

The Urantia Book and Quantum Physics - Part 2 - Matter and Energy

This paper centers on matter and energy, the non-deified elements of our universal reality. Although Ultimatons are discussed later, I want to start with them because they are the smallest yet remarkably powerful components in the Universe of Universes, originating from the underside of the Isle of Paradise.

Ultimatons

In quantum theory, there are ideas suggesting that everything—matter, worlds, and even the fabric of the universe such as time and space—exists only as it is perceived. The classic question often posed is: if a tree falls in the forest with no one around to hear it, does it make a sound? From this quantum perspective, the answer is that no sound is produced because there is no observer to perceive it. But what about frogs, squirrels, or other beings? What about a midwayer, an angel, a power associate, or an extraterrestrial? Do they lack eyes to see and ears to hear? This viewpoint suggests that objective reality is merely a subjective illusion, which contradicts much of the content found in The Urantia Book.

While *"the Isle of Paradise is nonpersonal and extraspiritual, ..."* it serves as *"the source and center of physical matter, and the absolute master pattern of universal material reality."* (UB:5.5) All energies and matter originate from Paradise, with the essential element being the **"Ultimaton."** These are minuscule particles of matter that remain unseen and not fully comprehended, akin to electrons, according to Urantia scientists, who speculate about their existence. Our text indicates that each electron consists of 100 of these particles.

Rayson, a celestial being, has created a wealth of written material about the Ultimatons. Here is a summary of his insights:

1. *The universe is one large caldron of floating Ultimatons waiting to become matter.*
2. *Ultimatons weigh nothing, but when clumped together, they have mass and become charged.*
3. *Ultimatons carry no gravity, heed no attraction to gravity, or do they wish they could use gravity as they float in their own space they created.*
4. *Ultimatons are dirty, or clean, or neutral, depending on what period of development they are in to become viable candidates for matter building.*
5. *Ultimatons are not easy to discern as they must always be part of something else before they can be counted or sorted to type.*
6. *Ultimatons use nothing else but themselves to form Sub-particles ;which are the bits and pieces used to build an atom.*
7. *No atom can form without using Ultimatons to build the electrons, neutrons, protons, and so on, that make the different material elements common to most planets and stars in the universe.*
8. *Ultimatons never stray from their path chosen for them by the Chief of the Master Architects which refer, in turn, to the Father's will to direct them to their material destiny.*
9. *Ultimatons carry no charge, yet they develop a charge when made a sub-particle in most cases; however, a charge of neutral is not natural to Ultimatons. A neutral particle such as a neutron is composed of multiple kinds of charges that are balanced out to a zero point charge in order to provide weight to an atom of an especially large atom such as strontium 190.*

10. *Ultimatons are the secret of zero point energy, or free energy as energy buffs refer to the concept. They can and do make machines work without the need to ever refuel the machine again and seemingly draw electricity out of thin air to perpetually run machines.*

Rayson tells us that Ultimatons are like the “Harlequins of space.” In our literature, a harlequin is depicted as having two distinct parts, typically black and white, often in a checkered pattern. *“But the harlequin nature of an Ultimatons comes in three parts: one part is good, one part is less than good, and a third part is the head which wears a fool’s cap with little jingly bells.... Ultimatons never are quite what they seem to be, either, until they join forces with the Unqualified Absolute to find a spot in the universe to become, what is for the Ultimatons, its material destiny.”*

“On normal worlds (Urantia is not a normal world), Ultimatons flock to become useful to power gadgets and utilities far beyond what is seen on Urantia today. But at the root of all Ultimatons is the desire to be of service to the people of a given Galaxy or even an individual System or Planet. On Urantia, the Ultimatons exist in huge numbers, but they do not participate with the culture or civilizations on Urantia because of their [deadly nature], which is used destructively. [As] Urantia has developed a minimum ability to use rockets and space travel, Ultimatons have not joined in with scientific advances that use them. Ultimatons never leave the Creator of choice, the Universal First Source and Center, until they have acclimated to the uses they are to be put to on a planet.”

Matter

Paper 42, *Energy–Mind and Matter*, serves as the main chapter that addresses a substantial part of the quantum physics subject. Section 3, *Classification of Matter*, outlines the different types of matter and their subdivisions.

“Matter in all universes, excepting in the central universe, is identical. Matter in its physical properties depends on the revolutionary rates of its component members, the number and size of the revolving members, their distance from the nuclear body or the space content of matter, as well as on the presence of certain forces as yet undiscovered on Urantia.

“In the varied suns, planets, and space bodies, there are ten grand divisions of matter, of which only four are pertinent to this discussion.

- 1. Ultimatonic matter—the prime physical units of material.*
- 3. Electronic matter—the electrical stage of material differentiation—electrons, protons, and various other units entering into the varied constitution of the electronic groups.*
- 7. Atomic matter—the chemical stage of elemental organization, the component units of molecular or visible matter.*
- 8. The molecular stage of matter—matter as it exists on Urantia in a state of relatively stable materialization under ordinary conditions.”*

Note that most of the matter of and on Urantia is of number 8. I retained numbers 1, 3, and 7 above, as they are important in the discussion. (See footnote 2.)

In Paper 42, section 4, ***Energy and Matter Transmutations***, the discussion of light, electricity, energy, and matter is presented to us.

“Light, heat, electricity, magnetism, chemism, energy, and matter are—in origin, nature, and destiny—one and the same thing, together with other material realities as yet undiscovered on Urantia.” At this point, the authors tell us that they “... do not fully comprehend the almost endless changes to which physical energy may be subject.” But those ultimatons are transformed into the circuits and revolutions of the electron. (UB42:4.1-3)

“The blazing suns can transform matter into various forms of energy, but the dark worlds and all outer space can slow down electronic and ultimatonic activity to the point of converting these energies into the matter of the realms.” (UB 42:4.9)

“Throughout all of this never-ending metamorphosis of energy and matter we must reckon with the influence of gravity pressure and with the antigravity behavior of the ultimatonic energies under certain conditions of temperature, velocity, and revolution.” (UB 42:4.10)

“The increase of mass in matter is equal to the increase of energy divided by the square of the velocity of light. In a dynamic sense the work which resting matter can perform is equal to the energy expended in bringing its parts together from Paradise minus the resistance of the forces overcome in transit and the attraction exerted by the parts of matter on one another.” (UB 42:4.11)

“The relative integrity of matter is assured by the fact that energy can be absorbed or released only in those exact amounts which Urantia scientists have designated quanta. This wise provision in the material realms serves to maintain the universes as going concerns.” (UB 42:4.13)

“The quantity of energy taken in or given out when electronic or other positions are shifted is always a “quantum” or some multiple thereof, but the vibratory or wavelike behavior of such units of energy is wholly determined by the dimensions of the material structures concerned. Such wavelike energy ripples are 860 times the diameters of the ultimatons, electrons, atoms, or other units thus performing. The never-ending confusion attending the observation of the wave mechanics of quantum behavior is due to the superimposition of energy waves: Two crests can combine to make a double-height crest, while a crest and a trough may combine, thus producing mutual cancellation.” (UB 42:4.14)

In Paper 42, section 5, titled Wave-Energy Manifestations, there is an in-depth discussion on the quantum notion of wave-particle duality paradox, commencing with the notion of 100 octaves of wave energy, of which merely one octave encompasses our visible light spectrum.

“Wavelike energy manifestations—from the standpoint of twentieth-century Urantia scientific enlightenment—may be classified into the following ten groups:

- 1. Infraultimatonic rays—the borderland revolutions of ultimatons as they begin to assume definite form. This is the first stage of emergent energy in which wavelike phenomena can be detected and measured.*
- 2. Ultimatonic rays. The assembly of energy into the minute spheres of the ultimatons occasions vibrations in the content of space which are discernible and measurable.... 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. As the ultimatons aggregate into electrons, condensation occurs with a consequent storage of energy.*

3. *The short space rays. These are the shortest of all purely electronic vibrations and represent the preatomic stage of this form of matter*
4. *The electronic stage. This stage of energy is the basis of all materialization in the seven superuniverses.*
5. *Gamma rays—those emanations which characterize the spontaneous dissociation of atomic matter. ...*
6. *The X-ray group. The next step in the slowing down of the electron yields the various forms of solar X rays together with artificially generated X rays. The electronic charge creates an electric field; movement gives rise to an electric current; the current produces a magnetic field. When an electron is suddenly stopped, the resultant electromagnetic commotion produces the X ray; ...*
7. *The ultraviolet or chemical rays of sunlight and the various mechanical productions.*
8. *The white light—the whole visible light of the suns.*
9. *Infrared rays—the slowing down of electronic activity still nearer the stage of appreciable heat.*
10. *Hertzian waves—those energies utilized on Urantia for broadcasting.*

“Of all these ten phases of wavelike energy activity, the human eye can react to just one octave, the whole light of ordinary sunlight.” (42:5.2-13)

Section 6, **Ultimatons, Electrons, and Atoms**, from the same chapter, discusses the progression of matter and energy, starting from the smallest unit of matter, the Ultimatons, and progressing upward.

“Local or linear gravity becomes fully operative with the appearance of the atomic organization of matter. ... Ultimatons function by mutual attraction, responding only to the circular Paradise-gravity pull. Without linear-gravity response they are thus held in the universal space drift. Ultimatons are capable of accelerating revolutionary velocity to the point of partial antigravity behavior, but they cannot, independent of force organizers or power directors, attain the critical escape velocity of deindividuation, return to the puissant-energy stage. ... “ (UB42:6.2-3)

“The ultimatons, unknown on Urantia, slow down through many phases of physical activity before they attain the revolutionary-energy prerequisites to electronic organization. ... Mutual attraction holds one hundred ultimatons together in the constitution of the electron; and there are never more nor less than one hundred ultimatons in a typical electron. The loss of one or more ultimatons destroys typical electronic identity, thus bringing into existence one of the ten modified forms of the electron.” (UB42:6.4-5)

“Each atom is a trifle over 1/100,000,000th of an inch in diameter, while an electron weighs a little more than 1/2,000th of the smallest atom, hydrogen. The positive proton, characteristic of the atomic nucleus, while it may be no larger than a negative electron, weighs almost two thousand times more. ...” (UB 42:6.7)

To me, it seems there is an intelligence associated with Ultimatons, perhaps a link to consciousness.

Next, Section 7, Atomic Matter, discusses the organization of all matter.

“The formation of all matter is on the order of the solar system. There is at the center of every minute universe of energy a relatively stable, comparatively stationary, nuclear portion of

material existence. This central unit is endowed with a threefold possibility of manifestation. Surrounding this energy center there whirl, in endless profusion but in fluctuating circuits, Within the atom the electrons revolve about the central proton with about the same comparative room the planets have as they revolve about the sun in the space of the solar system. ...” (UB42:7.1-2)

“The local universes are of decimal construction. There are just one hundred distinguishable atomic materializations of space-energy in a dual universe; that is the maximum possible organization of matter in Nebadon. These one hundred forms of matter consist of a regular series in which from one to one hundred electrons revolve around a central and relatively compact nucleus. It is this orderly and dependable association of various energies that constitutes matter. ... Stability of the atom depends on the number of electrically inactive neutrons in the central body. Chemical behavior is wholly dependent on the activity of the freely revolving electrons.” (UB 42:7.4-5)

“The first twenty-seven atoms, those containing from one to twenty-seven orbital electrons, are more easy of comprehension than the rest. From twenty-eight upward we encounter more and more of the unpredictability of the supposed presence of the Unqualified Absolute. But some of this electronic unpredictability is due to differential ultimatic axial revolutionary velocities and to the unexplained “huddling” proclivity of ultimatons. Other influences—physical, electrical, magnetic, and gravitational—also operate to produce variable electronic behavior. Atoms therefore are similar to persons as to predictability. Statisticians may announce laws governing a large number of either atoms or persons but not for a single individual atom or person.” (UB 42:7.10)

Section 8, **Atomic Cohesion**,

“While gravity is one of several factors concerned in holding together a tiny atomic energy system, there is also present in and among these basic physical units a powerful and unknown energy, the secret of their basic constitution and ultimate behavior, a force which remains to be discovered on Urantia. This universal influence permeates all the space embraced within this tiny energy organization.” (UB 42:8.1)

Since the text was finished in 1934, one wonders if there has been any progress on this “unknown” energy.

“The interelectronic space of an atom is not empty. Throughout an atom this interelectronic space is activated by wavelike manifestations which are perfectly synchronized with electronic velocity and ultimatic revolutions. This force is not wholly dominated by your recognized laws of positive and negative attraction; its behavior is therefore sometimes unpredictable. This unnamed influence seems to be a space-force reaction of the Unqualified Absolute.” (UB 42:8.2)

“The charged protons and the uncharged neutrons of the nucleus of the atom are held together by the reciprocating function of the mesotron, a particle of matter 180 times as heavy as the electron. Without this arrangement the electric charge carried by the protons would be disruptive of the atomic nucleus.” (UB 42:8.3)

Next time: *The Urantia Book and Quantum Physics - Part 3 - Mind Systems*

Footnotes:

1. This is an extensive article by the scientist Rayson on the Ultimatron. *The ULTIMATON: Its Release From Paradise To The Seven Superuniverses of Time*, and dated January 21, 2015, by Daniel Raphael.

2. *"The foregoing classification of matter pertains to its organization rather than to the forms of its appearance to created beings. Neither does it take into account the pre-emergent stages of energy nor the eternal materializations on Paradise and in the central universe."* (UB 42:3.13)

3. The entire Paper 42 was presented by a Mighty Messenger on duty in Nebadon and by the request of Gabriel.

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