only*. Imagine the utter hopelessness of the man who one time told me, "I don't believe we are anything more than intelligent animals. I don't believe there is anything beyond this life. As far as I am concerned, when I die, you can just toss my dead body out into the street." I wonder if he still felt that way when he faced the moment of his passing. Robert Ingersoll, A prominent atheist who denied any possibility of a dimension to our lives and spirits beyond the here and now, is reported to have said on his deathbed, "O God, if there is a God, have mercy on my soul." At that moment of truth, things look a little different than they did when we were alive and healthy.

Further reading on what God says about this especially-crafted human mind — Psalm 26:2, Matthew 22:37.1 Thessalonians 5:23.

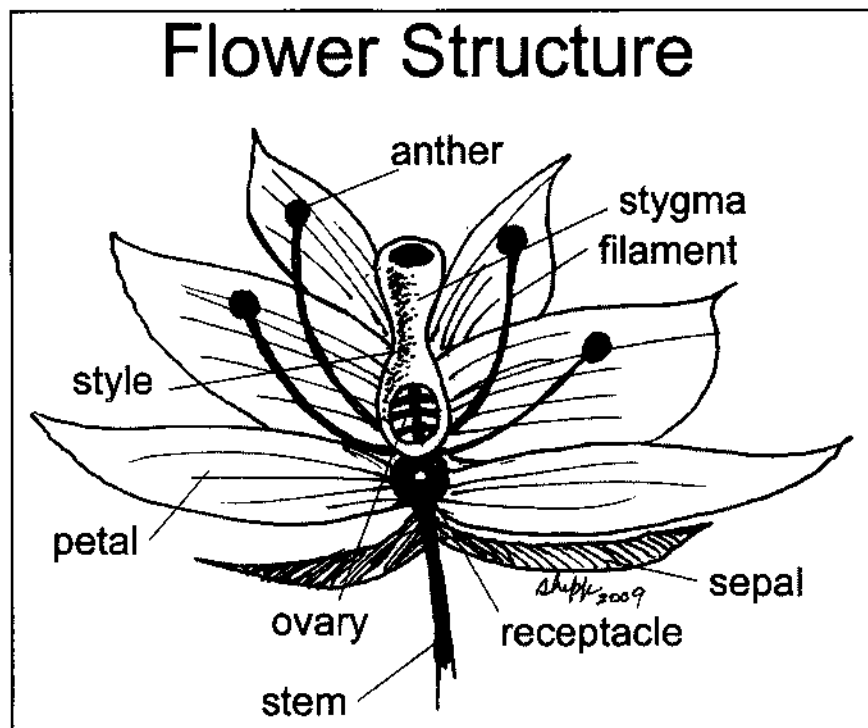
Evidence 11

God's Hand in Plant Life

Introduction

If there is really a God who creates and maintains all things, does He have time to be involved in our lives? Jesus assured us that God really does care for us. He said in Matthew 6:28-30 that we need not be preoccupied with raiment, for if God dresses the plants of the field in such beautiful clothing, how much more does He care for us, His children?

We have always seen flowers about us, but only recently have we begun to realize how complex they are. By means of time-lapse cameras, we can watch the life cycle of flowers. With extremely high-powered electron microscopes we can see inside of plants, flowers, and leaves. All are different, yet there are hundreds of thousands of species, sub-species and families of plants. Among flowering plants, orchids alone number some 25,000 different kinds in nature, with up to 100,000 varieties that have been domesticated.



Practical Purposes of Plants

Besides their marvelous beauty, flowers have a practical purpose. Their colors and nectar attract insects, which carry pollen from one cluster of flowers to another, thus pollinating all of them. Without this process, most plants would not be able to produce seeds. Without seeds, what would happen to most plant life? And if most plants died, what would happen to the animals and humans, as well? They would die, because all animal food comes, in the final analysis, from plants. If most plants need an insect to complete the reproduction process, which came first, the plant or the insect? And how many millions of years could one have survived, waiting for the other to "evolve"? Was there a divine plan, or merely chance, involved in this symbiotic relationship?

Now let us think about the incredible factories of energy that function in each plant. The food-processing factories are found in their leaves. Solar energy is captured by a series of chemical reactions called photosynthesis. Scientists know something of this process, but there is still much to be learned. It is, at the very least, a complex and sophisticated process that produces both food for the plant and the capacity to reproduce.

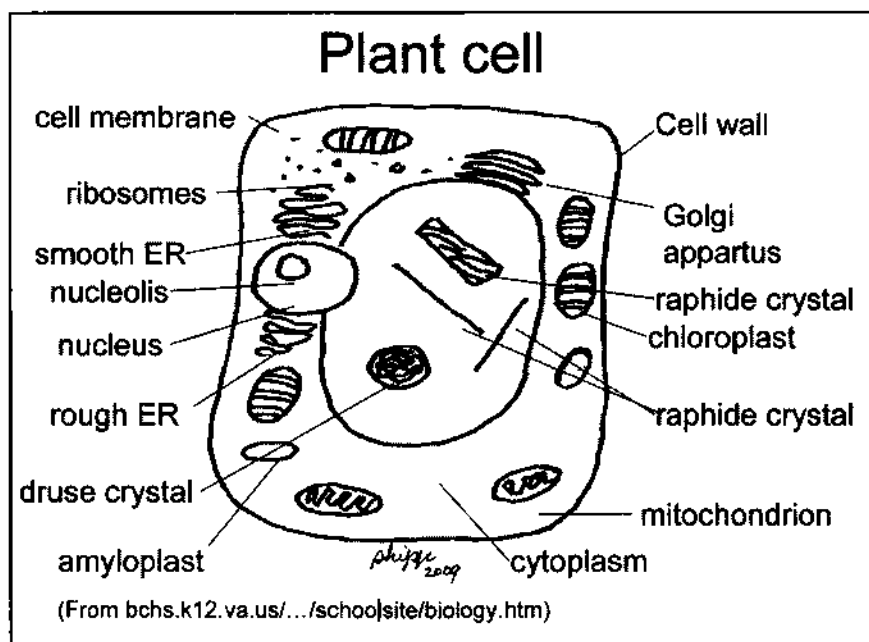
Each one of the millions of plant types has a place in the scheme and balance of the world. Even thistles, ragweed, poison ivy...? Yes. If this balance of nature is upset, the results can be catastrophic. Examples: Wildfires are, for the most part, fed by the uncontrolled growth of brush and grasses. They result in lost homes, mudslides and other problems. Wisdom calls for keeping this undergrowth scaled down. A cactus introduced to Australia to serve as fences in dry regions took over the whole landscape, because it had no natural enemies. Finally, a caterpillar from its native region, that fed on the cactus, was introduced and now the two species are back in balance. Whenever anything in nature gets out of balance, the result can be deadly.

The World within Each Plant Cell

Within each plant there is a marvelous and precisely organized world. The biologist Russell Artist observed: "Each cell in a plant seems to be a complete world in itself, capable of continuing its cycle of life independently of the other cells. Each leaf of each plant is made up of a multitude of cells, each doing its part to construct and maintain the cell. Each of these many cells has a very active nucleus."

Plant leaves are fascinating. They absorb only certain colors of light, out of the entire spectrum. In the fall, when the weather cools down, they

turn amazing shades of yellow, orange and red. This is because the chlorophyll, that gives them their green color, “hibernates,” allowing the other colors — there all the time but hidden to the eye — to become visible. This is an awe-inspiring process that we all enjoy watching.



But there is still more. Within each cell of a plant there is an amazing amount of action. Around the nucleus of each cell, millions of chloroplasts (bodies that carry chlorophyll) swim in a rapidly-moving current.

Sexual Functioning in Plant Life

While living in Brazil, I thought it would be great to plant a papaya in our postage-stamp back yard. After all, papayas grow tall and slender, so little space is taken up with them. Our papaya grew very well, flowered and produced tiny little fruit that never developed. I asked a knowledgeable friend about the problem. He asked, “Is there a male papaya nearby?” “Why, no,” I answered, “I never realized the need for one.” “Well, you will never have fruit without a male papaya nearby!”

Most plants have both male and female components. These are called hermaphrodite species. Others require both male and female plants or trees near each other, such as in the case of the papaya, as well as ash, cork, ginkgo, holly, date palm, poplar, sago palm, spinach, and asparagus.

Symbiotic Relationships

In Central California we lived in the midst of fig orchards for a time. I thought it strange that farmers tied tiny paper bags to each fig as it formed. Then it was explained to me that each bag contained a female fig wasp, which is essential to the pollination of the fig. A chemical signal in the fig is released when it is ready for pollination. Then the wasp struggles her way into the fig, often losing her wings and antennas in the process. She pollinates the stigmas and lays eggs into the ovary. Mature wasps later chew their way out of the fig, but in this complicated process, the essential pollination of the fruit takes place.

Likewise, the yucca plant is interdependent with the yucca moth. The moth pollinates the flowers and its larvae feed on the fruit.

Many plants and flowers require symbiotic partners. These include bees, butterflies, flies and hummingbirds. Without the partnership between these creatures and flowers, many plants would die out. In each case, the guest withdraws nectar from the blossom and, in the process, pollen is transferred to the insect or bird, which then visits another flower, depositing some of the pollen in it. Just recently I learned that the grizzly bear plays a role in pollinating mountain lilies. The bear eats some of the lilies, but catches pollen on its whiskers, spreading it to other lilies. Noteworthy here is that these symbiotic partners visit only other flowers of the same type. This is an interesting barrier against cross-pollination between species. Wind also plays a role in the spread of pollen from one flower to another.

Conclusion

Each cell functions with a precision that, in comparison, makes the functioning of the finest of watches crude. We all understand that a Rolex watch could not have created itself, nor was it made by accident. Rather, it took a year to produce it. How did a plant cell arrive at its present perfect form? Who placed it in motion? We are compelled to believe that Divine Intelligence designed it. Otherwise, we must accept the belief that an indiscriminate chaos of atoms and molecules is all there is to life, which, after eons of time, became able to maintain and guide itself, but also able to reproduce itself into countless generations of the same plant. This opinion is actually a *belief*, or an interpretation of the visible facts — that the accidental joining of non-living matter created the first living cell. This requires a greater faith than that of believing an Intelligent Creator initiated all of life.

Evolutionist Ennos Sheffield admits in his book, *Plant Life* (2000:4) that “many of the most important attributes of plants cannot be explained by physical factors alone.” This says much about the limitations of science in understanding life. Scientists must accept much of what they believe on faith in assumptions, some perhaps valid, of what they do not see. Eugenie Scott, Executive Director of the National Center for Science Education and an outspoken opponent of creationism, has affirmed that the entire matter of God and creation is outside of the abilities of science to test. Yet, she says, “In some fields not only is it impossible to directly control the variables, but the phenomena themselves may not be directly observable” (Scott 2004:6). By her own admission, she believes in some things that cannot be seen. Amazingly, she has faith in them, although they cannot be tested. In contrast, she cannot accept God’s creative power, since she cannot put God in a test tube.

All of us believe in something, either a Divine Power or pure chance (or perhaps in some unexplainable cataclysm that triggered life out of non-life). The only reasonable faith is that the trillions of living cells all about us, each with its perfect functioning and place in the total scheme of things, requires the existence of a superior Intelligence, whom we call God.

Further reading on our greatly varied plant life — Genesis 1:11-13, Matthew 6:28-34

Evidence 12

God's Hand in Animal Life

Introduction

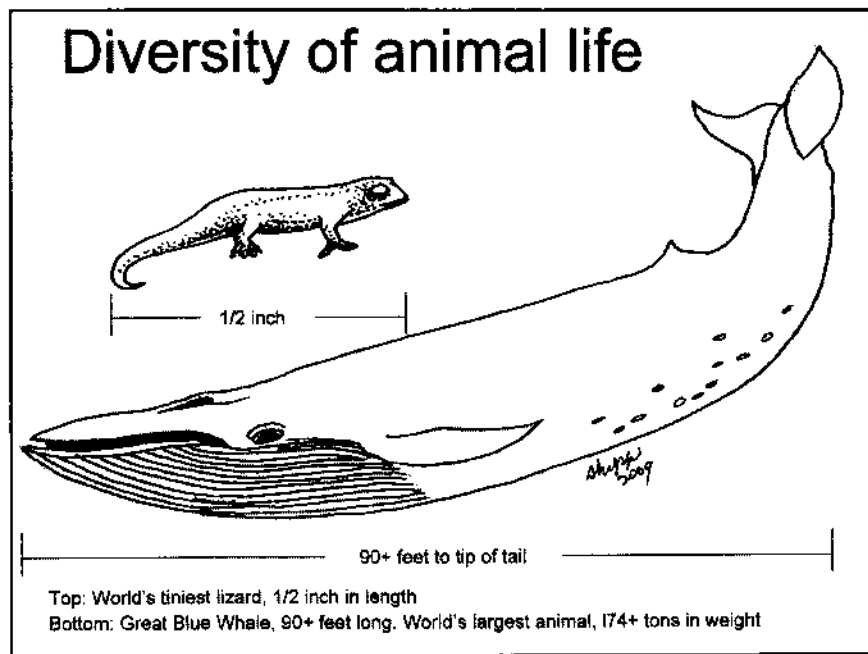
The world abounds with multiplied species of animal life. The number and complexity (genus, family, species, sub-species, etc.) are so great that no one can calculate them precisely. For example, the species of animal life run at least in these general figures:

- Insects — 500,000 to 700,000 species
- Vertebrates (having internal skeletal structure) — 40,000 to 70,000, depending on how they are categorized
- Other types of animal life — approximately 100,000.

Aren't those figures amazing? Did you notice how many kinds of insects there are? I knew there were a lot of them, but these numbers are staggering. And more are continually being discovered.

Animal Life's Intricate Functioning

Visit a large zoo, travel through tropical rain forests, or go on safari in Africa, and you will be impressed by the rich variety of animals. In Brazil



we saw creatures called micomacacos (tiny members of the monkey family), beautifully-plumaged macaus, toucans and parrots, pumas and other exotic animals indigenous to that region. In Kenya we saw rhinos, hippos, elephants, leopards, lions, giraffes and other specimens of the grasslands. Off the Alaskan coast we saw whales, dolphins, seals and sea otters.

The oceans abound with sea life. I once caught a ling cod about four feet long. I thought I had hooked some kind of sea monster, since it took a long time and a lot of sweat to reel it in. It was small, however, compared to a sturgeon caught recently in Oregon. It was 11 feet long and took four men several hours to bring it in. In the Sierras of California our family was on a camping trip one time, pitching our tent beside a pool of crystalline water. Trout were darting here and there, so we caught some for dinner. They had the look both of a golden trout and a rainbow trout. Obviously the two sub-species had mated and their offspring showed DNA characteristics of both parents.

Each species, worldwide, has its unique place in the hierarchy of animal life. Some, such as vultures and cockroaches, are scavengers. Some, such as lions, are meat eaters. Some, such as giraffes, eat leaves, while others are grass eaters. The Giant Panda eats only bamboo leaves. Some animals are prey for others. Even the lowly ant has its place in the scheme of things. Ants have a strict hierarchy of position and task, all the way down to worker ants. Long ago the Bible reminded us,

"Go to the ant, you sluggard; consider its ways and be wise! It has no commander, no overseer or ruler, yet it stores its provisions in summer and gathers its food at harvest" (Proverbs 6:6-8).

Job 38:39 to 41:34 lists dozens of questions about nature and animal life that the Lord posed for Job, who could not answer them. Many questions on this list still cannot be adequately answered. The nature of each creature is too complex for us to really understand it well.

Complexities of Birds

One very good example of complex animal life is the bird. Zoologist Asa C. Thoresen writes,

"From the tip of their wings to the end of their tail feathers, birds show remarkable aerodynamic design. Birds (except for a few, such as ostriches, which do not fly) are equipped with constructed feathers, powerful wings, light, hollow bones, rigid skeletal parts; large, strong hearts for circulation of warm blood; a remarkable respiratory system; and a

digestive system that quickly absorbs the energy from food" (In Utt 1971:10).

Thoresen goes on to describe in detail the functioning of aviary life:

- **Lightness of bone structure.** The man-o'-war bird has a wingspan of up to seven feet, yet its bones weigh no more than five ounces. Birds' bones are strong, flexible and filled with air sacs that make them buoyant.

- **High temperature and rapid blood circulation.** Tremendous energy is required for flight, so birds have a temperature of up to 110 degrees and the capacity to digest and absorb food rapidly.

- **Strong breast muscles,** which enable a bird to fly, sometimes for days on end during migration.

- **Keen eyesight.** For example, hawks and eagle have eyes that are ten times more powerful than that of humans.

- **Marvelous feather structure and function.** In fact, birds are much more efficient in the air than aircraft. A pigeon's feather has more than a million individual parts. Along both sides of the quill are barbs which form the vanes of the feather. There are several hundred barbs in each vane, held together by barbules, flanges and hooks, which work like a zipper.

- **Birds' wings automatically adjust to changes in airflow and pressure.** They can ride air currents with little effort and can bring about lift and drag. A set of sensory receptors signal some 12,000 tiny muscles that fine-tune the pitch of the feathers for forward motion, lift and descent.

- **Birds' rate of wing beat depends on the type of bird.** Large birds may have a beat of one or two times per second, while hummingbirds may have a beat of 500 time per second! In addition, hummingbirds' wings operate both backward and forward, acting as a tiny helicopter. For this reason they can hover in the air and can even move backward.

- **Finally, migratory birds such as Canada Geese, fly in a V-shaped pattern.** Following the point bird, the others draw off the vacuum created by the leader and each bird behind it. When the lead bird grows tired, he moves to the back of one arm of the V and the second bird in the flight moves to the lead. Another amazing fact about migratory birds is that they unerringly fly from winter home to summer home, thousands of miles away! They seem to have a built-in GPS based, perhaps on the relative position of the sun, moon and stars, on air and water stream movement, and landmarks (Thoresen, from Utt 1971:8-23).

No Cross-Breeding

We need to remember that, in all of this complexity, there is a built-in barrier to cross-breeding. Why is this? Within each type of life there are chromosomes that are essential to the reproductive process. Each species has a fixed number of chromosomes. As we have said already, human beings have 46 or 23 pairs. Each kind of animal has its own unique number of chromosomes. By means of these chromosomes, all of the characteristics of each type of animal and of the unique genetic contributions of the male and female are transmitted to the next generation. If a type has been crossbred within its "family," it is generally true that it cannot reproduce. The mule is a good example. A female horse mated with a donkey can produce a mule, but the mule cannot reproduce.

Two different types can reproduce, but only if their chromosomes match. Dogs and wolves can mate and reproduce, but not dogs and cows or horses. I even read recently about a lion and a tiger that mated, producing a liger. However, they are of the same cat family. The article didn't say whether or not the resulting animal was sterile. God placed in each type a reproductive system that guarantees its continuity, while protecting it from mixing with unrelated types. Each kind of animal life, then, has a built-in capacity to transmit its genetic characteristics generation after generation.

Interdependence of Different Animal Types

Each kind of animal life has the capacity to function well and survive, according to an incredible natural system. Each type of life has its purpose in an over-all scheme, or ecological system, with some eating other types, and in turn, being eaten. Each has its role to play. Take bees, for example. There appears to be a world crisis developing over honeybees, the numbers of which are declining. If bees disappear, so will countless plants and flowers which depend on bees to pollinate them. At least 100,000 plant species would die within a generation without honeybees. The entire body of a bee, including its eye surfaces, is covered with tiny hairs to which pollen adheres and is then transmitted from one flower to another in the bee's incessant search for nectar. Even more interesting is the fact that honeybees visit only one kind of flower at a time, thus never mixing one kind of pollen with another. On the other side of the coin, bees depend on flowers for their sustenance, in the form of nectar. Many other examples of symbiotic relations among animals and plants could be cited. Some were mentioned in the last chapter — the fig tree and fig

wasp, the yucca and yucca moth, multiplied kinds of flowers and hummingbirds ...

Speaking of Animals, Did Dinosaurs Exist?

From *Discover* to *Smithsonian* to *National Geographic* and museums, a complex line of dinosaurs is displayed. These carefully-crafted presentations are shown in sequence, representing "millions" of years.

Well, did they really exist? I have seen skeletons complete enough to realize that they did exist. I know that they were created, but I do not know what caused their demise. We can know that none of this was by chance. We also know that some "dinosaurs" still exist — alligators and crocodiles, cockroaches, horseshoe crabs and the Coelacanth, for example. It was assumed that this deep sea fish became extinct some 700,000 years ago, but not many years ago a living Coelacanth was caught.

Christian apologists do us a disfavor by making unproven arguments for or against the existence of dinosaurs and other strange creatures. It is foolish to declare, as some do, that God just created some bones and left them around to deceive us. This is not the God I serve. He is never capricious, but rather, absolutely sovereign over all of His creation. It is also foolish to assert that countless types of creatures lived millions of years ago and became extinct, before that, however, going through evolutionary stages to become our modern animals, birds and humans. Evolutionists suggest that there must have been thousands of intermediary plant and animal specimens, or "missing links," which brought us to today's plants and animals, but these fossils have never been found.

Conclusion

Each species and sub-species is a marvelous world of birth, growth, work and death. For example, there is the cicada, which has a life cycle of exactly 17 years. The eggs of the female fall to the earth from trees and the hatched larvae, to protect themselves, dig rapidly into the earth, forming a tiny cavern — their home for 17 years. Then on the exact day, 17 years later, they come out of the ground, climb the trees and repeat the same cycle as their parents. The time difference is no more than 20 seconds from generation to generation! And salmon? They return to exactly the same place where they were spawned, far up a stream from the ocean. They fight all odds to get there, so they can reproduce and then die. The story, *The March of the Penguins*, presented the moving but difficult reproductive and protective instincts of male and female Emperor

penguins. Each spring the same male and female cardinals arrive in our back yard, breed and care for their young. Then in the fall they migrate away. How do they know where our backyard is located and why did they choose it? I have no idea.

What can we conclude from all of this complexity in the animal kingdom? It could never have happened by mere chance. All of it had to come together according to a predetermined plan — that of a Master Intelligence at work.

Further reading on the creation and existence of animal life: Job 38-41, Proverbs 6:6-8, Matthew 6:26

Evidence 13

Gods Hand

in Providing An Operating Manual

Introduction

I received a used laptop computer last Christmas. It was a marvelous piece of compact electronics, but came without an operating manual. My mind still functions well, except for forgetting to do some task my wife asked me to accomplish, but much about computer technology is beyond me. Oh, for a manual! And, oh, for the ability to understand its technical language, even to understanding a tech in India trying to explain it to me.

Thankfully, our Creator, who gave us such amazing minds, did not leave us to fend for ourselves without guidance. He furnished us with an operating manual, called the Bible. It gives us clear instructions on how to function in every phase of our lives, in order to achieve the greatest possible satisfaction out of life.

The Bible

The Bible is no accident, nor is it a collection of stories and fables. It is the result of centuries of accumulated writings by prophets or scribes inspired by God, as indicated in 2 Peter 1:20,21:

The Bible

- Some 2600 years in the making
- 40 or more authors involved
- More analyzed than any other book
- The world's best seller
- Translated wholly or in part into 2.5 thousand tongues
- Available in the original Hebrew, Greek
- Many versions exist in English

"Above all, you must understand that no prophecy of Scripture came about by the prophet's own interpretation. For prophecy never had its origin in the will of man, but men spoke from God as they were carried along by the Holy Spirit."

The earliest reference in the Bible to recording God's words is found in Exodus 17:14, chronologically the second book of the Bible, at which time the Lord instructed Moses to write down His commandments and instructions on a scroll. In Exodus 20, the Lord Himself wrote the Ten Commandments on tables of stone. In Exodus 24:4 we learn that Moses

<p>ΚΑΙ ΔΟΧΗΤΕ ΜΗΡ ΚΑΙ ΠΑΝΤΕΣ ΠΙΜΕΛΑΚΑΥΝΗ ΗΑΝΑΡΕΧΗ ΤΩΒΑΤ ΔΕΙΒΑΚΙΝΕΥΣΕΡΗ ΤΙΑΚΤΙΝΚΑΝΗΡΕΩ ΤΩΒΑΚΙΑΣΙ ΤΟΤΙ ΓΜΑΚΑΡΕΠΟΙΗΕ ΟΥΤΩΣ ΚΑΙ ΑΝΘΡΩΠΟΧΗ ΙΟΥΑΙΔΕΝΕΟΥ ΟΥΙΣΤΗΠΟΑΡΚΑ ΟΝΟΜΑΤΕΜΑΡ ΕΟΧΑΙΟ ΣΟΤΟΥΝΙ ΡΟΥΤΟΤΕΡΜΕΙΟΥ ΙΟΥΚΙΣΑΚΟΥΣ ΟΥΑΝΣΕΝΗΜΕΓ ΟΧΗΝΑΙ ΧΜΑΛΟΥ ΤΟΣΕΙΗΑΜΗΝ Ν ΧΜΑΛΟΥΤΕΥΣΗ ΝΑΙΟΥΧΩΔΟΝΟ ΟΥΒΑΚΙΑΕΥΣΑ ΕΥΑΥΝΟΟΚΑΙΗΝ ΠΟΥΒΗΙΑΙΟΒΗ ΠΗΘΟΥΑΚΑΡΑΜΙ ΝΑΑΒΑΔΑΕΑΟΥ ΠΑΤΡΟΧΟΥΤΟΥΚΑ ΤΟΟΝΟΜΑΑΥΤΗ ΕΣΗΙΟΝΔΕΤΩ ΜΕΤΑΑΑΖΑΙΑΤ ΤΗΣΤΟΥΣΟΝΕΙ ΟΥΔΕΥΣΕΝΑΥΤΕ ΕΑΥΤΩΕΙΣΥΝΑΙ ΚΑΚΑΙΗΝΤΟΚΟΡΑ ΟΙΟΝΚΑΗΤΩΔΕ ΚΑΙΟΤΕΝΚΟΥΣΕΝ ΤΩΤΟΥΒΑΚΙΑΕ ΠΡΟΤΗΡΑΚΟΥΝ ΧΩΗΚΑΝΤΗΝΕΩ ΑΙΝΥΠΟΧΕΙΡΑΤΑ</p>	<h2>Bible manuscripts</h2>	<p>At the left is a column from the Codex Siniaticus, written in Greek and dating from the fourth century AD.</p> <p>This is the most complete of the early Bible manuscripts. It was found by Count Tischendorf in 1859 at St. Catherine's Monastery at Mt. Sinai.</p> <p>The monks had been using its pages to start fires. Tischendorf saw that it was extremely valuable and saved it from being destroyed. Most of it is now in the British Museum.</p>
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copied everything the Lord had said to him. This occurred soon after 1300 BC. He was followed by as many as 39 other writers, the last being the Apostle John, who wrote his vision in the book of Revelation shortly before 100 AD. The Bible's actual historical setting was from before the dawn of time until near the end of the first century AD (Genesis 1:1, Revelation 1:1-3, 9).

Those writings that became a part of the Bible were considered inspired, having been written, in the case of the Old Testament, primarily by recognized godly prophets and by kings David and Solomon. New Testament writers were all apostles of Jesus or close associates of the apostles. Although the entire Bible is inspired of God, this does not mean that the writers were mere robots or stenographers. This is clearly pointed out in the following quote:

“The fact that God speaks directly and uniquely through the Bible does not, however, reduce the biblical writers to typewriters. Each book gives clear evidence of its human history. ... Luke painstakingly collected material for his two volumes [Luke and Acts] and did all he could to make them accurate records. The Old Testament writers also exercised powers of discrimination, omitting what was irrelevant to their purpose, but using what was needed. Paul, for instance, wrote his letters with specific situations in mind. There are as immense stylistic differences between him and John as between, say, Isaiah and Hosea” (*Eerdmans' Handbook to the Bible*, edited by David and Pat Alexander, 1973:350).

Eyewitnesses to Bible Events

New Testament writers were not long removed from the actual events covered. This was not enough time for supposed “legends” to have developed. They saw and believed. They, and many other early Christians, believed so strongly in Christ, His teachings, death, resurrection and return to Heaven that they were willing to die for their faith. They would hardly have done so for a lie or deception. The Apostle Paul said that there were more than 500 eyewitnesses to the resurrected Christ (1 Corinthians 15:3-8). The apostles and all of those others had seen and heard Jesus speak. They had witnessed His miracles. They had seen Him after His resurrection. As Peter and John affirmed before the court, “*We cannot help but speak the things we have seen and heard*” (Acts 4:1-20).

Writing Styles in the Bible

Although there are many different writing styles in the Bible, often reflecting the nature and experience of the writers, it was all recorded under the guidance and inspiration of God, which makes it a cohesive whole. There are various kinds of literary genre in the text: Narrative, History, Monologue, Dialogue, Poetry, Proverbs, Prayers, Hymns, Sermons, Prophecy and Apocalyptic in the Old Testament; and Biography, Dialogues, Sermons, Parables, History, Letters and Prophecy in the New Testament. The Bible's Psalms are rendered in noble, moving style, using parallelisms and acrostics as devices to aid memorization. Its wisdom literature is unsurpassed. Many sections of the prophetic books are in the classical poetic style of the ancient Hebrews, following precise rules of structure.

Bible Languages

The original language of most of the Old Testament was Hebrew, the tongue of the Israelites before their captivity in Assyria and Babylonia.

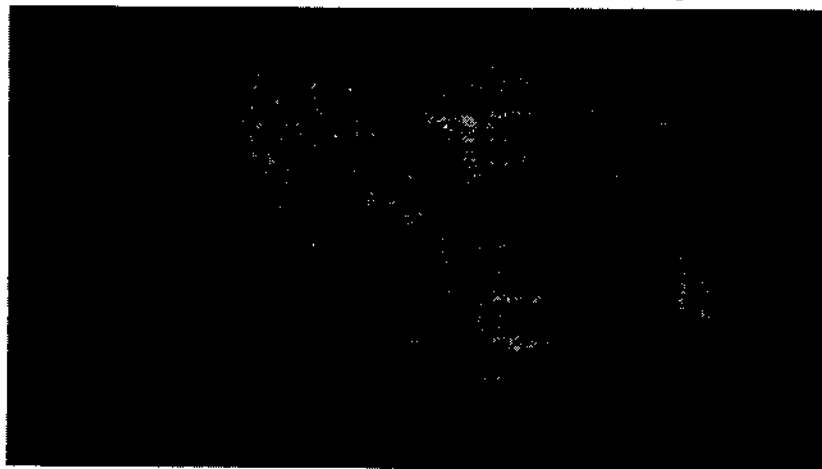
Some segments of late Old Testament books, such as in Ezra and Daniel, are in Aramaic, the language of the New Babylonian Empire. The New Testament was written primarily in Koinê Greek, the common trade tongue of the Roman Empire. There are a few expressions in the Gospels in Aramaic and it is possible that some New Testament writings, such as Matthew, may have been written initially in Aramaic and translated into Greek.

Preservation of the Old Testament Text

The oldest known fragment of the Hebrew text, the *Aaronic Blessing* (Numbers 6:22-26), dates from the 10th Century BC. The Nash Papyrus dates from the end of the second century BC, or beginning of the first century BC. The oldest known more complete manuscripts of the Old Testament are from the period before Christ and were found in 1947 in caves near the Dead Sea.

Around 250 BC the Old Testament was translated into Greek and later into Latin and other tongues. The Old Testament came into written form over a long period of time. The first five books — Genesis through Deuteronomy — reached the form they now have in about 330 BC. By 90 AD the Old Testament text was arranged in the order found even today in the Hebrew Bible — Law, Prophets and Writings. This was a monu-

Ancient Bible manuscripts



Great Isaiah scroll, found in 1947 at Qumran

mental work written over a period of a thousand years by a number of writers.

The Masoretic Text

Beginning from about 70-135 AD, when the temple no longer existed and Jews were scattered all over the world of that day, Jewish scholars began a process of perfecting and reproducing the ancient Hebrew, including eventually accent marks and vowel markings, for the sake of those had difficulty in understanding the ancient tongue. They devoted much time to reproducing the Old Testament Scriptures in Classical Hebrew. The result was the collection known as the Masoretic Text and used today in Jewish synagogues. When comparing that text on Isaiah with the Isaiah scroll found in one of the Dead Sea caves, very little difference in meaning is found.

The Septuagint, the Old Testament in Greek

The name *Septuagint* comes from Latin, meaning 70. The major explanation for it is that 70 or 72 scholars were sent by the High Priest to Alexandria, Egypt, to translate the Old Testament into Koinê Greek. The final translation was to be placed in the famous library at Alexandria. This was not the only attempt to translate the text into Greek, but was the one which became widely used. Bible history scholar Everett Ferguson says that the *Septuagint* was one of the most important documents ever produced. It was the Old Testament of the time of Christ and the early church. The Latin Vulgate, on which the King James and other early English versions relied heavily, came principally from the Old Testament portion in Greek.

The Greek New Testament

The oldest known fragments of Greek New Testament Scriptures date from before the end of the first century. Originals may never be found, but it is probably just as well, because some people might worship them.

The most complete early Greek manuscripts of the Bible are these three: *Sinaiticus*, *Vaticanus* and *Alexandrinus*. The *Sinaiticus*, dating from about 350 AD, is almost totally complete. It was saved from St. Catherine's Orthodox Monastery by Constantine Tischendorf, a German scholar who devoted his life to finding and preserving ancient Bible manuscripts. It contains all of the New Testament, except for a few lost pages, plus the *Epistle of Barnabas* and the *Shepherd of Hermas*. This manuscript is now in the British Museum. Other nearly complete manuscripts

of the Bible, the *Alexandrinus* (c. 450 AD) and the *Vaticanus* (c. 370 AD), are also extremely valuable. Tischendorf deciphered the ancient *Codex Ephraemi*, which had been overwritten in the Middle Ages with other material. These serve to authenticate the Bible and, especially, the New Testament.

He and others found many manuscripts of various dates, some of segments of the Bible and some of commentaries and extra-biblical material. Occasionally other parchments, papyri and the like are found. In fact more than 5,400 manuscripts of all or parts of the New Testament have been discovered, far more than for any other ancient text. In fact, none of the original writings of Socrates, Plato and other great philosophers of ancient times even exist today. What we have is translations of some of them, dating from much later.

The Canon of the New Testament

The earliest writing of what became the New Testament was possibly Paul's letter to the Galatians. It was followed by others of his general letters, then by his "prison epistles," the last of which was probably 2 Timothy. During Paul's lifetime some gathered up information about the life and teachings of Jesus. Luke says, in Luke 1:1-4, that many others had undertaken this task, so he too, wanting to present a most thorough history of Jesus, wrote the Book of Luke. Matthew or Mark may have been earlier than his account. John followed much later, toward the end of the first century. James is of uncertain date, but probably about the time of Paul's early letters. Peter's epistles came probably toward the end of his life. John's epistles were written also fairly late in the century. Jude is almost a carbon copy of 2 Peter and its date is uncertain. Revelation may have been the very last to be written, while John was in exile on Patmos or shortly afterward, near the end of the first century.

This was the *litmus test* for authenticity of New Testament books: They had to have been written by an apostle or a close associate of an apostle.

The New Testament Greek canon (compilation) was finalized early in the fourth century. In 367 AD Athanasius, Bishop of Alexandria, proclaimed the New Testament to be fixed and unalterable. It has so remained to the present time. Beginning in 182, the Christian scholar Jerome began translating the Bible into Latin, following earlier translations into Aramaic, Coptic, Syriac and Ethiopian.

Conclusion

It is by divine providence that the entire Bible has been preserved through wars, conquests, persecutions and purposeful efforts to eradicate all copies of Scripture. We can go back to the earliest Hebrew, Aramaic and Greek manuscripts and verify the authenticity of God's message. The Bible has been given the most intensive scrutiny by scholars well versed in the original languages and in textual criticism. No text in all of history has been analyzed as diligently as the Bible.

Can we trust our Bibles today as being the Word of God? Yes, but we must not trust any one contemporary version to be 100% accurate. Why? Because they are human versions, not directly inspired by God. Even with the best intentions and with God's blessings, translators may err or may show their particular doctrinal bias. Despite their occasional lapses, God has preserved the thought and intent of His Word for us today. He has not left us without guidance. Nor has He left us without early manuscripts of His Word to investigate and, through them, to verify the truths expounded in the Word.

God has granted us the thought and intent of His Word in a thousand tongues. (In fact, all or part of the Bible now exists in 2,287 languages.) He has not left us without guidance. The essence of what He revealed to humanity is preserved for us in our own language. Wilbur Smith, a man of letters and a Bible scholar, said about this book, "... there is worldwide agreement that in more ways than one it is the most remarkable volume that has ever been produced ..." (cited in McDowell 1979:22).

My prayer is that we have come in this chapter to appreciate the original languages of the Bible and their transmission to us today, as well as to appreciate the authenticity and preservation of the Bible down through the centuries. God has not left us without an operating manual. Our difficulty is in our lack of attention to it.

Further reading on God's provision of His Scriptures — Psalm 119, especially verse 105, 2 Timothy 3:16-17

Evidence 14

God's Hand

in History, Geography and Archaeology

Introduction

The Bible contains much history that is verifiable from external as well as internal sources. When it speaks of certain rulers and their empires, it is historically accurate. Its geography is precise. When we make new discoveries of Bible locations, we find them to be where the Bible says they are. For instance, I have helped during two seasons at a dig at Tamar, in the Judean Negev south of the Dead Sea. The Bible states that Solomon built a fortress there (1 Kings 9:18). That Tenth Century BC fortress finally has been identified and dated, yet another proof of the Bible's accuracy.

The Bible's descriptions are accurate. Its cultural references are on target. Its prophecies came to pass — all except those dealing with the end of time and eternity. One example is that of Cyrus the Great. Some 120 years before his birth, God revealed to Isaiah the prophet that Cyrus, a special prince, would be born and would be the Lord's shepherd, restoring the ruined city and temple of Jerusalem. This came to pass when Persian ruler Cyrus decreed that the Jews could return to their country and rebuild their temple (Ezra 1:1-4). Another is the prophecy of a man of God who foretold that a future king named Josiah would desecrate the idolatrous altar of King Jeroboam (1 Kings 13:1-3). Many detailed prophecies were made about Jesus centuries before His birth, yet every one of these was fulfilled. (See Isaiah 9:1-7, Isaiah 52:13-14 and Isaiah 53 and Micah 5:2 as examples.)

The Bible's Historical References

The Bible contains much history that is verifiable from external as well as internal sources. When it speaks of certain Egyptian, Assyrian, Babylonian, Persian, Greek and Roman rulers and their empires, it is accurate.

The Old Testament speaks, for example, of Pharaohs Necho, Shishak and Tirkana.

Assyrian kings mentioned in the Bible are: Sargon (Isaiah 20:1), Tiglath-Pileser (2 Kings 15:19-20, Shalmaneser (2 Kings 17:3-6, 18:9-11) and Essarhaddon (2 Kings 19:37). Sennacherib's attempts to conquer Jerusalem were thwarted by the Lord (2 Kings 18 and 19). Sennacherib

told part of the story on a monument, "I shut up Hezekiah like a bird in Jerusalem." But like all rulers of antiquity when they lost a battle, he made no mention of his defeat and return to Nineveh in disgrace.

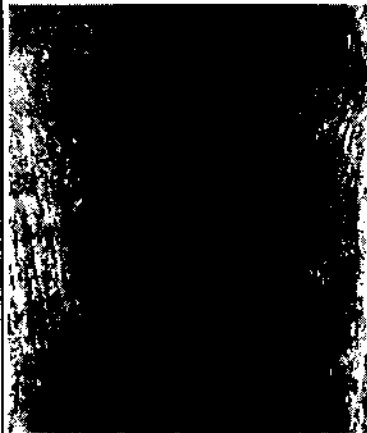
Nebuchadnezzar's rule of the Babylonian Empire is well-attested in both Scripture and secular sources (2 Kings 25:1-12, Daniel 1 through 4). Evil-Merodach, successor of Nebuchadnezzar, is mentioned in 2 Kings 25:27. Merodach-Baladin is also mentioned as a ruler of Babylon (2 Kings 20:12), as is Belshazzar (Daniel 5).

The Bible relates stories about Darius the Mede (Daniel 5:30), Cyrus (Ezra 1:1-4, Daniel 6:28), Xerxes (Ezra 4:6-7, Esther 1:1-3) and Artaxerxes (Nehemiah 21-9). These Persian rulers are all attested historically.

Luke, the writer of Luke and Acts, went to great lengths to verify his historical references. For instance, he mentions the events surrounding the birth of Christ as having occurred during the reign of Herod the Great

and that of Augustus, Roman Caesar following Julius (Luke 1:5, 2:1-2). He then pinpointed the ministry of John the Baptist and Jesus as having occurred beginning in the fifteenth year of the reign of Claudius in Rome, Pontius Pilate governor of Judea, Herod Antipas ruler of Galilee and Annas and

Bible era artifacts



Hezekiah's Tunnel, running under the walls of Jerusalem. Carved out in 701 BC, it is 553 meters long.

Caiaphas high priests (Luke 3:1-2). (This latter reference is to two high priests, because Annas, the legitimate high priest of the Jews, had been deposed by Rome and his non-legitimate son-in-law Caiaphas had been appointed in his place.) Luke talks about Gallio's being proconsul of Achaia (Acts 18:12-17). a fact proven by the discovery of a plaque naming him in that position — a plaque which I have read and translated. The amphitheater in Ephesus, largest in the ancient world, in which a riot occurred in Acts 19, is still there and still being used.

Precise Geographical References

The Bible's geography is precise. When we make new discoveries of Bible locations, we find them to be where the Bible says they are. Its descriptions are accurate. Its cultural references are on target. Its prophecies came to pass — all but those dealing with the end of time and eternity. One very surprising prophecy by Isaiah (Isaiah 44:28-45:14), names Cyrus, Persian ruler, as God's special instrument, long before this ruler's birth. Cyrus would free God's people from captivity and aid them in restoring their land and temple. This happened exactly as prophesied (Ezra 1:1-5). When the Bible talks about the valley of Elah, where David killed Goliath with a sling stone, this is a literal place. I have picked up smooth stones from the brook in that valley. When it talks about Mt. Gerizim or Mt. Ebal, Mt. Carmel, Mt. Gilboa, the Mount of Olives, the Sea of Galilee, the Dead Sea, Eilat (Elath) or a host of other places, those have all been confirmed.

Archaeology, Aid in Confirming the Bible's Authenticity

Archaeology is the science of researching antiquity by means of digging up, dating and verifying objects, buildings and cities. It has aspects that are physical, chemical, radiological, political, social and biblical. Archaeology confirms the Bible, demonstrating, by means of unearthed discoveries, that its affirmations are true and authentic. Its findings illustrate and illuminate the Bible. Referring again to Tamar, our team found many pagan idols crushed outside of the fortress's walls. These pieces were dated to the ninth or eighth century BC. King Josiah's destroying all of the idols in Israel and Judah fits well into that time frame.

In recent centuries, especially since the days of Charles Darwin, critics of the Bible have had a field day, dissecting the Word of God and denying the historical and geographic facts presented in it. Believers were categorized as ignorant. However, since archaeology came to the front as a reasonably exact science, it has frequently become Christianity's friend. The stones cried out (Luke 19:40) to testify about the authenticity of the Bible. Dr. Nelson Glueck, one of the recognized fathers of archaeology, wrote:

“... it may be stated categorically that no archeological discovery has ever controverted a Biblical reference” (Archaeology and the Bible Website).

“There can be no doubt that archaeology has confirmed the substantial historicity of Old Testament tradition” (*ibid.*)

But let's not just take his words for this. Let's look at some examples:

Archeological Proofs of the Bible's Accuracy

• ***Ancient evidences for Adam and Eve*** — From ancient Mesopotamia have come a number of cylinder seals and other objects that depict a couple standing on either side of a fruit-bearing tree. To the side is the figure of a serpent. This sounds like the story of Adam and Eve still lingered on into Sumerian and Chaldean memory (from Jackson 2008:12-13).

• ***The Nuzi Tablets*** — some 4,000 cuneiform tablets, written in Akkadian, the language of the earlier Chaldeans, were discovered in the city of Nuzi in modern Iraq, dated at around 1500-1400 BC. They probably originated sometime during the patriarchal period of the Bible. These describe many of the customs and situations found there which greatly resemble customs and situations described in the Bible.

• ***The Hittites***. For many years critics said the Bible was in error about the Hittite people, because they could find no traces of the Hittite history. In spite of having been mentioned more than 40 times in the Bible, many doubted that they had ever lived. Today there is abundant evidence for an advanced Hittite civilization that once vied with Assyria and Egypt for power in the ancient world. Their capital, Hattusa, has been unearthed. In its ruins archeologists have found thousands of manuscripts, legal codes, business documents and explanations about its lan-

Bible era artifacts



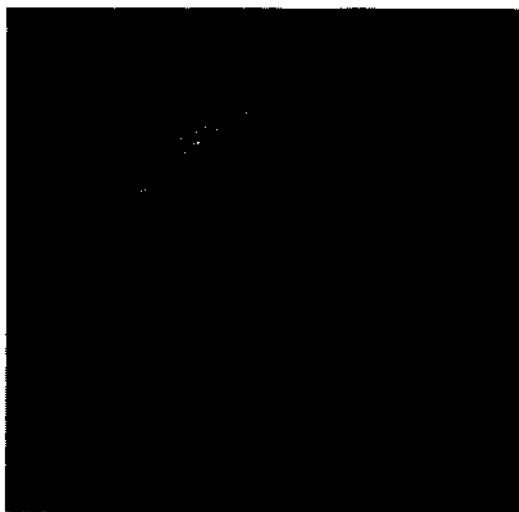
Behistun Stone, monumental carving and inscriptions by Darius, Persian ruler, boasting of all of his accomplishments.

guage. Like examples are the discovery of Ebla and Mari, capitals of other empires in the ancient Near East.

• **Verification of the riches and greatness of King Solomon.** In 1 Kings 9:26, 10:26, and chapters 7 and 8, we find extensive descriptions of the wonders of Solomon's architectural projects, wealth and power. Megiddo, one of his fortresses, has been unearthed. This amazing fortress includes barracks and a huge stable, exactly as written in Scripture about Solomon (1 Kings 9:15-19, 10:26). His seaport at Ezion-Geber on the Red Sea has been discovered. Other proofs of his existence are Tamar, which we have already described, and other localities which he built or fortified.

Bible era artifacts

The Rosetta Stone, discovered in Egypt in 1799. Written in hieroglyphics and later Egyptian Demotic script, along with classical Greek, it enabled scholars for the first time to decipher ancient Egyptian writing.



• **The existence of King Sargon** (Isaiah 20:1). According to critics of the Bible, this ruler never existed. However, archeologists have now discovered his great palace, some artifacts of which are on display in the University of Chicago. One of the pieces from his palace is a great bull weighing 40 tons. This is pretty heavy evidence that, indeed, Sargon lived and ruled, just as the Bible says.

• **The story of Belshazzar** (Daniel 5). Because secular history did not mention him by name, critics denounced the book of Daniel as a fabrication. Actually, history confirms that Nabonidas, fourth Babylonian ruler after Nebuchadnezzar, was the final king of that empire, when it fell to the Medes and Persians. "Aha!" said the critics, "Again the Bible is proved

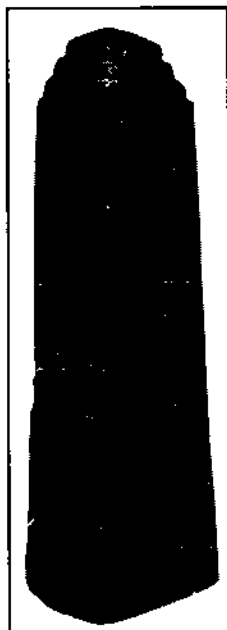
false." Then, in 1853, Sir Henry Rawlinson found a cylinder near the Euphrates River. It confirmed that Nabonidas and Belshazzar, father and son, were co-regents. Nabonidas preferred to conduct campaigns, research history, and meditate to ruling, so he left the government in the hands of his son Belshazzar, who made Daniel third ruler of the empire, easily explainable, if there were two rulers above him.

• **Herod's architecture.** Even though he was immoral, cruel and homicidal, Herod the Great was a prolific architect. I have visited the ruins of Caesarea and Masada. Both were monumental in design. His palace at Masada stair-stepped downward on a steep slope, looking like giant stepping stones. His palace at Jericho has been unearthed, as well as his Herodium. Some of the construction of his temple retaining walls in Jerusalem are still in place. The Wailing Wall is part of the Herodian construction. Finally, his tomb and what appears to be his sarcophagus have been discovered.

• **Census at the birth of Christ.** Luke was thought to be inaccurate regarding details surrounding the birth of Christ in Luke 2:1-3. The critics once argued that there was no census, Quirinius was governor of Syria at a later date, and that citizens did not have to return to their homelands for the census. However, archaeology has shown that the Romans did hold censuses every 14 years. It is now known that Quirinius was governor of Syria twice, once around 6 AD, but the other around 7 BC, which would correspond to the time of the census of Luke 2. Finally, a papyrus was found in Egypt which orders a Roman census and all people away from home to return there for the coming census.

• **Governorship of Pontius Pilate.** In 1962, two archaeologists dug up a Latin inscription in the town of Caesarea. It read, "Pontius Pilate, Prefect of Judea, has presented the Tiberium to the Caesareans."

The Black Obelisk is a tribute to King Shalmaneser III of Assyria. It depicts the glory of his victories over other lands and the tribute he received. This is the earliest known depiction of an Israelite, possibly King Jehu of Israel, who is bowing before Shalmaneser.



• *Other examples:* The Pool of Bethesda in Jerusalem has been identified. The ancient city of Salem, precursor of the later city of Jerusalem, is being unearthed. A tunnel shaft into the ancient city is being opened, even as I write this. Hezekiah's wall and aqueduct tunnel have been proven to be of his building, with a plaque honoring Hezekiah for constructing the tunnel. The Behistun Inscription, the Tel-el-Amarna letters, the Rosetta Stone, the Moabite stone, the Black Obelisk and other architectural discoveries attest to the language, people and events of the Bible. The Behistun Inscription, carved into a steep cliffside, reads:

"I am Dârayavauš the king, son of Vištâspa, of the Hakhâmanisiya-dynasty, king of kings. I am king in Pârša. My father is Vištâspa. Vištâspa's father is Aršâma, Aršâma's father was Ariyâramna, Ariyâramna's father was Cišpiš, and Cišpiš' father was Hakhâmaniš" (translated by archaeologist Henry Rawlins in 1835).

The Rosetta Stone is an Egyptian artifact which was instrumental in advancing understanding of hieroglyphic writing. The stone is a Ptolemaic era stele with carved text made up of three translations of a single passage: two in Egyptian language scripts (Hieroglyphic and Demotic) and one in classical Greek. It was created in 196 BC, discovered by the French in 1799 at Rosetta. Its discovery contributed greatly to the deciphering of the principles of hieroglyph writing, realized in 1822 by Thomas Young and Jean-François Champollion. Comparative translation of the stone assisted in understanding many previously undecipherable examples of hieroglyphic writing. The text on the stone is a decree from Ptolemy V, describing the repealing of various taxes and instructions to erect statues in temples (from Wikipedia).

In 930 BC Mesha, king of Moab, had this inscription made on a stone slab: In part it reads:

"I am Mesha, son of Kemoshmelek, the king of Moab, the Dibonite. My father was king over Moab for thirty years, and I became king after my father. And I made this high place for Kemosh in Qarhar ... because of the deliverance of Mesha, and because he has saved me from all the kings and because he caused me to see [my desire] upon all who hated me. Omri, king of Israel — he oppressed Moab many days, because Chemosh was angry with his land. And his son succeeded him, and he also said I will oppress Moab. In my day he spoke according to this word, but I saw my desire upon him and upon his house, and Israel utterly perished forever. Now Omri had possessed all the land of Medeba and dwelt in it his days and half the days of his son, forty years, but Chemosh restored it in my day" (Barton,

Archaeology and the Bible, Seventh Edition, p. 460-461).

The Tel-el-Amarna letters warn the Pharaoh about enemies on Egypt's frontier. The letters consist of a number of baked-clay tablets written in about 1350 BC. Amarna was a city up the Nile in Upper Egypt, where Pharaoh Akhenaton was headquartered. The letters are correspondence from city governors in Palestine, asking the Pharaoh at Amarna for military support against invaders, the Habiru, (a derisive term which meant the "dusty ones"), who were overrunning the Land of Canaan at the time of Joshua and the Israelite invasion of Canaan.

The Black Obelisk is a four-sided monument discovered in 1842. It is carved on all sides with figures and information about King Shalmaneser III of Assyria. One figure depicts either King Jehu of Israel, or one of his ministers, paying homage to Shalmaneser.

The Bible mentions many other figures from ancient times whose existence can be verified from historical and archeological records. For example, the Cushite ruler of Egypt, Tirhakah, is mentioned in 2 Kings 19:9, along with Sennacherib. A plaque from his reign boasts, "I have shut up Hezekiah [king of Judah] like a bird in a cage."

Conclusion

Many more examples could be cited, but perhaps these suffice to indicate the Bible's accuracy. When it speaks of an event, a place or a person, we can have confidence that these facts are true. Some have not yet been verified by outside sources, but when they are, these findings will again support what the Bible says.

If the Bible is accurate, we can trust it in all areas of consideration. Since we were not there during the creation of the world, and since God has not chosen to reveal the details, we cannot know exactly when and how it was created. However, we can know much about other scientific and historical matters through study of the biblical text. It is our task to come to understand and accept on faith what it says.

Jackson summarizes well the relationship between the Bible and Archeology.

"We are not dependent upon the findings of archeologists for our belief in God and His Word. It is encouraging to know that the spade has become a willing witness for the credibility of the Scriptures in this connection" (Jackson, *op.cit.*)

Further reading on God's hand in history — Isaiah 44:28, 45:1, Daniel 4:18-37, 5:18-28; John 19:11; Romans 13:1-7

Evidence 15

What we have learned

Introduction

This book has taught us that there is a potent alternative to evolution — a powerful Creative Intelligence behind all that exists. This alternative is becoming more and more acceptable among many scientists. Ross notes that, “since 1985 the evidences for a divinely caused and designed universe have been accumulating dramatically” (Ross 1994:128). For example, agnostic Robert Jastrow says about his fellow astronomers:

“Scaling the mountains of ignorance ... conquering the highest peak, ... pulling [themselves] over the final rock ... [to be] greeted by a band of theologians who have been sitting there for centuries” (cited in Ross 1994:128).

This being Charles Darwin’s 200th birthday year, the media is awash with eulogies over his genius and contributions to science. In most cases the flaws in Darwin’s theory of evolution are ignored or glossed over. It is still a theory, even though presented as fact, and, as science progresses, more and more weaknesses are found in it.

Darwin’s Theory Revisited

In this volume we have attempted to point out some of these flaws and weaknesses, while showing that God’s hand is seen in all of creation. Major assumptions of Darwin’s theory include:

- A tendency for animals and plants to reproduce far more than necessary to replace themselves. Without survival of only a few, each species would overwhelm the earth.

- The number of each species remains fairly stable, thus proving the above assumption.

- Since large numbers of offspring fail to reach maturity, there is a struggle for food and reproduction.

- There is an unlimited variability within species, with beneficial mutations occurring.

- Natural selection allows only the strongest and best (fittest) to survive.

- Since the environment constantly changes, the nature of the “fittest” also changes, in order to adapt.

- The process of change is extremely gradual. Darwin said that if it could be demonstrated that any organ could not have been formed by gradual and successive modification, his theory would break down.

On the first of these, many species reproduce only a limited number of offspring. As a general rule, this is true for all of the higher types of animal life.

On the second assumption, some species do not remain stable in numbers, either increasing beyond what their domain can support or diminishing in numbers.

On the third, there is a limit beyond which variability within a species cannot surpass genetically. In addition, as McDowell and Stewart point out, mutations are not beneficial, but rather, detrimental, to a species (McDowell and Stewart 1981:151).

The fittest may survive, but not always. A species may adapt its survival tactics to fit changing environments, but this is not always the case.

The supposed process of change from non-life to life and from the simplest microbes to elephants or humans, claimed to be extremely gradual, does not prove to be true, that they develop into the complex creatures that now inhabit the earth. Even if it were 4.6 billion years old, as many assert, is that sufficient time for basic protein combinations to appear? Asimov estimates 8×10^{27} different combinations of one protein, insulin (Asimov 1962:92). By his reckoning, it would take 10 billion times the supposed age of the entire universe for insulin to develop in all of its forms! No, there has not been nearly enough time, by any calculation, for life to form in an evolutionary manner.

To help correct this view, some evolutionists have come up with the idea of cataclysmic or spontaneous generation of life — that the first life came about from some kind of “cosmic big bang.” They don’t give God credit for it, but this is nearer to being right than Darwin was. The Cambrian Explosion is a case of multiplied numbers of species suddenly appearing in the Cambrian Period, complete and with no intermediate types to precede them. I have found no convincing arguments that explain this explosion from an evolutionary point of view.

Proofs for the Existence of God

First, we looked at false pictures of God and then at proofs of His existence and nature. We advanced six arguments on behalf of His existence and power:

• **Cosmological** — The “cosmos” exists and demands an explanation as to its origin and complexity. This argument says that the world did not begin by chance, nor did it develop by chance. There must be a Great Cause, more complex than the creation itself.

• **Teological** — The “teleos,” the entire universe, has both a design and functioning that go well beyond mere chance. Because of this, there must be a grand Designer behind it.

• **Rational** — The universe and our world function in an orderly way and according to natural law, which can be understood and researched.

• **Ontological** — We humans are able to perceive the idea of perfection; that is, God. From where did this perception come, since all races, historically, as well as current, seek after a higher power? Anthropological research has shown that we are incurably conscious of God (or of a god or gods).

• **Moral** — We have built within our psyches a sense of good and evil. No one can explain the existence of this sense, except through the influence of Someone who placed within us, from the very beginning, this impulse.

• **Biblical** — The Bible has been proved, over and over again, to be the Word of God. It affirms, throughout its pages, that God is, that He created all things, that He cares for all things and that He expects from His human creation a positive response to Him. If the Bible is true and accurate, then what it says about God must be accepted as true and accurate.

God's Hand in Creating the Universe

All of the universe, far more enormous than anyone can even imagine, is turning through space with a precise rhythm. All of the parts of this vast universe are connected with all of the other parts, according to a mathematic formula.

“The universe, our galaxy and our solar system exhibit more than 60 characteristics that require exquisite fine-tuning for their very existence ... The Entity (Creator) who brought the universe into existence must be ... personal, intelligent and powerful, for only a super-intelligent, super-powerful Person could design and manufacture what we see” (Ross 1994:197).

As for the world, its precise location in relation to the sun and moon, its precise turning on its axis and tilting, its gravitational pull and many other factors, some 60 in number, have had to function perfectly over its

history. Otherwise, there could be no life on this planet. It has just the right percentages of hydrogen, oxygen, nitrogen, carbon and other basic elements, again to sustain life. How did all of this come about, just from a chance mass of energy from an unexplained source, or from the mind and creative power of a Divine Intelligence?

God's Hand in the Physical World

In every aspect of the physical and living world, we see order and complexity. The cells that form all of life are tiny engines that drive that life. Each cell is a marvel of design and engineering. Using a metaphor here, miniature trains in a cell zip along miniature tracks, loading and unloading precious cargo. To make matters even more complicated for these trains, cells may have 20 different compartments. The trains must be coded for a particular compartment, with a corresponding code in that compartment to receive a particular shipment. It is something like a shipping dock filled with hundreds of large cargo containers. Each has to be programmed for a distinct destination.

Proteins by the thousands function to make life work. Each living creature has its DNA structure, unique to it alone, except in the case of identical twins in humans. Thousands upon thousands of DNA combinations are possible. And built within each species are barriers against mixing them genetically with other species.

Almost countless physical laws govern all that exists. For example, we understand the law of gravity and have proved it, often to our harm. We understand centrifugal force, which gives dizzying theme park rides their attraction. We know the damage that fire, wind and water do when unharnessed. We recognize thermodynamics (the conversion of heat into other forms of energy and the attendant loss of heat), entropy (the measure of disorder and loss of energy or structure in a system), the slow decay of all that exists, the speed of light and sound, and so many others.

In plant and animal life, we see the same phenomenon — vast variety and complexity. In many cases, species could not exist except by a symbiotic relationship with another species — flowers and honey bees, for instance.

God's Hand in the Human Body and Mind

We have found that the human body and mind are unique in many ways. The mind, for instance, can visualize, plan, imagine, create, weigh options, choose behavior and understand its consequences, discern

between good and bad, and sense the need for a higher power. No other creature can match our abilities in these regards, or, on the other hand, create such chaos.

There are a soul and a spirit, separate and apart from the body or the brain. These aspects of our being form the eternal dimension of our life, which extends beyond the merely physical. Our souls are capable of moral action and reflection — of thinking about and weighing the consequences of possible actions. Some try to get rid of the mind and consciousness by claiming that our minds are just mechanical computers or that they somehow emerged from non-living chemicals. Yet, we all know that our thinking, creative minds are still there.

God's Hand in Providing an Operating Manual

Our Creator, who gave us such amazing minds, did not leave us to fend for ourselves. He furnished us with an operating manual, called the Bible. It gives us clear instructions for how to function in every phase of our lives, in order to enjoy the greatest possible satisfaction out of life.

The Bible is the result of centuries of accumulated writings by prophets or scribes inspired by God, as indicated in 2 Peter 1:20-21:

“Above all, you must understand that no prophecy of Scripture came about by the prophet's own interpretation. For prophecy never had its origin in the will of man, but men spoke from God as they were carried along by the Holy Spirit.”

No other book has been preserved, scrutinized and utilized as has the Bible. No other book provides the kind of comfort and salvation that the Bible offers.

God's Hand in History, Geography and Archaeology

When the Bible speaks of an event, a place or a person, we can have confidence that these facts are true. Some have not yet been verified by outside sources, but when findings are made, they will again support what the Bible says.

If the Bible is truly God's revealed Word, we can trust it in all areas of consideration. Since we were not there during the creation of the world, and since God has not chosen to reveal to us the details, we cannot know exactly when and how it was created. However, we can know much about other scientific and historical matters through study of the biblical text. It is our task to come to understand and accept on faith what it says.

Wrap-up

Some readers of this text may conclude that I am anti-science. Nothing could be farther from the truth! New scientific breakthroughs fascinate me. My problem is over attempts by some scientists and some religionists to denounce the other side as lunatic. God gave us no end of His marvels to discover and analyze. He also gave us a heart that longs for Him. British politician and writer Edmund Burke once commented, "Man is by his constitution a religious animal." Both science and faith in God are essential to our very life here on earth. In his book, *Out of My Later Years*, Albert Einstein wrote, "Science without religion is lame, religion without science is blind" (*Dictionary of Quotations* 1989:473).

Werner Von Braun, a pioneer of space flight, said this about science and faith:

"I find it as difficult to understand a scientist who does not acknowledge the presence of a superior rationality behind the existence of the universe as it is to comprehend a theologian who would deny the advances of science" (from Utt 1971:6).

Televangelist Phil Sanders noted on the matter of scientists today who question evolution,

"... nothing in the small, random changes that evolution talks about could account for the complexity of the human spirit and [our] self-consciousness. That's because the theory of evolution is just a theory; and even if millions of people believe it, it is only a theory. Now, a theory is an explanation to a set of observations. The statement of the theory is generally accepted only in some tentative fashion as opposed to regarding it as having been conclusively established. This may indicate, as it does in the sciences, that the theory was arrived at using potentially faulty inferences rather than the necessary inferences used in mathematical proofs. While some have suggested that the theory of evolution is a settled matter of science, there is an increasing number of scientists who now question the theory. Because of the complexities of the Universe and the human body, many scientists now believe that this finely tuned Universe and our bodies are the product of intelligent design, not random chance. According to the Discovery Institute's Center for Science and Culture, more than 750 scientists have signed a letter disputing Darwin's theory. They said, 'We are skeptical of claims for the ability of random mutation and natural selection to account for the complexity of life. Careful examination ... of the evidence for the Darwinian theory should be encour-

aged.' ... these scientists are not ignorant people; they are not somebody who has not been trained in critical thinking; but they are respected, world class scholars who have earned doctoral degrees" (April 12, 2009, *Search for the Lord's Way* TV Program).

It is the sheer universality of perfection, the fact that everywhere we look, to whatever depth we look, we find an elegance and ingenuity of an absolutely transcendent quality, which so mitigates against the idea of chance. Alongside the level of ingenuity and complexity exhibited by the molecular machinery of life, even our most advanced artifacts appear clumsy. We feel humbled, as neolithic man would be in the presence of twentieth century technology. It would be an illusion to think that what we are aware of at present is any more than a fraction of the full extent of biological design. In practically all fields of fundamental biological research ever-increasing levels of design and complexity are being revealed at an ever-accelerating rate.

So here is our study. It has dealt with God's hand at work in all of creation, showing why the complexity of all things requires the involvement of Intelligence.

We have shown how scientific evidence increasingly conflicts with evolutionary theories. And we have shown that the theory of evolution is theory and not proven fact, and that it is a philosophy with religious implications. These, however, leave God out of the equation. This is the major source of conflict between those of us who believe in Divine Creation and those who believe in life coming by chance out of non-life.

I close with a quote from Sir William Bragg, Nobel Laureate in Science:

"From religion comes man's purpose; from science, his power to achieve it. Sometimes people ask if religion and science are opposed to one another. They are: in the sense that the thumb and fingers of my hand are opposed to one another. It is an opposition by means of which anything can be grasped."

My continuing prayer is that we have come to a greater appreciation of God's fingerprints on all that exists, giving Him the praise and honor that is due Him for His masterful creation and sustenance of all life. And, by the way, a greater appreciation for His giving us an operating manual that is never out of date, His Holy Word.

Appendix 1

The Legacy of Darwinism

Biologist and historian William Provine of Cornell University presented the five basic elements in the doctrine of Darwinism, during a debate about evolution. He noted that if Darwinism is true, we must accept five inescapable conclusions:

- There is no evidence for the existence of God.
- There is no life after death.
- There is no absolute foundation for right and wrong.
- There is no ultimate meaning for life.
- There is no such thing as free will.

What does all of this say about evolution's legacy, as launched by Darwin? First, if there is no God, then there are no definitive laws governing the universe or individual life. Second, if there is no life after death, then there is no real reason to hope for anything. Third, if there is no foundation for right and wrong, then we can determine our own behavior. On this basis, morality can only be based on conditions about us and our opinion at that moment. If there is no ultimate meaning for life, then we should "eat, drink and be merry, for tomorrow we die," to borrow a phrase from the ancient Greek Epicureans. Finally, if there is no such thing as free will, then we are all mechanical creatures obeying the laws of evolution. We are only animals higher up on the evolutionary ladder, but still animals. With our current epidemics of theft, deception, lying, extortion, sexual license, rape, abuse, the breakdown of marriage and the home, gang violence and murder, we appear to have already entered that "golden" age that is the true legacy of evolution.

Do evolutionists really subscribe to the above tenets? Here is what Harvard geneticist Richard Lewontin says:

"The problem is to get people to reject irrational and supernatural explanations of the world, the demons that exist only in their imaginations, and to accept a social and intellectual apparatus, Science, as the only begetter of truth" (Lewontin, *New York Review of Books*, 1997).

In answer, evolution critic Phillip E. Johnson writes that the philosophy of scientific naturalism teaches that "nature is all there is. It follows that nature had to do its own creating, and that the means of creation must not have included any role for God" (Johnson 1999: *The Wall Street Journal*).

Dembski (2004) listed five points at which evolutionists either dodge the matter or ignore it:

- Fossil record
- Natural selection
- Detecting design
- Molecular machines
- Testability

To show how evolutions often talk in circles, Dembski quotes Richard Dawkins, ardent British evolutionist:

“Evidence of evolution reveals a universe without design,” but then he says, “Biology is the study of complex things that give the appearance of having been designed for a purpose.”

What? He can't have it both ways. Either the universe was designed or it wasn't. If it was designed, that calls for a Designer, something Dawkins apparently avoids at all costs. In a speech March 28, 2009, at the University of Oklahoma, Dawkins ridiculed God as a manipulative control freak.” Interesting. If he rejects the very existence of God, how can God be a control freak?

Strobel sums up the consequences of following the lead of evolution in these words:

“As more and more young people are taught the [non-ironclad] evidence for evolution, as they understand the impossibility of miracles, as they see how science is on the path to ultimately explaining everything in the universe, then belief in an invisible God, in angels and demons, in a long-ago rabbi who walked on water and multiplied fish and bread and returned from the dead, will fade into a fringe superstition ... ” (Strobel 2004:16).

Is this what we want? Shall we follow an intelligent God, Creator of all things and to Whom we must give account, or shall we follow blind nature? Jesus warns us, “*If a blind man leads a blind man, they both shall fall into a pit*” (Matthew 15:14). If blind, unfeeling nature leads us down the Darwinian path, both it and we will fall into a pit of our own digging.

To illustrate what happens when God is removed from the public arena and schools, note the following figures: In 1962 the Supreme Court prohibited the saying of a simple prayer in public schools. In 1963 it banned Bible teaching in public schools. In 1980 it ordered that copies of the Ten Commandments be removed from student view. Results? Since the 1960s SAT scores have dropped 10 percent, teen suicides, up 450 per-

cent, Child abuse, up 2,300 percent, use of illegal drugs, up 6,000 percent, criminal arrest of teens, up 150 percent, divorce, up 350 percent and births to unwed girls, up 500 percent. (These figures provided by College Entrance Exam Board, National Center for Health, U.S. Department of Health and Human Services, U.S. Bureau of the Census, U.S. Department of Commerce and Statistical Abstract of the United States.) This speaks volumes about human life without God and its inevitable consequences.

Appendix 2

Bradley's List of Requirements for Life to Exist on Earth

Dr. Walter Bradley, distinguished professor of engineering at Baylor University, has compiled the following essential factors for life to exist on earth:

- Order to provide the stable environment that is conducive to the development of life, but with just enough chaotic behavior to provide a driving force for change.

- Sufficient chemical stability and elemental diversity to build the complex molecules necessary for essential life functions: processing energy, storing information, and replicating. A universe of just hydrogen and helium will not “work.”

- Predictability in chemical reactions, allowing compounds to form from the various elements.

- A “universal connector,” an element that is essential for the molecules of life. It must have the chemical property that permits it to react readily with almost all other elements, forming bonds that are stable, but not too stable, so disassembly is also possible. Carbon is the only element in our periodic chart that satisfies this requirement.

- A “universal solvent” in which the chemistry of life can unfold. Since chemical reactions are too slow in the solid state, and complex life would not likely be sustained as a gas, there is a need for a liquid element or compound that readily dissolves both the reactants and the reaction products essential to living systems: namely, a liquid with the properties of water.

- A stable source of energy to sustain living systems in which there must be photons from the sun with sufficient energy to drive organic,

chemical reactions, but not so energetic as to destroy organic molecules (as in the case of highly energetic ultraviolet radiation).

- A means of transporting the energy from the source (like our sun) to the place where chemical reactions occur in the solvent (like water on Earth) must be available. In the process, there must be minimal losses in transmission if the energy is to be utilized efficiently.

- A planet or moon that is terrestrial — or, solid rather than gaseous;

- A temperature range suitable to maintain the universal solvent as a liquid rather than a solid or gas;

- Just the right concentration of heavy (radioactive) elements to heat the core of the planet and provide the necessary energy to drive plate tectonics, to build up land mass in what would otherwise be a smooth, round planet completely covered with solvent;

- Just the right amount of solvent (carefully coupled to the plate tectonics activity) to provide a planet with similar proportions of its surfaces as oceans and land mass;

- Just the right protection from the destructive forces in nature such as radiation and asteroids over a reasonable amount of time; and

- Just the right stabilized axis tilt and angular velocity to give moderate, regular, and predictable seasons and moderate temperature fluctuations from day to night.

His conclusion about all of this so-very-intricate interplay of forces that make life possible is:

“The design requirements for our universe are like a chain of 1000 links. If any link breaks, we do not have a less optimal universe for life — we have a universe incapable of sustaining life! The evidence I have presented is daunting, but still short of “proof.”

I must conclude that it takes a great deal more faith to believe in an accidental universe than to believe in an intelligent creator, or God who crafted such a marvelous universe and beautiful place of habitation in planet Earth, and then created life (including human beings) to occupy it.

Appendix 3

Classification of Plants and Animals

There is considerable confusion, even among scientists, over how to classify all of life. If they are confused, imagine the confusion the rest of

us feel. Scientists are free to admit that there is no universally valid definition of the word species. If they do not agree on classifications, how can we? However, confused or not, we will try to present the classification, or taxonomy, of all living things. My colleague Russell Sharp, a biologist, came to my rescue with this set of descriptions:

- kingdom — animal, vegetable (plant life) and mineral, with another composed of difficult-to-classify living creatures.

Actually, the biological realm of nature (i.e., living things) is divided into just Kingdom Animalae (hence the Animal Kingdom), and Kingdom Plantae (hence the Plant Kingdom). If I remember right, at least part of the difficulty lies with sub-cellular bodies, such as viruses, with some evidence of DNA-like chemicals, but no defined nucleus. Viruses, for example, exist as “parasites” in a way, multiplying only when they inhabit and “feed” off of cells. I stumbled onto the following link on the Internet, mentioning the fact that many people have sought to explain things like fungi and other biological substances by defining 6 to 8 “kingdoms”, as opposed to staying with the longstanding Plant-or-Animal way of defining life. (<http://www.midvalemiddleschool.com/teachers/grunander/ExploringLife.html>)

It also mentions some of the further defining characteristics of all living things:

Organization

Ability to respond to environment

Ability to take in and use energy

Ability to grow and develop

Ability to reproduce

- **Categories of living creatures.** These are: **1. Monera** [10,000 species]: Unicellular and colonial — including the true bacteria (eubacteria) and cyanobacteria (blue-green algae). **2. Protista** (Protoctista) [250,000 species]: Unicellular protozoans and unicellular & multicellular (macroscopic) algae with 9 + 2 cilia and flagella (called undulipodia). **3. Fungi** [100,000 species]: Haploid and dikaryotic (binucleate) cells, multicellular, generally heterotrophic, without cilia and eukaryotic (9 + 2) flagella (undulipodia). **4. Plantae** [250,000 species]: Haplo-diploid life cycles, mostly autotrophic, retaining embryo within female sex organ on parent plant. **5. Animalia** [1,000,000 species]: Multicellular animals, without cell walls and without photosynthetic pigments, forming diploid blastula (Armstrong, W.P. 2007 “Brodiaea Taxa Listed For Southern California.” Available at waynesword.palomar.edu/vernal13.htm).

- **phylum** — the principle divisions of the animal kingdom, such as vertebrates, invertebrates, coelenterates, crustaceans, fish, insects

Here again, back when I was studying science, animal life was only divided into vertebrate or invertebrate. (Either it has a backbone or it doesn't.)

- **class** — a group of plants or animals having a common basic structure.

- **order** — a group of related plants and animals ranking above a family and below a class.

- **family** — below order and containing at least two genera. Example — the cat family, composed of from house cats to lions, tigers, leopards, cheetahs, lynx. jaguars, cougars, etc.

- **genus** (plural, genera) — a classification of plants and animals with common distinguishing characteristics. The main subdivision of a family. It is composed of a group of closely related species.

- **species** — the fundamental division of plants or animals that have a high similarity. They can interbreed normally only among themselves and show significant differences from related species. The dog is one species.

- **sub-species** — the variety of different types within a species. For example, the countless kinds of dogs are sub-species of the dog species.

Another matter is the fact that, when I was in college, microbiology was considered a specific subset of the science of biology, with the understanding that characteristics are found in microorganisms which cannot be accurately described or addressed using the same terminology found in a general biology textbook. It seems to me that, in their thirst to prove something they already believe, the evolutionary theorists are “retro-fitting” the unique characteristics of microorganisms — and terminology in the study of them — into the study of larger living things.

This should raise the proverbial “red flag” in the minds of God-fearing scientists, but it seems to have escaped notice — especially when the arguments are not made by people with the proper scientific background to speak with authority on the subject (people who have spoken publicly against the theory of evolution without making sure there are not fundamental flaws in their own reasoning).

In the discussion and advocacy of the theory of evolution, there is a definite abandonment of the steps of the Scientific Method:

- Ask a question.
- Do background research.

- Construct a hypothesis.
- Test the hypothesis with an experiment.
- Analyze results.
- Draw a conclusion based on those results.
 - If a hypothesis is true (proven), report the results. If a hypothesis is false (not consistent with results) or partially true, modify the hypothesis and go back to step 4. (This is an iterative process until either the modified hypothesis is proved to be true, or no more changes can be dreamed up.)

Appendix 4

Statements of our Founding Fathers Regarding Faith in God

These are a few of the many statements by our Founding Fathers regarding the place of God and Christianity in our public and private lives:

“We have no government armed with power capable of contending with human passions unbridled by morality and religion. Avarice, ambition, revenge, or gallantry, would break the strongest cords of our Constitution as a whale goes through a net. Our Constitution was made only for a moral and religious people. It is wholly inadequate to the government of any other” (John Adams, October 11, 1798).

“Without morals a republic cannot subsist any length of time; they therefore who are decrying the Christian religion, whose morality is so sublime and pure ... are undermining the solid foundation of morals, the best security for the duration of free governments” (Charles Carroll, signer of the Declaration of Independence, to James McHenry, November 4, 1800).

“God governs in the affairs of man. And if a sparrow cannot fall to the ground without his notice, is it probable that an empire can rise without His aid? We have been assured in the Sacred Writings that except the Lord build the house, they labor in vain that build it. I firmly believe this. I also believe that, without His concurring aid, we shall succeed in this political building no better than the builders of Babel” (Benjamin Franklin, Constitutional Convention of 1787).

“For my own part, I sincerely esteem it [the Constitution] a system which without the finger of God, never could have been suggested and agreed upon by such a diversity of interests.” (Alexander Hamilton, 1787).

“It cannot be emphasized too clearly and too often that this nation was

founded, not by religionists, but by Christians; not on religion, but on the gospel of Jesus Christ. For this very reason, peoples of other faiths have been afforded asylum, prosperity, and freedom of worship here” (Patrick Henry, May 1765, Speech to the House of Burgesses).

“God who gave us life gave us liberty. And can the liberties of a nation be thought secure when we have removed their only firm basis, a conviction in the minds of the people that these liberties are a gift from God? That they are not to be violated but with His wrath? Indeed I tremble for my country when I reflect that God is just, and that His justice cannot sleep forever.” (Thomas Jefferson, 1781, *Jefferson Writings*, Vol. IV, p. 289).

“We have staked the whole future of American civilization, not upon the power of government, far from it. We’ve staked the future of all our political institutions upon our capacity ... to sustain ourselves according to the Ten Commandments of God” (James Madison, 1778 to the General Assembly of the State of Virginia).

“It has been the error of the schools to teach astronomy, and all the other sciences, and subjects of natural philosophy, as accomplishments only; whereas they should be taught theologically, or with reference to the Being who is the author of them: for all the principles of science are of divine origin. Man cannot make, or invent, or contrive principles: he can only discover them; and he ought to look through the discovery to the Author” (Thomas Paine, *The Existence of God*, 1810).

“...reason and experience both forbid us to expect, that national morality can prevail in exclusion of religious principle ...” (George Washington).

“Although guided by our excellent Constitution in the discharge of official duties, and actuated, through the whole course of my public life, solely by a wish to promote the best interests of our country; yet, without the beneficial interposition of the Supreme Ruler of the Universe, we could not have reached the distinguished situation which we have attained with such unprecedented rapidity. To HIM, therefore, should we bow with gratitude and reverence, and endeavor to merit a continuance of HIS special favors”. (George Washington, 1797, letter to John Adams).

“Our laws and our institutions must necessarily be based upon the teachings of the Redeemer of Mankind. It is impossible that it should be otherwise; and in this sense and to this extent, our civilization and our institutions are emphatically Christian” (US. Supreme Court, 1892).

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