

The Coming Scientific Validation of The Urantia Book

By Dr. Philip Calabrese, San Diego, CA

(The following presentation was delivered at the Fellowship International Conference at Villanova in August, 2005.)

Editor's note: Phil Calabrese has taught college level statistics over forty times, and in this paper he has used that knowledge to formulate a statistical test of what is called a "null hypothesis," in this case, the hypothesis that The Urantia Book was written by humans. Considering the population of scientific community "changes-of-mind" or "facts humanly unknown at the time" about which The Urantia Book was on record in 1955, the null hypothesis must be rejected on grounds of probabilistic implausibility at extremely small significance levels, and consequently the "alternate hypothesis," that The Urantia Book was not written by humans, must be accepted as almost a certainty.

INTRODUCTION

Although *The Urantia Book* was first published in 1955, already by 1942 it was "fixed" and by 1946 the final versions of the first edition plates were in the vault of printer RR Donnelley & Sons of Chicago, ready to produce 10,000 copies.¹ Without fanfare the book was published and copies sent to prominent people of the time. The reaction was a resounding sound of one hand clapping. And so it has been pretty much ever since, except for a few people here and there from all over the world who have found a real value, a great value, even an immense value in the pages of what we recognize to be the "Fifth Epochal Revelation" of scientific facts and spiritual truth to our world, Urantia.

Was *The Urantia Book* written by human beings? Imagine some people cooperating in the endeavor of quietly putting the Urantia Papers together.

They had to use a typewriter since there were no computers at that time. Their research team was charged to find the best human writers in astronomy, geology, paleontology, chemistry, physics, biology, botany, and other any other field you can think of, and then selectively use their ideas and sometimes even their phrasing but to avoid all of their blunders.

EVIDENCE OF SUPERHUMAN AUTHORSHIP

How could anyone ever scientifically conclude that a book has superhuman authorship? Yes, there is a way. Many contemporary scientists have imagined that the first extra-terrestrial communication would come from some similar civilization in the universe. They imagined establishing communication, for example, using the ratio of the length of the circumference of any circle to its radius—the non-repeating, non-algebraic (transcendental) number π .

But another possibility has been overlooked, that we would be contacted by superhuman life, be reintroduced to communication with the universe after a long severing of communication due to a rebellion in this part of the local universe, yes, the Lucifer Rebellion. That possibility seems to have completely eluded most human scientists. *The Urantia Book* is primary evidence that we have indeed been recently visited by superhumans, who must be responsible for the existence of *The Urantia Book* on the planet.

POTENTIALLY DISCREDITING PITFALL AVOIDED

A good example of *The Urantia Book's* uncanny ability to avoid pitfalls is the Piltdown man double fossil hoax. As told by Wayne Jackson²: "In December of 1912, Charles Dawson, an amateur archaeologist, and Sir Arthur Smith Woodward of the British Museum of Natural History, announced that they had discovered a man-like skull in a pit near Piltdown, England. Along with the skull was a jawbone that appeared to be very ape-like except for the teeth, which were more flattened, as would be expected in humans."

When a second fossil, Piltdown II, later appeared in 1917, almost all scientists in the field were fooled, including earlier skeptics Henry F. Osborn and William Gregory. According to master source-book sleuth and superhuman authorship skeptic Matthew Block³, it was Osborn who was the main source for *The Urantia Book's* material on prehistoric man.

According to the University of California Museum of Paleontology "With few exceptions nobody suggested that the finds were a hoax until the very end."⁴ That didn't come until 1953 at an international conference. Even as late as 1947, the fossils were still generally believed to be real. Over

the years, hundreds of scholarly articles were written about "Piltdown Man."

"Eventually, it was discovered that the teeth had been ground down artificially to appear human and that it had been a sloppy job at that. Abrasion marks were still evident, the surfaces were flattened at different angles, etc. Moreover, as a result of chemical tests, it was determined that the jawbone had been stained chemically with potassium bichromate and iron salts for the purpose of making it appear ancient."⁵

Consider now that had the authors of *The Urantia Book* swallowed this fraudulent "Piltdown Man"—"Eanthropus dawsoni"—that one blunder would have completely discredited *The Urantia Book* as divine revelation. It would have been the proverbial "smoking gun" of evidence to conclude that *The Urantia Book* was itself a fraud, humanly written.

But instead, while acknowledging and describing Neanderthal, Cro-Magnon, Java and Heidelberg Man, and even while affirming evolutionary theory's main lines of thought, *The Urantia Book* nevertheless flatly states that no such "missing link" fossil will be found because none exists. The reference follows:

Although the evolution of vegetable life can be traced into animal life, and though there have been found graduated series of plants and animals which progressively lead up from the most simple to the most complex and advanced organisms, you will not be able to find such connecting links between the great divisions of the animal kingdom nor between the highest of the pre-human 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)

Between 1917 and 1953 only a very few scientists (<2%) still questioned the Piltdown "missing link" fossils and the most prominent of them swallowed the double hoax. But while affirming most other elements of evolution, *The Urantia Book* authors chose to positively deny the existence of the "missing link," a very minority position at the time rather than the majority opinion of their main source, Henry F. Osborn.

The Urantia Book might have conveniently ignored "missing link man," as many did, but virtually none who accepted evolution at the time flatly expressed what is in *The Urantia Book* already in 1946 and earlier, that there is no such missing link and that none will ever be found. The probability of randomly taking this position before 1946 is less than 1/50 to be generous about it.

UNPOPULAR POSITIONS AND SCIENTIFIC PREDICTIONS CONFIRMED

Many unpopular scientific positions including predictions that might have discredited *The Urantia Book* have already been corroborated by subsequent scientific progress.

a) **Pangaea and Continental Drift.** Pangaea ("all lands") was Alfred Wegener's 1920s theory of a single continent that broke apart and whose pieces "drifted" apart to form the present continental arrangement. At the time the orthodox theory to explain similar rock deposits and species of life on opposite shores of continents was somehow with hypothetical land bridges that once connected far away continents.

As pointed out by T. Bishop⁶ "Reaction to Wegener's theory was almost uniformly hostile, and often exceptionally harsh and scathing."

The University of California Museum of Paleontology writes: "Alfred Wegener (1880–1930). In 1929, about the time Wegener's ideas began to be dismissed, Arthur Holmes elaborated on one of Wegener's many hypotheses; the idea that the mantle undergoes thermal convection." "Not until the 1960s did Holmes' idea receive any attention."⁷

But already by 1946 and earlier, and by 1955 at the latest, *The Urantia Book* was on record saying: 750,000,000 years ago the first breaks in the continental land mass began as the great north-and-south cracking, which later admitted the ocean waters and prepared the way for the westward drift of the continents of North and South America, including Greenland. The long east-and-west cleavage separated Africa from Europe and severed the land masses of Australia, the Pacific Islands, and Antarctica from the Asiatic continent. [57:8.23] (P. 663)

Only a few geologists (<5%) defended Wegener's theory of continental drift until the 1960s. It was largely rejected by 1929 due to Wegener's offering too many implausible mechanisms to explain the "drift." By the time he and Holmes suggested something like continents floating on liquid rock, they were ignored. Only later in the late 1950s and 1960s was "continental drift" vindicated.

b) **Plate Tectonics.** Continents float on liquid rock; this allowed "continental drift"; collisions cause mountains; shifting now causes earthquakes—all these are now accepted facts but were just unpopular conjectures when *The Urantia Book* said: *The outer crust was about forty miles thick. This outer shell was supported by, and rested directly upon, a molten sea of basalt of varying thickness, a mobile layer of molten lava held under high pressure but always tending to flow hither and yon in equalization of shifting planetary pressures, thereby tending to stabilize the earth's crust.*

Even today the continents continue to float upon this

noncrystallized cushiony sea of molten basalt. Were it not for this protective condition, the more severe earthquakes would literally shake the world to pieces. Earthquakes are caused by sliding and shifting of the solid outer crust and not by volcanoes. [58:5.3] (P. 668) Notice that this "shifting" suggests that the "solid outer crust" can rub up against itself, and shift, something we now know occurs on a moving fault line.

We recently learned something at most hinted at in *The Urantia Book*—a mid-Atlantic ridge from which over time the ocean floor slowly moves up and spreads out in both directions. This movement or flow appears to have been the specific cause of the westward drift of the American continents.

The land was periodically going up and down due to the shifting sea level occasioned by activities on the ocean bottoms. [59:5.14] (P. 681)

c) **Mountain Formation.** Concerning the western American mountain ranges, *The Urantia Book* says: *Near the close of the preceding geologic period much of the continental land was up above water, although as yet there were no mountain peaks. But as the continental land drift continued, it met with the first great obstruction on the deep floor of the Pacific. This contention of geologic forces gave impetus to the formation of the whole vast north and south mountain range extending from Alaska down through Mexico to Cape Horn. [60:3.2] (P. 689)*

Wegener had offered such a scenario to explain the western range of mountains in North and South America. This has now been substantiated and greatly elaborated with knowledge that *The Urantia Book* did not reveal at the time. One might say that the account could now benefit from revision in view of new scientific information learned since 1955.

Had *The Urantia Book* authors chosen a basically erroneous account, then that would have discredited it. The probability of randomly choosing Wegener's position and randomly choosing the proper mechanism of continental drift is much less than 1/20. Lack of a detailed description here is not a disqualifier of super-human authorship.

So randomly choosing correctly in both "Pitdown" and "Wegener" is less than $(1/50)(1/20) = 1/1000$. Factor in another 1/2 for mountain formation, and the probability is 1/2000. You see where this is leading. A sequence of likely pitfalls and unpopular positions and other positions can hardly ALL turn out well without superhuman authorship. Therefore *The Urantia Book* had superhuman authors. More support for this estimate follows.

d) **Injury Repair Cell Proliferation.** Many features of human life afford abundant evidence that the phenomenon of mortal existence was intelligently planned, that organic evolution

is not a mere cosmic accident. When a living cell is injured, it possesses the ability to elaborate certain chemical substances which are empowered so to stimulate and activate the neighboring normal cells that they immediately begin the secretion of certain substances which facilitate healing processes in the wound; and at the same time these normal and uninjured cells begin to proliferate—they actually start to work creating new cells to replace any fellow cells which may have been destroyed by the accident. [65:4.3] (P. 735)

In affirming that "creative design" did have a part in evolution, *The Urantia Book* offers as an example how an injury causes cells to secrete chemicals that cause nearby healthy cells to start proliferating to repair the injury. This mechanism is just now being described, but our scientists only suspect that the blood carries such repair chemicals. For instance in discussing repair of liver cells in 2001, Dr. Emilio Orfei, Department of Pathology, Loyola University of Chicago writes: "Reaction to Injury: Repair. The hepatocyte has a florid regenerative potential. In experimental partial resection in the rat, the remaining liver tissue starts to regenerate within a few hours. In 14–15 hours DNA replication is seen. In 20–21 hours mitoses appear. In 32 hours mitoses are at the pick. In two weeks the remaining liver tissue has reached the weight that it had before resection. Cell division takes place in the periportal zone. In pathological conditions, dead liver cells are replaced by proliferation of surviving liver cells. Hepatocytes, Kupffer cells, endothelium, bile ducts, vessels, all proliferate.

"The factor(s) stimulating proliferation of remaining hepatocytes are not known. T[h]ey may be humoral. Indeed: 1) blood from a partially hepatectomized animal induces a proliferative response in the liver of a non-operated animal."⁸

The Urantia Book also mentions that these chemicals could be used to improve treatment for injuries and to control certain dangerous diseases, such as cancer. Only a few intrepid medical researchers are just now exploring such approaches to cancer treatment.

Do you think maybe that the medical profession could find "immense value" in the cosmic instructions and scientific assertions of *The Urantia Book*? What is the probability of some medical paper correctly describing this back in 1955? Virtually zero has to be the answer because the inflammation reaction and injury repair mechanism was totally unknown back at that time.⁹ If we assign another 1/50 to the probability of there being some human description before 1955 chosen by the authors that was correct, that brings the probability we've been estimating to less than $(1/2000)(1/50) = 1/100000$, one out of a hundred

thousand, and we're just getting started. More evidence will be offered below but first let us consider the "limitations of revelation." Are we expecting too much from *The Urantia Book's* cosmology?

THE LIMITATIONS OF REVELATION

Some readers, and even supposed believers, claim over and over again that most of *The Urantia Book's* science is already outdated—merely transient early twentieth century cosmology. The numerous differences between contemporary science and *The Urantia Book's* cosmology they see as "errors on the face" of *The Urantia Book* evident after "a few short years." Since the cosmology of *The Urantia Book* is "not inspired," since the Revelators were not permitted to reveal "unearned" or pre-mature knowledge, how factual and how valuable are its cosmological discourses?

These questions are being asked over and over again by certain writers who then answer their own questions by quoting a few favorite paragraphs that seem to imply that the Revelators were not permitted to give us accurate far-reaching cosmic instruction. Nothing could be further from the truth. Consider this statement by the relevant Melchizedek, which should always be quoted in this context:

Truth may be but relatively inspired, even though revelation is invariably a spiritual phenomenon. While statements with reference to cosmology are never inspired, such revelations are of immense value in that they at least transiently clarify knowledge by:

1. *The reduction of confusion by the authoritative elimination of error.*
2. *The co-ordination of known or about-to-be-known facts and observations.*
3. *The restoration of important bits of lost knowledge concerning epochal transactions in the distant past.*
4. *The supplying of information which will fill in vital missing gaps in otherwise earned knowledge.*
5. *Presenting cosmic data in such a manner as to illuminate the spiritual teachings contained in the accompanying revelation.* [101:4.5] (P. 1109)

Here the writer attempts to carefully qualify the previously described "limitations of revelation" by allowing that *The Urantia Book* can nevertheless be of "immense value" by temporarily clarifying cosmic knowledge via the accomplishment of the five items above.

But these five immensely valuable items have just begun to occur. Presently, very few scientists take *The Urantia Book* seriously, let alone authoritative, so scientific confusion has not yet been reduced by an authoritative elimination

of errors; co-ordination of about to be known facts is just now happening and will continue; lost knowledge about past epochal events is just now being further demonstrated; missing gaps supplied by *The Urantia Book* are still to be considered by most scientists; and finally, cosmic data has yet to be accepted by many scientists as a basis for the accompanying spiritual revelation. We are still quite early, but the times are upon us when many more of these things will be fulfilled.

Mortal man is passing through a great age of expanding horizons and enlarging concepts on Urantia, and his cosmic philosophy must accelerate in evolution to keep pace with the expansion of the intellectual arena of human thought. [104:3.2] (P. 1146)

At this time our human cosmic philosophy needs some divine revelation to make adequate progress. This is when we need some help with our thinking about these matters, and *The Urantia Book* is the universe's response! It is the long sought communication we've been hoping for, but it is much more than we have been hoping for. Yet, considering the plight of our world of wars and rumors of wars, surely if there is a Universe out there, they will send us a life-saver seeing how we are all in danger each day of drowning in a self-made morass of nuclear destruction and suicide bombing.

ASTRONOMIC PREDICTIONS FULFILLED (OR PARTIALLY)

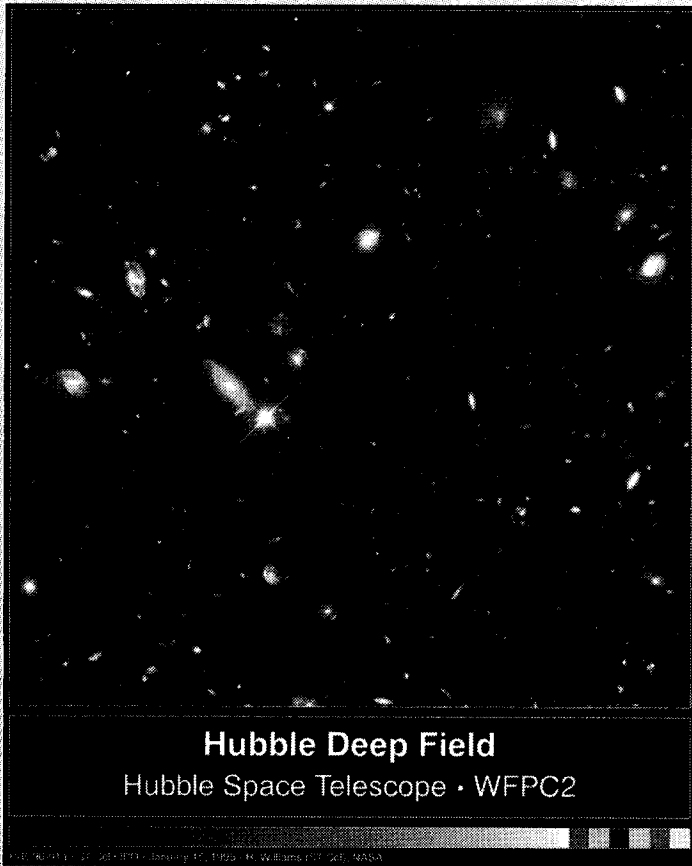
Already much has been fulfilled. Many significant scientific predictions have already been confirmed.

a) "No less than 375 million new galaxies." New cosmic maps of the whole universe are now confirming the bold cosmic predictions made by *The Urantia Book* before 1955:

Speaking about our astronomical observations, *The Urantia Book* says, "...with photographic technique the larger telescopes penetrate far beyond the borders of the grand universe into the domains of outer space, where untold universes are in process of organization. And there are yet other millions of universes beyond the range of your present instruments. In the not-distant future, new telescopes will reveal to the wondering gaze of Urantian astronomers no less than 375 million new galaxies in the remote stretches of outer space." [12:2.2,3] (P. 130)

About 1990, with the publication of early deep space photos, our scientific estimates of the number of galaxies changed from "5 to 10 million" to "at least 50 to 100 million." By 1997, World Book was saying "Studies of distant space with optical and radio telescopes indicate that there may be about 100 billion galaxies in the universe."¹⁰

My, how quickly scientific estimates change without hardly a look back or an admission of error in the enthusiasm of “new results,” which are just as proudly asserted with the same certainty as the previous beliefs. *The Urantia Book* has to live with what it said in 1955, and it beat the galactic science of 1986!



b) “Walls” of Galaxies Separated by “Voids.” Before 1986, almost all contemporary astronomers and cosmologists fully expected to see a random distribution of galaxies in the universe as a whole. That was the prediction of our best non-*Urantia Book* reading cosmologists, consistent with their so-called “big bang cosmology.” With 30 or 40 years of hindsight over *The Urantia Book*, they still were wrong and *The Urantia Book* is right. What does that say about whose cosmology is obsolete? Consider the following report in *Science Frontiers*:

“The discovery of the Great Wall of galaxies and the regular clumping of galactic matter has greatly surprised astronomers, who have been emphasizing how uniformly distributed galactic matter should [be]—according to theory, at least. Now, D.C. Koo, at the University of California at Santa Cruz, says, ‘The regularity is just mind-boggling.’ M. Davis, an astrophysicist at Berkeley, admits that if the distribution of galaxies is truly so regular, it is safe to say

we understand less than zero about the early universe.” (Wilford, John Noble; “Unexpected Order in Universe Confuses Scientists,” *Pittsburgh Post Gazette*, May 28, 1990. Cr. E.D.Fegert)”¹¹

And from the University of Tennessee we read: “The first maps, published in 1986, were a great surprise to the astrophysicists. They had expected to find relative uniformity above the scale of the already-familiar galaxy clusters. Instead, the first surveys showed—and subsequent surveys have confirmed—that great clusters of galaxies are arranged in thin sheets or long filaments. The longest sheet detected, called the ‘Great Wall,’ extends hundreds of millions of light years across the maps.”¹² These maps were first published by Margaret Geller and John Huchra.¹³

On the other hand, the 1955 *Urantia Book* authors predicted the future observation of a “vast procession of galaxies” bounded by relatively empty zones of space:

You may visualize the first outer space level, where untold universes are now in process of formation, as a vast procession of galaxies swinging around Paradise, bounded above and below by the midspace zones of quiescence and bounded on the inner and outer margins by relatively quiet space zones. [11:7.7] (P. 125)

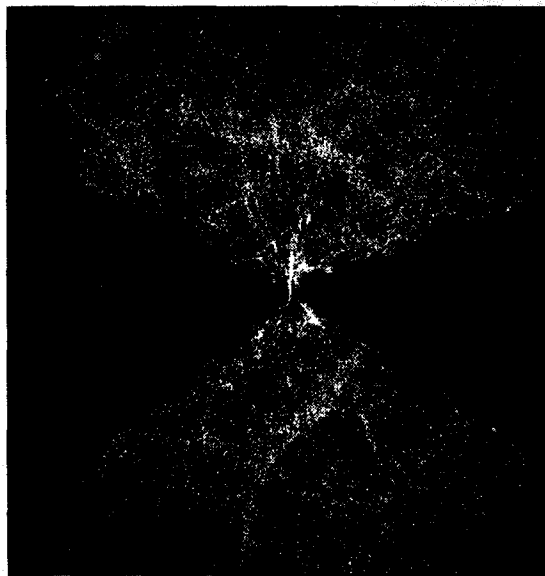
The relatively quiet zones between the space levels, such as the one separating the seven superuniverses from the first outer space level, are enormous elliptical regions of quiescent space activities. These zones separate the vast galaxies which race around Paradise in orderly procession. [11:7.7] (P. 125)

The Outer Space Levels. Far out in space, at an enormous distance from the seven inhabited superuniverses, there are assembling vast and unbelievably stupendous circuits of force and materializing energies. Between the energy circuits of the seven superuniverses and this gigantic outer belt of force activity, there is a space zone of comparative quiet, which varies in width but averages about four hundred thousand light-years. These space zones are free from star dust—cosmic fog. [12:1.8] (PP. 129-30)

The vast universes of outer space in the realms next to the domains of the seven superuniverses seem to be revolving in a direction opposite to that of the grand universe. That is, these myriads of nebulae and their accompanying suns and spheres are at the present time revolving clockwise about the central creation. The seven superuniverses revolve about Paradise in a counterclockwise direction. It appears that the second outer universe of galaxies, like the seven superuniverses, revolves counter-clockwise about Paradise. And the astronomic observers of Uversa think they detect evidence of revolutionary movements in a third outer belt of far-distant space which are beginning to exhibit directional tendencies of a clockwise nature. [12:4.15] (P. 134)

The Department of Physics & Astronomy at University of Tennessee writes in its Stars, Galaxies, and Cosmology lecture notes in Astronomy "The Great Wall":

"Redshift surveys have revealed the largest structures yet observed in the Universe. The prominent concentration of galaxies running diagonally across the northern (that is, upper) portion of the adjacent image has been termed the Great Wall.



(Center of Galactic Ring)

It appears that:

- It covers at least 85 Mpc in declination and 215 Mpc in right ascension. It is likely to be even larger because it is obscured by dust in the plane of our galaxy on one end and hasn't yet been mapped on the other.

- It is less than 7 Mpc thick.

- There is a corresponding structure in the southern sky termed the Southern Wall. Because neither the Northern Wall nor the Southern Wall have been mapped fully, it is even possible that the two join each other in the parts of the sky that have not been examined yet and are part of one much larger structure."

"Preliminary deep space redshift surveys along narrow pencils of direction indicate a periodic structure suggesting that there may be additional Great Wall type structures out there, but we have insufficient information at this point to map them extensively."¹⁴ One Mpc = 3.26 million light years. See photo above for picture.

These are striking initial confirmations of the very kinds of large-scale galactic structures that *The Urantia Book* predicted before 1955. But our most prominent contemporary cosmologists prior to recent observations predicted random distributions of galaxies consistent with

their "Big Bang" theory of an exploding universe, a theory upon which they have built their reputations and research programs.

These folks will not easily give up their theory of an exploding universe, which is also how they conclude the age of the universe to be less than 15 billion years. They have and will continue to offer a sequence of possible defenses as new information continues to disagree with their theory. Already many claim that the background radiation proves the Big Bang explosion occurred, but there are other possible explanations for the background radiation, including perhaps diffuse matter throughout pervaded space equivalent to 1 electron per cubic inch.

An earlier example of this running adjustment of the Big Bang theory concerns hydrogen: "The relative amounts of hydrogen and helium (and much smaller amounts of deuterium and lithium) in the universe are not in good agreement with those predicted by the Standard Model, unless it is modified by an auxiliary hypothesis called "inflation", which proposes that the universe expanded at a velocity beyond the speed of light for a short time. Alan Guth, a particle accelerator physicist at Stanford, proposed the inflation hypothesis in 1979."¹⁵

See The American Physical Society, National Center for Supercomputing Applications, for more information on these "walls."¹⁶

c) **Huge Redshifts.** Before they were observed, *The Urantia Book* predicted huge redshifts equivalent to recessional speeds of "more than thirty thousand miles a second," but it also instructs that this does not mean the universe is flying apart.

The present relationship of your sun and its associated planets, while disclosing many relative and absolute motions in space, tends to convey the impression to astronomic observers that you are comparatively stationary in space, and that the surrounding starry clusters and streams are engaged in outward flight at ever-increasing velocities as your calculations proceed outward in space. But such is not the case. [12:4.12] (P. 134)

Although your spectroscopic estimations of astronomic velocities are fairly reliable when applied to the starry realms belonging to your superuniverse and its associate superuniverses, such reckonings with reference to the realms of outer space are wholly unreliable. Spectral lines are displaced from the normal towards the violet by an approaching star; likewise these lines are displaced towards the red by a receding star. Many influences interpose to make it appear that the recessional velocity of the external universes increases at the rate of more than one hundred miles a second for every million light-years increase in distance. By this method of reckoning, subsequent to the perfection of more

powerful telescopes, it will appear that these far-distant systems are in flight from this part of the universe at the unbelievable rate of more than thirty thousand miles a second. But this apparent speed of recession is not real; it results from numerous factors of error embracing angles of observation and other time-space distortions. [12:4.14] (P. 134)

Notice in the following table of data¹⁷ provided by Allan Sandage at Mt. Wilson and Las Campanas Observatories that the Hydra galaxy is now estimated to be receding from us at more than 30,000 miles/sec, just as *The Urantia Book* predicted such would be seen after larger telescopes were built. The recessional speed of Hydra is listed as 61,000 km/sec = (61,000 / 1.609) miles/sec = 37,900 miles/sec, which is more than 1/5 the speed of light!

Galaxy	Distance from Earth (Millions of Light Years-MLY)	Speed (km /s)
Milky Way	0	0
Virgo	78	1200
Ursa Major	980	15000
Corona Borealis	1400	21600
Bootes	2500	39000
Hydra	4000	61000
Perseus	350	5400
Hercules	650	10000
Ursa Major II	2700	41000

d) **Dark Matter Holds the Universe Together.** That dark matter holds luminous bodies together was first noticed in 1970s. Wikipedia,¹⁸ the free encyclopedia, tells us, "In the 1970s it was realized that the total visible mass of galaxies (from stars and gas) does not properly account for the speed of the rotating gas, thus leading to the postulation of dark matter." Similarly, Austerberry¹⁹ says, "The rotation of stars in our galaxy is inconsistent with the gravitational effects predicted for detectable masses in the galaxy. The same anomaly appears in galaxies other than our own. Where is the missing matter?"

But already in 1955 *The Urantia Book* was saying to anyone willing to read it: "The Dark Islands of Space. These are the dead suns and other large aggregations of matter devoid of light and heat. The dark islands are sometimes enormous in mass and exert a powerful influence in universe equilibrium and energy manipulation. The density of some of these large masses is well-nigh unbelievable. And this great concentration of mass enables these dark islands to function as powerful balance wheels, holding large neighboring systems in effective leash. They hold the gravity balance of power in many constellations;

many physical systems which would otherwise speedily dive to destruction in near-by suns are held securely in the gravity grasp of these guardian dark islands. It is because of this function that we can locate them accurately. We have measured the gravity pull of the luminous bodies, and we can therefore calculate the exact size and location of the dark islands of space which so effectively function to hold a given system steady in its course." [15:6.6] (P. 173)

NEUTRINOS

There are many other examples of scientific statements in *The Urantia Book* that exhibit superhuman knowledge, too numerous to list. Another example is the existence and character of tiny charge-less particles—the so-called neutrinos.

While W. Pauli predicted neutrinos in 1931 and E. Fermi incorporated them into his 1934 theory of atomic decay, they were not actually observed until 1959.²⁰

The Urantia Book boldly affirms their existence as "certain small uncharged particles" and their role: *The integrity of the nucleus is maintained by the reciprocal cohering function of the mesotron, which is able to hold charged and uncharged particles together because of superior force-mass power and by the further function of causing protons and neutrons constantly to change places.* [42:8.4] (P. 479)

The presence and function of the mesotron also explains another atomic riddle. When atoms perform radioactively, they emit far more energy than would be expected. This excess of radiation is derived from the breaking up of the mesotron 'energy carrier,' which thereby becomes a mere electron. The mesotronic disintegration is also accompanied by the emission of certain small uncharged particles. [42:8.5] (P. 479) (Mesotrons are now called mesons.)

The Urantia Book said in 1955 that neutrinos are held by the "superior force-mass power" of the mesotron and that all energy particles have mass and proceed in straight processional lines. Energy, whether as light or in other forms, in its flight through space moves straight forward. The actual particles of material existence traverse space like a fusillade. They go in a straight and unbroken line or procession except as they are acted on by superior forces, and except as they ever obey the linear-gravity pull inherent in material mass and the circular-gravity presence of the Isle of Paradise. [41:5.6] (P. 46)

But only in 1998 did our scientists discover that neutrinos have mass, and it has upset their "Standard theory." In June 1998, an international team of Japanese and U.S. physicists unveiled strong evidence that elusive subatomic particles known as neutrinos have mass (or weight). These findings run counter to the standard model

of particle physics—the basic theory about the structure of matter—which holds that these electrically neutral, weakly interacting particles have no mass. The discovery means that existing theoretical models of matter must now be revised to include neutrinos with mass.” (See <http://www.infoplease.com/ipa/A0762175.html>.)

PROBABILITY OF HUMAN AUTHORSHIP

While taking all of these unpopular or completely prophetic scientific positions with still no clearly obvious scientific blunders (unlike old science texts and human authors), what is the probability of such a sequence due to correct guesses? What is the probability of a human astronomer in 1955 predicting “no less than 375 million galaxies” in the far reaches of outer space when at the time a few hundred were known and as late as 1985 the estimate was 5 to 10 million? Let’s say 1/100 to be generous. Factor in the probability of predicting the large-scale structures now being seen—the “walls” separated by great “voids,” which until 1987 our scientists expected to be distributed randomly and sparsely. That’s another very low probability event, another 1/100 at best. Then there are the predictions of the huge redshifts now seen and the prediction of dark matter being a balance wheel for luminous bodies, which has now been observed as well. Each of those two have perhaps 1/5 probability to be generous, or 1/25 together. So all four together have probability less than $(1/100)(1/100)(1/25) = 1/250,000$. Successfully guessing these four and the earlier four with 1/100000 probability yields 1/25,000,000,000 or less than 1 chance in 25 billion.

Some of these may be larger and some smaller than estimated, but they each contribute more or less to make a very small probability of occurrence given *The Urantia Book* was written by humans. Therefore, on statistical grounds, I infer that superhumans must have written *The Urantia Book* and none of these predictions were random or lucky guesses.

These predictions have not been “cherry-picked” while other misses ignored. They have been chosen because they have been subsequently established by human science. Examples that are still open to question due to unreliable data have been left for a later date of evaluation. Some of them, such as the time of light travel from Andromeda, will come up as part of cosmic instruction from superhumans.

SCIENTIFIC CREDIBILITY

If *The Urantia Book* is what it purports to be then the present lack of contemporary scientific interest will not always be the case. What would make scientists sit up and take notice

of this “communication from outer space,” this revelatory gift from higher universe life? Only scientific evidence in a book of philosophy can impress a real scientist of the book’s worth when discussing the scientific aspects of the cosmos, not some re-warmed twentieth century science ill-suited for the presentation of the spiritual truths of the next 1000 years. No, *The Urantia Book* must present truly impressive, albeit transient, science alongside ageless spiritual truth.

The Urantia Book does make many such predictions and when they are scientifically observed they will be a mighty powerful attraction to scientists and others to take *The Urantia Book* seriously. So far that hasn’t happened, but even now events are gathering for such a spectacular corroboration in the recent explorations in the eastern Mediterranean for Plato’s Atlantis, which due to Robert Sarmast, we now know was also the Garden of Eden. (I know of one famous scientist and there are probably many other “closet UB readers” among professional scientists, who read and utilize the book, but who for obvious reasons prefer to keep that their secret.) But what will happen if Robert’s next expedition brings up sensational evidence just where *The Urantia Book* says it is? Will most scientists ignore that too? We may soon see. When will prominent scientists publicly give *The Urantia Book* credit for its scientific predictions?

My own personal favorite in this category is the sensational prediction that there is a non-breathing form of life on a sphere in close proximity to our world. As such we might be looking for the wrong kind of life in our solar system, entertaining too narrow a concept of life. If *The Urantia Book* is what it says it is, then there must be such a world in close proximity. Some readers think that implies the world must be in our solar system, but I suppose being within easy communication range, like a few light years away, might also be in close proximity in astronomical terms because we could become aware of each other by interstellar communication. Even that would be exciting. More on this later.

Why believe *The Urantia Book*’s science? Certainly it is not only because *The Urantia Book* states many spiritual truths. Rather, *The Urantia Book*’s science must stand on its own as well, at least for a while, during these times when it has yet to be taken seriously by most of the world. The real reason that I believe in the science of *The Urantia Book* and the authenticity of *The Urantia Book* as divine revelation to our world is because of its humanly improbable avoidance of error and the meandering convergence over the years of contemporary science to positions taken by *The Urantia Book* authors.

SUMMARY OF EVIDENCE OF SUPERHUMAN KNOWLEDGE

a) Not referencing paleontology fossils later found to be frauds while mentioning most others and asserting that no "missing link" fossil (nickname for the fraudulent fossil) would be found; b) Describing Pangaea, continental drift on molten basalt, and formation of mountains; c) Describing the injury repair chemistry; d) Predicting the existence and large-scale ring shapes of hundreds of millions of star systems, then unknown and unexpected before 1987; e). Predicting the extent of the "Big Bang" cosmic redshifts observed by contemporary science, even while saying that the supposed rapid expansion is due to many factors of error; f) Even before the problem of rapidly spinning galaxies was noticed predicting that dark matter keeps the rapidly spinning galaxies from flying apart and prevents many bodies from plunging into nearby stars; and g) Affirming the existence (before actual discovery) of neutrinos, including that they have mass.

INSTRUCTION IN SCIENCE AND COSMOLOGY STILL TO BE RECEIVED BY URANTIA SCIENTISTS

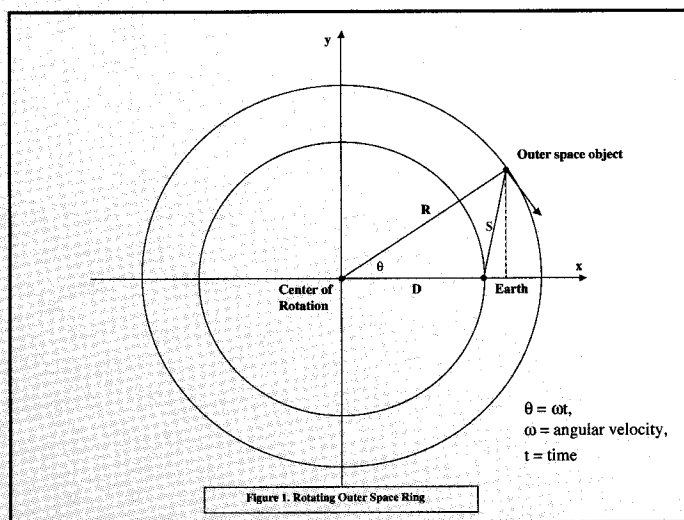
Given that superhumans wrote *The Urantia Book*, what were they trying to accomplish? As stated previously, the authors of *The Urantia Book* provided "instruction in cosmology" in order to facilitate the human understanding of the accompanying spiritual revelation. The authors were also permitted to reveal some information not otherwise mandated.

HUGE SPECTROGRAPHIC REDSHIFTS DUE TO "NUMEROUS FACTORS OF ERROR"

a) **Greatest Spectrographic Distortion.** *But the greatest of all such distortions arises because the vast universes of outer space in the realms next to the domains of the seven superuniverses seem to be revolving in a direction opposite to that of the grand universe. That is, these myriads of nebulae and their accompanying suns and spheres are at the present time revolving clockwise about the central creation. The seven superuniverses revolve about Paradise in a counterclockwise direction.* [12:4.15] (P. 134)

Being a mathematician, I decided to investigate this possibility analytically. I was able to prove an interesting result. Apparently, such a situation as *The Urantia Book* describes with galaxies proceeding in orderly fashion in the first outer space zone adds up to a constant red (or blue) shift (depending on the angle of observation) to any object whose distance from the postulated center of rotation is greater than earth's distance to that center of rotation. (That constant turns out to be the distance from earth to the center of rotation times the difference between the

angular velocities of the Earth versus the first outer space object.²¹



$$\text{Max } dS/dt = \pm \begin{cases} wR, & R \leq D, \\ wD, & R \geq D \end{cases}$$

Looking in directions relatively close to the plane of the Milky Way but far away from its center, no matter how far into an almost uniformly spinning ring of galaxies in the first outer space zone, the maximum redshift on one side would be larger by a constant while on the other side the maximum blue shift would be larger by the same amount. Other angles of observation have intermediate red or blue shifts. A test of this conjecture would involve observing this difference in the frequency shifts in the distant galaxies in the direction of Galactic latitudes on opposite edges of the Milky Way.

From the outermost system of inhabited worlds to the center of the superuniverse is a trifle less than two hundred and fifty thousand light-years. [32:2.11] (P. 359)

b) **Galaxies Not Really Flying Apart—No Big Bang.** While predicting the huge redshifts, *The Urantia Book* also instructs: *But this apparent speed of recession is not real; it results from numerous factors of error embracing angles of observation and other time-space distortions.* [12:4.14] (P. 134)

Since the redshift is linear with distance, the huge redshifts might be due to the existence of some "reddening influence" in the intervening space. This is the "tired light" theory of redshift, but the light from distant galaxies looks just as clear as that from nearby ones, which presumably would not be the case were the light being changed. Therefore this possibility is downgraded.²² "Time-space distortions" could easily include "tired light," but it also allows for other distortions like unknown rotational motions and angles of observation.

Only a very few poorly-funded and mostly ignored astronomers are courageous enough (and independent enough) to dispute the receding motion interpretation of the huge redshifts of the external galaxies—those beyond the so-called local group of galaxies, which *The Urantia Book* calls the seven superuniverses. One such astronomer is Halton Arp, who was Hubble's assistant. Apparently Arp has evidence of gravitationally connected objects in close proximity but with very different redshifts.²³

Charles Austerberry, Creighton University, outlines the history of the universe according to the Standard Model, Big Bang theory as follows:

t = 0 a singularity 15 b. yrs. Ago—Universe began from a singularity

The 4 (or 3) basic forces emerge.

Before a millionth of a second, fundamental particles emerge & stabilize. Radiation (light and radio waves, and so forth) cannot move far. The universe is quite foggy (opaque) mostly due to the free electrons. Before a thousandth of a second, protons and neutrons form.

In a few minutes, primal nuclei form.

It takes almost a million years (at least 300,000) for the universe to cool to 3,000 degrees Kelvin, enough for atoms to form (mostly hydrogen and helium). The universe's opacity dropped abruptly.

10–14 b. yrs. ago—primal stars emerge; giant galaxies evolve; heavier elements are formed in stars, and in supernova explosions.

4.5 b. yrs ago—our sun, planets, & earth are born

4 b. yrs ago—the first prokaryotic cells emerge

2 b. yrs ago—the first eukaryotic cells emerge

5 m. yrs ago—hominids evolve

200,000 yrs ago—archaic *Homo sapiens*

40,000 yrs ago—modern *Homo sapiens*²⁴

Hubble's constant H_0 is estimated to be 72 km/s for each Mpc distance from earth.

1 Mpc = 3.086×10^{19} km, and 1 yr = 3.16×10^7 seconds.

Therefore the age of the universe = $1/H_0 = 13.6$ billion years.²⁵

As a scientist and a religionist I can only say that I find this story even harder to believe than the creation story in the Book of Genesis.

c) **Galactic Rotations Imparted by Living Force Organizers.** *The Urantia Book* instructs that nebular

revolutions are added by living force organizers, not simply the result of evolution. This answers the nagging question in cosmology and physics of where all the spin in the universe came from. Here the nebular mother of our sun is described:

875,000,000,000 years ago the enormous Andronover nebula number 876,926 was duly initiated. Only the presence of the force organizer and the liaison staff was required to inaugurate the energy whirl which eventually grew into this vast cyclone of space. Subsequent to the initiation of such nebular revolutions, the living force organizers simply withdraw at right angles to the plane of the revolutionary disk, and from that time forward, the inherent qualities of energy insure the progressive and orderly evolution of such a new physical system. [57:1.6] (P 652)

MOTION OF SPACE VERSUS MOTION OF MATTER IN SPACE

The Big Bang idea forced contemporary scientists to imagine how the distant galaxies could so quickly start sending light toward us almost 15 billion years ago from a place in space so far away from the "singularity" in space. Their answer is that at first the space itself was quickly moving out there, and that could happen effectively at apparently faster than light speed, almost instantaneously. One might respond "in what reference frame does the space move, compared to what?" It's as though all space just blinks into existence in one instant. But *The Urantia Book* is way ahead of our scientists on this idea of space motion:

"Space is, from the human viewpoint, nothing negative; it exists only as related to something positive and nonspatial. Space is, however, real. It contains and conditions motion. It even moves. Space motions may be roughly classified as follows:

1. Primary motion—space respiration, the motion of space itself.

2. Secondary motion—the alternate directional swings of the successive space levels.

3. Relative motions—relative in the sense that they are not evaluated with Paradise as a base point. Primary and secondary motions are absolute, motion in relation to unmoving Paradise.

4. Compensatory or correlating movement designed to coordinate all other motions. [12:4.7-11] (P 133)

When the universes expand and contract, the material masses in pervaded space alternately move against and with the pull of Paradise gravity. The work that is done in moving the material energy mass of creation is space work but not power-energy work. [12:4.13] (P 134)

By contrast, contemporary cosmology measures motion in terms of the average redshift of intergalactic hydrogen. "We now use 21 cm emission from neutral atomic Hydrogen to map the motion of the disk."²⁶

THE EXISTENCE AND UNIVERSE LOCATION OF A FOCAL SINGULARITY IN THE TOPOLOGY OF SPACE—PARADISE

Not only does *The Urantia Book* describe space motion, it also defines a non-moving reference frame in terms of which space motion can be measured, something that contemporary cosmologists can hardly do because they admit no such fixed reference frame to measure the motion of space as a whole. According to *The Urantia Book* this fixed reference frame is the center of rotation of the whole universe, a place called Paradise:

Paradise is the actually motionless nucleus of the relatively quiescent zones existing between pervaded and unpervaded space. Geographically these zones appear to be a relative extension of Paradise, but there probably is some motion in them. We know very little about them, but we observe that these zones of lessened space motion separate pervaded and unpervaded space. Similar zones once existed between the levels of pervaded space, but these are now less quiescent. [11:7.2] (P. 124)

"Space does not exist on any of the surfaces of Paradise. . . . Space does not touch Paradise; only the quiescent midspace zones come in contact with the central Isle." [11:7.1] (P. 124) This fixed reference frame has a universe location but no position in space. [F:IV.12] (P. 7) These quiescent zones of space exist both within each ultimate unit of matter (quantum) and also macroscopically between the moving galactic space zones. *"The ultimatons, the first measurable form of energy, has Paradise as its nucleus.* [42:1.2] (P. 467) These ultimatons also swing around Paradise macroscopically. Paradise is the the most gigantic organized body of cosmic reality in all the master universe." [11:0.1] (P. 118)

LOCAL AND PARADISE GRAVITY

Ultimate units have a common nucleus—Paradise. *"The ultimatons are not subject to local gravity, the interplay of material attraction, but they are fully obedient to absolute or Paradise gravity, to the trend, the swing, of the universal and eternal circle of the universe of universes. Ultimatonic energy does not obey the linear or direct gravity attraction of near-by or remote material masses, but it does ever swing true to the circuit of the great ellipse of the far-flung creation."* [41:9.2] (P. 465)

Universal Gravity. All forms of force-energy—material, mindal, or spiritual—are alike subject to those grasps, those universal presences, which we call gravity. [12:3.1] (P. 131)

These four circuits are not related to the nether Paradise force center; they are neither force, energy, nor power circuits. They are absolute presence circuits and like God are independent of time and space. [12:3.2] (P. 131)

THE MATURATION OF SPACE POTENCY INTO MATTER

It is indeed difficult to find suitable words in the English language whereby to designate and wherewith to describe the various levels of force and energy—physical, mindal, or spiritual. These narratives cannot altogether follow your accepted definitions of force, energy, and power. There is such paucity of language that we must use these terms in multiple meanings. In this paper, for example, the word energy is used to denote all phases and forms of phenomenal motion, action, and potential, while force is applied to the pregravity, and power to the postgravity, stages of energy. [42:2.1] (P. 469)

a) **Ultimatons.** *The force organizers initiate those changes and institute those modifications of space-force which eventuate in energy; the power directors transmute energy into matter; thus the material worlds are born.* [42:1.5] (P. 468)

Not only does *The Urantia Book* describe the initiation of nebular rotations, it explicitly rejects contemporary definitions of force, energy, and power declaring that we need more language. *The Urantia Book* describes the maturation of the space potency of the Unqualified Absolute (pervading all space) by two orders of living "force organizers" through stages from primordial force, through emergent energy, and finally to the assembly of ultimate material units and atomic systems. All of this is still to be discovered. Skeptics may hold that these are unproved, or that "there is no evidence" of them but not that they are re-warmed twentieth century cosmology.

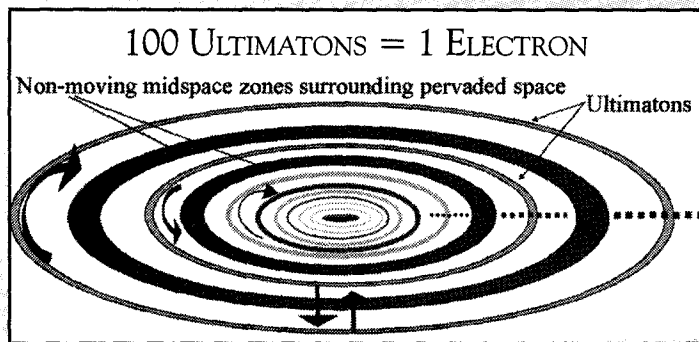
Primary Master Force Organizers are the manipulators of the primordial or basic space-forces of the Unqualified Absolute; they are nebulae creators. They are the living instigators of the energy cyclones of space and the early organizers and directionizers of these gigantic manifestations. These force organizers transmute primordial force (pre-energy not responsive to direct Paradise gravity) into primary or puissant energy, energy transmuting from the exclusive grasp of the Unqualified Absolute to the gravity grasp of the Isle of Paradise. They are thereupon succeeded by the associate force organizers, who continue the process of energy transmutation from the primary through the secondary or gravity-energy stage. [29:5.3] (P. 329)

b) **Constructing Electrons from Ultimatons.** In a paper presented in 1973, I offered an idea of what an ultimatons looks like, how 100 concentrically arranged ultimatons make up an electron as I had gleaned from my reading of *The Urantia Book*. Since then Stefan Tallqvist²⁷ has offered an alternative concept for how 100 ultimatons might aggregate into an electron as a compact stacked arrangement.

However, *"The ultimatons are not subject to local gravity, the interplay of material attraction, but they are fully*

obedient to absolute or Paradise gravity, to the trend, the swing, of the universal and eternal circle of the universe of universes. Ultimatonic energy does not obey the linear or direct gravity attraction of near-by or remote material masses, but it does ever swing true to the circuit of the great ellipse of the far-flung creation." [41:9.2] (P. 465)

Ultimatons do not describe orbits or whirl about in circuits within the electrons, but they do spread or cluster in accordance with their axial revolutionary velocities, thus determining the differential electronic dimensions. This same ultimatonic velocity of axial revolution also determines the negative or positive reactions of the several types of electronic units. The entire segregation and grouping of electronic matter, together with the electric differentiation of negative and positive bodies of energy-matter, result from these various functions of the component ultimatonic interassociation. [42:6.6] (P. 476-477)



- 100 ultimatons (Light grey) generate 100 octaves of wavelike energy.
- Each light grey diameter is 1/2 that of the next larger diameter.
- 3 primary and 7 mixed intermediate diameters exist within each octave allowing for intermediate energy levels – colors or tones.
- White background is a “force Blanket” of energy, capable of very quick (faster than light) quantum wavelike reactions.

Since ultimatons do not describe orbits and are not attracted by near-by matter but respond only to Paradise “circular” gravity, I conceived the 100 ultimatons of an electron arranged concentrically, with Paradise as their common nucleus. This still seems to me to be the right way. However, it may be easier to think of the 100 concentric spheres as 100 concentric donut-shaped rings of rotating space around a common Paradise center of gravity. The rings can slip past each other in three dimensions without collision, and by flipping motions can also be a sphere of rotating space. It also seems right to alternate the direction of rotations so that the energy is more balanced and can

potentially be explosive.

While commenting on the waves always associated with the individuation of an ultimatons, *The Urantia Book* makes it clear that an ultimatons is a “minute sphere,” not a wave: “The assembly of energy into the minute spheres of the ultimatons occasions vibrations in the content of space which are discernible and measurable. And long before physicists ever discover the ultimatons, they will undoubtedly detect the phenomena of these rays as they shower in upon Urantia. These short and powerful rays represent the initial activity of the ultimatons as they are slowed down to that point where they veer towards the electronic organization of matter.” [42:5.4] (P. 474)

In the superuniverse of Orvonton there are one hundred octaves of wave energy. Of these one hundred groups of energy manifestations, sixty-four are wholly or partially recognized on Urantia. The sun’s rays constitute four octaves in the superuniverse scale, the visible rays embracing a single octave, number forty-six in this series. The ultraviolet group comes next, while ten octaves up are the X rays, followed by the gamma rays of radium. Thirty-two octaves above the visible light of the sun are the outer-space energy rays so frequently commingled with their associated highly energized minute particles of matter. Next downward from visible sunlight appear the infrared rays, and thirty octaves below are the radio transmission group. [42:5.1] (P. 474)

Since there are 100 octaves of wave energy in the superuniverse and 100 ultimatons in an electron and ultimatonic motions result in waves of different length, but always 860 times the diameter of the particle, I imagine that the 100 concentric ultimatons give rise to 100 octaves of wave energy, and that the ultimatons can attain discrete energy levels between those octaves to expand or contract into, thus giving rise to waves of intermediate length and energy within the octave.

Matter-energy—for they are but diverse manifestations of the same cosmic reality, as a universe phenomenon is inherent in the Universal Father. ‘In him all things consist.’ Matter may appear to manifest inherent energy and to exhibit self-contained powers, but the lines of gravity involved in the energies concerned in all these physical phenomena are derived from, and are dependent on, Paradise. The ultimatons, the first measurable form of energy, has Paradise as its nucleus. [42:1.2] (P. 467)

WAVELIKE MANIFESTATIONS

Another area of confusion for Urantia scientists is the issue in quantum mechanics of “wave-particle duality.” In the late 1800’s Clark Maxwell unified electrodynamics with his famous equations that implied that light was always measured to have the same speed in a vacuum no matter