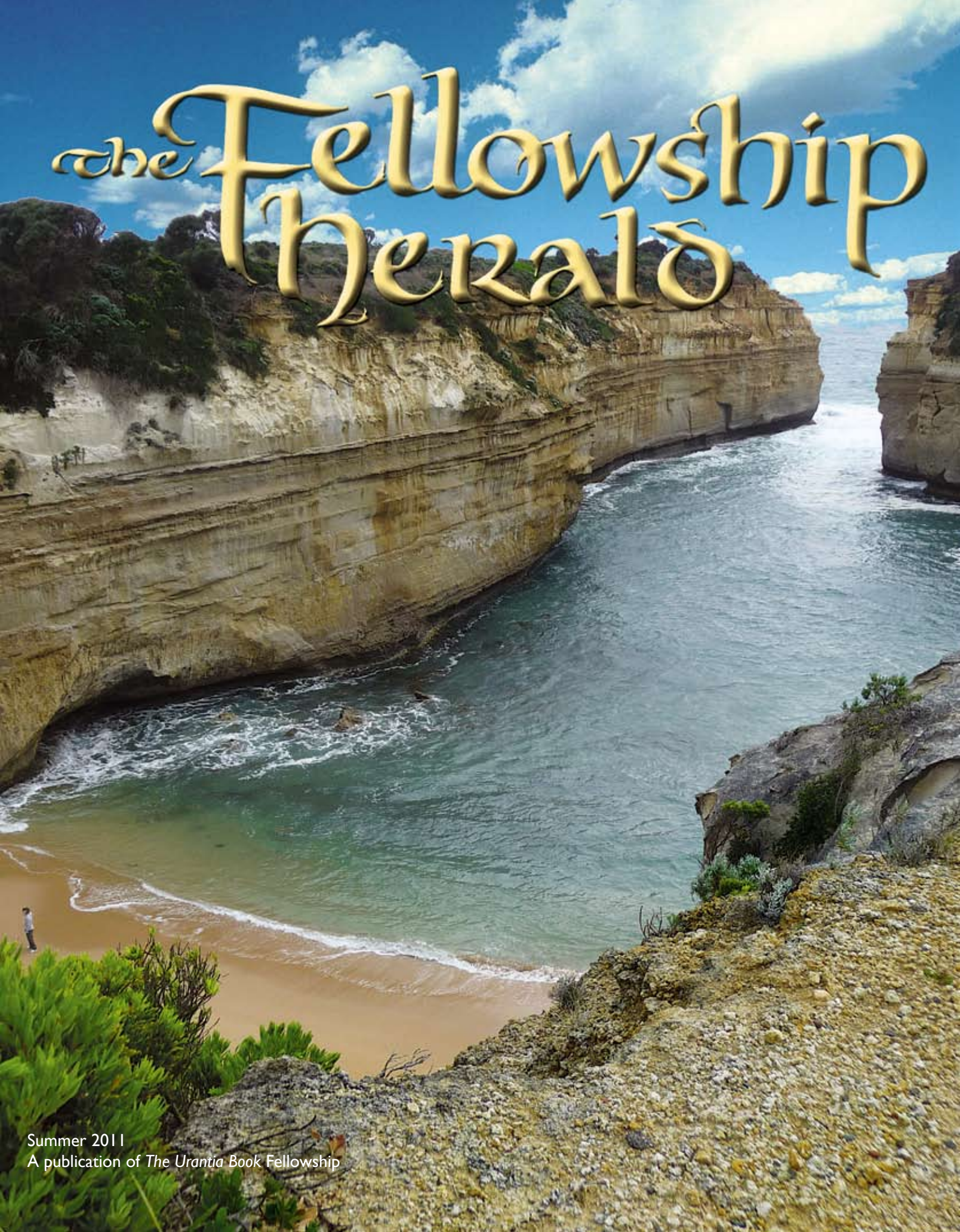

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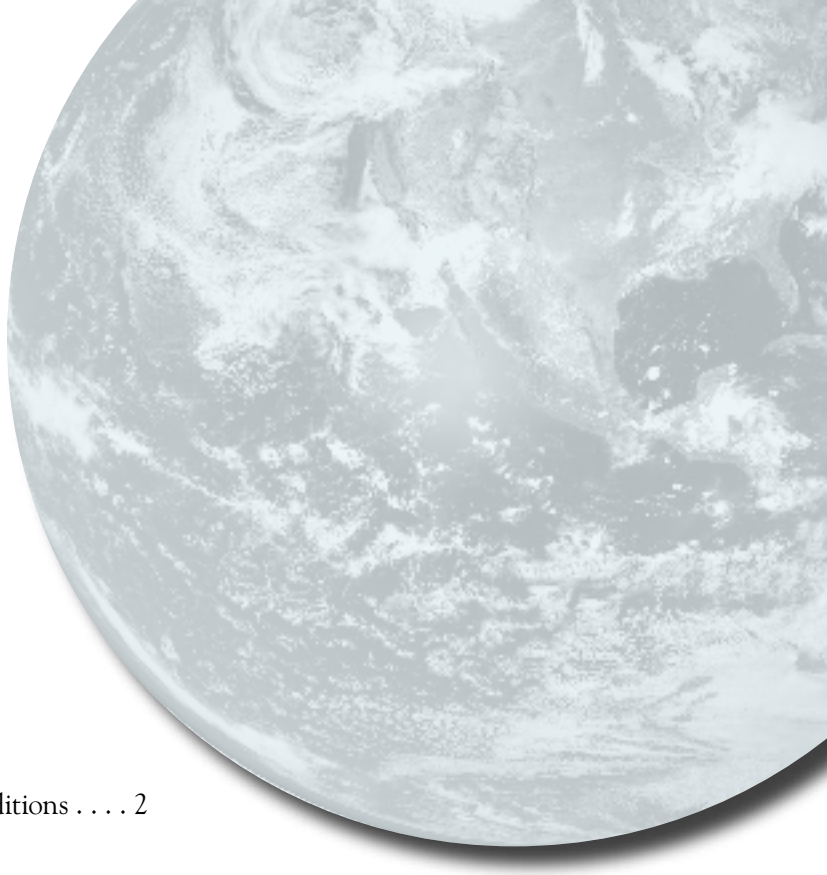

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THE URANTIA BOOK
FELLOWSHIP
Cultivating The Spirit of Religion

The First Epochal Revelation In American Indian Traditions

By Dave Holt, Concord, CA

While statements with reference to cosmology are never inspired, such revelations are of immense value in that they at least transiently clarify knowledge by: … the restoration of important bits of lost knowledge concerning epochal transactions in the distant past… [101:4.5] (PP. 1109-10)

It soon becomes evident in our reading that one intention of *The Urantia Book* is to restore and reconnect the peoples of Earth to their lost history. The book's authors tell us, "*in formulating* [*The Urantia Book*] *we shall in all our efforts to reveal truth,*" have a second purpose, to "*coordinate essential knowledge*" [0:Ack.1] (P. 16) One of the ways this coordination is achieved is the presentation of an organized system of five epochal revelations (in order): Dalamatia, the Garden of Eden, Melchizedek, Jesus, and lastly, *The Urantia Book* itself. Let us also define cosmology as an explanation of the relationship of human beings to the rest of the universe, a story closely tied to religious beliefs.

How are the "epochal transactions" mentioned above related to this term epochal revelation, also unique to *The Urantia Book?* What is meant, I believe, is that the five events are turning points in history, historical epochs when a new revealed idea is received, one that transforms and uplifts the course of human civilization. The knowledge given in epochal revelations has more significance and power than the revelations of our human prophets.

Let us focus our attention on Paper 67 where we get a new perspective on an important bit of the "lost knowledge" the book considers "essential."

The problems associated with human existence on Urantia are impossible of understanding without a knowledge of the occurrence and the consequences of the planetary rebellion. [67:0] (P. 754)

I want to examine here the effects of the Lucifer Rebellion on the early human races who received the first epochal revelation given to our primitive planet in the era of the Planetary Prince. The Dalamatia teachings were terminated prematurely by the rebellion. Finally, I will consider how this restored knowledge affects societies, human insights, and moral decisions of today.

The reign of the Planetary Prince of Urantia began concurrently with the origin of the colored races 500,000 years ago. This is another *Urantia Book* story missing from our history books and unknown from any other source—the arrival of the Sangik children, the original six colored races: red, orange, yellow, green, blue, and indigo. These six races had their origin in the "highlands of western India," at about the time of the Prince's arrival. The race that preceded their sudden emergence, the Andonites, already carried melanin as do "*all human beings*." [63:4.1] (P. 713) It is derived from an amino acid and produced by skin cells called melanocytes, whereas in the viewpoint expressed in The Urantia Book, the tendency to different colors was based on something less generalized and more particular, a latent genetic trait inherent in the human biology of the inhabited worlds.

Urantia is the first world in Satania where the six colored races sprang from the same human family. They ordinarily arise in diversified strains from independent mutations within the prehuman animal stock, and usually appear on earth one at a time … beginning with the red man…" [65:4.7] (P. 735) *However, "the simultaneous emergence of all six races on Urantia, and in one family, was most unusual.* [63:6.1] (P. 712)

All of this "lost knowledge" completely differs from the Bible's version of human origins in Genesis 3:20, where Eve is "the mother of all human beings everywhere." The Urantia Book account thus seeks to clarify that the first colored races were not the children of Adam and Eve. This is significant for American Indian people who "know" intuitively that their origins are different. The era of the Adamites, Mother Eve's people, began much later, in 37,000 BCE, following the arrival of the biologic uplifters, Adam and Eve, described in *The Urantia Book* as a Material Son and Daughter.

Early Teachings of the Prince "Before the Fall"

To regain more knowledge of the rebellion, *The Urantia Book* leads us back through the deep mists of time until we arrive in Dalamatia, the city of the Planetary Prince. This site became the Dilmun of our ancient history. [77:4.8] (P. 860) The "Prince of this world,"[1] that Jesus referred to in the gospels, is known in *The Urantia Book* by the name, Caligastia. He is a Lanonandek son, born of the Creator Son and the Universe Mother Spirit.

This city of the Arabo-Persian Gulf basin, now sub-

merged, was situated somewhere near present-day Bahrain. The discovery in recent years of settlements, permanent stone houses, pottery, boats, and domesticated animals along the shores of the Gulf now suggests cities existing as far back as 7,500 years ago.[2] Our archaeological understanding continues to expand, and hopefully our diggings will someday reach the deep ancient levels associated with Dalamatia.

The "Dalamatian teachings," [92:4.5] (P. 1007) the first epochal revelation of truth, were dispensed on Earth 500,000 years ago during the fifth glacial advance, one less extensive than the previous four ice ages. Warm conditions again prevailed in the "Mesopotamian" region, a climate conducive to the Dalamatian project of encouraging the evolution of primitive humanity "from a hunter to a herder." The result hoped for was that "man" would "*evolve into a peace-loving, home abiding farmer.*" [66:3.2] (P. 743)

The red race was one of the three primary Sangik peoples, from among the six colored races, who lived in this Mesopotamian region, and received training during Prince Caligastia's regime. The orange race also "*profited much from the schools of the Prince and sent delegates there for instruction.*" [64:6.10] (P. 724)

There are four surviving groups of the six Sangik races on Urantia today: red, yellow, blue (now blended with the violet and other races to emerge as today's white race), and one secondary Sangik race, the indigo (black). Some traces of the orange and the green races (unknown in our history) still exist in India, and remnants of a blended orange, blue, and red race still inhabit Central and South America.

Our anthropologists and archaeologists have gathered a large body of fossil evidence since the Bible was first printed, and it confirms that a great variety of human types existed for long ages on Earth. Some lived long before the traditional time assigned to the Garden of Eden which, once we reject the discredited date of 4,004 BCE, a liberal, albeit Christian, scientist might date to 40,000 years ago (as some do). One difficulty posed for Christian tradition by *The Urantia Book* is how definitively it comes down in favor of an evolutionary origin of humankind.

Readers will also be interested in how *The Urantia Book* version correlates with the book of Genesis and other human sources, where the dis-fellowshipped staff began the project of procreation with the men and women of the evolutionary races.[3] The scientists studying human evolution have arrived at one consensus that modern man came into existence about 200,000 years ago. Is it a coincidence that this date matches *The Urantia Book*'s date of the outbreak of the Planetary Rebellion, and the beginnings of the Nodite race, who later emerged as the Sumerians of our known history? Evolution of the races is modified in *The Urantia Book* by occurrences of "divine intervention," but they don't fit with the strict creationist concepts of the Bible.

The Prince's staff of one hundred was organized into ten councils (commissions, colleges) of ten members each.

Each of the ten planetary commissions set about slowly and naturally to advance the interests intrusted to them. Their plan consisted in the attracting the best minds of the surrounding tribes, and, after training them, sending them back to their people as emissaries of social uplift. [66:6.4] (P. 749)

Our modern generations saw this non-missionary approach presented in Star Trek TV episodes where it was called "the prime directive." The red and blue races were chosen early on to be educated in the Dalamatian program. One of the "commissions," the college of revealed religion, offered the students a curriculum of four components: 1) the seven chants of worship, 2) the daily praise-phrase, 3) the moral law known as the Father's Way (the Seven Commands), and eventually 4) the Father's prayer, in which "*the coming of the promised uplifter, the Adamic gift of a new race*," was revealed. [66:5.13-15] (P. 747)

Among the later students trained in Mesopotamia for work with their respective races were…representatives of the red men and the blue men…Hap presented the early races with a moral law. This code was known as "The Father's Way." [66:7.7-8] (P. 751)

The encounter with the Planetary Prince would turn out to be the red race's first and only contact with what *The Urantia Book* calls an epochal revelation. Some tribes, especially the "Grandfather tribes," have preserved lore of the Original Instructions, or the Seven Laws, which, I believe, likely refers to the religious teachings of the Prince's staff.

Of all who received the teachings of the one hundred, the red men held them longest. [92:4.5] (P. 1007)

Because of this statement, the residual traditions of Native Americans, now less red Sangik and more of a blended race, hold more significance for students of the unique history presented in *The Urantia Book*.

What had the "Caligastia One Hundred" said about their own origins to the Sangik students? American Indian teachings are often intermixed with references to those they call, "the Star People," or to groups known as "the Star Nations." In the Lakota tradition, the supernatural hero-being who gave them the Original Teachings, is named Fallen Star.

Instruction in Dalamatia was abruptly aborted by the onset of the Lucifer rebellion that ensnared Caligastia and Urantia, the world he ruled. His staff was split in their al-

legiances. Sixty members of the group of one hundred stayed loyal to the Planetary Prince, while forty of them became followers of Van and Amadon, professing their continuing loyalty to the Universal Father and his Son.

The Planetary Rebellion

Let us review how *The Urantia Book* authors frame Paper 67: the "*problems associated with human existence on Urantia are impossible of understanding without a knowledge of the occurrence and the consequences of the planetary rebellion*." [67:0] (P. 754) For a planet that has almost completely forgotten the paltry remaining knowledge of the rebellion, this statement admonishing us to understand it better comes as a shock.

For 300,000 years, all seemed to be going well. Then about 200,000 years before the present, Caligastia endorsed the Manifesto and the "Declaration of Liberty," of his superior, Lucifer, the system ruler. Helpless Urantia, along with thirty-six other worlds in our system of Satania, was drawn into the rebellion. [53:7.1] (P. 607) These evolutionary worlds were immediately cut off from the universe broadcasts.

We are told that, "*at the outbreak of the rebellion, Dalamatia had a resident population of almost six thousand. This number includes the regular students*." [66:7.20] (P. 752) The red race, along with the six thousand citizens and visitors usually numbering up to an additional one thousand, witnessed the visible outer effects of the war in heaven. I wonder if perhaps not much could actually be seen and understood. However, they did experience the default of the Caligastia program of upliftment. They grieved the defection of their "extraplanetary teachers." Eventually, they would have learned of the city's loss of the tree of life.

Recall that the groups being trained in the Prince's program were Andonites, mostly primary Sangiks, red, blue and yellow, along with some of the orange race who were present. Very little is said about the response of these early humans to the outbreak of rebellion among their marvelous teachers. At the beginning of the conflict, loyalists led by Van and Amadon moved out of the city of the Prince to "*an unwalled and poorly protected settlement a few miles to the east of Dalamatia,*" taking with them the tree of life. [67:3.4] (P. 756)

The *entire* "college of revealed religion" followed Van and Amadon, whereas only some members of the other councils stayed loyal. We could attribute this result to the Lucifer Manifesto's first war cry of the rebellion, "the Universal Father did not really exist." It must have been a repugnant doctrine for those of the Prince's staff immersed in the religious traditions and committed to the revelations of the universe. Today we still deal with this heritage, the persistent teachings of atheism and assertion of the self first birthed at this time in Earth's history.

The Aftermath of Rebellion

The Urantia Book's concentration on the war between "superhuman personalities" tends to eclipse the effect it had on the students caught up in the whirlwind. Four pages into *The Urantia Book* story, we read that the Caligastia rebels found it "*easy to win the support of the primitive-minded evolutionary mortals*." [67:4.6] (P. 758) However the support was short lived. Before long, "the misled and mistaught tribes" swept down on the Prince's city and drove the remaining staff and their associates northward where they settled in the "land of Nod." The primitive humans who invaded Dalamatia converted the Father's temple into a shrine dedicated to Nog, the false god of light and fire. I can imagine some idea of this evil apparition, by recalling to my mind the Balrog of Tolkien's *The Lord of the Rings*.

With dismay, we view this picture of the world's races in disarray, set adrift in an allegedly ungoverned cosmos. After the rebellion of her high sons, midwayers, and angels, the central locus of a world culture with its teachings of peace, good will, and cooperation among diverse peoples collapsed. Dalamatia was overrun by those who had not yet completely learned how to substitute ideals of peaceful co-existence for natural aggression. This was a new unrestrained freedom never before promulgated by the respected leaders of the Caligastia One Hundred. Savage emotions were unleashed by the premature teachings of liberty. Rebellion was fueled by the Lucifer doctrine of "self-assertion" and "personal liberty." The world's capital was shortly abandoned. Meanwhile, Van and his followers moved their headquarters an even greater distance from the scene of carnage and withdrew to the highlands west of India.

With the loss of heroic superhuman direction, what were the student delegates to do? What message would they carry back to the tribes and families at home? We don't have many details of this prehistoric era, but some aspects of a regime of peaceful coexistence were achieved during the first 300,000 years. Within a one hundred mile perimeter of the city, some farms had succeeded beyond the forty-foot walls of Dalamatia. There were mostly animal husbandry projects underway. We can be certain that with the eruption of rebellion, these communities could no longer depend on former protections. Some may have held on for a while. Most fled to safety. One hundred and sixty-two years after this great spiritual battle, the land on which Dalamatia stood sank beneath the sea.

Not surprisingly, after the fall of the Planetary Prince, and the resulting isolation of Urantia, warfare raged between the yellow and the red races. Presumably, during the long lasting period of warmer climate we call the Eemian Interglacial (130,000 to 110,000 years before the present),[4] both Sangik groups pushed northeastward as the ice retreated. This may be when the red Sangiks first gathered and wove their great storytelling skills. As they traveled, tales of the Prince and the wondrous city that was submerged by a tidal wave were told and retold.

Over the next 20,000 years during the Eemian, forests expanded, extending their reach into the lands above the Arctic Circle. The yellow Sangiks followed the red race into Siberia, as they battled each other in a competitive struggle for the same resources and territory. No one was studying to be a farmer any more. They chased each other across the tundra—nomadic hunting being a natural adaptation, a way to survive the rough and tough environment of conflict and raids. When not hunting each other, they hunted wooly rhinoceros, reindeer, and wild horses.

Warfare with the yellow race and continued migrations eastward ultimately led to the forced departure of a group of Sangik peoples across the Bering Strait land bridge. They were headed into the unknown, the uninhabited Americas, a group mostly made up of the eleven tribes of the red race, a little over seven thousand men, women, and children. But the brave pioneers included "*three small groups of mixed ancestry, the largest of these being a combination of the orange and blue races.…One hundred thousand years ago the decimated tribes of the red race were fighting with their backs to the retreating ice of the last glacier, and when the land passage to the west, over the Bering isthmus, became passable, these tribes were not slow in forsaking the inhospitable shores of the Asiatic continent.*" [64:7.5] (P. 727)

Some Native American oral histories preserve a memory of the Sangik races. The Hopi of Arizona, for example, remember four races that were sent out to the four directions, each one appointed to a different task of guardianship by the Great Spirit. This native lore is in agreement with *The Urantia Book* teaching that two of the original Sangik races, the green and the orange, had died out by 100,000 years ago.

Of the four colored races, remembered by American Indians today as red, yellow, black, and white, it was prophesied that they would, one day in the future, come together again to live as a united people. The four are commemorated in the Pan-Indian teaching of the four-spoked medicine wheel, a widespread and universally recognized symbol.

The Teachings That Are Remembered: The Original Instructions

Many of the tribes remember the seven Original Instructions. They are known alternatively as teachings, sacred instructions, laws, gifts, etc. Native American oral histories tell of, "the Original Instructions—love, honor, and respect for all beings in the circle of life." Darcy Rheault, Native Spirituality student and writer (Ojibwe of Ontario, Canada,) goes on to say, "It is taught that the Anishinaabeg were given Seven Gifts from the Seven Grandfathers of the Star World. These Seven Gifts are wisdom, love, respect, bravery, honesty, humility and truth."[5] Because of the migration out of Asia, the American Indian would not come into contact with the later Mosaic tradition of the Ten Commandments, but we see some overlap of the Prince's commands with the ten that were "revealed" to Moses.

Naturally I felt that a comparison to the religious teachings of Dalamatia should be a major topic of my research into American Indian history. I sifted and pondered the traditions of the Original Instructions and how they correlated with the Seven Commands of the first epochal revelation. First, here is the form in which the Seven Commands are given in *The Urantia Book*. This list is followed with three examples of how they are given in Ojibwe (Treaty One, Anishinaabe), Nez Perce (Chief Joseph), and Cherokee (Rolling Thunder). I have marked some of the places where there is a correspondence with the examples from the three tribes:

Law of Dalamatia (*Urantia Book* with my correspondences inserted):

1. You shall not fear nor serve any God but the Father of all. (Ojibway, LOVE #1)
2. You shall not disobey the Father's Son, the world's ruler, nor show disrespect to his superhuman associ ates. (Ojibway, COURAGE #3), (Cherokee, RESPECT #1)
3. You shall not speak a lie when called before the judges of the people. (Ojibway, HONESTY #4) (Nez Perce, #3) and (Cherokee, #6)
4. You shall not kill men, women, or children. (Ojibway, #5)
5. You shall not steal your neighbor's goods or cattle. (Nez Perce, #5)
6. You shall not touch your friend's wife. (Ibid)
7. You shall not show disrespect to your parents or to the elders of the tribe. (Ojibway, HUMILITY & RESPECT #6 and #2), (Cherokee, #1).

"*This was the law of Dalamatia for almost three hun-*

dred thousand years. And many of the stones on which this law was inscribed now lie beneath the waters off the shores of Mesopotamia and Persia." [66:7.9-16] (P. 751)

Sometimes the seven laws appear in American Indian oral traditions as simply a list of ideals to which one should aspire. What remains of the Original Instructions today also sometimes has a similar ring to the law of Dalamatia, more "Mosaic" in tone, like the Ten Commandments given much later in the Sinai desert and derived from the later teachings of Melchizedek. To this day, two hundred thousand years after the Planetary Prince's regime was ended, the Ojibwe and other tribes maintain the ancient tradition of the seven commandments, the Original Instructions.

Here are some typical statements of the seven teachings as they appear in three traditions. There are many examples among the Ojibwe, sometimes presented in a different order, as for example at Eagle Lake First Nation in Ontario, or in Mr. Rheault's previous list. This version below is from Treaty One (Winnepeg, Manitoba). The Ojibwe refer to themselves in their language as Anishinaabe(g).

1. The Seven Values or Teachings of the Ojibwe

"The Anishinaabeg were to always act in LOVE.

1. To love the Great Spirit the same way he loved his people, because it was the love of the Great Spirit that gave life.
2. To RESPECT all life in Mother Earth. To show real respect was to give of themselves for the benefit of all life.
3. To have COURAGE to always do that was morally right.
4. To be HONEST to themselves. To live in the spirit of how they were created. Never to lie or gossip about one another.
5. To live in WISDOM and that is knowing the gifts that the Great Spirit gave to everyone. To use these gifts to build a family and community.
6. Always to act in HUMILITY. One was to always think about their fellows and their community be fore they thought of themselves.
7. Always to seek the TRUTH. The truth lies in spirit."[6]

We quickly recognize the strong ethical core that characterizes the remembered Original Instructions. A question came up for me concerning "honesty," for example, because it always appears in the list of the Original Instructions. Is honesty in action a result of the divine commandment to be honest? "Anishnaabeg were always to be honest to themselves." Darcy Rheault believes native philosophy recognizes honesty as an "a priori." The "Seven Gifts" are, "not commandments … [but] encoded in our being, our spirit." Mr. Rheault is referring to the same phenomenon of mind that the philosopher Immanuel Kant described as "inborn cognitive structures." If they are inborn, they must also naturally require training and instruction to make them practicable, in order to apply them to daily life in the physical world.

2. The Seven Laws of the Nez Perce

Chief Joseph (Nez Perce) could recall seven of what he called laws (I've inserted the numbers in his remembered speech below). His expression of the "Instructions" preserved some of the "commandment" quality found in the Dalamatia version:

"Our fathers gave us many laws, which they had learned from their fathers. These laws were good. They told us to … (1) treat all people as they treated us; (2) that we should never be the first to break a bargain; (3) that it was a disgrace to tell a lie [also #3 in the Law of Dalamatia]; (4) that we should speak only the truth (really number 3 again); (5) that it was a shame for one man to take another's wife or his property without paying for it. [#5 and 6 in Dalamatia] (6) We were taught to believe that the Great Spirit sees and hears everything, and that he never forgets; (7) that hereafter he will give every man a spirit-home according to his desserts: if he has been a good man, he will have a good home; if he has been a bad man, he will have a bad home. This I believe, and all my people believe the same."[7]

Notice that number six and seven in Chief Joseph's version are anomalous in that he alone in this group brings in discussions of the nature of God, along with teachings of salvation and the eternal life. His statement and Rolling Thunder's below demonstrate the many variations we find in the "Original Instructions." It is probable that other revelations were imported from the teachings of Onamonalonton and other important American Indian prophets. The laws of the tribes were also influenced by the new religion of Christianity.

3. The Seven Laws of the Cherokee

Rolling Thunder (Cherokee, Alabama) gives a somewhat more secularized version but still confirms a divine origin. "We were given the code, the seven laws, by the Great Spirit himself a long time ago. An old Indian man who's been gone for many years gave it to me a long time ago."

Here, we still have, as he puts it, "the seven laws": "Number one is ***respect*** for proper authority. Number two is to preserve and promote the ***beauties of nature***. Number three is to judge with kindness and ***wisdom***. Number four is

moderation in all things. Number five is to ***play fair*** in the game of life. Number six is that a person's ***word of honor*** is sacred. Number seven is ***respect for difference***."[8]

How were the Original Instructions preserved so successfully for so long? They became woven into the day-to-day fabric of the earlier hunting society. Religion and a firm spiritual grounding was not a thing apart from life. It was essential to the native's daily survival and was always incorporated into the ordinary tasks of both men and women.

The loyal enactment of ancient rituals also helped keep the memory alive. Ceremony confirming the integration of the people with the cosmos was essential to American Indian life. In hunter societies, before an important hunting expedition, the men would be sequestered in the sweat lodge. There, they remained isolated from their wives and the lure of sexual relations which would incur the wrath of the Manidoos (the spirits). The men prayed to the spirit of the animal and established a communion of like souls between the hunter and the sacred being he was hunting the next day. One of the most respected elders, honored for his ability to remember the people's history, might have stood and recited the long story of Creation and Origin, astonishing everyone once again. Perhaps sometimes it happened in the form of a call and response as he read out the sacred lore of the tribe from memory. Perhaps the Original Instructions were then repeated out loud in the form of a creed just as we recite the Nicene or Apostle's creed in churches today. These are speculations that may contain a seed of truth.

At this time, no written record of the Original Instructions predating the acquirement of European writing has been discovered. *The Urantia Book* tells us the red race learned a writing system while sojourning in the Mesopotamian region, "*The red man preferred pictorial writing.*" [66:5.10] (P. 746) The epic story of the west to east migration of the Lenni Lanape (the Delawares), ancient ancestors of the Anishinabe people, is recorded in pictographs. The Wallum Olum, an ancient written record on bark tablets and song sticks, is reputed to be the oldest written record of people in North America. Though it is said to date back to before 1,600 BCE, its authenticity is questioned.

A tribe in Quebec, the Mamiwinini, one of the eighty-four Algonquin Nations, still cherishes their guardianship of a wampum belt that recorded the Seven Fires Prophecies of the Algonkian tribes. This belt of beads and cowry shells was made to guide the Anishinabek migration from the Atlantic Coast to the Great Lakes. It was probably created around 1,000 AD, the approximate date the migration began.

One of the Seven Fires prophecies alludes to documents that preserve the sacred traditions. The prophecy of the Sixth Fire said that there would be a boy who would have a dream and lead the people to a hollowed out log, an ironwood tree. There, on hidden scrolls, the teachings of the Elders and the ceremonies would be discovered. So far, the "wee-gwas" (the birch bark scrolls) have never been found.

Other Details of the Planetary Prince's Era that are Remembered

More is remembered than the "original" seven teachings. There are other traces of the Prince's "epochal" story in their memories from a pre-Christian time.

· The American Indian people believe in a celestial government from on high, an "ancient Chief" in the heavenly realm.

· They recall the incarnation of heavenly beings in human form.

· Their ancient stories tell of the sacred tree of life and how it was uprooted.

· They remember to offer thanks from the earth to the spirit forces, and Great Spirit, or the Creator.

· The northern tribes especially recall that the Immortals descended from the sky and then departed from them, traveling "beyond the ocean."[9]

· They remember the stone tablets "on which this law was inscribed."

· There is even a teaching that the place where the Original Instructions were given is now underwater.

Chief Dan Evehema, a spiritual leader of the Hopi Nation (AZ), described the Great Spirit as follows: "To the Hopi, the Great Spirit is all powerful. He taught us how to live, to worship, where to go and what food to carry, gave us seeds to plant and harvest. He gave us a set of sacred stone tablets into which he breathed all teachings in order to safeguard his land and life. In these stone tablets were inscribed instructions, prophecies and warnings."[10]

The ultimate significance of the tablets was the recorded prophecy among the Southwest peoples that when the white brother returned from the East, he would be carrying the stone tablet. Or in another version, "he" would have the missing corner of the red race's stone tablet, once granted to them. But when the Spaniards arrived on horseback in the sixteenth century, they carried the lash, the gun, and a Bible. When a Hopi man held out his hand in the gesture meant to receive the hand of the white brother as was foretold, the conquistador dropped a cheap, glittering trinket into his palm.

The First Nations Indian people remember that they were taught all the human races are to live in peace, a

teaching Onamonalonton successfully revived sixty-five thousand years ago, long after the abandoned mission of the Planetary Prince. Indians today teach long cherished goals of achieving ethics, moral wisdom, and striving to live *Mino-Bimaadiziwin*, "the good life" in balance and harmony with the earth. Sadly, in practice, these goals fail to be carried out. The rampant prevalence of disloyalty to true values among all races is one result of the Lucifer Manifesto and his doctrine of liberty. But American Indian traditions still teach and encourage an enduring loyalty to the Creator. I believe it will be the gospel revelation of Jesus that will reinforce this loyalty to the Universal Father. Jesus will introduce them more profoundly to the depth and breadth of the Father's love. His teachings are essential to the health and wellbeing of the American Indian community and are its greatest hope for the present.

What lies behind *The Urantia Book*'s premise that a better understanding of human problems will be gained from the expanded presentation of the history of the Lucifer Rebellion?

Such an improved knowledge might contribute to a more compassionate understanding of the atheism that exists, persists, and seems so widespread in our time. The doctrines of self-assertion and personal liberty promoted by Lucifer and his followers are just as easily adopted and supported by "primitive-minded evolutionary mortals," of our day, as they were two hundred thousand years ago. It comes naturally. We are being asked to learn humility, take stock, and open our eyes to take a hard look at how the doctrines of Lucifer are still ingrained in "civilized" society, how far we have yet to go, how much work is needed to promote and establish the rule of the Universal Father in our hearts and in the world.

The Hopi and other Native American tribes have a more modern prophecy that echoes the memory of the Sangiks, the rainbow tribes.

"When the earth is dying there shall arise a new tribe of all colours and all creeds. This tribe shall be called *The Warriors of the Rainbow* and it will put its faith in actions not words."[11]

Dave Holt was born in Toronto, Ontario, Canada, of Irish, English, and Ojibway (Chippewa) Indian ancestry. Introduced to The Urantia Book *in 1976, he joined the Family of God Foundation, and is now serving as Vice President of the Golden Gate Circle Society. An award-winning writer and poet, Dave lives in Concord, CA, with his wife Chappell, and he has a daughter, Kelsey, now 21.*

End Notes:

[1] John 12.31 (King James Bible) "Now shall the prince of this world be cast out."

[2] www.archaeologydaily.com/news/201012095735/Lost-Civilization-Under- Persian-Gulf.html

[3] Genesis 6:2-4, "the sons of god…the daughters of men (Holy Bible) and the Book of Enoch

[4] Eemian Interglacial, using the terminology of the Northern European region, is equivalent to the Alpine term, the Riss-Wurm Interglacial, also known as the Sangamonian in North America

[5] Rheault, D'Arcy, *Anishinaabe Mino-Bimaadiziwin*, (The Way of a Good Life), Ch. 4, page 10

[6] www.oocities.com/redroadcollective/Sevenvalues.html told by Waaabishki Giizis (Dave Courchene, Jr.)

[7] www.indians.org/welker/joseph.htm

[8] www.birdclan.org/rollingthunder.htm

[9] For Hupa stories of the Immortals, see http://www.sacred- texts.com/nam/ca/hut/hut06.htm

[10] www.nativevillage.org/Inspiration-/danevehemafinalmessage.htm

[11] William Wiloya and Vinson Brown. *Warriors of the Rainbow: Strange and Prophetic Dreams*. Healsburg, California: Naturegraph, 1962

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The Power Of The Name Of Jesus

By Charles Laurence Olivea, Santa Fe, NM

All hail the power of Jesus' name!
Let angels prostrate fall;
Bring forth the royal diadem,
And crown Him Lord of all;
Bring forth the royal diadem,
And crown Him Lord of all.

Let every kindred,
every tribe,
On this terrestrial ball,
To Him all majesty ascribe,
And crown Him Lord of all;
To Him all majesty ascribe,
And crown Him Lord of all.

O that,
With yonder sacred throng,
We at His feet may fall;
We'll join the everlasting song,
And crown Him Lord of all;
We'll join the everlasting song,
And crown Him Lord of all.[1]

This Christian hymn was evidently written in the latter eighteenth century to honor our Master's achievement to the rank in the universe as the King of Kings and Lord of Lords. It captures the power of his name to draw personalities to him. Bur how did his name acquire such power?

The Source of His Renown: Our Local Universe Laureate

The hymn's lyrics reflect a paradoxical truth exhibited by Jesus; a truth he spoke about in one of his sermons, i.e., his spiritual ability to attract persons to him without advertising himself. "*Let me emphatically state this eternal truth: If you, by truth co-ordination, learn to exemplify in your lives this beautiful wholeness of righteousness, your fellow men will then seek after you that they may gain what you have so acquired. The measure wherewith truth seekers are drawn to you represents the measure of your truth endowment, your righteousness.*" Then, he commented on its opposite: "*The extent to which you have to go with your message to the people is, in a way, the measure of your failure to live the whole or righteous life, the truth-co-ordinated life.*" [155:1.5] (P. 1726)

In the perspective of Christianity, as exclaimed in the hymn quoted above, even "angels prostrate fall…[and] every kindred, every tribe" of this world are drawn to him to "crown Him Lord of all." I think the power of his name draws from the fruits of the spirit manifested in his superb personality and matchless character:

- loving service,
- unselfish devotion,
- courageous loyalty,
- sincere fairness,
- enlightened honesty,
- undying hope,
- confiding trust,
- merciful ministry,
- unfailing goodness,
- forgiving tolerance,
- and, enduring peace. [193:2.2] (P. 2054)

These fruits of the spirit constituted the character of the man. With that in mind, I would like to point out that "respect" contrasts greatly with "popularity." Respect is a "pearl of great price." People respect a person when they are convinced that the individual is entirely genuine, morally and spiritually. Being popular can be fickle. It tends to be fleeting, faddish. Respect endures controversy and often grows over time.

This is the case with Jesus. His spirituality may be the largest factor in his appeal and compelling reputation. The paradox of the man was that he was without sin, and while he never drew attention to that virtue, people were drawn to him. The matchless, eternal living legacy of his life and teachings on Urantia is a benevolent spectacle of how far a mortal can evolve on an evolutionary world with the fruits of the spirit. His Urantian name and legacy have become virtually synonymous with each other.

At this point, it might be worthwhile to make a closer examination of the nature of names in general and what in particular Jesus' name might mean for us.

The Nature of Names and What "Jesus" Might *Signify*

The Chinese philosopher, Hsun Tzu, an early Confucianist, thought that names necessarily made two general types of distinctions: "On the one hand they are to make evident the noble and base, and on the other to distinguish similarities and differences."[2] It is the former distinction made by Hsun Tzu that is applicable here. He undoubtedly was highlighting the contrast in status relationships between higher or greater

(nobler) and lower or lesser (baser), e.g., ruler and subject, father and son, or elder brother and younger brother, etc.

Applying this to the name of Jesus, the early Hebrews defined "Yehoshua" or "Joshua" as meaning "salvation."[3] Notwithstanding that "Joshua" was a common Jewish personal name, it must be of special significance that our Master's bestowal name was suggestive of the core mission of his incarnation. Names can have poignancy and substance. In Michael's case, would another personal name for his bestowal have altered the impact of his earthly career? While I am not sure, the actual name he was given seems to have served his life purpose. The word, "Jesus," designated a personality who proved to be the savior of not only a world, but a universe.

To explore this business of names a bit further, it is interesting and relevant to reflect upon the fact that the Universal Father has never revealed his personal name to us. "*The names which the creature assigns to the Creator are much dependent on the creature's concept of the Creator. The First Source and Universe Center has never revealed Himself by name, only by nature.*" [1:1.1] (P. 22) He is known by his primary role as Father. Indeed, he has revealed his identity through his attitude and actions toward his creation, characterized by love, goodness, wisdom, mercy, righteousness, truth, justice, and beauty.

Likewise, to my knowledge, neither has Michael of Nebadon revealed his personal name to us. Even so, I presume both Father and Michael have personal names since they are both personalities; albeit, one is the source of personality and the other the living way to that source. Notwithstanding this, **we do know Michael's bestowal name!** This is a fact that we, on Urantia, should find deeply inspiring and profoundly reassuring. It enables us to know Michael in a beautifully personal sense. It is something we ought to cherish forever. It personalizes our relationship with him. Think how much greater our faith in all of his magisterial glory and power is strengthened by knowing his name. Many people have been a witness to the experience that just by speaking his name, "**Jesus**," from the heart and with a childlike faith, they could **feel** his presence, his friendship, his spirit, and his love.

Therefore, it seems to me that we should realize that knowing the personal (bestowal) name of our elder, divine brother is a great advantage for us and everyone else on all the other worlds who also seek his grace. It should be an antidote to the fear and confusion that cloud human consciousness, an advantage that has the power to transform all mortals, even those living in Agondonter circumstances. Our Master's name can aid us in contentious or perplexing situations.

Three Encounters

I have experienced three occasions in my life in which the name of Jesus figured dramatically. These experiences were vivid and life-lasting. They have left me in awe and appreciation of our Master's bestowal name. I believe it is the most striking noun in the human language.

(1) A Confrontation

Many years ago I was involved in an experience with something that I will term an "entity." This "entity" proved to be hostile, probably mad, seething with rage, yet clever and, at least at the start of the confrontation, somewhat nuanced in its (his?) approach to me and my wife, Mary, with whom I shared the experience.

It all started when Mary tried an experiment with so-called "automatic writing" in our kitchen. The technique of automatic writing requires a person to suspend self-conscious control in the ordinary and everyday sense of that term. I read once that automatic writing is apparently an elementary form of ESP. In any case, it is used frequently by many who are curious about the future or the past.

This confrontation took place one afternoon and was followed by another the next afternoon. On the first occasion, Mary said the handwriting she did under its influence was very similar to that of her grandmother, who had died a little more than a decade earlier. The entity generalized about nondescript details, answering her questions in a vague manner. "Things were fine; don't worry," statements along those lines. I said little, making short simple observations that did not amount to very much. That first 'session' ended when Mary called it off, feeling a bit tense and uncertain about the encounter.

The second day started quietly enough, but very soon developed into a sharp disagreement between myself and the entity. It had her writing some negative views, sarcastic opinions of this and that (I do not remember the actual issues). I remember Mary being a bit disturbed by the off-putting nature of what she was writing. It was not very long into that exchange when I began to first question, and then criticize, the negativity of what was being written. The entity, through the automatic writing process, then warned me to mind my own business. I replied that this encounter was taking place in my home, and with my wife, and was very much my business! It then threatened me with harm of some kind, which I countered defensively. Our exchange escalated. Finally, the entity threatened to kill me or see me dead, words to that effect. I could readily feel its presence in the room; my sense of it was quite palpable. With the death threat, I said in substance: "How dare you threaten me. I am

a son of the Living God, a follower of **Jesus** of Nazareth!"

I noticed immediately that when I spoke the name of Jesus, the entity started to flee. As it fled, I laughed at it, and also observed that it treated my humor as if it were a toxin. I promised to tell anyone who would listen to this story that it was afraid of human laughter. But it was the Master's personal name that shook it all up. It was terrified of his name.

Right after it left, I looked around the room and saw my two dogs shivering in one of the corners of the adjoining room. Their eyes were wide open with fear. The dogs' anxiety was further evidence that something or someone had been there. It was some time before I could get them to calm down. I would advise anyone not to experiment with automatic writing or that sort of thing. Also, I will not speculate what or who the entity was. The real value of the experience lay in the power of Jesus' name. That name vanquished it, and that is good enough for me.

(2) A Heavenly Defense

I have taught for about forty-one years, mostly with public high school students. All jobs or careers have their own particular challenges with people and things. In a school teacher's role, one is faced with all the vicissitudes young people bring to school. They might be quite perplexed about who they are, why they are here, and where they are going. The young have many needs and wants. They often are confused morally and socially. Part of a teacher's task is to exercise a leavening influence upon them. To do that, we usually have to get to know our students well.

I always thought of my high school students in several different ways: they are the "children of human parents," "cosmic citizens," (usually) "American citizens," and neither wholly "fish nor fowl,"—caught between adolescence and early adulthood.

But first and foremost, I think of them as "children of God." This puts us on an equal footing as brothers or sisters, whether or not they are aware of it. It also recognizes them as possessing an absolute value since they have been bestowed with "personality" directly from the Universal Father. This is so regardless of their behavior toward me or their peers. The value of their status as "children of God" is not in any way conditional as far as I am concerned.

Michael is also their local universe father as well as mine. That, too, is unconditional. I believe we are all family in the kingdom of God under the aegis of Michael. Even though by all outward appearances my classroom and curriculum seemed to be about American history or art history or government/economics or comparative religion, it was really about the search for truth in the larger context of person-to-person ties, human and divine. I think this explains why I never was "burnt out" in all the years of my teaching, and why it was relatively easy for me to forgive my students and remain patient with them.

These characterizations provide the backdrop for what I am about to describe concerning the power of the name of Jesus. The event occurred in my office one day with a female student of mine, who was either a sophomore or junior at the time. We knew each other well. I first met her during my lunchroom duty, when she was in middle school. Subsequently, she ended up taking one of my classes for each of her high school years.

The identity of this person (we are still friends over twenty years later) shall remain anonymous. She was about sixteen years old, plus or minus a year. She came to my office and said that she was feeling certain desires for me that she knew were not proper. I was initially alarmed, but did not show it. Sexual advances (even implied) from a student are potentially explosive, morally and in every other way. I had been her mentor since she was in the eighth grade. She looked up to me as a father figure, and trusted me with many confidences ranging from joys to sorrows, generally the latter.

I was faced with a perplexing, dangerous situation to her and to me. The young woman (or girl) in front of me was still an "innocent." She was dependent on my wisdom and forbearance, and was accustomed to me listening to her many problems. It was my responsibility to handle the crisis in such a manner that:

- It would be absolutely clear to her that what she desired was forbidden,
- Our teacher-student relationship would be preserved;
- The humanity of trust and friendship between us would be preserved;
- Her vulnerability would be protected; I did not want her youthful self-image shattered;
- My moral integrity would be protected;
- The crisis would be de-fused without damaging either of us.

Perhaps a minute or so had elapsed, when I realized I was over my head if I was to accomplish all of the above for the two of us. I turned to Jesus, explicitly and in humility, explaining in essence, "I need your 'voice' to manage this crisis. Please, Lord, help me." This prayer was said in silence.

The following are the thoughts that came to me and constituted what I in essence said to her: "You do not want me; you **want Jesus**. He is the real (or true) object of your desires. Even though you did not realize this, turn to him." I

recall the encounter most vividly! When she heard what I had said, she recoiled briefly, as you would when first hearing something that caught you off-guard. Her body language indicated that Jesus' name jolted her, but not in fear—more in wonderment. Her eyes very soon lit up as the spiritual and moral weight of what I said began to sink into her consciousness. The power of our Master's name was being made manifest to each of us, although on different levels.

The use of his name addressed all of my concerns immediately and perfectly. It was my privilege to speak for him. He is truly a Master Creator Son and a wonderful father-brother to us all.

As the situation eased, I told her that it was nearly time for the next class period to begin and that she should prepare to go to her next class. It was a reasonable thing to say, even in light of what had transpired. The Lord's influence had removed enough tension, emotionally and socially, for both of us to go our separate ways to attend our respective classes. I do not remember if I saw her later in the school day or the next day, but it was evident to me that everything between us was put back into its proper perspective.

As I stated above, we remained good friends (not buddies: I was not her peer after all). The respect essential to any well-grounded teacher-student relationship stayed fully intact. Years later, she would marry and become the mother of two children. To this day, we keep in touch from time to time. I marvel at the **spiritual fragrance** of Jesus' name.

(3) The Authority of His Name

This last example pertains to my father, that is, my earthly father. He was at one time, God rest his soul, a "drunk." The sharp edge of that word describes accurately the personal and social reality of growing up in a household with such an affliction. Yet, I can recall from memory many of the "flashes of lightning" I saw or the "sounds of thunder" I heard in my childhood **without** bitterness toward him. The reason for these benign feelings was, again, the power of our Savior's name, as reflective of his living spirit. As a young man I chose to do something that I still regard as the greatest decision of my life. But I came to call upon his name by a circuitous route.

As a young man, I watched with great interest the powerful force that Martin Luther King exerted as the leader of the Civil Rights Movement. Danger and death lurked in numerous places for him and his followers. The threat of death was one of his constant companions. What impressed me about him—often moved me deeply—was his ringing capacity and willingness to repeatedly forgive his enemies. As I watched him on TV lead one protest after another, give one press conference after another, meet with one official after another, while exhorting listeners to behave non-violently in heart, hand, and head, I noticed the spirit of Jesus "emerging" more and more in what he said and did.

At some point in time, I wanted what Martin Luther King **had**; I wanted to acquire some of his ability to forgive others. I was drawn to him on that basis. This was the very spiritual point I quoted earlier from Jesus, "*The measure wherewith truth seekers are drawn to you represents the measure of your truth endowment, your righteousness.*" This was the measure I made of the man. But I learned more. It was through Dr. King that I "re-discovered" Jesus. It was a delightful, insightful revelation. Rev. King had attracted me, spiritually, because of his sincere, consistent, and genuine actions on behalf of human liberty. I took the spiritual content of his message to heart.

As a young man in my early twenties, I decided upon reflection that Jesus, who forgave his enemies while on the cross, was now personified in Martin Luther King. This was a compelling reason to forgive my own father. I resolved to meet with him and tell him face-to-face that I was no longer his enemy. This is what happened.

As I sat down in front of him, I said for the most part that, "Jesus wants me to forgive you for your drinking. I believe it is God's will. So, I now pay all your (moral) debts and forgive your bad behavior towards me in the past. I want you to be treated before God as if you did nothing wrong." When I used the name of "**Jesus**," he looked straight at me with a solemn and grave countenance. I will never forget the studied expression on his face. The Master's name immediately leant "authority" to what I said to him. He seemed to realize this. I remember feeling greatly strengthened by using his name. I thought it would not only get my father's attention at the level I wanted, but would garner his respect and acceptance for what I declared to him.

I could see him considering very carefully what I had just said to him; however, he didn't say a word during the whole experience. Nonetheless, I surmised at the time it was probably the first time in his life that he had ever been "forgiven" for anything. It may have been the only time in his life he felt that way. The two of us would go on to enjoy a normal span of father-son relations in the years following this event. He passed on about a decade afterwards. But we had no "issues" between us; no undue, unresolved tension to linger on in my mind after he died. It was a **blessing**.

The enduring power of love intrinsic to forgiveness was beautifully amplified in one of the greatest tales of world history, the *Mahabharata*, written thousands of years ago in India. In this tale, Yudhisthira, the emperor of the world and

its moral instructor, in speaking about this subject said, "If there were not persons in this world who exercised forgiveness, then chaos would soon prevail…I shall cite to you the verse spoken in ancient times by the Rishi Kashyapa [a highly advanced ascetic]: 'Forgiveness is virtue, it is truth, piety, religion…Through forgiveness the universe is sustained, and by practicing forgiveness a man can attain to everlasting regions of bliss.'"[4]

Since then I have speculated on how many other persons have felt "unforgiven" and how such an emotional burden twisted their self-image. I imagine it reinforced their sense of isolation in society. My sympathy for those so burdened has gradually increased over the years.

One of the greatest personal benefits for me was to be completely healed of the hurt previously felt toward my father. The decision to forgive exemplifies the spiritual logic in the Lord's Prayer: "forgive us our trespasses as we forgive those who trespass against us."

Some Final Thoughts

When employing the Master's name in a genuinely spiritual act that is honoring the will of God, I believe we are calling upon the authority of Michael of Nebadon. Hence, the word, "Jesus," when spoken or written sincerely and in a genuine spiritual manner, conveys in a way the aura of his authority stretching from Urantia to Salvington. Somehow it connects time and eternity for us. Indeed, the name of Jesus possesses a dual virtue—a child-like faith in the religion of the spirit coupled with an incisive quality of mind. These seem to constitute its power and authority. The very word itself comforts our souls and draws us closer to God the Father.

His name reminds us of the **friendship** he constantly extends to each of us. Remember what he said in the Farewell Discourse to the Apostles, "*When I invite you to love one another, even as I have loved you, I hold up before you the supreme measure of true affection, for greater love no man can have than this: that he will lay down his life for his friends. And you are my friends…**You have called me Master, but I do not call you servants**. If you will only love one another as I am loving you, you shall be my friends, and I will ever speak to you of that which the Father reveals to me.…**You have not merely chosen me, but I have also chosen you.***" [180:1.3-4] (PP. 1944-5) (Emphasis added)

I am sometimes moved to tears when just thinking (or feeling) his name. There is a soul-saving quality in Jesus. It is so precious; a spirit quality that always plumbs the depths of my heart. It is an original experience, each and every time, to feel his presence. For sure, it is a living truth that can only be known through experience. I attribute it to grace. It is grace that is not "incredible," but "amazing," as the song expresses in its poetic, seemingly timeless, fashion. It is grace that heals, provides security and safety, discerns truth, and enhances friendship—"will strike all sin forever dead."[5]

A Postscript

A friend of mine, a former Forum member, who has since graduated, wrote a letter to me many years ago stating that the Christian hymn quoted at the beginning of this essay, was inspired by an earlier song sung in the local universe when Michael ascended on high as a Master Creator Son. She did not claim to know when the local universe song was originally written or how it came to be given to human beings. She noted in her letter that mortals have a tendency to change or add what they hear, so she could not account for exact wording of the original. But she was pleased with the Christian hymn knowing that something probably more beautiful was behind it. I write this on the assumption that this would be of interest to student of *The Urantia Book*.

Charles Laurence Olivea has been a devoted student of the teachings of The Urantia Book *since 1968, a commitment somewhat parallel to his classroom teaching of history at the public high school level. He is now positioned to retire soon from the classroom and to shift over to expanding his long-tine effort to disseminate the book and its teachings while employing a strong pedagogy in that educational work. He serves at the pleasure of our Father and works with the Supreme as a cosmic citizen.*

End Notes:

[1] Edward Dwight Eaton, ed., *The Student Hymnary*, Harper & Brothers; NY, NY, 1937; "All Hail the Power of Jesus' Name," Page 80

[2.] Fung Yu-lan, *A History of Chinese Philosophy, The Period of the Philosophers*, vol. 1; Princeton University Press, Princeton, NJ, 1983; p. 307

[3] Oxford English Dictionary

[4] Retold by Krishna Dharma, *Mahabharata*, Torcch Light Publishing; CA, 1986 p. 244

[5] William Cowper, *The Sight of Jesus*; from *The Celestial Country: Hymns on the Joys & Glories of Paradise*, Seeley and Co. Limited, p. 85

Machiventa Melchizedek: One Of History's Mysteries

By Linda Buselli, Carmel, IN

The following was presented as a workshop at the Fellowship Summer Study Session, July 7-9, 2006, at Dominican University, River Forest, Illinois.

Machiventa Melchizedek is one of the most mysterious and fascinating personalities in *The Urantia Book*. His presence on Urantia for ninety-four years was the third epochal revelation to this planet; yet even the information given to us by *The Urantia Book* is only partial, and leaves many intriguing details, and admittedly perhaps speculations, to be discovered in other sources. In the following, I will attempt to explore not only what we have learned from the book, but also some interesting bits of information I have found in other references. My research has uncovered some very intriguing possibilities to consider, although much of what I present will be speculative since Machiventa hasn't been seen in almost 3900 years.

We know that Melchizedek is mentioned only three times in the Bible, in Genesis 14:18-20, Psalm 110, and Hebrews 7:1-3. This is a simplification because many scholars believe that he is indirectly referred to elsewhere in the Bible. That he was a priest/king and had no father or mother is generally accepted, but there is very little other information. He has been confused with God, and has had the term Lord applied to him in reference to his talks with Abraham and Sarah. Some believe Jesus to be a reincarnation of Melchizedek, which I find interesting since both of them enjoyed the services of the same Thought Adjuster. The names of Michael and Melchizedek have been linked, usually both of them being thought of as angels. Many brotherhoods and priesthoods have grown up around Machiventa's mystique, each of them interpreting him and his purpose in its own way. We who have *The Urantia Book* have been told so much more, and yet the mysteries remain. Let's review some of what the book has given us.

Nature of Melchizedeks

The Melchizedeks as an order are particularly useful to the universe as 'emergency sons,' because they are "*…naturally at the mid-point of the great personality descent, by origin being just about midway between the highest Divinity and the lowest creature life of will endowment. They thus become the natural intermediaries between the higher and divine levels of living existence and the lower, even the material, forms of life on the evolutionary worlds. The seraphic orders, the angels, delight to work with the Melchizedeks; in fact, all forms of intelligent life find in these Sons understanding friends, sympathetic teachers, and wise counselors.*" [35:2.1] (P. 385)

They "*were all created within one millennial period of standard time.*" [35:1.3] (P. 385) This represents approximately 5,000 years of Urantia time, and during this period "*upward of ten million*" of them came into being, our very own Machiventa among them. Their creation followed the completion of the physical plan of our local universe which took a long time by our standards, and this order of Melchizedek sons has likely been in existence for many billions of years.

Only six times in all the history of Nebadon had a Melchizedek personalized on a planet as a temporary man of the realm. The twelve Melchizedek receivers of Urantia, knowing that Michael had chosen Urantia as the world of his terminal bestowal, and that revealed truth was threatened with extinction due to the miscarriage of the Adamic bestowal, petitioned the Most Highs on Edentia and the Father Melchizedek that some provision be made to maintain the light of truth on Urantia. They were given permission to uphold truth in the manner of their own election until Michael should come. The result was Machiventa volunteering as an emergency Son of world ministry.

Machiventa's Bestowal on Urantia

It was 1,973 years before the birth of Jesus that Machiventa was bestowed upon the human races of Urantia. He was first observed by mortal man…when he entered the tent of Amdon, a Chaldean herder of Sumerian extraction. And the proclamation of his mission was embodied in the simple statement which he made to this shepherd, 'I am Melchizedek, priest of El Elyon, the Most High, the one and only God. [93:2.1] (P. 1015)

In personal appearance, Melchizedek resembled the then blended Nodite and Sumerian peoples, being almost six feet in height and possessing a commanding presence. He spoke Chaldean and a half dozen other languages. He

dressed much as did the Canaanite priests except that on his breast he wore an emblem of three concentric circles, the Satania symbol of the Paradise Trinity. In the course of his ministry this insignia of three concentric circles became regarded as so sacred by his followers that they never dared to use it, and it was soon forgotten with the passing of a few generations. [93:2.5] (P. 1015)

In artwork throughout history, Machiventa is generally depicted as an old man. However, if he had appeared at the beginning of his bestowal as an old man, wouldn't it be likely that the people around him would have begun to suspect that he was divine much earlier than the book indicates they did? I think he might have looked much younger when he first appeared, old enough to be a high priest, but definitely not elderly. He might then have allowed his physical appearance to age slowly.

It is interesting that hundreds of years later, the Jewish high priests wore a "breast plate," in their case with twelve semi-precious stones representing the twelve tribes of Israel.[1] Remember, the concentric circles motif had been forgotten. This breast plate was about nine or ten inches square, and was actually a pocket containing the 'urin' and the 'thummin,' two stones believed to have mystical powers.[2]

The first Jewish high priest was Moses' brother, Aaron. *"The members of the family of Katro, with whom Melchizedek lived for more than thirty years, knew many of these higher truths and long perpetuated them in their family, even to the days of their illustrious descendant Moses, who thus had a compelling tradition of the days of Melchizedek handed down to him on this, his father's side, as well as through other sources on his mother's side.* [93:3.5] (P. 1016)

All of the Jewish priests wore long white robes, but only the high priest also wore a blue tunic over his robe, an apron type of garment called the 'ephod' over the tunic, and the breast plate over all. The urin and the thummin were used to gain knowledge and forecast events by mystical means.

Machiventa established his headquarters at Salem, which later became the city of Jebus, and finally became known as Jerusalem. *"The ceremonies of the Salem worship were very simple."* [93:4.1] (P. 1018) But as *The Urantia Book* tells us, even as simple as this creed was, it was *"altogether too much and too advanced for the men of those days."* [93:4.5] (P. 1018)

The More Advanced Teachings

To the rank and file of his followers he made no effort to present teachings beyond the fact of the rulership of the Most Highs of Edentia—Gods of Urantia. But to some, Melchizedek taught advanced truth, embracing the conduct and organization of the local universe, while to his brilliant disciple Nordan the Kenite and his band of earnest students he taught the truths of the superuniverse and even of Havona. [93:3.4] (P. 1016)

The Urantia Book gives us a recap of how the Melchizedek teachings affected religions in both the Occident and the Orient, but that's not the whole story. It seems the revelators left some things for us to find, namely, that some of these 'advanced' teachings regarding the superuniverse and Havona may be found today in different cultures.

In Paper 131, in the excerpts of faith from the Hindu religion, *The Urantia Book* states: *"Our God wears the heavens as a mantle; he also inhabits the other six wide-spreading universes."* [131:4.5] (PP. 1448-49) How did the Hindus thousands of years ago know about the seven superuniverses? Melchizedek's missionaries perhaps?

The Psychic Circles?

Not quite as obvious as the above, but fascinating nonetheless, is the following statement from a discussion of the seven circles of Havona in Paper 14, 'The Central and Divine Universe.' *"It is from these arrangements in the central universe that the circles of progress in the human mind have been designated."* [14:5.4] (PP. 158-59) Some years ago I read a book called *Anatomy of the Spirit* by Dr. Caroline Myss. It described a seven-level spiritual progression that is a part of Judaism, Christianity (Roman Catholicism), and the eastern religions. (See following page.) In all three religious beliefs, the meanings of the corresponding levels, including those of the seven psychic circles, particularly circles seven, three, and one, as described by the authors of *The Urantia Book*, are very much the same, in some places virtually identical. The terminology differs slightly, but as in circle seven, for example, all three refer to the entry of the individual into the spiritual community. This would hold true for a child who has just made his first moral decision, thereby becoming a potential universe citizen. The requirements may be different in each case, but the basic symbolism is the same. Why didn't the revelators give us information about the other levels? I suspect, as they pointed out, that circle achievement is unique with each individual.

I don't think there is a *Urantia Book* reader who has not wondered in which circle he or she might be. Here is a possible answer. I strongly believe that we operate in all of them simultaneously, which is not the same thing as a mastery of any. I often think of this by picturing a small fir tree with increasingly larger levels of the branches as you go from top to bottom. Now visualize a bird landing on the top

Psychic Circle	Chakras	Sacraments	Sefirot
1 Adjuster Contact	Oneness with Spirit	Annointing of the Sick Preparing to face God at Death	1 Keter - Divine Energy
2	6 Mind, Clarity	Ordination	3 & 2 Binah, Hokhmah Understanding, Wisdom
3 Surrender Will to God	5 Will	Reconcilliation - Giving Will to God	5 & 4 Gevurah, Hesed Judgement & Mercy
4	4 Love	Marriage	6 Tiferet-Beauty
5	3 Self	Confirmation - Honor Yourself - Honor Code	8 & 7 Hod & Nezah Integrity & Endurance
6	2 Personal Relationship	Communion - Honor One Another	9 Yesed - Foundation
7 Potential Universe Citizen	1 Tribal - Community	Baptism - Family	10 Sekhinah - Creation - Gaia

of the tree. The whole tree begins to shake until the energy of the bird's landing is adjusted in every level of the branches. If you picture the bird as a new spiritual understanding coming from the Adjuster through the superconscious, you can imagine how this new level of spirituality will 'shake' all the circles below it until equilibrium is established. No new spiritual enlightenment is limited to only one circle; it must penetrate and readjust all the circles. Remember, *The Urantia Book* tells us:

The successful traversal of these new levels demands the harmonious functioning of the entire personality, *not merely of some one phase thereof. The growth of the parts does not equal the true maturation of the whole; the parts really grow in proportion to the expansion of the entire self—material, intellectual, and spiritual.*" [110:6.3] (P. 1209)

Dr. Myss drew a line between the three lower and four upper levels to indicate her belief that the inward spiritual growth experiences of the upper four must be expressed in our experiences in the outer life of the lower three.

I firmly believe these seven levels of spiritual growth were taught to the Melchizedek missionaries, to be spread along with the basic teachings of Salem. As far as I know, no similar concepts have appeared where the missionaries did **not** go, as in the Americas, for example. Note how the concept of the seven levels changed as the information was carried outward to the world. Each culture modified the expressions of these spiritual phases somewhat, but the basic meanings remain virtually intact. All recognize these seven levels as markers of spiritual growth and maturity.

As a very good way to see how the different levels are incorporated into a human life, a study of the life of Jesus provides a perfect example. We can follow him through the levels and observe his adjustments on each level to the preceding ones.[3]

Machiventa and the Alphabet?

What else might he have taught? This next subject is highly speculative, but I'm going to suggest it anyway. A few years ago, I bought a book on the alphabet which stated that the first true alphabet appeared among the Semites in Palestine around 1900 BCE, which was precisely where and when Machiventa was conducting his school. Coincidence? Serendipity? Maybe. Listen to what two modern authors have to say. Both of them agree on several points.

1. The first alphabet emerged among the Semites in Palestine between 2000 and 1900 BCE. By 1800 BCE it was already in extensive use.
2. Egyptian symbols were used to some extent and new 'letters' were invented to express sounds.
3. The alphabet was most likely the brainchild of a single person, or possibly a small group.
4. Both authors use the term 'genius' to describe the individual responsible.

In the following quotation from John Man's book, *Alpha Beta*, (Asiatics is the term used by Egyptians to denote anyone who came from east of Suez.) the author says, "It seems unlikely, given the sophistication of the surrounding society and the existence of the Egyptians' own alphabetical signs, that a new set would emerge a sign at a time from the minds of different scribes. Perhaps a committee was involved, a

council of scholarly Asiatics. But it wouldn't have taken them long, once they had the idea to work on, and they could have been under the direction of a chairman—perhaps the same genius who came up with the idea in the first place."[4]

David Sacks, in his book *Letter Perfect* says: "…the alphabet was an invention, a spectacularly successful one. Judged on longevity and extent of modern daily use, it compares with the wheel."

He goes on to say: "…the alphabet was the most efficient writing system ever found, before or since. Like the wheel, it transformed the ancient world, and, like the wheel, it is still with us and has never been superseded."[5]

What makes the invention of the alphabet so important? Sacks points out that it has one enormous advantage over other writing systems—it needs fewer symbols. It is adaptable to any language because the letters represent sounds rather than images. To take the English language as an example, from only twenty-six letters we have constructed approximately three-quarters of a million words. How many pictographs would it have taken to do the same?

The alphabet introduced in 1900 BCE was not the first one in existence. *"Fad formulated the first alphabet and introduced a writing system. This alphabet contained twenty-five characters…But the alphabet and much more was subsequently lost to the world during the confusion attendant upon rebellion. The Caligasta defection destroyed the hope of the world for a universal language, at least for untold ages."* [66:5.9] (P. 746)

We know that an alphabet was used by Van and his associates with the hope it would be adopted by the inhabitants of the Garden. Normally, the social and cultural advances would have been sponsored by the Adamic regime; but we no longer have an Adam and Eve. I think it is possible that Machiventa saw an opportunity to act in that capacity in this matter by once again introducing an alphabet to facilitate communication.

I am familiar with this statement on page 1018 of *The Urantia Book*: *"Like Jesus, Melchizedek attended strictly to the fulfillment of the mission of his bestowal. He did not attempt to reform the mores, to change the habits of the world, nor to promulgate even advanced sanitary practices of scientific truths. He came to achieve two tasks: to keep alive on earth the truth of the one God and to prepare the way for the subsequent mortal bestowal of a Paradise Son of that Universal Father."* [93:4.15] (P. 1018)

However, in the teaching of superuniverse truths he was, in a way, revealing scientific facts; although he may also have used the superuniverses as an example of the seven possible combinations of the persons of the Trinity. Nevertheless, if in fact he had something to do with the invention of the alphabet, it should not have hindered his spiritual mission. By improving man's ability to communicate, transfer, and store information, an alphabet may have aided his mission—and his missionaries.

Machiventa's Missionaries

The descendants of Adamson, clustered about the shores of the lake of Van, were willing listeners to the Hittite teachers of the Salem cult. From this onetime Andite center teachers were dispatched to the remote regions of both Europe and Asia. Salem missionaries penetrated all Europe, even to the British Isles. One group went by way of the Faroes to the Andonites of Iceland, while another traversed China and reached the Japanese of the eastern islands. [93:7:2] (P. 1021)

A few years ago I saw a program on the PBS show, Nova, and immediately ordered the tape. It was called "The Mysterious Mummies of China" and described the discovery of beautifully preserved and decidedly European bodies buried at the edge of the Taklamakan desert on the western borders of China. From paintings on rock walls in the area and from the examination of the mummies themselves, we know these people had red or blond hair and blue or green eyes, and the bone structure is European. Their clothing reveals a very high order of weaving unknown in that area at the time they were buried around 1800 BCE, or about eighty years after Machiventa ended his bestowal.

This was interesting enough, but when they showed the petrified bread buried with the mummies and then present-day European-looking descendants baking bread the same way as their ancestors, I was astounded to see the women stamping three concentric circles into every piece of bread they baked. It would seem that these people may be the descendants of the very missionaries mentioned in *The Urantia Book*. Currently, this group known as the Uyghurs are struggling to maintain their ethnic identity and Turkic language amid a great influx of Han Chinese immigrants to the area.

In regard to those missionaries who reached Japan, there is a primitive race of people called the Ainu, who are thought to be the original inhabitants of the Japanese islands. They also look European and many have blue eyes. These may or may not be the descendants of the missionaries. In each of the above cases, the religion of the people became a mixture of many beliefs and superstitions, and apparently the original message of Salem was lost or absorbed into their current religious practices.

The Melchizedeks on Urantia

Machiventa had been associated with Urantia since the Caligastia secession for thousands of years before he incarnated in human form.

The Melchizedek order of universe sonship has been exceedingly active on Urantia. A corps of twelve served in conjunction with the Life Carriers. A later corps of twelve became receivers for your world shortly after the Caligastia secession and continued in authority until the time of Adam and Eve. These twelve Melchizedeks returned to Urantia upon the default of Adam and Eve, and they continued thereafter as planetary receivers on down to the day when Jesus of Nazareth, as the Son of Man, became the titular Planetary Prince of Urantia. [93:0.2] (P. 1014)

Machiventa ended his incarnation on Urantia in 1879 BCE, but he "*continued to take a great interest in the affairs of the descendants of those men who had believed in his teachings when he was in the flesh. But the progeny of Abraham through Isaac as intermarried with the Kenites were the only line which long continued to nourish any clear concept of the Salem teachings.*" [93:10.3] (P. 1024)

This same Melchizedek continued to collaborate throughout the nineteen succeeding centuries with the many prophets and seers, thus endeavoring to keep alive the truths of Salem until the fullness of the time for Michael's appearance on earth. [93:10.4] (P. 1024)

A Change of Course

When Machiventa incarnated in a human form on Urantia, he markedly changed the course of his universe career. He is uniquely associated with our world, not only with its past, but with its future. "*Subsequently, he was attached to the Urantia service on Jerusem as one of the four and twenty directors, only just recently having been elevated to the position of personal ambassador on Jerusem of the Creator Son, bearing the title Vicegerent Planetary Prince of Urantia. It is our belief that, as long as Urantia remains an inhabited planet, Machiventa Melchizedek will not be fully returned to the duties of his order of sonship but will remain, speaking in the terms of time, forever a planetary minister representing Christ Michael.*" [93:10.5] (P. 1025)

And Machiventa is still active in his ministry to Urantia. About one thousand years ago, he served as resident governor general for a period of one hundred years, "*and if the present system of directing planetary affairs should continue, he will be due to return in the same capacity in a little over one thousand years.*" [93:10.10] (P. 1026) Just as *The Urantia Book* is ready for an update, perhaps?

He has been deeply involved in our fifth epochal revelation. On February 11, 1924, he informed the Contact Commission of the significance of the project the Forum was undertaking. Actually the Forum didn't hear about that until the following December when Doc Sadler inadvertently let the information slip out. Machiventa co-authored Paper 56, "Universal Unity," with a Mighty Messenger. Both Machiventa and Gabriel were present on Urantia on Jesus' birthday in 1951; and on February 11, 1952, he introduced the Melchizedek, Norson, the incoming regent of the acting planetary prince of Urantia, to the Contact Commission.[6] I have no doubt that he keeps a very close watch on the progress of our revelation to the world, and aids its development in many ways.

As for the future, this is what the book has to say:

As his was an emergency bestowal on Urantia, it does not appear from the records what Machiventa's future may be. It may develop that the Melchizedek corps of Nebadon have sustained the permanent loss of one of their number. Recent rulings handed down from the Most Highs of Edentia, and later confirmed by the Ancients of Days of Uversa, strongly suggest that this bestowal Melchizedek is destined to take the place of the fallen Planetary Prince, Caligastia. If our conjectures in this respect are correct, it is altogether possible that Machiventa Melchizedek may again appear in person on Urantia and in some modified manner resume the role of the dethroned Planetary Prince, or else appear on earth to function as vicegerent Planetary Prince representing Christ Michael, who now actually holds the title Planetary Prince of Urantia. While it is far from clear to us as to what Machiventa's destiny may be, nevertheless, events which have so recently taken place strongly suggest that the foregoing conjectures are probably not far from the truth.

We well understand how, by his triumph of Urantia, Michael became the successor of both Caligastia and Adam; how he became the planetary Prince of Peace and the second Adam. And now we behold the conferring upon this Melchizedek of the title Vicegerent Planetary Prince of Urantia. Will he also be constituted Vice Material Son of Urantia? Or is there a possibility that an unexpected and unprecedented event is to take place, the sometime return to the planet of Adam and Eve or certain of their progeny as representatives of Michael with the titles vicegerents of the second Adam of Urantia?

And all these speculations associated with the certainty of future appearances of both Magisterial and Trinity Teacher Sons, in con junction with the explicit promise of the Creator Son to return sometime, make Urantia a planet of future uncertainty and render it one of the most interest-

ing and intriguing spheres in all the universe of Nebadon. It is altogether possible that, in some future age when Urantia is approaching the era of light and life, after the affairs of the Lucifer rebellion and the Caligastia secession have been finally adjudicated, we may witness the presence on Urantia, simultaneously, of Machiventa, Adam, Eve, and Christ Michael, as well as either a Magisterial Son or even Trinity Teacher Sons.

*It has long been the opinion of our order [*Melchizedek*] that Machiventa's presence on the Jerusem corps of Urantia directors, the four and twenty counselors, is sufficient evidence to warrant the belief that he is destined to follow the mortals of Urantia on through the universe scheme of progression and ascension even to the Paradise Corps of the Finality. We know that Adam and Eve are thus destined to accompany their earth fellows on the Paradise adventure when Urantia has become settled in light and life.* [93:10.6-9] (P. 1025)

I believe we can all look forward to meeting him on the Mansion worlds, and I, for one, can't wait.

Linda Buselli found The Urantia Book *in 1971 and has been active in various related activities ever since. She is currently a General Councilor of the Fellowship and the Publications Committee Chair.*

End Notes:

[1] http://www.christiananswers.net/dictionary/breastplate.html

[2] http://www.answers.com/main/ntquery;jsessionid=ed3026hr3h3r?tname=urim-and-thummin

[3] For further studies and comparisons, contact Linda Buselli at LJBuselli@sbcglobal.net. These can be e-mailed or sent by regular mail at your request.

[4] John Man, *Alpha Beta*, John Wiley & Sons, 2000

[5] David Sacks, *Letter Perfect*, Random House, 2003

[6] Personal notes of Carolyn Kendall's father, Clarence Bowman, Forum member

Do You Remember These?

The authors of *The Urantia Book* italicize words here and there in the Papers, sometimes whole sentences, in order to emphasize a point they wish us to remember. How many of these italicized words can you fill in from memory.

1. _____is a secret of God the Spirit." [13:1.10] (P. 145)

2. "Energy is _____, mind is _____, spirit is_____." [9:4.5] (P. 102)

3. Mind knows quantity, reality, meanings. But quality—values—is _____. [111:3.6] (P. 1219)

4. "…today, while his [Jesus] absence prevents such material manifestations, you should refrain from placing any sort of limitation on the possible exhibition of his _____ _____." [152:1.5] (P. 1700)

5. "I have arrived at the settled conclusion that the Inspired Trinity Spirits, by _____techniques, are also functioning as teachers of the realms." [19:5.9] (P. 220)

6. "…revelation is validated only by human _____. [101:2.6] (P. 1106)

7. "The temporal relation of man to the Supreme is the foundation for cosmic morality, the universal sensitivity to, and acceptance of, _____. [117:4.8] (P. 1284)

8. "There is always a _____and _____way to do things. [25:4.10] (P. 280)

9. "Subsequent to mortal fusion the Adjusters share your destiny and experience: _____ _____ _____. " [110:7.4] (P. 1212)

10. "The motivation of faith makes experiential the full realization of man's sonship with God, but _____, completion of decisions, is essential to the evolutionary attainment of consciousness of progressive kinship with the _____ _____ of the Supreme Being." [110:6.17] (P. 1211)

"Nearer, My God, to Thee" Getting Closer to God-Approaching the Universal Father

By David Glass, Plano, TX

"The progressive comprehension of reality is the equivalent of approaching God."[196:3.3](P. 2094)

"Is there a God; and, if so, what is he like?" These are age-old questions, having arisen as long ago as man himself when he first wonderingly beheld the starry heavens at night; or observed a plant emerge out of the earth, grow, flourish, and flower; when he responded to his seemingly innate love of family and children; or when he contemplated the destiny of his departed friends, family, associates, and chieftains.

Since those ancient times, man has achieved some theological sophistication; however, *The Urantia Book* testifies that currently on our world *"there exists great* ***confusion*** *respecting the meanings of such terms as God, divinity, and deity."* [0:0.1](P. 1) (my emphasis) There are many groups and individuals who believe they have certain, but conflicting, answers to our initial questions, and many of these are passionately dedicated to maintaining and to proliferating such beliefs among other persons and peoples. There is also a newly refreshed and recently more prominently vocal group of people who are non-believers in "God, divinity, and deity." And among this group there are some who are likewise passionate about the proliferation of their views.

Into this milieu of conflict, contrariety, and discord, a revelation has been bestowed—given—or, perhaps, you might even say, *thrust*; *The Urantia Book* has been made available to the minds of those who are seeking answers to our initial questions. The revelation presents its material with a frank forcefulness and with a direct authority which a growing number of mortals are finding difficult to resist, even easy to entertain—believe.

The purposes of this presentation are basically twofold: (1) to overview the what, the how, and the why of the opening content of *The Urantia Book*–more specifically, to consider the manner in which the revelation states and arranges its introductory information (about God) and (2) to discuss what meaning, impact, and relevance these teachings are for each of us today.

Thus, as stated, the subject matter of this presentation is nothing timid or unadventuristic—it is a consideration of God, the Universal Father, your father and my father—spiritually—as he is presented and described in papers one through three of *The Urantia Book*. So without further introductory ado, may I begin:

The First Three Papers

First, let's see how simply the *titles* of our three papers relate directly to our original questions: "Is there a God, and, if so, what is he like?"

The first paper begins by immediately discussing God, thus affirming that the revelator's answer to our first question is: Yes, *there is a God*. And, we meet God by a new name, "the Universal Father," the *title* of Paper l. Then, in Papers 2 and 3, we learn about the nature and attributes of God, as reflected in their titles—here we learn something about *what God is like.*

When I go back over and through the three papers, I marvel at how logically, how reasonably, the *contents* of these papers are arranged: in an order and sequence designed to maximize the quality of the manner in which the information is presented to the human mind.

Paper 1 begins with important information about God: It reveals God as the Creator, Controller, and Upholder of all things and beings, while emphasizing his uniqueness. Then, the Divine Counselor—the author of papers 1-3—reveals that God has manifested an intentionally inhabited, far-flung universe of universes wherein are scattered myriads of planets and that many of these worlds, are more or less comparable to our own world, Urantia.

Next comes a declaration which discloses **the** most important aspect of the relationship between God himself and his lowest ranking universe citizens, mortal men. That dynamic, progress-inciting decree of the Father which has set all creation astir is God's primary invitation-command to man—indeed to all creature beings: "Be you perfect, even as I am perfect."

Assurances of the possibility of attaining this destiny follow, and the opening section of paper 1 closes by describing the cosmos-wide, Paradiseward ascension of all mortals everywhere to God as "the supreme adventure" of all time.

Now, let's consider more of Paper 1: Section 1 is titled, "The Father's Name." It just makes sense to me that the

first section of the first paper about God should discuss and establish God's name and the significance and importance of that name. Within this section we learn two additional truths: (1) that dedicating our will to the doing of our Father's will is our "choicest gift to God," and (2) that we will each find or devise *our own* individual names for God which will adequately express our personal concepts of the First Great Source and Center. God has never revealed himself by name, only by nature. Section number 1 closes by de-emphasizing the name selected for God and by exalting the importance of getting to know God and of thereby becoming more like him while spiritually and cosmically "drawing nearer" to God—our theme.

Section 2 affirms the next most salient truth about God. Having established a few names wherewith to refer to God, such as "God," we come to the first of our questions: Is there a God? Is God real? Section 2 is titled, "The Reality of God." God is most certainly *real*. Indeed, God is Primal Reality; he is the *Prior* Reality, the *First* Great Source of all reality.

Revealing God to Man

While Jesus through his life revealed God to man's comprehension capacity as fully as possible, he, surprisingly, taught very little specifically about "the heavenly Father"—only "*that God in himself is spirit, and that … he is a Father.*" [169:4.11] (P. 1857) In the very title of Paper 1, it is revealed that God is a Father, even "The Universal Father." Having established a name for God and the reality of God, the Divine Counselor now titles section 3, "God is a Universal *Spirit*" throughout which the spirit nature of God and the nature of God's spirit are considered. The Counselor relates the important revelation-statements: "'*God is spirit*,' and '*God is love*.'" [1:3.8] (P. 26)

Now the Counselor encounters a problem—a seeming impasse in his assignment, as would any spirit revelator presenting the Universal Father (who is spirit) to the minds of mortal men (who are predominantly material). God's self-revelation to men and the revelator's ability to reveal spiritual truth to the minds of men is probably made possible principally for the same reason: because man's mind is indwelt by a spirit fragment of God himself. Man's indwelling spirit is a fragment of the original, absolute, and prior-to-all-else Reality of God. All functions of man's indwelling spirit represent the activities of God's indwelling spirit in the mind of man; they constitute, therefore, "the most profound of all universe mysteries"—"*the mystery of mysteries*." [1:4.1] (P. 26)

Continuing in section 4, "The Mystery of God," the Counselor writes: "*As a reality in human spiritual experience God is not a mystery. But when an attempt is made to make plain the realities of the spirit world to the physical minds of the material order, mystery appears.*" "*[O]nly the faith-grasp of the God-knowing mortal can achieve the philosophic miracle of the recognition of the Infinite by the finite.*" [1:4.7] (P. 27) The discovery of the presence and activity of God's spirit in the mind of man constitutes a *philosophical miracle*; therefore, it should not be a corresponding great mystery to us that some men's minds do *not* achieve this miracle, ascribe the effective reality of human spiritual experience to magic, or disallow it altogether.

"Miracle" is in no sense too strong a term to refer to the presence and activity of the spirit of the Infinite in the mind of the finite. To God, who achieved the realization of such an association of the finite and the infinite, it is not a miracle. But probably to all sub-infinite intellects, such an association does constitute a miracle, hence a "mystery,"—indeed, "the mystery of mysteries."

The Personality of Deity

The three (final) sections of Paper 1 emphatically establish the *personality of deity*. [1:5-7] (PP. 27-32) You may recall that the personality of God was also the topic discussed by Rodan, Thomas, and Nathaniel. [See: 161:1] (PP. 1783-5)

In Paper 1, section 5, the revelator patently states: "*God is both infinite and personal; he is an infinite personality.*" [1:5.1] (P. 27) As such, God's personality is not fully comprehensible by any finite material creature beings, such as ourselves. "*Although you may know that God must be much more than the human conception of personality, you equally well know that the Universal Father cannot possibly be anything less than an eternal, infinite, true, good, and beautiful personality.*" [1:5.2] (P.27)

There are a plentiful number of arguments which establish the personality of God in this section and in sections 6 and 7. However, the most memorable and incontrovertible argument, to my mind, is stated in another paper by a Melchizedek of Nebadon, who writes: "*If God were not at least personal, he could not be conscious, and if not conscious, then would he be infrahuman,*" subhuman. [103:1.6] (P. 1130)

The biblical passage which appears back in Paper 1, section 5, also makes a strong appeal to my sense of the reasonable: "*He who planned the ear, shall he not hear? He who formed the eye, shall he not see?*" [1:5.1] (P. 27) Stated otherwise: If personality is the highest, all-encompassing, and unifying aspect of *our* being—[see 0:V and 112:0.1] (PP. 8-9 and 1225-7)—then our Primal Creator, a being infinitely

more exalted, universal, and unified than we are, must likewise possess personality; he must be personal.

In section 7, we read about "The Spiritual Value of the Personality Concept": *"The concept of the personality of Deity facilitates fellowship; it favors intelligent worship; it promotes refreshing trustfulness. … Only personalities can commune with each other."* [1:7.1] (P. 31) Fellowship, worship, trust, and communion are spiritually valuable: they all promote interactive human-divine relations which result in man's becoming more and more Godlike; man responds thereby to the supreme mandate; and he makes progress in his age-long approach to his Universal Father.

Truth, Beauty, and Goodness

We know that truth, beauty, and goodness represent man's *"comprehensible elements of Deity."* [56:10.2] (P. 646) *"To finite man,"* they *"embrace the full revelation of divinity reality."* [56:10.20] (P. 648) They constitute a *"love-comprehension of Deity."* [56:10.20] (P. 648) In Paper 1, section 7, they are referenced in the *further* establishment of the *personality of Deity* in this way:

The concept of truth might possibly be entertained apart from personality, the concept of beauty may exist without personality, but the concept of divine goodness is understandable only in relation to personality. Only a person can love and be loved. Even beauty and truth would be divorced from survival hope if they were not attributes of a personal God, a loving Father. [1:7.3] (P. 31)

The personality of Deity is absolutely unified, notwithstanding the threefold personalization of Deity. The three divine personalities are indivisibly one in the deity unity of the Paradise Trinity. The **oneness** of the philosophically postulated, solitary I AM, from which the Father, Son, and Spirit "proceed," is "reconstituted" or "maintained" in the absolute unity of the three persons of the Paradise Trinity.

The Nature of God

Moving on to Paper 2: Concerning "The Nature of God," we have already learned that the Father is *infinite, eternal and perfect*—[see: Sections 2:1 and 2:2] (PP. 33-36). Next, in section 3 of Paper 2, we learn that God is *just* and *righteous*; however, this section is immediately followed, qualified, and overshadowed by the assurances and descriptions of the mercy of God in section 4. Section 4, "The Divine Mercy," begins with a definition of mercy that refers back to the justice and perfection of God, while anticipating his attribute of *all-knowingness: "**Mercy** is simply justice tempered by that **wisdom** which grows out of perfection of knowledge and the full recognition of the natural weaknesses and environmental handicaps of finite creatures."* [2:4.1] (P. 38) (My emphases) Thus, God is **just** because he is **righteous**, but God's just nature is nevertheless **mercy-dominated**. (My emphasis throughout)

Later, we read: *"Mercy is that natural and inevitable offspring of goodness and love,"* and we learn: *"Divine mercy represents a fairness technique of adjustment between the universe levels of perfection and imperfection."* [2:4.4-5] (P. 38) Thus, God's *mercy*, like his personality, is related to his *love* and his *goodness*.

A definitive statement in this section is: *"Eternal justice and divine mercy together constitute what in human experience would be called fairness."* [2:4.4] (P. 38) (My emphasis)

The Love of God

Now we arrive at section 5, "The Love of God." I believe this entire section is more than deserving of many rereadings. It presents many points well worth reviewing. I will only touch on a few of them here.

The love of God is his **only** personal attitude towards the affairs of the universe. [see: 2:5.1, my emphases] (P. 38) In that sense, *love is God's **exclusive** situational response to all universe events. It follows that God's love is universally inclusive: "He would 'have all men be saved by coming into the knowledge of the truth.'"* [2:5.2] (P.39) Furthermore, *"God is divinely kind to sinners. When rebels return to righteousness, they are mercifully received."* [2:5.4] (P.39)

How can we know the extent, the power, and the greatness of the significance of God's love for us? *"The Father loves us sufficiently to bestow his life upon us."* [2:5.1] (PP. 38-9) But, *"the greatest evidence of the goodness of God and the supreme reason for loving him is the indwelling gift of the Father—the Adjuster who so patiently awaits the hour when you both shall be eternally made one."* [2:5.5] (P. 39) God's love is of such a nature that he bestows sonship upon us, his mortal planetary children of time and space. Paul pours out his response to this realization-of-his-heart in the famous words: *"'Behold what manner of love the Father has bestowed upon us that we should be called the sons of God."* [2:4.4] (P. 39)

The Impact of Sonship

That the forms of the expressions of some of the truths of this presentation have become familiar to us should to no degree diminish our estimation of their importance nor attenuate our experience of their astonishing impact. The truths of man's eternal sonship with God; of the infinite love of God; and of the divine injunction to serve one's fellows

as Jesus served us are among the cornerstones of Jesus' living gospel. He said: *"That which the world needs most to know is: Men are the sons of God… "* [193:0.4] (P. 2082) He proclaimed: *"If you would but believe that my Father loves you with an infinite love, then you are in the kingdom of God."* [137:8.15](P. 1537) And he enjoins each of us today: *"Serve your fellow men even as I have served you."* [192:2.10] (P. 2049

It is *empowering beyond measure* for anyone to realize: The limitless and all-powerful, Creative Source of the entirety of the far-flung universe of universes loves me—uniquely, personally, individually! We are assured that a *"finite human being can actually feel—literally experience—the full and undiminished impact of such an infinite Father's LOVE."* [3:4.6] (P. 50) Now, should anyone be of the opinion that he has not, thus far, actually felt and literally experienced the infinite love of God, then I enjoin him, by all means, to meditate upon God's love, contemplate God's love, and experience God's love to the fullness of his present capacity, *for* (as we shall read later) *such experiences are in themselves capacity-enlarging.*

Paper 2 concludes with sections on "The Goodness of God," and "Divine Truth and Beauty." [2:67] (PP. 40-43). The goodness of God is a part of the personality of God [see: 2:6.1] (P. 40) When thinking of the goodness, the perfection, the righteousness of the heavenly Father, ever recall: *"Righteousness may be the divine thought, but love is a father's attitude."* (2:6.5) (P. 41) Rememeber: *"God as a father transcends God as a judge."* [2:6.6] (P. 41) In all our progressive attempts to discern the depth, the fullness—the infinity and the eternity—of the Universal Father's plans and purposes, let us bear in mind: *"Love identifies the volitional will of God."*[2:6.9] (P. 42) While God the Creator ever does all things in perfection and in all-wisdom—God is love.

In section 7 of Paper 2, we learn that the "Divine Truth and Beauty," together with the goodness of God, are all involved in an integrative process which results in a unity in divine love: *"The discernment of supreme beauty is the discovery and integration of reality: The discernment of the divine goodness in the eternal truth, that is ultimate beauty. Even the charm of human art consists in the harmony of its* ***unity****."* [2:7.8](P. 43) (My emphasis) The Counselor writes, *"Truth is coherent, beauty attractive, goodness stabilizing. And when these values of that which is real are co-ordinated in personality experience, the result is a high order of love conditioned by wisdom and qualified by loyalty."* [2:7.12] (P. 43) And then comes the show-stopper: *"****Truth, beauty, and goodness*** *are divine realities, and as man ascends the scale of spiritual living, these supreme qualities of the Eternal become increasingly co-ordinated and unified in* **God***, who is* **love***."* [2:7.10] (P. 43) [Emphases mine]

The Attributes of God

Paper 3, "The Attributes of God," continues the discussion of the **Universal Father** by establishing the preeminence of his Creatorship: *"Creatorship is hardly an attribute of God; it is rather the aggregate of his acting nature.…And the creatorship of Deity culminates in the* ***universal*** *truth of the* **Father***hood of God."* [3:0.3] (P. 44) [My emphases throughout]

Section 1 of Paper 3 establishes the "Everywhereness" of God. *"The ability of the Universal Father to be everywhere present, and at the same time, constitutes his omnipresence."* [3:1.1] (P. 44)

It might be usefully stated here that the reason that the titles of sections 1, 2, and 3 of Paper 3 do not employ the terms we usually find when discussing deity—omnipresence, omnipotence, and omniscience—is, presumably, because, in the word-usage of the revelation, these three terms are generally reserved to refer to the *absonite* level of reality [see: 105:7.13] (P. 1160)—whereas, in speaking of God—the Universal Father—we are, more likely than not, discussing realities having to do with the *absolute* and/or the *infinite* levels of Reality [see: 106:0.8-9] (P. 1163)

One interesting feature of the topic of section 1 is that *"the everywhereness of God"* refers to the omni**presence**, to the "*presence*" of God. While the universal presence of God is uniform and unvarying on infinite and absolute levels, we may be somewhat surprised to learn that on sub-infinite and sub-absolute levels, the presence of God, as a functional reality in the individual lives of personal creatures, while not whimsical in manifestation, is variable: that while *"[t]he Father has freely bestowed himself upon us without limit and without favor,"* [3:1.12] (P. 46) *"his effective presence is determined by the degree of co-operation accorded [the] indwelling [Thought] Adjusters by the minds of their sojourn."* [3:1.11] (P. 46)

Further clarifying this truth, the revelator adds: *"The fluctuations of the Father's presence are not due to the changeableness of God. …Rather, having been endowed with the power of choice (concerning Himself), his children, in the exercise of that choice, directly determine the degree and limitations of the Father's divine influence in their own hearts and souls."* [3:1.12] (P. 46) This seems to be a rather instructive and admonitory notification by the Counselor.

Concerning "God's Infinite Power," discussed in section

2, we learn three things regarding the limitless power of the Universal Father: (1) God's power is *infinite*; (2) *his control* of all force, energy, and power is complete, total, and universal—*all-inclusive*—that is, there is no power not dominated by the controllership of God; and (3) God is the *exclusive* Source of *all* force, energy, and power: *"'[T]here is no power but of God.'"* [3:2.1] (P. 46)

God's all-powerfulness implies his omnipotence which in turn implies God's ability to do all things. The Counselor qualifiedly confirms this truth, stating, "*Within the bounds of that which is consistent with the divine nature, it is literally true that 'with God all things are possible.'*" [3:2.2] (P. 46) The Counselor further qualifies the concept of God's omnipotence in section 3: *"Omnipotence does not imply the power to do the nondoable."* [3:3.5] (P. 49) Even the omnipotence of God is, of course, not capable of producing square circles or of creating evil which is inherently good—as some Urantian philosophers have sometimes considered.

God's actions, powered by his omnipotence, all *"unfold in accordance with the eternal purpose of the Universal Father, …and in keeping with the all-wise plan of God."* [3:2.2] (P. 46)

(It is, again, perhaps noteworthy, that we have terms for God's everywhereness, infinite power, and universal knowledge—omnipresence, omnipotence, and omniscience, respectively—but that there is no corresponding term for God's inherent, universal, eternal, and perfect "all-wisdom." Whenever the "omni-wisdom" of God is referred to in the revelation the terms "all-wise" and "all-wisdom" are employed.) (My emphasis)

Here is an important statement regarding the all-wisdom of the Universal Father: *"As the emergencies of human experience arise, he has foreseen them all, and therefore he does not react to the affairs of the universe in a detached way but rather in accordance with the dictates of* ***eternal wisdom*** *and in consonance with the mandates of* ***infinite judgment.***" [3:2.6] (P. 47) [My emphases]

Furthermore, the truth-fact that *"God controls all power"* [3:2.4] (P. 47), extends to an associated truth: *"[H]e has ordained the circuits of all energy. He has decreed the time and manner of the manifestation of all forms of energy-matter."* [3:2.4] (P. 47) God's direct control of all energy, most probably, ought to be referred to his effectiveness upon the infinite and absolute levels. On subinfinite levels—certainly on the finite level—God permits his physical laws to become somewhat subject to modifications in the interests of more localized conditions and in accordance with the plans and purposes of his entrusted subordinates.

Consider, for example, this statement from Paper 4: *"God acts in accordance with a well-defined, unchanging, immutable law throughout the wide-spreading master universe; but he modifies the patterns of his action so as to contribute to the co-ordinate and balanced conduct of each universe, constellation, system, planet, and personality in accordance with the local objects, aims, and plans of the finite projects of evolutionary unfolding."* [4:2.1] (P. 56)

God's knowledge is universal, complete, total, perfect: *all-inclusive* (Section 3). God knows all things; he is conversant with the thought of all creation; his knowledge of events is universal and perfect; his awareness extends into every place. *"All the worlds of every universe are constantly within the consciousness of God."* (3:3.2) (P. 49) He likewise knows of, and perhaps, in some inexplicable fashion, experiences—shares—the "afflictions" of all his children. And he knows all their needs before they have thought to make petition therefor.

God's universal knowledge is supplemented indirectly through the consciousness and experience of his Sons and directly through God's conscious identity with his spirit fragments such as the Paradise Thought Adjusters that serve, wait, and watch in the depths of the human mind. The Universal Father is also all the time aware of the content of the absolute mind of the Infinite Spirit.

It is not clear to the Counselor whether God chooses to foreknow events of sin. However, should God choose to exercise complete foreknowledge, such awareness would in no way abrogate the true free will of all of his personal creatures. *"One thing is certain: God is never subjected to surprise."* [3:3.4] (P. 49)

Regarding the import of section 4, the significance of "The Limitlessness of God" can be expressed in one sentence: *"In potential of* ***force, wisdom****, and* ***love****, the Father has never lessened aught of his possession nor become divested of any attribute of his glorious personality as the result of the unstinted bestowal of himself upon the Paradise Sons, upon his subordinate creations, and upon the manifold creatures thereof."* [3:4.1] (P. 49) (My emphasis)

Paradoxically—that is, at least in human understanding—it would seem that we cannot truly fathom even the nature, much less the actuality, of infinity. In fact, we are assured that *"[t]he Supreme … probably embraces all of infinity that* [we] *can ever really comprehend. To understand more than the Supreme is to be more than finite!"* [117:6.19] (P. 1290)

There is one exception to this general truth: It seems to be possible (as stated above) for an individual mortal to experience the quality, if not the quantity, of the infinite Father's love: A *"finite human being can actually feel—lit-*

erally experience—the full and undiminished impact of such an infinite Father's LOVE. … [W]hile quality of experience is unlimited, quantity of such an experience is strictly limited by the human capacity for spiritual receptivity and by the associated capacity to love the Father in return." [3:4.6] (P. 50)

At this point in the Counselor's disclosures, he pauses to make an observation which is germane to our contemplation, as mortal creatures, on all the qualities, traits, attributes, and characteristics of God in which we have been engaged throughout this discussion: "*Finite appreciation of infinite qualities far transcends the logically limited capacities of the creature because of the fact that mortal man is made in the image of God—there lives within him a fragment of infinity.*" [3:4.7] (P. 50)

The Father's Sovereignty

In section 5, we consider 'The Father's Supreme Rule,' his sovereignty. The supreme, ultimate, absolute, and infinite sovereignty of God is perfectly consistent with his universal and maximated plan and practice of delegating personal authority and universe supervision upon a vast concourse of subordinate personalities. All delegations of authority are, however, in the final analysis, conditional: "*Any and all powers delegated,*" the Counselor writes, "*if occasion should arise, if it should become the choice of the divine mind, could be exercised direct; but, as a rule, such action only takes place as a result of the failure of the delegated personality to fulfill the divine trust.*" [3:5.1] (P. 50)

The bestowal of free will upon imperfect creatures can and does occasion significant departures from the Father's perfect purposes and eternal plans. Men are capable of actualizing that evil which is only potential in the bestowal of free will. And while "*the uncertainties of life and the vicissitudes of existence do not in any manner contradict the concept of the universal sovereignty of God*" [3:5.5] (P. 51), they can create situations fraught with difficulties and replete with not a little anxiety. That these challenges which comprise a part of the mortal life adventure also provide spiritual- and character-improvement opportunities is evidenced in the listing of the eleven considerations which have come to be called "*the inevitabilities.*"[3:5.6-14] (P. 51)

The Father's supreme rule eventuates in his **primacy**, the topic of section 6: "*With divine selflessness, consummate generosity, the Universal Father relinquishes authority and delegates power, but he is still primal; his hand is on the mighty lever of the circumstances of the universal realms; he has reserved all final decisions and unerringly wields the all-powerful veto scepter of his eternal purpose with unchallengeable authority over the welfare and destiny of the outstretched, whirling, and ever-circling creation.*" [3:6.1] (P. 52)

The Divine Counselor comes full circle in this final section of Paper 3, affirming in a fresh, memorable, and succinct expression: "*The will of God is divine truth, living love.*" [3:6.2] (P. 52) We return to the divine truth that the Universal Father is the personality of living love which the First Great Source and Center ever turns toward the innumerable personalities of his intelligent creatures inhabiting hundreds of thousands of universes.

To review: God is eternal, infinite, and perfect. He is a personality defined as spirit and consisting in love. "*God is unlimited in power, divine in nature, final in will, infinite in attributes, eternal in wisdom, and absolute in reality.*" [3:2.15] (P. 48) God is just, merciful, and fair; true, beautiful, and good; powerful, sovereign, and primal.

It is both my prayer and purpose that this survey of information about the Universal Father should redound to our all having been enabled to move at least slightly nearer to him. No concepts of God or about God are as spiritually valuable, however, as experience with him. Therefore, I close with these words of a Mighty Messenger, one who has discovered God in his heart and subsequently in person on Paradise, and who once came to Urantia bearing this message:

Men all too often forget that **God** *is the greatest experience in human existence. Other experiences are limited in their nature and content, but the experience of God has no limits save those of the creature's comprehension capacity, and this very experience is in itself capacity enlarging. When men search for God, they are searching for everything. When they find God, they have found everything. The search for* **God** *is the unstinted bestowal of love attended by amazing discoveries of new and greater love to be bestowed.* [117:6.9] (P. 1289) (My emphases throughout)

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One Man's Tour Through the Evolutionary Debate

NOTE: The editors of* The Fellowship Herald *have granted the request of the author for anonymity.

The following article offers "a tour through the evolutionary debate" from one man's perspective. The author of the article is quite familiar with the contents of *The Urantia Book*. Although it is not the primary purpose of the article to draw parallels between current science and *The Urantia Book*, the article nevertheless depicts a developing consilience between recent research in evolutionary science and the key concepts relating to evolution presented in *The Urantia Book*.

Neo-Darwinism has been the prevailing scientific account of evolution over the past several decades. Because neo-Darwinism is entirely reliant on material causation, chance plays an essential role. Chance processes can only proceed slowly through incremental change. The vast array of complex and diverse life forms, neo-Darwinists claim, arose through gradual accumulations of adaptive features.

But neo-Darwinism's reliance on gradual change is not holding up well in light of current research. Using tools such as genome sequencing biologists are demonstrating that evolutionary change probably did occur suddenly as *The Urantia Book* says:

[Life forms] *do not evolve as the result of the gradual accumulation of small variations; they appear as full-fledged new orders of life, and they appear* suddenly. *The sudden appearance of new species and diversified orders of living organisms is wholly biologic, strictly natural.* [58:6.3-4] (P. 669)

The evolutionary transitions in single celled life forms, plants and multi-cellular invertebrates and vertebrates including the predecessors of humanoids all occurred suddenly.

The higher protozoan type of animal life soon appeared, and appeared suddenly. [65:2.4] (P. 732)

It was from an agile little reptilian dinosaur of carnivorous habits but having a comparatively large brain that the placental mammals suddenly *sprang.* [65:2.12] (P. 732)

Slightly to the west of India, on land now under water and among the offspring of Asiatic migrants of the older North American lemur types, the dawn mammals suddenly *appeared.* [61:6.1] (P. 700)

These new mid-mammals—almost twice the size and height of their ancestors and possessing proportionately increased brain power—had only well established themselves when the primates, the third vital mutation, suddenly *appeared.* [:61.6.1] (P. 700)

Not only did evolutionary transitions occur suddenly according to *The Urantia Book*, but they occured in great leaps. "*you will not be able to find such connecting links between the great divisions of the animal kingdom nor between the highest of the prehuman animal types and the dawn men of the human races. These so-called 'missing links' will forever remain missing, for the simple reason that they never existed.*" [58:6.2] (P. 669)

Neo-Darwinism is a theory that excludes any super-material causation—no design, no guidance, no ultimate goal or purpose. Yet one of the most important findings in recent scientific research is convergent evolution—repeated evolution of similar adaptive features—not only at the organism level but also the organ and molecular level. *The Urantia Book* states that there is design in life which explains the patterns in life systems and the apparent direction to evolution.

A purposeful plan was functioning throughout all of these seemingly strange evolutions of living things, but we are not allowed arbitrarily to interfere with the development of the life patterns once they have been set in operation. [65:3.1] (P. 733)

After organic evolution has run a certain course and free will of the human type has appeared in the highest evolving organisms, the Life Carriers must either leave the planet or take renunciation vows. [65:1.5] (P. 731)

Science has no clear answer as to how inanimate matter became animated. *The Urantia Book* says that life was not simply a frozen accident in time or the result of a deterministic chemical pathway, but rather life was implanted on earth by intelligent beings.

Life does not originate spontaneously... [36:0.1] (P. 667)

We [Life Carriers] *can and do carry life to the* **planets**, *but we brought no life to Urantia....all life appearing hereon was formulated by us right here on the planet..* [58:4.1] (P.667) [Emphasis mine]

The Urantia midwayers have assembled over fifty thousand facts of physics and chemistry which they deem to be incompatible with the laws of accidental chance, and which they contend unmistakably demonstrate the presence of intelligent purpose in the material creation. [58:2.3] (P. 665)

Life, according to *The Urantia Book*, is not entirely material, nor is human intellect and consciousness purely a chemical-mechanical phenomenon.

In language, an alphabet represents the mechanism of materialism, while the words expressive of the meaning of a thousand thoughts, grand ideas, and noble ideals—of love and hate, of cowardice and courage—represent the performances of mind within the scope defined by both material and spiritual law, directed by the assertion of the will of personality, and limited by the inherent situational endowment. [195:7.21] (P. 2080)

To say that mind "emerged" from matter explains nothing. If the ***universe*** *were merely a mechanism and mind were unapart from matter, we would never have two differing interpretations of any observed phenomenon. The concepts of truth, beauty, and* ***goodness*** *are not inherent in either physics or chemistry. A machine cannot know, much less know truth, hunger for righteousness, and cherish goodness.* [195:6.11] (P. 2077) [Emphasis mine]

The theory that most closely parallels the evolutionary account presented in *The Urantia Book* is Intelligent Design. Intelligent Design seeks to expand science by incorporating non-material causation as a viable hypothesis. However, the scientific establishment has rejected such an intrusion and has adopted a strictly materialist paradigm. The article only hints at the consequences of secularism and materialism. *The Urantia Book* is more explicit.

The complete secularization of ***science***, ***education***, *industry, and society can lead only to disaster. During the first third of the twentieth century Urantians killed more human beings than were killed during the whole of the Christian dispensation up to that time. And this is only the beginning of the dire harvest of materialism and secularism; still more terrible destruction is yet to come.* [195:8.13] (P. 2082) [Emphasis mine]

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"Darwin made it possible to be an intellectually fulfilled atheist"[1] So said Richard Dawkins, the most influential scientist and intellectual in the world. The notion that evolution is irreconcilable with belief in God in general and Christian theism in particular, may be surprising to some and perhaps a bit distressing.

By "Darwin" in the above quote, Dawkins means Darwinian evolution in its modern form, "neo-Darwinism." Neo-Darwinism can be viewed as a term applied to the range of viable theories given the assumption that only material causation is allowed in the explanation of natural phenomena. The secular aspect of secular Humanism is largely dependent on the ascendency of neo-Darwinism. Neo-Darwinism is the primary force in the conflict between religion and science and what gives rise to the impression that religion is in retreat, giving up ground under the inexorable advance of science. Religionists are seen as holding on to bits of ground only to have to surrender them under the principle of Occam's Razor as science discovers material explanations for phenomena once attributed to Deity. This is the so-called God-of-the-gaps fallacy materialists see religionists repeatedly succumbing to. Secular Humanism, backed by the forces of academic scientists, have laid siege to traditional values predicated on Judeo-Christian theology using neo-Darwinism as their primary weapon. The outcome goes to the very core of what is important in human experience: whether we are the intention of a loving God, and have an eternal purpose, or merely accidents of time, alone in a purposeless, uncaring universe.

But if it can be shown that strictly materialistic accounts offered by science about the origin of the universe, the fine tuning of the universe parameters, the origin and evolution of life and the advent of sentient beings are unsatisfying, then the God-of-the-gaps fallacy is itself a fallacy. And if it can be shown that scientific advancements reveal not the signature of chance, but rather the signature of design, then the entire color of the debate changes.

What Is "Evolution" and Why Is It Important?

Evolution means one of two things depending on the context. To some it simply means descent with modification, which refers to the theory that all creatures great and small are related—derived from a distant common ancestor. This is often referred to as "the fact of evolution." Within the academic scientific community, the term evolution more often also encompasses the proposed mechanism of evolution. Darwin proposed that the mechanism of evolution was variation and natural selection. He was unaware of genetics at the time. In the early to mid-part of the twentieth Century the mechanism of evolution was defined more clearly with respect to "variation." The modern synthesis, often called neo-Darwinism, posits that the mechanism of evolution is random variation (mutation) and natural selection.

Random mutation means the raw changes that provide the input for evolutionary change are chance events—accidental changes to DNA segments which are thought to determine a living entity's structures and functions. They are, so say neo-Darwinists, unsolicited, and not facilitated by the organism. This means that there is no direction—no

purpose—to evolution. No direction means that sentient beings are not inevitable. We are purely the result of an accumulation of chance and necessity—mutation and natural selection. *How can one imagine that there is a Divine purpose to human existence if the process by which we arose is purposeless?* Nobel Laureate Jacques Monod has said:

"Chance alone is at the source of every innovation, of all creation in the biosphere. Pure chance, only chance, absolute but blind liberty...Man knows at last that he is alone in the indifferent im-mensity of the universe, whence which he has emerged by chance. His duty, like his fate, is written nowhere".[2]

An important inferential extension to this is that human intellect is purely physical—that there is no mind apart from the physical brain. If human intellect is entirely explainable as a purely physical phenomenon and the result of a purposeless process, it would seem quite unlikely that the brain would just happen, by chance, to be suitable for any sort of non-material overlay such as mind, or free will, or soul ("ensoulment"). Therefore the edifice upon which much of traditional Christianity is built, collapses; thus Richard Dawkins' statement: "Attempts to reconcile Christian theology with evolution is to misunderstand evolution."[3]

William Provine of Stanford University has said:

"If evolution is true, [then] there is no God, no life after death, no ultimate foundation for ethics, no free will and no ultimate meaning in life."[4]

Without a true north on an absolute moral compass there is no absolute Truth. Truth and error are ephemeral things subject to the whim of those who have seized power at the moment. They are purely human constructs. There is no barrier—certainly no persistent barrier—to behavior. Anything can be justified. And without a belief in free will—the ability to transcend the material algorithms and inclinations in the brain—there is no reasonable basis for holding individuals accountable to any human created ethics construct anyway. Thus, one of the main pillars of Western civilization collapses. As Daniel Dennett has said,

"[Neo-Darwinism] eats through just about every traditional concept and leaves in its wake a revolutionized worldview, with most of the old still recognizable, but transformed in fundamental ways"[5]

All variant "brands" of Humanism—e.g., Marxism—and its derivatives, socialism, and modern liberalism, are heavily influenced by this manner of thinking. The principals in the Western intellectual establishment have long ago dismissed any sort of idea of a Creator or Supreme Being, especially a compassionate, omniscient God, and are now advocating their case with greater and greater force. It has been my experience that modern secular Humanists would prefer that there be no God.

This idea is expressed artistically in John Lennon's song *Imagine*—the great hymn of secular Humanism:

"Imagine there's no heaven, it's easy if you try.
No hell below us, above us only sky.
Imagine all the people living for today"

From song "Imagine"—the great hymn

So convinced are they of the truth of materialism and so adapted to the idea that this one life is all there is, that they have little or no interest in hearing any counter-arguments. They appear to enjoy the idea that they can dispel the myth of God and salvation from the minds of those who hope for some divine plan that provides meaning in their life. This happens in the universities in America every day. If you think this is too cynical, I encourage you to read Daniel Dennett's *Darwin's Dangerous Idea*,[5] Corliss Lamont's *The Illusion of Immortality*,[6] or any one of Richard Dawkins' books. What should we make of a man such as Richard Dawkins—the most influential scientist in the world—who tells children in effect: "evolution or God kid, take your pick"?

Methodological Naturalism

The current paradigm in science is "methodological naturalism." Methodological naturalism assumes a priori that there are no non-material influences or causes in the natural world. The renowned geneticist, Richard Lewontin, explains this in the following way:

"We [scientists] have a prior commitment…to materialism. It is not that the methods and insti-tutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door."[7]

Phillip Johnson, the founder of the modern Intelligent Design movement, pointed out that if only materialistic explanations for evolution are allowed, then neo-Darwinism, or some material-based theory of evolution, must be true. This explains the assuredness with which neo-Darwinists have about their theory despite its flaws.

Theistic Evolution

Theistic Evolutionists do not accept Dawkins' conclusion that Theism and neo-Darwinism are irreconcilable. Theistic Evolutionists are scientifically informed religion-

ists who accept the current scientific consensus on evolution and the neo-Darwinian account of it, i.e., that we are the result of a series of fortuitous chance events within living cells coupled with natural selection. Notable scientists in this category are Francis Collins, Simon Conway Morris, Ken Miller, and Robert Russell. Theistic Evolutionists point to the Big Bang theory and the discovery that the universe seems to be very tightly tuned—adapted—to allow complex configurations of molecules, and especially living organisms, to arise, as evidence that God exists.[8]

What might be surprising to some is that many Theistic Evolutionists have come to accept the scientific consensus with respect to human intellect and consciousness which holds that the brain is all there is, i.e., there is no non-material overlay to the brain. Most do not, therefore, accept that there is anything like a mind or soul. Immortality is accomplished by resurrection of the physical body. Theistic Evolutionists believe that a pseudo-mind "emerges" from the physical brain. Emergence is a term that describes a phenomenon where the whole is far greater than the sum of its parts. But it is a term that has not been defined clearly with respect to human intellect. It strikes me as simply applying a "label to a mystery," to use a phrase coined by Phillip Johnson.

Neuroscientists and materialist scientists have convinced Theistic Evolutionists that an interaction between a hypothetical, non-material entity (mind), and the material brain violates the laws of physics. Additionally, scientists have discovered that there are correlations between brain activity and human conscious observation. Perturbing the brain evokes predictable conscious phenomena, and conscious phenomena have predictable brain activity. I am not sure why this counts as important evidence against the existence of mind. What would the alternative be; for there to be no correlation? Clearly the brain does something.

Free will is another matter. For there to be anything meaningful about the human experience within a traditional Christian context, free will has to be salvaged. Theistic Evolutionists speculate that interactions between the material brain and non-material aspects in human intellect can occur undetected because they operate under the radar of human detection, courtesy of the uncertainties related to quantum mechanics. Quantum mechanics, therefore, offers potential openness to an otherwise closed, deterministic system. This openness permits, or at least does not exclude, the possibility of free will. Others speculate that this openness afforded by quantum mechanics could facilitate both divine action real (ontological interpretation of quantum mechanics) as opposed to merely a limitation of our current knowledge (epistemological interpretation). The current consensus is that quantum uncertainties are real.

The Catholic Church

What does the Catholic Church say? The first statement by John Paul in 1996 was ambiguous. It signified that evolution was a theory, not merely a hypothesis. But it did not discuss the origin of life and it did not clearly define what "evolution" is. In other words, the statement did not comment on the mechanism of evolution.[9] He may simply have been referring to common descent. More recent comments have also been somewhat unclear. Comments that "true contingency" is not incompatible with the Divine plan indicate a position more consistent with what Theistic Evolutionists believe. However, other comments suggesting that evolution has been guided by God in some way are more consistent with the claims of Intelligent Design.

Intelligent Design

Intelligent Design proponents look at the grandeur of the universe, the manner in which the physical parameters of the universe are tuned, or adapted, to accommodate life, the complexity of life, and the marvel of human intellect, and infer that reality is probably the result of prior intelligence. Intelligent Design theorists view their system as a superset comprising Theistic Evolutionism, Creationism, and those who accept some form of "guided evolution," or any other variant of teleology. Theistic Evolutionists would be aghast at being classified as a variant of Intelligent Design. Because Theistic Evolutionists accept the scientific account of evolution, it is not surprising that they are held in higher regard within the scientific academic community than Intelligent Design proponents. The academy has nothing but scorn for Intelligent Design.

How Intelligent Design should be viewed with respect to Theistic Evolution and Creationism is an academic question. The terms have become quite muddied. The normal convention is that those who develop a school of thought get to define what it is. With Intelligent Design, Michael Behe, a molecular biologist, William Dembski, a philosopher, theologian, and mathematician, and Stephen Meyer, a historian of science, are the primary theorists, though not the originators. In Dembski's and Meyer's view, Intelligent Design encompasses those who believe that intelligence was imparted at some point, any point, to effect a particular outcome whether that impartation of intelligence occurred prior to the inception of life, at the inception of life or throughout the development of life.[10]

However, Creationists have also used the term Intelligent Design to describe a form of Creationism, which typically

implies a belief that each species is the result of a separate Divine act. Creationists often use the term Creationism more broadly to include any belief that the universe and living creatures on earth are the result of Divine creation. A belief in guided evolution, whereby some prior act by the Creator, or those empowered by the Creator, caused an evolutionary rollout of life, could be viewed as Creationism. The fact that each new creature was an indirect act, rather than a direct act of a Creator, is an insignificant detail.

The key difference between what most Theistic Evolutionists believe, and what most non-Creationist Intelligent Design proponents advocate, is that the latter do not accept that the universe physical parameters could be tuned tightly enough by an intelligent agent to channel chemistry along a determinist "pathway" such that life would arise, or arise with a high degree of probability, let alone certainty. (A pathway in this context is simply a deterministic, step by step process whereby chemistry becomes biology.) Furthermore, even if it were the case that a chemical pathway to biology were discovered, Intelligent Design proponents would argue, it is unlikely that such an approach to design could ensure an unfolding of life in a directed manner, i.e., a manner directed toward the inevitability of sentient beings capable of accommodating any super-material qualities such as a mind or soul.

But the demarcation between Intelligent Design and Theistic Evolution is not as clear-cut as many assume. Some notable Theistic Evolutionists, Ken Miller and Francis Collins, for example, surmise that perhaps intelligent intervention did occur at the inception of life on earth. This is virtually indistinguishable from what most non-Creationist Intelligent Design proponents believe, which is ironic, because both Collins and Miller are rather vocal critics of Intelligent Design. If Collins and Miller are prepared to admit that the origin of life may require prior intelligence, why bother with neo-Darwinism to account for the evolution of complex features at all? Is it reasonable to think that an intelligent agent would assemble life—because chance processes could not—only to have life flounder and fail to produce anything more interesting than a few slugs?

What Happened in the Dover Case?

The 2005 court case in Dover, Pennsylvania, offers a textbook case on why it is important to define terms precisely. Proponents of Creationism on the school board wanted biology teachers to read a statement regarding evolution to freshman biology students. The statement referenced "Darwin's theory" without clearly defining what that meant. Did "Darwin's Theory" simply mean common descent or the mechanism of neo-Darwinism, i.e., random mutation and natural selection? The statement also referenced a book, *Of Pandas and People*,[11] that could be interpreted as advocating Creationism.

The case went to court and Judge John E. Jones ruled that Intelligent Design is a form of Creationism and therefore violates the Establishment Clause of the First Amendment to the United States Constitution provision. Because the statement did not specify what Darwin's Theory was, and because the statement referenced a book that was supportive of Creationism (special creation of each distinct species), the ACLU lawyers were able to argue the case, based on the merits of Darwin's theory of common descent, versus Creationism. The evidence for common descent is quite strong. Arguing against Intelligent Design, by focusing on common descent, rather than also specifying the neo-Darwinian mechanism of random mutation and natural selection, is a common tactic of neo-Darwinists, because it is a much easier thing to do. Furthermore, because the statement associated the book, *Of Pandas and People*, with Intelligent Design, the ACLU was able to establish a legal precedent that Intelligent Design is a subset of Creationism rather than Creationism being a subset of Intelligent Design.

The case probably would have been lost had the statement included any comment suggesting that material causes could not fully account for any and all life forms. Ultimately, a judge—not understanding the science—is going to defer to the side that has the greatest preponderance of scientific experts. Clearly, scientists advocating Intelligent Design, teleology, guided evolution—whatever you want to call it—are a small minority, unless there are many other scientists who are not speaking up, to avoid jeopardizing their careers. Advocating such a position is career impacting. Molecular biologist Michael Behe, a leading proponent of Intelligent Design, has become a pariah at Lehigh University where he teaches, despite fully accepting common descent.

Is Intelligent Design Science?

Intelligent Design rejects methodological naturalism. Why, they ask, limit the range of hypotheses before really understanding the ultimate causes of nature? Therefore, if you define science as pertaining strictly to material causation, then you could argue that at least part of what Intelligent Design proposes is not science.

Academic scientists claim that Intelligent Design is not science because it cannot be falsified. Can Intelligent Design be falsified? Yes, I believe it can. Scientists could demonstrate through laboratory experimentation that a complex feature can evolve, or has evolved, by random chance and

natural selection. Alternatively, paleontologists could produce evidence of a fossil sequence showing a continuous, gradual evolution of a complex feature. No such sequence exists. The fossil sequences they have are, however, adequate to demonstrate the truth of Darwin's primary claim of common descent.

Can Neo-darwinism Be Falsified?

The evidence presented by materialist scientists in support of the grand claim of neo-Darwinism—that the tandem mechanisms of random mutation and natural selection explain how all life evolved—is quite weak. But can neo-Darwinism be falsified? Since neo-Darwinism is chance-based, its claims, in theory at least, should be able to be confirmed or falsified by the mathematics of probabilities. This is what William Dembski and others in the Intelligent Design movement have attempted to do. The scientific method requires that there be an attempt to falsify a hypothesis or theory. But materialist scientists are not highly motivated to do this because falsifying neo-Darwinism would likely lead to a reassessment of methodological naturalism which is required by materialism.

The Probabilities of Random Mutation

When attempting to falsify neo-Darwinism, Intelligent Design theorists focus on the probabilities related to random mutation rather than debating the powers of natural selection. They do this because natural selection is a tautology and cannot be falsified. Natural selection means "survival of the fittest." But you define the fittest as those that survive. In other words, natural selection means: survival of those that survive. This explains why neo-Darwinists always emphasize natural selection and speak so little about mutation. They believe that the necessary mutations will arise given enough time.

Falsifying neo-Darwinism, through mathematical probabilities related to random mutation, is difficult to do. Why? There are two reasons. First, the power of natural selection is difficult to assess. It is hard to determine how significant the incremental benefit provided by a "mutation" has to be in order to confer minimal selective advantage, especially in comparison to other competing attributes of an organism, which are also subject to variation.

Secondly, since neo-Darwinism is a random chance process, it does not have a target. Therefore you cannot simply calculate the probability of this or that specific molecule, molecular machine, cell system, organ, or organism evolving because there could be many other viable biologic solutions in the overall set of possible genetic configurations. And no one knows how large that set is.

Shakespeare's sonnets are often used as an analogy to illustrate probabilities related to evolution. Imagine you were trying to calculate the probabilities of creating a Shakespeare-like sonnet using random generated text and selection. In this analogy you can think of a sonnet as a gene, each letter as a distinct amino acid.

The first point is that using a specific sonnet is a target, but since neo-Darwinism is a random process, it has no target. Therefore, you could not simply calculate the probabilities for a particular sonnet and conclude on that basis that you could not produce a sonnet by neo-Darwinian methods—chance and selection. The more appropriate question is: Can a process using chance generation of word combinations with selection create any coherent Shakespeare-like sonnet? That is difficult to determine because the number of possible coherent sonnets that qualifies as Shakespeare-like is unknown. What can be calculated—roughly—is the size of the possible combinations of words (the denominator) within which the diminishingly small set of coherent sonnets (the numerator) would reside in "probability space." Shakespeare's sonnets are typically about 120 words; therefore the possible number of word configurations is immense: roughly 10 to the 600th power (assuming 100,000 words in the language). But without knowing the numerator, i.e., the set of possible coherent sonnets, a final probability cannot be established.

These are valid points that neo-Darwinists can make. But they fall far short of settling the matter. Because of the interdependencies of living systems, there are constraints which significantly diminish the number of solutions possible, i.e., the set of overall possible genetic configurations, *in an already existing system*. With constraints, the numerator becomes smaller because the range of viable beneficial mutations is a smaller set. That means that there is a much smaller set of viable mutations within the overall set of possible mutations that could produce a gene whose protein product contributed to the enhancement of a minimally functioning biologic feature. Severe constraints in effect form a target because the range of viable mutations is narrowed. As the constraints become severe, calculating probabilities becomes more plausible. Why? Let us take Shakespeare's Sonnet 18 as an example:

Shall I compare thee to a summer's day?
Thou art more lovely and more temperate:
Rough winds do shake the darling buds of May,
And summer's lease hath all too short a date:
Sometime too hot the eye of heaven shines,
And often is his gold complexion dimmed;

And every fair from fair sometime declines,
By chance or nature's changing course untrimmed;
But thy eternal summer shall not fade
Nor lose possession of that fair thou owest;
Nor shall Death brag thou wanderest in his shade,
When in eternal lines to time thou growest:
So long as men can breathe or eyes can see,
So long lives this and this gives life to thee.

Suppose that the entire sonnet had been completed except for the last line. The set of word combinations that could offer enhanced meaning to the sonnet is quite small compared to the overall set of possible word combinations because of the constraints imposed by the existing sonnet. The words have to equate to the same number of syllables, they have to have meaning in the context of the sonnet, and the words should have that Shakespearian elegance. For an additional set of characters to have value, in this case to enhance or complete the meaning of the sonnet, it is probable that *the additional line has to occur by chance in its entirety.*

Natural selection cannot select on the basis of some configuration of genes/proteins based on their potential. There isn't a scenario where you could incrementally improve the meaning word by word unless you commit the folly of invoking a target, in other words selecting the words "So long" knowing that they would fit within the context of the target phrase "*So long as men can breathe or eyes can see.*" Any distinct mutation has to result in a gene whose protein product provides clear survival value at the present moment for that biologic feature. A mutation that provides some value may lead to a dead end in the long run. You may think that a small set of words has a nice ring to it and some promise for a sonnet, but you might find that once selected, it cannot be enhanced and integrated into an existing sonnet.

If the entire replacement of a line has to occur by random means by adding random words, the probability barrier is immense (roughly one in 100,000 to the 10th power [10 to the 50th power]). It is not easy to translate these probabilities to human evolution, for example, because there are a variety of other factors; but given the small population size of hominoids and the generational cycles, one chance in 10 to the 50th power would easily qualify as an insurmountable barrier. The total number of hominoids since the split from the branch leading to chimps and the branch leading to humans has been at most ten trillion individuals and probably much fewer. Ten trillion is too low of a population size to overcome a probabilities barrier of 10 to the 50th power.

The analogy using a single sonnet and selecting out letters or words to simulate natural selection is greatly simplified because, in an already functioning organism there are many biologic attributes in the overall phenotype (structures and functions) of a creature that vary, and many other functions that interoperate. To carry the analogy forward, you would have to imagine a single coherent work, such as an entire Shakespearian play. As random changes are made to various acts and scenes (during republishing for example), the question arises as to which of the many varying texts of the play are being assessed for selection, analogous to which of the many varying attributes of a living organism are being selected, based on the improved fitness they offer. A minor incremental change in one scene of the play may be drowned out in the aggregate variation of the rest. This factor makes neo-Darwinism less tenable because natural selection would not seem to have the acuity to select out multiple specific varying attributes. Fitness (survival) in the Darwinian sense is a binary function; either you survive and reproduce or you do not. So an organism with one favorable novel mutation may not survive because other varying traits which regularly vary have acted to diminish its survivability, then the fortuitous mutation would have to occur again by chance.

Falsifying neo-Darwinism distills down to whether or not there are cases—many cases—where multiple (simultaneous) mutational changes are required to offer minimal selective advantage. The underlying question is: Is it reasonable to believe that complex organisms, while seeking immediate fitness through natural selection, will not often find that the genes which code for the development of a nascent feature (such as a primitive eye) become stranded, alone in genetic probability space and distant—multiple (simultaneous) mutations away—from any other viable adaptive enhancement? If complex biologic entities cannot be built up stepwise (incrementally) using only one or a few mutational changes at a time that can be selected out—locked in—by natural selection, then neo-Darwinism is utterly implausible. Can biologic functions be built stepwise through random chance and selection?

Applying Probabilities to Biologic Systems

Michael Behe, a molecular biologist and proponent of Intelligent Design, uses the term "irreducible complexity" to describe molecular machines that are so complex that they cannot be assembled by random piecemeal processes such as neo-Darwinism. The systems he cites in his books *Darwin's Black Box*[12] and *The Edge of Evolution*,[13] such as the tail on the end of a bacterium, are comprised of many components—over a hundred proteins. Generally there is some slack in biologic systems, i.e. lack of specificity within

each gene (not all amino acids in a protein string matter) and within an overall molecular system (not all proteins are essential); but in the case of the cilium, many of the components appear to be essential to proper operation. The pieces are very tightly interdependent, i.e. they have a high degree of specificity.

Dr. Behe created a firestorm throughout academia by proposing that neo-Darwinism cannot account for complex molecular machines. The entire academic biological community circled the wagons to defend against Behe's thesis and denied there was any problem at all for neo-Darwinism to create complex living features. Claims abound that such evolutionary scenarios have been well documented throughout the peer-reviewed literature. But when the curious began looking for these accounts, it appeared that such accounts were as common as unicorns. James Shapiro, a geneticist at the University of Chicago, agreed with Behe saying, "There are no detailed Darwinian accounts for the evolution of any fundamental biochemical or cellular system, only a variety of wishful speculations."[12] It should be pointed out that Dr. Shapiro is a secular scientist and critic of Intelligent Design.

William Dembski has used Behe's insights about molecular machines and arrived at a tentative probability for the cilium. The calculations William Dembski has arrived at are quite unsupportive of neo-Darwinism. They are beyond the universal probability bound, which is the theoretical barrier for any stochastic (random) process. The universal probability bound is 10 to the -150th power. The universal probability bound takes into account the number of particles in the universe, the age of the universe and the smallest time increment, "Planck Time." A much lower probability barrier—on the order of 10 to the -43rd power—is often regarded as a more realistic limit as to what is possible, however. What makes the probabilities so poor is that when you have mutual dependencies, in other words, multiple things that have to happen simultaneously, the probabilities are the product of the two events, not the sum. And life systems are full of interdependencies.

The Neo-darwinian Response to Intelligent Design

Many words have passed in the debate between neo-Darwinism and Intelligent Design. Most have been quite unpleasant and many downright venomous, especially those from the neo-Darwinian camp. Both sides have an agenda that results in introducing philosophy into science. Stephen Meyer points out that neo-Darwinists who are signatories, either in letter or spirit of the humanist manifesto, are as guilty of injecting philosophy into science as Christians or Jews who advocate Intelligent Design. Their respective arguments should be assessed on the basis of the evidence they present.

Argument from Authority

Aside from ad hominem comments, and being dismissive about Intelligent Design, neo-Darwinists often argue from a position of authority by pointing out that there is a clear scientific consensus on neo-Darwinism. While the Intelligent Design camp can cite many hundreds of credentialed scientists who question neo-Darwinism, neo-Darwinists counter by presenting a longer list of scientists whose first name is "Steve" (in honor of the late Stephen J. Gould) that support neo-Darwinism.

However, many of the newer theories being advanced by researchers seek to fill in, and in some cases overhaul, neo-Darwinism. Therefore, there is a tacit admission that neo-Darwinism, in its conventional form, cannot explain the complexities of life. This is a claim Creationists and Intelligent Design proponents have been making for decades. Much, or most, of what neo-Darwinists have been saying, with the greatest degree of confidence, about how we came about, appears to be incorrect. To highlight this point, I can mention that James Shapiro has recently said that, "Richard Dawkins is a man who lives in fantasy."[15] The credibility of many scientists is certainly in question. What remains to be determined is whether the credibility of science itself is in question by virtue of their strict adherence to methodological naturalism.

Conflating Intelligent Design with Creationism and Conflating Evolution with Neo-Darwinism

A common approach by neo-Darwinists in dealing with Intelligent Design is to conflate Intelligent Design with Creationism, and conflate evolution with neo-Darwinism. The goal is to debate the issue in public on the basis of evolution, i.e., common descent rather than the neo-Darwinian mechanism of random mutation and natural selection. However, the leading Intelligent Design theorists (William Dembski, Stephen Meyer, and Michael Behe) have been very clear about what Intelligent Design is. They have pointed out repeatedly that Intelligent Design is compatible with Darwin's principle of common descent.

Counter-arguments on Probabilities

Neo-Darwinists have a variety of responses when confronted by evidence purporting to show the rather poor probabilities that random mutation and natural selection can account for all the wonders of life.

One tactic is to point out that highly improbable things

happen every day. If you think of all the things that happen in a baseball game, for example, any particular outcome is wildly improbable. Similarly any particular outcome of a series of a thousand coin flips is wildly improbable given the number of possible outcomes (about 1 in 10 to the 300th power). Is this a valid point? No. Any specific outcome is wildly improbable, that's true. However, some sequence is a certainty if one flips a coin a thousand times. But any one series of coin flips is as likely as any other; no outcome is unique in any way. The complexity of any outcome is low because the information content and specificity are low. There are no dependencies between each distinct flip. However, if all one thousand coin flips landed heads, do you think that would raise an eyebrow or two?

Another tactic is to use some game of chance such as dice and draw the distinction between having to roll, say, ten dice of the same number in one roll, e.g., ten sixes, which would have a very low probability, versus having to achieve ten sixes over a series of rolls of ten dice, but being able to select out each six as it occurs, thus simulating natural selection. There are a couple of problems here. First off, selecting out sixes is invoking a target, which is prohibited in contingent processes. Secondly, the threshold of selection in biologic entities is certainly much higher than a distinct event such as a roll of six.

"Deep Time"

The reason neo-Darwinism seems plausible despite even our current understanding of the ever increasing complexity of life systems is because of the amount of time available. Random mutation and natural selection, along with "deep time," might seem plausible. After all, mutations might be very small and could accumulate using the benefits of natural selection. Mutations can be small because there is ample time—hundreds of millions of years—for them to occur, it would seem.

But how much reliance can be placed on time, even when there is lots of it? To gain some insights into how powerless chance is, even given lots and lots of time and opportunity (population size), we can revisit Thomas Huxley's remark that a million monkeys could type the complete works of Shakespeare given enough time. He was quite incorrect on this unless you assume eternity. But let's say you could marshal together, not just a million monkeys, but all the primates that have ever lived on earth—guessing about 50 trillion—and have them type away continuously on a typewriter for the entire age of the universe. Do you think they could even type just the phrase *The Complete Works of William Shakespeare?* The answer is No; not even close. This example uses a target, so it really is not intended to be any sort of proof. But if we were to suppose that at some point, evolution—and more importantly the development of life, which does not have the benefits of natural selection, at least in the early stages—would have encountered barriers whose complexity and constraints were comparable to that exercise, we can assess that progress toward life would have been stalled. What is really important is the population size, not necessarily time. Population size depends on the size of the organism and the reproduction rate. The parasite that causes malaria has extraordinarily large population sizes (about a trillion in each infected person, and there are hundreds of millions of infected persons a year). Yet over the course of thousands of years it hasn't changed much. It has been able to mutate around human created medicines when there are only a few mutational changes required. But even with its enormous population sizes (and therefore great opportunity for mutation), malaria has not been able to mutate around sickle cell.[13]

Storytelling and Computer Models

The empirical evidence neo-Darwinists have for how random mutation and natural selection can build an eye incrementally, for example, is quite light, to be charitable. There are no mutations that have occurred in the lab that might offer such evidence, and no fossil sequences. The fossil record does depict a variety of eyes of varying complexity but no evidence of a sequence between them. Therefore, neo-Darwinists have to rely on computer models supplemented with storytelling. Richard Dawkins updated Darwin's eye story in his book, *Climbing Mount Improbable*[14] and uses computer models which purport to show that a complex eye could evolve quite quickly.

Typically these accounts are quite simplified, ignore interdependencies between other associated functions in the eye and in the organism, and focus on higher-level gross anatomy rather than the molecular details. There is an adage that engineers commonly use: "The devil is in the details." Using our Shakespearian play analogy it is far easier to imagine how a play might be constructed by focusing only on the Acts and Scenes rather than the dialog and character development.

Counter-arguments to "Irreducible Complexity"

Were you to Google Michael Behe and irreducible complexity, you would no doubt be inundated with information claiming that the concept has been debunked. "Debunking" irreducible complexity for neo-Darwinists means that neo-Darwinists have been able to present a potentially plausi-

ble account as to how such complex structures could have evolved. These claims involve the phenomenon of "expatiation," or co-option, which is the common observation that genetic components are often reused or repurposed throughout the history of life. Recent research has shown that there are far fewer genes in the genomes sequenced thus far than would have been expected given the complexity of living entities. The reason for this is the ability of living organisms to reuse and reassemble gene components—like Legos—into new genes that code for additional complex proteins.

Neo-Darwinists claim that reuse and repurposing—rather than the creation of new genes—supports a materialist explanation because they no longer have to explain some of the tough questions about how the many genes for a complex molecular machine or organ can be created, by modifying DNA piecemeal. Integrating many *existing* pieces to create complex functions may in fact be easier than assembling them anew; but it is far from easy.

Using our Shakespeare example, I would not expect to be able to cobble together his complete works from a handful of his sonnets by randomly duplicating and realigning the existing words. Intelligence is required to find and select which bits of prose are relevant, and which portions organize them in a coherent way, assemble them in one unified piece, and then integrate them within the acts and scenes of the various plays. Beyond that, neo-Darwinists still have to explain how the genes arose in the first place and how the mechanism for re-use arose.

Evidence for Mutation

When it comes to presenting evidence for random mutations, neo-Darwinists say that mutations are not a problem. Yet few, if any, random mutations of any consequence have ever been observed in the lab. Neo-Darwinists often point to mutations in antibiotic resistance as evidence for mutation, and evolution, in general. Antibiotic resistance mutations and virus mutations were all that was presented as evidence in the Darwin exhibit that was making its rounds in the various museums. The mutations associated with antibiotic resistance really shouldn't count because, in all but a few trivial cases, there is no additional complexity (no new information content) added to a bacterium, or the eukaryote micro-organism that causes malaria, for example, when a mutation occurs that confers resistance against antibiotics. In the vast majority of cases, when a bacterium achieves resistance to an antibiotic through mutation, the mutational change is a degradation of functionality, i.e., one of its proteins or enzymes is broken in some way.

Neo-Darwinists often cite the variation seen in animals, especially domesticated animals, as evidence of the type of mutations that can generate complex features of living creatures. This is a peculiar response because the variation within a species is simply varying the existing attributes of an animal. Nothing new is created. It is like rewriting an existing novel by changing the names of the characters, the setting, the time period, and trying to pass it off as a new and important piece of work. This is plagiarism, not creativity. If anything, breeding domestic animals shows the limitations of variation in that there are limits to what you can do with a dog, for example. They can be big, small, mean, nice, fast, slow, long-haired, short-haired, smart, and not-so-smart, but a female dog will always give birth to another lovable puppy dog.

So it seems there is reason for doubting the ability of neo-Darwinism to create these wonderfully complex features of life. However, I have found that no point made by Intelligent Design scientists, regardless of how seemingly sensible, ever goes unchallenged; nothing is ever conceded by strict neo-Darwinists. This alone should raise a red flag.

Imperfect Design

Citing "imperfect design" is another staple of neo-Darwinists when arguing that life is the result of chance mutation and natural selection rather than design. A common claim is that the mammalian eye is configured in an imperfect way such that there is a blind spot. "No tidy engineer would design an eye in that manner," neo-Darwinists claim. This claim is contested but the matter is not settled. As any engineer can point out, there are always tradeoffs when trying to balance out a variety of alternatives and constraints that invariably arise in complex systems. One wonders how fragile neo-Darwinism is, if a rather minor anomaly in our eyes is a featured item in its defense. When I reach the Pearly Gates, I may have some advice for those responsible for implementing life on earth, but offering a critique about the blind spot in my eye would not be one of them. Had I not been told about the blind spot I would not even know it existed.

Darwinists have also noted that DNA contains a lot of chunks which do not code for proteins. They called this "junk DNA," and pointed out that a lot of useless remnants of DNA is exactly what one would expect from a random process, but you would not expect this if life forms were designed. Richard Dawkins made much of this in his book, *The Selfish Gene*.[15]

The problem for neo-Darwinists is that recent research is showing that a good deal of this non-coding DNA is not junk, but very useful for a variety of regulatory func-

tions. So not only does the useful concept—useful for neo-Darwinists—of junk DNA seem to be going away, but at the same time, many of these DNA chunks are used in complex ways never imagined. The greater the complexity, the greater is the inference of design. This is a case where methodological naturalism has stalled scientific progress. Had scientists adopted a wider range of potential hypotheses, such as design, as suggested by Intelligent Design advocates, they might very well have discovered that "junk DNA" had a useful function much sooner.

Brutality of Struggle for Existence, and Pain and Suffering

There is a general uneasiness expressed by many Darwinists about the brutality of the struggle for existence. Darwin himself made mention of this. There are some points to be made here, especially when considering that many forms of life—such as the malaria parasite—have exacted a severe toll on humanity. How can one reconcile a view that parasites such as malaria are the result of design, even if indirectly, while at the same time seeing the pain and suffering they cause? This is not an easy challenge for Theists to address. Generally, arguing against design based on the brutality of the struggle for survival and human suffering, presumes a specific knowledge about the designer and His methods, intentions and capabilities based on some assumptions that may not be accurate. Pain and suffering exist; no one denies that. But a design philosophy only has to be consistent within itself. Theism does not have to be consistent with the sentiments of a secular Humanist who views this life to be the end of our existence. From a Theistic perspective, pain and suffering either must have a purpose (have value), must be unavoidable, must be the product of an imperfect designer, or any mix of these. The purpose and inevitability of pain and suffering is clearly lost on many of us. Perhaps only in light of one's eternal salvation and understanding the Divine plan, could such a thing be fully understood and appreciated.

Inference of Design

What should be clear by now is that falsifying neo-Darwinism is difficult. It may be an intractable problem. In that case, perhaps the best we can do is to make an inference as to how we arose. Such an inference could help us assess whether science's adoption of methodological naturalism is appropriate. The relevance is that if scientists are incorrect in adopting methodological naturalism as a paradigm, and the universe has in fact been intelligently designed, then adhering to such a paradigm greatly limits the array of hypotheses to drive empirical experiments. We can expect that scientific progress would be stalled in that case.

How could one make an inference of design versus chance? One way would be to look at the attributes, i.e., the structures and functions of life, and assess whether they exhibit the signature of design or chance. There are two general attributes to look at: 1) Complexity and 2) Causation.

What Is Complexity?

Complexity is essentially information content. One way of understanding information content is by assessing the amount of human text required to explain an object or system completely and efficiently. A biology text book is a reflection of the complexity of that which it describes. Imagine that you were writing a comprehensive book on biology that covered all aspects of the science in full detail. You might first assemble all the distinct facts about biology. Distinct facts are the phrases, sentences, or paragraphs describing a biologic concept. You could think of them as being analogous to genes or gene fragments in biology. There are no doubt hundreds of thousands of such facts pertaining to biology.

Complexity increases as these distinct facts or statements accumulate. Assembling them is only a part of the overall task of writing a text book, and therefore, only a part of the overall complexity. A collection of unassociated facts is data, but not information. The transformation of distinct factual statements to information requires that you apply significantly more intelligence to the enterprise in order to correlate and associate all the data. Complexity increases as you arrange the statements in the proper order, under the proper heading, placed in the proper section and proper chapter. Complexity is proportional to the amount of data and the coherent arrangement of data into information.

Correlating data into information involves describing the inter-associations between the data. There are various ways in which components (or data) are inter-associated. Some inter-associations are peer-to-peer in nature, where interdependencies between components require that several other components be present. There are many molecular machines that have multiple components. Often knocking out any one of these components causes the machine to malfunction, or not function at all. In a text book, interdependent facts, where you cannot understand one without the other, would have to be covered in the same paragraph or section and in the proper order, or the conveyance of information would be adversely affected.

Imagine the relative complexity in describing in human text the components of a watch that had been randomly

placed on a table, compared to having to explain these same components operating in a functioning watch. Looking at this another way; imagine the relative difficulty in designing, engineering and manufacturing a set of components for a watch that do not have to interoperate, versus a set of components that do have to interoperate.

The analogy of a textbook, and the biological systems it describes, greatly understates the complexity of biologic systems because living systems reproduce and metabolize. A more accurate analogy between biology, and the creation of a biology textbook, would be to write a computer program used in a printing machine that creates a perfect bound biology textbook, by printing each page, and making each page from scraps of wood fed into it. Here, you have added significantly to the complexity.

What about Causation—Final Causes?

The second major attribute to look at when assessing whether living systems are the result of chance or design is causation. Neo-Darwinism is a random chance process, so its causation is said to be "contingent." A process reliant on contingent causation is aimless, i.e., there is no direction, no target, no certainty of anything. Final causes—teleology—on the other hand implies that intelligence has been imparted into a process, or system, somewhere, that directs the process toward a final end, or series of ends. Evidence for causation can be obtained from research through the study of current living forms and by examining the fossil record. A process governed by final causes would exhibit the characteristics discussed below.

Pattern:

Pattern is repeatability, i.e., the same thing(s) occurring over and over. In the context of biological systems, pattern would imply that the same sorts of complex living features and entities evolved over and over again.

Final forms:

Final forms describes a phenomenon characterized by trends toward some defined end with little change after the end has been attained. In the context of biology this would imply that evolution stops at some point after reaching its final form.

Foresight:

Foresight describes a characteristic about the manner in which things are constructed. Are living systems built from the bottom up or the top down? Is there a hierarchical arrangement in the functioning of associated living systems within a living entity? Human artifacts and machines are built using top-down design. An analogy to top-down systems might be the way in which human construction is carried out; the blueprints precede the building; framing precedes the trim.

Modularity and Reuse:

This attribute describes the characteristic of reusing distinct modules in various ways to assemble things. Modularity and reuse is common practice in human engineering. Walk into any telecom central office in the world and you will see a series of aisles, with racks, and shelves and modules. The same modules are reused over and over. And if you were to open any of these modules you would find the same components: integrated circuit chips, the same wires, and circuit boards. And if you looked further into the virtual "construction" of the software you would find the same programming components used repeatedly.

Pattern, final form, foresight, and modularity are characteristics of human engineering. It is hard to imagine that these same methods would happen to be stumbled upon by a chance-based process, nor were such methods ever predicted by Darwin or any of his successors. Yet biological research is finding these characteristics are quite common in living systems. In fact, it is difficult to imagine how complex living systems could function without it. Interestingly, there is an engineering discipline whose purpose is to derive engineering principles from biologic processes.

Let's take a look at these two attributes—complexity and causation—in more detail, with respect to biological entities, to help us assess whether living systems are more likely the result of chance or design.

Complexity in Living Systems

Living systems are highly complex. No one denies that. Developmental biologist Sean Carroll, and many others who have offered comment, state that living systems far exceed the complexity of any human artifact. Dr. James Shapiro of the University of Chicago characterizes the complexity of even the most primitive cells as "astounding" and "unimagined." Bruce Alberts, President of the National Academy of Sciences, has said, "We can walk and we can talk because the chemistry that makes life possible is much more elaborate and sophisticated than anything we students had ever considered."[17]

The origin of life is outside the scope of this article but it is tangential to the topic of evolution. The most difficult part of "evolution" is the origin of life because natural selection is not available, at least initially, to assist in the development of complexity. When asked what the best scientific explanation for how we get from inanimate matter to the simplest form of life, Richard Dawkins responded that, "We have no explanation for that."[18] Harvard Systems biologist, Marc

Kirschner, says that, the novelty and complexity of the cell is so far beyond anything inanimate in the world of today that we are left baffled by how it was achieved.

Evolutionary biologist Eugene Koonin, for example, claims about the origin of life:

"Origin of life is a chicken and egg problem: for biological evolution that is governed, primarily, by natural selection, to take off, efficient systems for replication and translation are required, but even barebones cores of these systems appear to be products of extensive selection…no compelling scenarios currently exist for the origin of replication and translation, the key processes that together comprise the core of biological systems and the apparent pre-requisite of biological evolution."[19]

Koonin continues in describing the probabilities of assembling a pre-requisite life form based on a quick "toy" modeling and concludes that they are less than 1 in 10 to the 1018th power. This is well beyond the universal probability bound. *Yet if materialist scientists cannot explain the origin of life, then not much else matters.*

Complexity of the Proteins

Even at the most fundamental level—protein synthesis or translation—the complexity is impressive. Cells use the genome to make proteins (enzymes) to carry out all their vital functions and to form their structures. Amino acids (protein building blocks) are synthesized, then DNA is copied (transcribed) to RNA, and then transported to specific locations within the cell for translation and assembly.

Transcription involves multiple phases, each regulated by a large number of proteins. Transcription is accomplished for both the protein unit itself and also the associated regulatory proteins. Error detection and correction mechanisms, conducted by many specialized proteins, are present to ensure fidelity.

Following transcription, and before protein synthesis or translation occurs, specialized proteins splice out the non-coding sections in the mRNA prior to arrival at the ribosomes for translation. Translation also involves multiple phases—activation, initiation, elongation, and termination—using associated enzymes.

Following translation, proteins must be folded in the proper configuration. Protein folding into a three-dimensional structure is essential for proper function. The process depends on the presence of molecular "chaperones". Chaperones are proteins that assist the folding or unfolding, and the assembly or disassembly, of other macromolecular structures such as protein sequences.

Note the dependencies of multiple essential proteins involved in the overall process. We have to ask which of these essential and mutually dependent proteins came first. No one knows.

Complexity of the Cell

The functions of even the simplest cells are immensely complex. Cells have complex life cycles with many inter-associations. Cells divide to create two new daughter cells. First they replicate their DNA beginning at specific locations with specific sequences. They use specialized proteins (enzymes)—many of them—to find the correct locations to initiate the replication process, which occurs at rate of 100 base pairs per second, with less than one error in ten billion base pairs in humans, for example. The cell division process has phases which are gated by checkpoints (decision points), and error detection and error correction. The process continues only when things are proceeding properly. Failure to meet the criterion of a checkpoint means the process is delayed. All throughout this process the cell has to continue gathering nutrients to sustain the new daughter cells and continue to perform its functions within the overall organism.

Cell division is a cognitive process which requires central control, precise timing, decision making, and communication with the various processes and components throughout the cell to ensure success. It requires the coordinated effort of dozens and dozens of enzymes and other molecules. Where did the high-level control algorithms come from? How did the signaling system evolve? Which enzymes came first, if they are all either dependent, or mutually dependent, upon one another? How can a complex process, with all these components and specific inter-associations, be built incrementally as required by neo-Darwinism? No one knows.

Complexity of the Eye

Charles Darwin said 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,[20] seems, I freely confess, absurd in the highest degree.

The basic description of how the eye works provided in Wikipedia is quite good and to the point:

"The eye is a complex optical system which collects light from the surrounding environment; regulates its intensity through a diaphragm; focuses it through an adjustable assembly of lenses to form an image; converts this image into a set of electrical signals; and transmits these signals to the brain, through complex neural pathways that connect the eye, via the optic nerve, to the visual cortex and other areas

of the brain."

The eye uses many complex components to carry out this complex cascade, all of which fit tightly together and interact with multiple dependencies and interdependencies. Not only does each part of the eye have to fit and interact with one another, but they also have to interact with other organ systems in the creature, and, in fact, the eye is directly dependent on several of these systems. The function and operation of the eye is dependent on the brain, nervous system, the musculature system and circulatory system for its operation, and needs to be positioned properly with respect to the skeletal structure and skin. These systems are dependent on one another and have interdependencies within themselves. Which of these systems and components came first? No one knows.

The complexity of a functioning eye is only part of the story of the overall complexity of the eye. The organism has to create the eye during development. Imagine the complexity involved when an organism builds a complex organ such as the eye as the organism itself grows. Each piece has to grow and continue to fit, operate and interact as it grows with other components and with other systems within the organism. Each cell has to know what type of cell to differentiate into, and where to locate itself in relation to all the other components and structures in the organism. Each cell also has to know when to stop dividing. There is a set of master control genes that initiate the entire development process. The process is controlled through a signaling network between cells and a signal transduction network within each cell. These signaling networks control events related to the form and function of the developing organ precisely through time and space.

The question arises: Which of these equally essential systems and components came first, the components of the eye—if so, which ones—the control gene that orchestrates its development or the signaling networks used to facilitate this control? Did the circulatory system, musculature system, and skeletal structure, and nervous system evolve first to facilitate an eye? No one knows.

Complexity of Development

Living systems add another dimension to complexity compared to human artifacts in that they have to grow from a single cell. This greatly increases the complexity. The analogy with human artifacts is that not only do you have to consider the complexity of the device itself but also the complexity of the engineering, manufacturing, and maintenance processes used to create and sustain it.

By examining the development of the common fruit fly and other animals, scientists have discovered a complex, hierarchical series of control genes that orchestrate the development of not just each organ system, but the entire organism, all from the top down. The high-level pattern is laid out first, and gradually the development of the animal proceeds to each distinct part. The process is controlled by genetic regulatory components or right "toolkit." The products of these genes determine the fate of each cell, with intermediate stages through spatial patterns throughout time, to create the overall body plan, tissues, and organs. The process involves a multitude of proteins used for communicating between cells and defining the fate of "undifferentiated" cells by determining which genes are expressed.

For any human engineer developing a device with even a hint of the complexity of living systems, these problems would be intractable. The dependencies and interdependencies are numerous. The "morphogenesis" process has been described as: A spectacular process and a masterpiece of temporal and spatial control of gene expression.[22] But materialist scientists claim that to attribute this astounding complexity to prior intelligence is to engage in a championship level of error. Chance mutations, natural selection, and "deep time" are all that's needed, they assert.

In each of the examples of the complexity of core biologic functions described above, there are many essential proteins. The presence of multiple proteins means there are many independencies which result in severe constraints. Severe constraints greatly limit the range of viable mutations that can contribute to an enhancement of a feature. Limiting the range of viable mutations significantly reduces the probabilities for building complex features in a chance process.

How Fast Did Complexity Arise?

Neo-Darwinists often point out that there is ample amount of "deep time" necessary to enable very small mutations to accumulate, using the benefits of natural selection. Copious amounts of time could make a chance-based process plausible. Therefore, the plausibility of neo-Darwinism can be envisioned as being inversely proportional to a ratio of complexity over time. The higher the ratio of complexity over time, the greater is the inference of design. The lower the ratio, the more plausible neo-Darwinism is. Discoveries that show life systems to be more complex diminish the plausibility of neo-Darwinism. Any discovery that restricts the time over which complex life systems evolved also makes neo-Darwinism less tenable. But how much time was really available and how fast did evolution occur? The fossil record shows that evolution occurs in fits and starts. Changes oc-

cur in sudden bursts. New complex adaptations appear fully formed in the fossil record. Stephan J. Gould referred to "the extreme rarity of transition fossils" as the "trade secret of paleontology."[23] He developed the theory of punctuated equilibrium to explain these gaps. Gould claimed that evolution occurs more quickly, and at the species level, in smaller populations which have become isolated. Larger populations diminish the effectiveness of natural selection and dilute beneficial mutations through genetic drift. Punctuated equilibrium, in my view, is really just a shell game which emphasizes the benefits offered by natural selection in small populations at the expense of the problems associated with random mutation in small populations. Smaller populations, Gould reasoned, would evolve faster and leave fewer fossils. The problem he glosses over is that beneficial mutations in smaller populations would be less frequent, which would slow evolution down.

The term "transition fossils" does not imply any sort of a gradual continuum of the evolution of a complex feature predicted by Darwin. It is less ambitious than that. A transition fossil is any fossil that can be used to show that this creature is probably a descendant of this one and ancestral to that one. While it is true that there are large gaps in the fossil record, the record is adequate to demonstrate the truth of Darwin's theory of common descent.

The most notable case of rapid evolutionary change is the Cambrian Explosion where most of the major Phyla arose rather suddenly within a relatively short time. Phylum is the highest level category of animals below kingdom and above class. The short time was initially about 5 to 15 million years. It seems some paleontologists have stretched this a bit up to as much as 80 million years. How much of this is real, or wishful thinking engendered by a discomfort with a more compressed timeframe, is hard to say. In any case, the Cambrian did usher in a rather impressive array of new and complex animal forms. But the timeframe whether it is 5 to 15 million years or 5 to 80 million years, is not to imply that there is a fossil record of a gradual unfolding and development of these creatures throughout that length of time. Rather the 5, 15 or 80 million years is the limitation of the granularity of the fossil record. If you were to take the fossil record at face value, these new creatures appear instantaneously with no evidence of a gradual accumulation of complex features. Trilobites, for example, appeared all at once and they had eyes, a heart and circulatory system, digestive system, nervous systems, etc. The question arises as to how all these organs with all their dependencies and interdependencies arose as an ensemble without a trace. No one knows.

While the fossil record shows a compressed timeframe of the Cambrian Explosion where many new creatures with complex features suddenly appeared, the extent of the compressed timeframe may forever remain undisclosed because of the limited granularity of the fossil record. Therefore the fossil record is not a definitive measure of how fast complexity arose. However, had the fossil record depicted a gradual incremental accumulation of complex features as Darwin predicted, that would be an important piece of evidence for neo-Darwinism.

Recent research using genetic sequence appears to support what the fossil record depicts, that complex life systems have arisen quite suddenly. Marc Kirschner says that innovation, such as "the first eukaryote cells, the first multi-cellular organisms, large bilateral body plans in animals, the neural crest cells in vertebrates…[arose] in a few waves of innovation."[21]

Evolutionary biologist Eugene Koonin likens the evolutionary process to Big Bang cosmology. His paper is illustrative in that it is quite frank and honest. The following is a quote from a technical paper authored by Koonin which summarizes his view. Following the quotation is an exchange between a reviewer and Koonin about the frankness in admitting that evolutionary change, up to and through the Cambrian, was non-Darwinian i.e., not gradual or incremental. Referring to the origin of complex RNA molecules and protein folds; major groups of viruses; archaea and bacteria, and the principal lineages within each of these prokaryotic domains; eukaryotic supergroups; and animal phyla, Koonan says:

"In each of these pivotal nexuses in life's history, the principal "types" seem to appear rapidly and fully equipped with the signature features of the respective new level of biological organization. No intermediate "grades" or intermediate forms between different types are detectable….There seems to be a striking commonality between all major transitions in the evolution of life. In each new class of biological objects, the principal types emerge abruptly, and intermediate grades (e.g., intermediates between the pre-cellular stage of evolution and prokaryotic cells or between prokaryotic and eukaryotic cells), typically, cannot be identified."

Reviewer William Martin, University of Duesseldorf's comment on Koonin's paper:

"In each major class of biological objects, the principal types emerge ready-made, and inter-mediate grades cannot be identified. Ouch, that will be up on Intelligent Design websites faster than one can bat an eye."

Koonin's response to the reviewer:

"Here I do not really understand the concern. I changed

"ready-made" to "abruptly", to avoid any Intelligent Design allusions and added clarifications but, beyond that, there is little I can do because this is an important sentence that accurately and clearly portrays a crucial and, to the very best of my understanding, real feature of evolutionary transitions… if our goal as evolutionary biologists is to avoid providing any grist for the Intelligent Design mill, we should simply claim that Darwin, "in principle", solved all the problems of the origin of biological complexity in his eye story, and only minor details remain to be filled in. Actually, I think the position of some ultra-Darwinists is pretty close to that. However, I believe that this is totally counter-productive and such a notion is outright false. And, the Intelligent Design folks are clever in their own perverse way. They see through such false simplicity and seize on it. I think we (students of evolution) should openly admit that emergence of new levels of complexity is a complex problem and should try to work out solutions some of which could be distinctly non-orthodox; Intelligent Design, however, does not happen to be a viable solution to any problem."[22]

This passage and exchange are extraordinarily revealing. First off, the transitions he is talking about, the origin of complex RNA molecules through the appearance of animal phyla in the Cambrian, include all the really tough stuff. The rest is "window dressing." Secondly, note that recent science is supportive of Intelligent Design because complexity is being shown to have occurred rapidly—"ready made." *All the really difficult biologic features occur abruptly.* Third, here are two scientists considering ways to describe the rapid appearance of complexity in a manner that diminishes (to some extent) the fact that scientific findings are supportive of Intelligent Design and very unsupportive of any material-based theory of evolution. Fourth, note the scorn for Intelligent Design—"no solution to any problem"—yet Intelligent Design is the one theory whose underlying principles offer the best hope of explaining rapid complex changes while the theory embraced by materialist scientists for decades—neo-Darwinism—has suffered great harm. And the Intelligent Design folks are called "perverse." Finally, the overall tone of the exchange clearly illustrates how wedded science is to the methodological naturalism.

Final Causation in Living Systems

Final cause or teleology is another attribute by which we can make an inference as to whether we are the result of design or chance. Foresight, pattern, reuse, and modularity are common engineering techniques and these same techniques have been shown to be important features of life. The more reuse, modularity and especially pattern and foresight are exhibited in the way life evolved, the greater is the inference of design.

Foresight and Final Causes Exhibited by Development

Human engineers build things from the top down, meaning that they create the high-level design of a system first, and then specify the underlying details. Recent scientific discoveries show that evolution has managed to discover a similar common sense approach to constructing complex life.

There are many types of eyes in the animal kingdom. Until a couple of decades ago, evolutionists believed that the eye evolved independently anywhere from 50 to 100 times through the Cambrian. Recently it was discovered that there is a control gene that initiates the development of the eye, and this control gene is common to all animals. Given this information, the principle of common descent requires that all eyes must have had a common ancestor with a proto eye, or a very primitive eye—little more than a light-sensitive spot. This is the most primitive animal eye known to exist prior to the Cambrian, around 540 million years ago. There would be no other reasonable explanation from a Darwinian perspective. So now Darwinists have to explain how it is that a master control gene, developed in a nascent eye, would just happen to be able to initiate the cascade of events for all other more complex and diverse eyes that evolved subsequently.

Furthermore, it is now known that the control genes for all the various body plans introduced in the Cambrian are common among virtually all animals. It is difficult to explain how a layered, top-down engineering solution could arise by a contingent process. Layered architecture greatly increases the complexity because you have now introduced an additional layer of dependencies. Layered engineering is a way of controlling complexity in human engineering, and it takes human intelligence to do so. Current research shows that *the control genes for the development of organs in animals predated the origin of these animals themselves.*[23] The instructions for the building (some of them) existed before the building itself! These control genes are not large information-rich genes; they specify the high level structure and initiate the cascade of development. How can higher-level functions appear prior to the components they control and specify without invoking prior intelligence?

This phenomenon of highly complex features and functions, arising prior to any obvious selective advantage, parallels a similar phenomenon in human intellect, in that the brain, in its current form and capabilities, evolved before higher levels of abstract thought were necessary. David

Berlinski, an agnostic Intelligent Design apologist, likens this to "…discovering that the liver, in addition to being able to create bile, can also play the violin."[24]

Reuse and Repurposing

Recent research has shown that there are far fewer genes in the genomes sequenced thus far than would have been expected, given the complexity of living entities. The reason for this is the ability of living organisms to reuse and reassemble gene components—like Legos—into new genes that code for multiple, complex proteins, and each protein is used for many biologic functions. For example, the proteins for milk production in mammals were present in reptiles and birds, and the proteins used in human neurons were also present in much earlier organisms.

As discussed above, reuse and repurposing makes neo-Darwinism somewhat more plausible because new genes are not required for each new function. But reuse and repurposing raises interesting questions. Isn't it striking that genes existing in primitive life would happen, just by chance, to be suitable for the construction of complex organs in far more sophisticated life forms, including human intellect? Human engineers commonly reuse and repurpose existing components, but how would a biologic cell have the knowledge to stumble upon similar techniques by chance? Depending on the premise one is operating from, reuse and repurposing can be viewed as supportive of design or chance.

Convergent Evolution—Pattern

Contingent processes such as neo-Darwinism do not have targets. However, the fossil record shows that similar complex life features evolve repeatedly, as though there were targets or goals. This is called convergent evolution (if there is no recent common ancestor that had the features presently common to both). Convergent evolution is a fact.

The world's foremost expert on the subject of convergence in evolution is paleontologist, Simon Conway Morris, who has written two books on the subject of evolutionary convergence. He says that evolution shows "eerie predictability." Developmental biologist Sean Carroll echoes that convergence is "…one of the most important insights revealed by recent research."[25] Convergences at the organ level are common. The evolution of the eye offers one of the best examples. The eye is said to have evolved independently anywhere from 40 to 100 times from a single primitive common ancestor. Another example is the manner in which the reptilian jaw bone "evolved" into the inner ear bone of mammals—the "crown jewel" of fossil evidence. This happened several times as well, according to Morris.

Perhaps the most stunning example at the organism level is the similarity between various marsupials and placental mammals. The placental wolf, for example, has a very similar marsupial counterpart. Yet their common ancestor did not have many of the features and attributes that are common to both.

Scientists have known about convergences at the organ level and organism level for quite some time. Recent evidence from the laboratory tells scientists with equal certainty that these same convergences exist at the molecular level, such as the controls that regulate gene expression.

Neo-Darwinism claims evolution is governed by contingent causation, yet an examination of the fossil record, and an examination of living creatures, shows that evolution repeatedly breaks through immense barriers of complexity to create similar adaptive solutions. How can a random process that must, out of necessity, continuously seek immediate gain for any incremental change, somehow manage to find the same elegant end solutions repeatedly? It is one thing to say that an improbable series of events occurred by chance once; but quite another thing to say that the same complex adaptations occurred over and over again by chance. Pattern—repeatability—is a signature of design, not chance; of final causation, not contingent causation. Nevertheless, neo-Darwinists have welcomed this seemingly anomalous phenomenon into their theory, claiming that the powerful law of natural selection is such that life is directed along a limited set of viable adaptive living forms.

Stasis—Final Causation

Stephen J. Gould offers an explanation—theory of Punctuated Equilibrium—to the phenomenon of rapid burst of innovation, followed by extended periods of little or no real change—stasis. Once a wave of innovation occurs, creatures vary in size, proportion and color, etc., but there are no new features. This is a bit like a car model; you get a different trim package from year to year but not much else. Virtually all of the body plans for the animal kingdom were laid out in the Cambrian about 450 million years ago. Stasis—like convergent evolution—is highly suggestive of final forms or final causes, not contingent causes. Each instance of stasis can be viewed as a final form.

Neo-Darwinists argue that, because most creatures have become extinct, the argument for God based on design ("argument from design"), using stasis as supportive of final forms or final causes, is flawed. Arguments such as these typically assume that those promoting this argument are Creationists who believe that each creature was created by a divine act. Such Creationists would not normally be advancing an ar-

gument that is predicated on the truth of common descent. Intelligent Design proponents, on the other hand, can cite many examples of how human artifacts evolve from a rather modest introduction to a solution which satisfies a vision. The idea of scaffolding, each thing having its time and place, is quite familiar and unsurprising in human creativity.

Stephen J. Gould was very concerned that religionists might be heartened by the idea that evolution's final gift—humanity—was inevitable. He was concerned about this because even a cursory examination of the fossil record and life forms shows a steady gain in complexity and sophistication, and repeatedly breaching through immense barriers of complexity to find similar adaptive solutions. The obvious inference is that there is a subtle way in which evolution is guided, irrespective of what materialist scientists were claiming about the evolutionary mechanisms themselves. Gould rolled up his sleeves and busied himself with dispelling this notion. He wrote two books on the subject, *Wonderful Life*[25] and *Full House*,[26] attempting to show that evolution was contingent and not directed in any way. "Rerun the tape [of evolution]" and the result would be quite different. The evidence says one thing; Gould claimed something else.

Challengers to Neo-darwinism

Strict neo-Darwinists are not without their challengers within the scientific community. Neo-Darwinism is in a crisis brought on by the molecular revolution. "There is a growing feeling that Darwinism is due for another transformation,"[28] according to Eva Jablonka of the University of Tel Aviv. Much of the debate is not visible to the public, it is buried in scientific publications. However, in 2008 a convention was held in Austria, the purpose of which was to assemble notable biologists who are at least somewhat dissatisfied by the current neo-Darwinian theory with its heavy emphasis on natural selection. The run-up to the conference has been documented in a book *The Altenberg 16: An Exposé of the Evolution Industry*, by science journalist Suzan Mazur. According to Mazur:

"Through the years most biologists outside of evolutionary biology have mistakenly believed that evolution is natural selection. A wave of scientists now question natural selection's relevance, though few will publicly admit it."[29]

A variety of new theories have been proposed attempting to supplement or complete neo-Darwinism. In some cases the proposals are more of a complete overhaul than a facelift. The common thread running through these new theories is the emphasis on variation and, by inference, a de-emphasis on natural selection. Also, the intelligence within the cell, rather than the genome, becomes paramount. The Central Dogma—the centerpiece of neo-Darwinism—apparently is pure fiction. The Central Dogma stipulates that all hereditary changes flow from genes to proteins through accidental mutations, and not the other way around. If the Central Dogma and natural selection are consigned to the historical trash bin, then there isn't much left of neo-Darwinism.

Facilitated Variation

Marc Kirschner of Harvard, and John Gerhart, a Cell and Developmental Biologist from Berkeley, offer a new theory to supplement neo-Darwinism, which they call "facilitated variation." The marquee principle in their theory is that evolution proceeds in leaps by tweaks in the genetic regulatory controls during development. New adaptive features are constructed using existing genetic components, i.e., reuse and repurposing. Over time, evolution—selection—has favored creatures whose makeup is such that small changes in the genotype can be leveraged into large changes in the phenotype. They call this attribute "evolvability."[30]

Interpreted Variation

Eva Jablonka, a professor of the History of Philosophy of Science at Tel Aviv University, and Marion Lamb, former Senior Lecturer at Birkbeck, University of London, offer a suite of new ideas featuring non-random and non-genetic variation to supplement neo-Darwinism. In response to certain stressful conditions, signals from within the cell and from the environment are processed, and cause organisms to increase their mutation rate. These mutations are random in the sense that they are not generated with a specific useful function in mind, but they are non-random in two ways: 1) they are a response to environmental conditions, and, 2) they are focused on regions in the DNA that offer the greatest promise of success. This ability to target particular regions of the genome is part of the intelligence—"interpreted variation"—of the cell that has been built in over time through conventional neo-Darwinian mechanisms.

Jablonka and Lamb also detail a variety of inherited "epigenetic" factors in evolution. Epigenetic inheritance means changes that occur during the development process that are inherited. These mechanisms involve feedback loops where a protein product ensures that its genetic source is sustained, memory systems in the cell structure, and markings in the way chromosomes are configured. Here the research appears to be less mature and there is more speculation about the extent of what epigenetic mechanism may have accomplished in evolution.

Natural Genetic Engineering

According to James Shapiro of the University of Chicago, cells use intelligent "natural genetic engineering" techniques to effect large evolutionary transitions. These large evolutionary steps involve genetic rearrangements rather than random mutational accidents. Natural genetic engineering techniques enable an organism to respond to a variety of inputs from within the cell, and from outside the cell, calculate a response, and make regulatory changes that initiate a cascade of actions that are likely to lead to a well-adapted organism. The genome is formatted using repetitive elements, previously thought of as "junk DNA." Natural genetic engineering uses its knowledge of genome formatting to target particular configurations in the genome that are known to offer functional genetic systems.[29,30]

Design by Chance?

The great hope of these new theories is that there is a free lunch somewhere to be discovered for creating complexity rapidly. These new theories may, in fact, be more harmful than helpful to materialist explanations for evolution. By acknowledging that incremental mutational changes are insufficient to create the wondrous and complex features of life, rather than salvaging neo-Darwinism they may be putting another nail—perhaps the final nail—in its coffin. The facts these researchers present in support of their respective theories are no doubt correct. But they can more easily be accommodated by a theory of design, or guided evolution, than a strictly materialistic theory. They feel differently, of course.

There are two fundamental flaws in each of these theories. First, the evidence used by these researchers appears to be limited to relatively simple adaptive changes. By extension they hope to explain more complex adaptations. It is one thing to say that organisms have the sophistication and information in their repository to create simple adaptations to changing conditions, but quite another thing to claim that these same techniques can create an entirely different creature with extraordinarily complex new features. It is a matter of a difference—an enormous difference—in degree rather than kind. Where would the foresight for generating new complex features come from?

Secondly, they assume that the infrastructure to create new adaptations through these enhanced variation mechanisms is already in place. How can it be claimed that a complex existing infrastructure is required to create relatively simple adaptive features (because random mutation and natural selection are insufficient), yet have to rely on these same neo-Darwinian mechanisms to create the more complex infrastructure in the first place? It is a bit like the joke about how to become a millionaire: First: Get a million dollars. Second… *life systems are either the result of design or the result of chance—not design by chance.*

How do Shapiro, Kirschner, and Jablonka and others attempt to explain how evolution created these marvelously complex techniques? Primarily, they defer to future research. Appealing to future research is a reasonable response. But it seems to me that

Neo-Darwinism Still the Best Hope?

If these new theories cannot explain the really tough questions about evolution, then what can? The ultra-Darwinists would suggest that the neo-Darwinian mechanisms of random mutation and natural selection are the only explanation. Evolution, they would say, has to proceed by small chance mutations and natural selection. Why? Because large *coherent* (functional) changes are wildly improbable, in all likelihood near, or well beyond, the universal probability bound. If mutational changes are not small, it is extremely unlikely that they are random. As Richard Dawkins has said, "We can suppose that we have some luck, but not too much."[31] But what if "deep time" is not enough for random mutations and natural selection to work its supposed magic?

Infinity, The Ultimate in Deep Time

Let's suppose science confirms that evolution and the origin of life has occurred in such a way that extremely complex changes or adaptations really do occur very rapidly. Eugene Koonin's "toy" calculation for the origination of a barebones "replicator" (precursor of the most basic form of life) shows a probability of 10 to the -1018th power. This is an immense number and well beyond the universal probability bound. How can we expect materialist scientists to respond? A material process based on chance in the end has only a single resource to draw upon—time. If deep time does not offer ample opportunity, infinity surely does. If the universe can create itself once, why not imagine that it can create itself an infinite number of times? If there are an infinite number of universes with varying physical parameters, not only are highly improbable things possible, they are a certainty. In other words, infinity trumps probabilities.

Here is how Eugene Koonin states it:

"[Therefore] the plausibility of different models for the origin of life on earth directly *depends on the adopted cosmological scenario* [my emphasis]. In an infinite universe (multiverse), emergence of highly complex systems by chance is inevitable."[32]

Recall that Koonin emphatically stated that "Intelligent Design is not a solution to anything" when referring to sudden transformations in evolution.

He and most of the rest of the academic scientific community would rather embrace an imaginary tale of an infinite number of universes than accept prior intelligence as a cause for complexity because they do not want to "let a Divine foot in the door."

Koonin's use of the endless resources of infinity to explain the diminishing probabilities in the creation of life is an extension of a technique used by materialist scientists to explain the fine tuning of the universe. In 1973 physicist Brandon Carter presented a paper wherein he noted the "fine tuning" of the universe constants (the masses of the various particles and the magnitude of the basic forces of energy). The fine tuning is quite tight in many instances, and if some of these parameters were to have been different by even the slightest amount, the resulting universe would not be able to accommodate life of any kind. Theists have seized upon this as evidence for design: Of all the values that the physical parameters of the universe could have, it is these.

The favored approach among materialist scientists to counter the argument from design based on fine-tuning is to propose a variety of multiverse theories—perhaps an infinite number—of universes with differing physical parameters. Surely one or some of these universes would just happen to be such that complex living creatures could arise and exist. The fact that we find ourselves in one of the more accommodating universes is unsurprising, using anthropic reasoning. A discussion of the merits of the multiverse theory is beyond the scope of this article. It is difficult and perhaps impossible to falsify. And this might be its most important and useful feature and why it exists in the first place. Infinity might be **the** final refuge of materialist explanations.

A Theist could adopt the idea or principle of the multiverse theory as well. Michael Behe, the most prominent molecular biologist in the Intelligent Design movement, advanced such a theory in his latest book, *The Edge of Evolution*. If we assume that there are an infinite number of possible universes with varying attributes and outcomes, all known to an omniscient God, then He is free to select and actualize any one of them. Given that the possibilities are infinite, anything not strictly precluded by physical laws is a certainty. One such certainty is the very universe we find ourselves in; the one selected by God to be actualized.

The ascendancy of multiverse theory may create an impasse in the debate about the existence of God with respect to the argument from design. This is true though only if we assume that the makeup of all reality, including human intellect, is entirely material. But if human intellect cannot be explained strictly through material causes, then deep time and even infinity are of no use against the argument from design. Are there aspects to human intellect that cannot be explained by material causation?

Human Intellect—a Zenith Point

Earlier I discussed the importance of complexity and causation in making an inference of design. I cited several examples of each. But there is a far more stunning example than convergent evolution, reuse, foresight, and stasis, demonstrating that evolution is a process governed by final causes rather than contingent causes. There is a supreme example of an ultimate target or zenith in evolution and one that also demonstrates the most astounding leap in complexity. It is a phenomenon where these two attributes—complexity and final cause—converge.

Any Humanist would agree with the idea that nature is transparent to human reason; it is a cornerstone of methodological naturalism. This means that human intellect is capable of understanding all reality which is assumed by secular Humanists to be entirely material. If human intellect is capable of comprehending all reality, then the complexity of all reality is, in effect, subsumed by the complexity of human intellect summed up in human knowledge; what it is now and what it can be. *There can, therefore, be nothing that exceeds the complexity of human intellect.* You have to ask yourself: What are the probabilities that a random process would just happen to assemble an organ system of that complexity and with such uniquely special attributes, as quickly as it did, from a handful of genes that just happened to exist in primitive animals and to do so prior to the necessity of such capability? I would say the probabilities of such a thing are effectively zero. How do materialist scientists react to the apparent final cause and extraordinary complexity exhibited by human intellect? Some raise an eyebrow; others wave their hand; most just shrug their shoulders.

The rather remarkable phenomenon of human intellect, and what it represents insofar as complexity and final causes are concerned, may be regarded by some as a "proof" of the existence of God. I believe it to be. But such a proof may only move a skeptic from a position of atheism or agnosticism to Deism, and is susceptible to the argument from infinity derived from current multiverse theories. What evidence can be offered to carry one from Deism to Theism that transcends chance even in light of the possibility of an infinite multiverse? Stated another way, what qualities of life, and specifically human intellect, transcend material explanations? There are at least four: (1) The gulf in com-

plexity between human intellect and the complexity of the genetic components responsible for human intellect, (2) The existence of free will. (3) The phenomenon of human identity, what I would refer to as "the constancy of self." (4) The phenomenon of genuine love and compassion, what I would refer to as "the ontology of love." All four of these reveal a non-material aspect to human intellect. But they are largely subjective.

Complexity of Human Intellect vs. the Complexity of Its Genetic Components

Human intellect can understand (subsume) the complexity of all reality including the interworkings of the cell and its genome. How is it possible that the developmental process can bring forth a phenotype—human intellect—of such astounding complexity from the far more simple genotype? What in the ontogeny of development accounts for the added complexity? How can the modest *quantitative* differences between the DNA of humans and chimps result in such a *qualitative* gulf in intellectual capabilities?

Free Will

If neo-Darwinists are correct and there is no God, then there can be no free will, either. Neo-Darwinists do not deny this. "Compatibilists" claim that materialism and free will are not irreconcilable, but they do so by demoting free will to decision making, similar to the way computers make decisions—algorithmically. If true free will does not exist then that means that the human brain is essentially an organic computer. A computer has algorithms and data. It is a system that is entirely dependent on prior cause; it is a deterministic system. But, if there is no free will that means that you are really not free to do what you want. Each action is dictated by prior events and the current configuration and state of the molecules in your brain. The French philosopher Henry Bergson, upon reflecting on the implications of determinism and its requirement that each action be necessitated by prior cause, remarked, "What a draft on credulity." Were you to walk out to the desert and be instructed to select one of the many billions of grains of sand, would that act of selecting a specific grain of sand be one of free will or only the working out of a deterministic molecular algorithm? Could you have selected only one grain...or any grain?

Constancy of Self

Materialism suggests that the mind is algorithmic and that consciousness and identity arise from this. But isn't it peculiar that no matter how the neurological makeup of your brain changes throughout your life, there is always the sense that you are you? We all seem to have a unique and immutable identity. How can that be if the underlying physical constituents change? How can such a thing even arise from a complex web of ever-changing neurological signals?

Ontology of Love

Is love real? Neo-Darwinists tell us love and compassion are illusions—merely an artifact of the evolutionary process based on reciprocity; much like Chicago politics. Darwinists claim that altruism emanates from one's self outward and diminishes as genetic kinship diminishes. That's probably true for the most part. But is it entirely true? Only one's own insight can affirm whether compassion and love are genuine. But it is not so easy to factor out the selfish effects imposed by the limits of our existence on a finite planet and our ancestral-animal legacy. Compassion is often interwoven with self-interest. Do you genuinely care about others? If you had unlimited means would you help all those that you could? If it were in your power to do so, would you grant all decent persons eternal salvation? If love and compassion are real, then how can it be imagined that the God who created us, does not also have these same attributes of love and compassion in far greater measure?

A Modest Proposal

My own tentative proposal—which contains more than a bit of speculation and based on limited knowledge—is that the initial life forms were assembled by an intelligent, but imperfect agent empowered by God. I suspect that much of the intelligence was packed into those initial cells. The initial cells contained much of the information necessary to effect an unfolding of life. The major events might be random in the temporal sense, i.e., *when* they occurred but not *whether* they would occur. These planned macro-mutational events may have been triggered by signals from the environment or they could be planned to occur randomly in time and assert themselves only if the environment were ready to accept them—natural selection being the arbiter. Each event could be a series of relatively simple regulatory switches that initiate a cascade of changes resulting in a fundamentally different creature with new, complex features using existing genetic components.

But there is no clear evidence that all the necessary genetic components for higher mammals were in the first cells. And in fact, there is evidence that new genetic material has been incorporated at key evolutionary transformations at least through the Cambrian. Furthermore, had all the genetic components been present but not used in the earliest cells, they would have been subject to ruinous mutations unless

there is some undiscovered mechanism to preserve them. Are there natural mechanisms that may account for additional genetic components? Yes: Horizontal Gene Transfer (HGT). However, treatment of HGT is beyond the scope of this article.

The unfolding of life from a few initial cells comports with the current research, with the exception noted above, and is beautifully homologous with the way in which a single cell develops in the womb into a living creature. Common descent and natural selection—to some extent—have to be true. Common descent and natural selection are the only way a designer can ensure that life unfolds in a way compatible with the geological and biological environment of the planet without requiring constant tuning and meddling. Furthermore, evolutionary transitions particularly in animals cannot be too abrupt, as Creationism might suggest, especially as creatures acquire greater intelligence. A good deal of a creature's ability to survive is related to learning. So there is every reason to believe, as animals become more sophisticated and able to learn, that the evolutionary increments could be, and should be, smaller. One would not expect that a shrew would give birth to an elephant. Aside from the physics of such a thing, it is hard to imagine a viable parental lesson plan.

Summary

Neo-Darwinian evolution is a damaging philosophy, and I suspect in the future it will be regarded as one of the greatest intellectual canards in the history of human thought. The only explanation for its ascendancy and persistence is that materialist philosophy has infringed on science. And, in fact, neo-Darwinism, or some theory very much like it, is required by the adoption of methodological naturalism. Methodological naturalism was a choice which has evolved to a mandate and then to an exclusionary principle.

Science is doing what science should do: make discoveries and modify its theories. And there is brilliant research going on. Science is on the verge, I believe, of some of the most important discoveries in its entire history, and perhaps the most important discoveries ever. These discoveries have the potential to usher in a renaissance of religion nullifying the ascendency of secular Humanism brought about by Darwinism—ironically. As science closes gaps in our knowledge, they are creating larger gaps for a material-based theory of evolution to close. The God-of-the–gaps fallacy may prove to be a fallacy itself. As Eugene Koonin says:

"In each of these pivotal nexuses in life's history, [origin of complex RNA molecules and protein folds; major groups of viruses; archaea and bacteria, and the principal lineages within each of these prokaryotic domains; eukaryotic supergroups; and animal phyla] the principal "types" seem to appear rapidly and fully equipped with the signature features of the respective new level of biological organization. No intermediate "grades" or intermediate forms between different types are detectable."[32]

What Creationists and Intelligent Design proponents have been claiming for decades, and neo-Darwinists have been denying for decades, is apparently being confirmed. The key question, which will become clearer over time, is whether neo-Darwinism or any strictly materialist explanation can account for the complexity of life in such short timeframes. Were it to be confirmed that living organisms could not have evolved purely by chance physical processes, atheism could not be sustained in large measure. The argument from design would see a rebirth as the pendulum swings back toward idealism away from materialism.

Scientists, currently, will not accept any theory even suggestive of design or teleology. Only through attrition and a new generation of more open minded researchers can a real change in paradigm occur. But there is a role for religionists in this dynamic. Religion should evoke action. At the very least, religionists should be better equipped to defend the notion that science does not preclude Belief. Religionists should be active in bringing about the transformation from "what things are" to "what things ought to be." All too often, religious individuals have sat on the sidelines waiting for Divine help when the need for heavy lifting arises. Only through knowledge, reason, and participation can modern religion hope to compete with the scientism of secular Humanism.

Increasingly, in modern civilization authority on matters of Truth is assessed to be within the domain of science and intellectualism now dominated by secular Humanists. If religionists cede authority on matters of Truth to secular Humanists they risk cultural suicide. Without a firm belief in God, and salvation, I doubt modern civilization can maintain a true moral heading, sustain its population levels, or defend itself. The erosion of moral standards and low fertility rates among the advanced nations, and their acquiescence in the face of malevolent states, is clear evidence of this. Great and promising civilizations have passed before us. History provides little comfort to those hopeful that Divine intervention will spare us from a similar fate. "All that is required for evil to triumph is for good people to do nothing"—Edmund Burke.

Endnotes

[1] Richard Dawkins, *The Blind Watchmaker,* (1986) Page 6

[2] Jacques Monod, *Chance and Necessity: An Essay on the Natural*

Philosophy of Modern Biology, New York, Alfred A. Knopf, 1971.

[3] Richard Dawkins, *The Devil's Delusion: Atheism and Its Scientific Pretensions*, (New York Crown Forum, 2008), ISBN 0-307

[4] William Provine, *Movie Expelled: No Intelligence Allowed*, 2008.

[5] Daniel Dennett, *Darwin's Dangerous Idea*. Simon & Schuster, 1995.

[6] Corliss Lamont, *The Illusion of Immortality*, 1959.

[7] Richard Lewontin, *New York Times Book Reviews*, Jan 9th 1997.

[8] Robert John Russell, Nancey Murphy, Theo Meyering, Michael Arbib, *Neuroscience and the Person*, Notre Dame Press, 2000.

[9] John Paul, *Message delivered to the Pontifical Academy of Sciences* 22 October 1996

[10] William Dembski, *The Design Inference*, Cambridge University Press, 1998

[11] Percival Davis and Dean H Kenyon, *Of Pandas and People*, Foundation for Thought and Ethics, 1989.

[12] Michael Behe *Darwin's Black Box*, Free Press, 1996.

[13] Michael Behe, *The Edge of Evolution*, Free Press, 2007.

[14] Richard Dawkins, *Climbing Mount Improbable*, New York Norton, 1996.

[15] Richard Dawkins, *The Selfish Gene*, Oxford University Press, 1976.

[16] James Shapiro, Molecular Biologist University of Chicago *Lecture at Ramsey Auditorium at Fermi National Accelerator Laboratory*, January 22, 2009

[17] Bruce Alberts, President National Academy of Sciences Cell Journal, 92:291-94

[18] Marc Kirschner with John Gerhart, *The Plausibility of Life: Resolving Darwin's Dilemma*, (Yale University Press 2005) ISBN 0-300-10865-6

[19] Eugene Koonin, *The cosmological model of eternal inflation and the transition from chance to biological evolution in the history of life*, Biology Direct, 2007

[20] Charles Darwin, *Origin of Species*, 1959.

[21] Marc Kirschner and John Gerhardt, *The Plausibility of Life: Resolving Darwin's Dilemma*, Yale University Press, 2005.

[22] Eugene Koonin, *The Biological Big Bang model for the major transitions in evolution*, Biology Direct, 2007.

[23] Sean Carroll, *The Making of the Fittest: DNA and the Ultimate Forensic Record of Evolution*, W. W. Norton & Co, 2006.

[24] Stephen J. Gould, *Wonderful Life*, W. W. Norton & Co, 1989.

[25] Stephen J. Gould, *Full House, The Spread of Excellence from Plato to Darwin*, 1996.

[26] Suzan Mazur, *The Altenberg 16: An Exposé of the Evolution Industry*, North Atlantic Books, 2010.

[27] Marc Kirschner John Gerhardt *The Plausibility of Life: Resolving Darwin's Dilemma*, Yale University Press, 2005.

[28] Eva Jablonka and Marion Lamb, *Evolution in Four Dimensions*, MIT Press, 2005.

[29] James Shapiro, A 21st century view of evolution: genome system architecture, repetitive DNA, and natural genetic engineering, Gene 345 2005.

[30] James Shapiro, *Revisiting the Central Dogma in the 21st Century*, 2009

[31] Dawkins "We can suppose…"

[32] Koonin "In each of these pivotal…"

Note: Further quotes of Richard Dawkins can be found at: www.positiveatheism.org/hist/quotes/dawkins.htm and on Wikipedia page: http://en.wikipedia.org/wiki/Richard Dawson

"Self-importance, not word-importance, exhausts immature creatures; it is the self element that exhausts, not the effort to achieve. You can do important work if you do not become self-important; you can do several things as easily as one if you leave yourself out. "

[48:6.26] (P. 555)

One in Ten Million

by Francis E. Baca

It seemed you were favored, Urantia.
With gifted Prince Caligastia at the helm
Progress was smooth
You abode in the truth
A bright future for the immature realm.

Then the System Sovereign let darkness enfold him
Exalting himself Lucifer went astray
Assuring worlds he would lead them
To "self-determination" and "freedom"
There was war in the heavens that day.

Lucifer's aide, Satan, came to Caligastia
And urged him to join in their plan
To spurn evolution
And embrace revolution
Progress ended and mayhem began.

It was a catastrophe of chaos and confusion
Bitter harvest of the Prince's betrayal
"Liberated" peoples on a rampage
A speedy end to the rebels' new age
Urantia adrift, like a ship with no sail.

Yet throughout the grim years of rebellion
A saga of valor and heroism was told
Of Van and Amadon, who stood fast
With Gabriel's armies to the last
Gallant leaders of the Father's shattered fold.

Spiritual dark ages followed
In savagery the races continued to languish
Still Van did not falter
He said a Material Son and Daughter
Would come to lift the world out from its anguish.

Van's followers built the Garden of Eden
And what joy when the day finally came
For the world to receive
Its new rulers, Adam and Eve
And all thanked the Father, praising his name.

But isolated and alone on a rebellion ravaged sphere
Adam and Eve's bright hopes turned to despair
Caligastia, sly and adroit
Seized the opportunity to exploit
The frustration of the well-meaning pair.

Although warned not to mix good with evil
The noble duo would become impatient and stray
Reduced to mortals they fled
The lands near Eden flowed red
The apostate Prince once again had his way.

Oh Urantia, what more can befall you
Is there no end to your sorrowful plight
Are you doomed to remain
In misery and pain
Have you any strength with to fight?

But the Creator Son had not forgotten Urantia
When Michael enacted his final bestowal
Of ten million worlds he chose
The neediest of those
To reveal the Father's mercy and love for us all.

Melchizedek and John the Baptist made ready the way
For Jesus, who the dust of earth trod
Consumed with the desire
To do the Father's will and inspire
Mankind to live as brethren in one family of God.

Christ's bestowal brought an end to insurrection
And the wicked rebels have ever since
Been stripped of all power
Can only helplessly cower
Before the man-God, the planet's new Prince.

Urantia remains a sin-darkened sphere
Though with an Archangels division at hand
And the universe humming
Over Christ's second coming
It rides the threshold of a future quite grand.

You're one in ten million, Urantia
And when all is said and done
This "World of the Cross"
Of suffering and loss
Is the envy of all Nebadon.
One in Ten Million

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"Religion consists not in theologic propositions but in spiritual insight and the sublimity of the soul's trust. 101:2.11] (P. 1107)