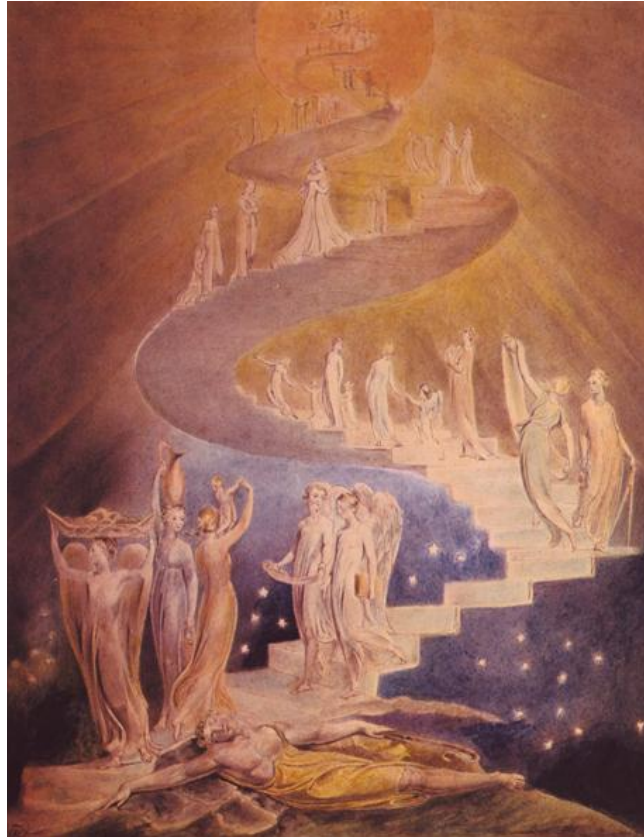


THE GREAT CHAIN OF BEING

*'To see a world in a grain of sand and heaven in a wild flower,
hold infinity in the palm of your hand and eternity in an hour.'*
William Blake



Traditional Conception

William Blake's iconic painting *Jacob's Ladder* was inspired by the Old Testament story in the book of Exodus (28:10-19). Jacob, the son of Isaac and grandson of Abraham, was fleeing from his twin brother Esau who had vowed to kill him. On his way to a relative's house, Jacob lay down for the night. As he was dreaming, he had a vision of a ladder between heaven and earth. God's angels were on it, ascending and descending a spiral stairway. Jacob saw God standing above the ladder and communed with Him, receiving "great benedictions and illuminations."

The 'Great Chain of Being' is historically associated with Plato and Aristotle. In his dialogue *Phaedrus*, Plato spoke of a great hierarchy of potentiality in his ranking of human souls. And,

Aristotle hinted at a continuum of development in his idea that human beings are principally distinguished from animals by their capacity to act on reason rather than instinct.

The Great Chain of Being was further conceptualized in Medieval and Renaissance times as a universal hierarchy or *Scala Natura* ('scale of nature'), representing the interconnected web of all that exists. "Its major premise was that every existing thing in the universe had its 'place' in a divinely planned hierarchical order, which was pictured as a chain vertically extended. An object's 'place' depended on the relative proportion of *spirit* and *matter* it contained – the less *spirit* and the more *matter*, the lower down it stood."

The Great Chain of Being is arranged in an order ranging from Immutable Perfection (God) to Inanimate Matter (Minerals): God – Angels – Humans – Animals – Plants – Minerals. Each level possesses all of the attributes of what is below *plus* an additional, superior quality. "Every being in creation was thought to have its place within the Chain, which entailed a certain degree of authority and responsibility to the rest of the Chain."

<u>Level</u>	<u>Attributes</u>
Minerals	Existence
Plants	Existence + Life
Animals	Existence + Life + Will
Humans	Existence + Life + Will + Reason
Angels	Existence + Life + Will + Reason + Immortality
God	Existence + Life + Will + Reason + Immortality + Omniscience + Omnipresence

In addition to universal orderliness, this schema also implied universal interdependence or the doctrine of 'correspondences,' whereby different segments of the Chain reflected other segments. Thus the various planes of reality are not separated into discrete layers but rather interpenetrate one another to form an interconnected network or lattice: "multiple worlds, one within another."

The Medieval and Renaissance world inherited a special worldview – the idea of a hierarchical universe ordained by God. "The Chain of Being" describes this as an interconnected web of greater and lesser links. Each link in the Chain was an individual species of being, creature or object. Those links higher in the Chain possessed greater intellect, mobility and capability than those lower on the Chain. Accordingly, the higher links had more authority over the lower. For instance, plants only had authority and ability to rule over minerals. Being superior in quality to inert rock and soil, the plants had divine sanction to draw sustenance from them, and grow upon them, while the minerals and soil supported them. Animals – higher on the Chain of Being – were thought to have natural authority over both plants and minerals. Humans in turn were thought to possess greater attributes than other animals, and could rule over the rest of the natural world. Likewise, spiritual beings like angels and God had greater ability than man, and could rule

over and control humanity as well as the rest of the animals and the inanimate world. (1)

From this perspective, the universe was viewed as a continuum of levels or realms of existence ordered in a hierarchy ranging from the subtle ethereal realities to denser gradations of matter. It was believed that the universe consisted of vibrating matter in which the rate of vibration was inversely related to the density of matter. The process of *involution* represents increasing density and disorder, while the process of *evolution* represents increasing rate of vibration and freedom.

Each level or realm in the Chain was imbued with specific qualities and potentialities:

- Minerals, which occupy the lowest level of the Chain, possess solidity and strength, but are immobile and are unable to grow and reproduce. Certain minerals, especially gems, were thought to possess magical powers.
- Plants, like other living creatures, are able to grow in size and reproduce, but lack mental attributes and sensory organs. They are able to process soil, air and solar energy (photosynthesis). Within the plant world, trees were considered the highest order, ranking higher than shrubs, bushes, cereal crops, herbs, ferns, weeds, and fungi and mosses. Certain plants were held to possess medicinal and healing qualities.
- Animals (which include creatures of the air and water) have many new attributes compared to the preceding kingdom of plants. They are capable of independent motion, possess sensory attributes, awareness of their surroundings and a certain degree of intelligence and learning ability. Various spiritual traditions regard certain animals as specially endowed with metaphysical qualities, including the eagle, lion, elephant, bear and wolf.
- Human beings occupy a unique position in the chain between animals and angels. They possess powers such as reason, imagination, conscience and compassion. Although spiritual beings (like angels), they are also "knotted" to a physical body (like animals) and are in the difficult position in the Chain of balancing and reconciling the divine and animal parts of their nature.
- Angels are beings of pure spirit without physical bodies of their own. Virtually every spiritual tradition, contemporary and historical, acknowledges the presence and action of subtle spiritual energies and beings, variously called angels, devas, gods and spirits. They are said to possess a panoramic awareness and are independent of the physical limitations of time. Various schools of thought have classified them into ranks or orders based on their virtues and powers. The fact that they cannot be detected with ordinary scientific methods and instruments does not mean that they do not exist. Spiritual realities require a new level of consciousness and being (an "inner eye") in order to be

perceived. Classical Sufi master ibn el-Arabi: "Angels are the power hidden in the faculties and organs of man."

- God stands at the apex of the Chain, representing the highest degree of perfection, utterly independent, self-sufficient and absolute, either self-caused or uncaused. Classical philosophers such as Descartes, Leibniz and Spinoza argued that the universe is more perfect and complete if all degrees of perfection are represented and not only the highest perfection (God). "This explains why a perfect God would create an imperfect world. It was not a mistake or imperfection. On the contrary, the most perfect and complete universe must contain every kind of imperfect thing. Hence imperfect things are not evidence of the imperfection of creation."

The Four Elements

The concept of the four elements (earth, water, air and fire) was a cornerstone of ancient thought and appears in many historical cultures throughout the world. The elements, which represent a continuum of density and materiality, were believed to possess both physical and metaphysical qualities. In traditional teachings they correspond to various human senses, the process of the creation of the world, the four directions and the four seasons. A fifth element or 'quintessence' (*aether*) was proposed in Greek philosophy and appears in Hinduism and Buddhism (*akasha*), representing a reality beyond the material world.

The four elements are also found in many occult teachings such as alchemy, astrology, the Kaballah and the Tarot. In Gurdjieff's cosmology they are expressed by the terms 'carbon' (fire), 'nitrogen' (air), 'hydrogen' (water) and 'oxygen' (earth). In modern times they have been equated with four states of matter: earth = solids, water = liquids, air = gases and fire = plasma.

The elements are most apparent in the natural world. The earth element is dominant in the planet's land surfaces and geography; and when destructive it manifests as earthquakes, landslides and dust storms. Water appears in the form of oceans, lakes, rivers, streams, waterfalls and precipitation. When destructive it creates heavy rains and storms, floods and tsunamis. The air element comprises the earth's atmosphere and wind patterns. In excess it produces hurricanes and tornadoes. Fire is expressed through sunlight, lightning and rainbows, but its destructive side includes heat waves, wildfires and volcanic eruptions of molten lava.

Fire, water, air and earth as we commonly know them are but outwardly manifested forms of the archetypal Elements themselves which originate from the Source of life. Recognition of the four faces of all-inclusive unity, out of which the elements arose, enables man to develop spiritual consciousness and become aware of this unity. Their manifestations are as follows: the element of water has magnetic properties; it nurtures and sustains. The element of fire has electrical and creative properties. Air is a detaching element and enables co-existence

of the two main elements, fire and water. The element of earth binds fire, water and air in various proportions, which makes possible the formation of materials with different properties. For illustration, the roots of a tree absorb water and minerals necessary for growth from earth (the elements of water and earth). The tree breathes through its leaves (the element of air) and receives light and warmth from sunbeams (the element of fire). If you set the wood of a tree on fire, the elements would be released from it. The water will evaporate, the light that has shone on the tree for many long years will burn out in a mighty flame, the oxygen the tree has been "breathing out" will enable this energy process of burning and nutrients from the soil will turn into ash, which will again serve as a source of minerals for other forms of life. (2)

The elements also have a correspondence with the human body and its functions:

<u>Element</u>	<u>Function</u>	<u>Human physiology</u>
Earth	form, structure, support	bones, muscles, tendons
Water	flow, regulation	blood, urine, sweat
Air	movement, activity	breathing, communication
Fire	energy, warmth, vitality	digestion, metabolism

Each of the elements is linked with at least one of the five senses:

<u>Element</u>	<u>Medium</u>	<u>Energy</u>	<u>Sense</u>	<u>Organ</u>
Earth	solids	cellular	touch	tactile
Water	liquids	molecular	taste	taste buds
Air	gases	atomic	smell hearing	olfactory cells cochlea
Fire	light	photonic	vision	retina

The elements also reflect the psycho-spiritual makeup of the human being:

<u>Element</u>	<u>Function</u>	<u>Modality</u>	<u>Purpose</u>	<u>Domain</u>
Earth	sensation	common sense	facts	everyday life
Water	emotion	feeling	values	art
Air	intellect	reason	knowledge	science
Fire	intuition	wisdom	meaning	spirituality

In certain spiritual traditions, such as Sufism, the four elements are employed as an analogy for the stages of spiritual development and refinement of the human essence (3):

<u>Element</u>	<u>Quality</u>
Earth ('mineral')	immobility, static condition density, materiality lacking flexibility fixed by habit and conditioning
Water ('plant')	stage of potentiality de-conditioning growth and movement purification and cleansing
Air ('animal')	development of real capacity insight and self-knowledge awakening of deeper perception higher understanding
Fire ('human')	highest state of consciousness true perception of reality deep intuition gnosis, absolute knowledge

The Four Kingdoms

Building on the foundation of the four elements, the concept of the four Kingdoms of nature envisions a Chain of Being that encompasses the mineral, plant, animal and human realms. In *A Guide for the Perplexed*, E.F. Schumacher (author of *Small is Beautiful*) presents an evolutionary model of the Great Chain of Being:

We see that our ancestors have always seen a great Chain of Being which seem to divide naturally into four sections – four “kingdoms,” as they used to be called: mineral, plant, animal, and human. This was, in fact, until not much more than a century ago, probably the most widely familiar conception of the general *scheme* of things, of the constitutive pattern of the universe. The Chain of Being can be seen as extending downward from the Highest to the lowest (*involution*), or it can be seen as extending upward from the lowest to the Highest (*evolution*). The ancient view begins with the Divine and sees the downward Chain of Being as moving an ever-increasing distance from the Center, with a progressive loss of qualities.

The modern view, largely influenced by the doctrine of evolution, tends to start with inanimate matter and to consider man the last link of the chain, as having evolved the widest range of useful qualities. (4)

Schumacher proposes that as one moves from one kingdom to the next higher one, a new quality or power is added. The mineral kingdom is purely matter, but the plant realm possesses *life*, the animal world adds *consciousness* and, finally, the human kingdom is capable of *self-awareness*. “The four great levels of Being can be likened to an inverted pyramid where each higher level encompasses everything lower and is open to influences from everything higher. All four levels potentially exist in the human being.”

<u>Kingdom</u>	<u>Expression</u>
Mineral	inert, pure passivity
Plant	adaptation to changing circumstances
Animal	activity, free and purposeful movement an “inner life”
Human	control over the environment and other life forms directed or conscious attention insight, power of foreknowledge awareness of levels of being beyond the human realm

The four kingdoms are not strictly distinct and separate levels of nature; there is a reciprocal relationship between the levels. “Thus a piece of rock belongs simply and solely to the mineral realm. The rose which grows upon it, on the other hand, belongs both to mineral and vegetable realms, while the caterpillar which eats the rose belongs to those and, in addition, to the realm of invertebrate animals.”

Each kingdom has a relationship with both lower and higher kingdoms. Guy Murchie, author of *The Seven Mysteries of Life*, writes: “From a chemical standpoint alone, animal life without

plants to eat would starve quicker but no more surely than most plants would die without animals. Even minerals would be drastically disturbed without both these higher kingdoms.”

One of the major characteristics defining the four kingdoms is the progression from passivity to activity:

At the lowest level, that of “minerals” or inanimate matter, there is pure passivity. A stone is wholly passive, a pure object, totally dependent on circumstances and “contingent.” It can do nothing, organize nothing, utilize nothing. Even radioactive material is passive. A plant is mainly, but not totally, passive; it is not a pure object; it has a certain, limited ability of adaptation to changing circumstances: it grows toward the light and extends its roots toward moisture and nutrients in the soil. A plant is to a small extent a *subject*, with its own power of doing, organizing, and utilizing . . . At the level of “animal,” through the appearance of consciousness, there is a striking shift from passivity to activity. The processes of life are speeded up; activity becomes more autonomous, as evidenced by free and often purposeful movement – not merely a gradual turning toward light but swift action to obtain food or escape danger. The power of doing, organizing, and utilizing is immeasurably extended; there is evidence of an “inner life,” of happiness and unhappiness, confidence, fear, expectation, disappointment, and so forth. At the human level, there is a subject that says “I” – a person: another marked change from passivity to activity, from object to subject. No matter how weighed down and enslaved by circumstances a person may be, there always exists the possibility of self-assertion and rising above circumstances. Man can achieve a measure of control over his environment and thereby his life, utilizing things around him for his own purposes. There is no definable limit to his possibilities, even though he often encounters practical limitations which he has to recognize and respect. (5)

The physical sciences have difficulty explaining life, consciousness and self-awareness from an experiential perspective, and tend to apply reductionistic paradigms in attempts to provide explanations compatible with scientific materialism. They fail to recognize that matter, life, consciousness and self-awareness are very different in their fundamental nature. “Only matter is directly accessible to objective, scientific observation by means of our five senses. The other three are none the less known to us because we ourselves, every one of us, can verify their existence from our own inner experience.”

Physics and chemistry can tell us nothing, *absolutely nothing* about them. These sciences possess no concepts relating to the powers of life, consciousness and self-awareness and are incapable of describing their effects. Where there is life, there is form, *Gestalt*, which reproduces itself over and over again from seed or similar beginnings which do not possess this *Gestalt* but develop it in the process of growth. Nothing comparable is to be found in physics and chemistry. To say that life is nothing but a property of certain peculiar combinations of atoms is like saying that Shakespeare's *Hamlet* is nothing but a property of a peculiar combination of letters.

The truth is that the peculiar combination of letters is nothing but a property of Shakespeare's *Hamlet*. The French or German versions of the play "own" different combinations of letters. (6)

Mineral Kingdom

The lowest kingdom of metals and minerals plays a critical role in the life of humanity. "The mineral kingdom, though its center of gravity lies in the geological realm of rocks and soil deposits, penetrates through every phase of nature and even into man, in whose blood and bones mineral salts play an important part."

Certain essential trace minerals and chemical elements are required by all living organisms. These are naturally obtained through various dietary sources, principally from the plant and animal kingdoms. For instance, sodium and potassium help regulate electrolyte balance, iron is required for many proteins and enzymes, notably hemoglobin, to prevent anemia, and calcium is needed for the health of bones, muscles and the heart and digestive systems.

Gemstones and crystals have been used as talismans and amulets since the beginning of recorded history (and likely before that). The energy field of different stones is said to be influenced by geometrical form, colour and subtle 'spiritual vibrations'. Clear quartz crystals are especially potent when used for healing, protection, divination, energy work, and chakra balancing. And, according to many metaphysical teachings, there is a connection and affinity with the Angelic realm, as various "heavenly messengers" resonate with particular stones.

Plant Kingdom

Plants, unlike minerals, are organically alive and have the ability to grow and reproduce. The world of plants is much more diverse and complex than the mineral realm. "There is a sensitive response to stimuli, adaptation to new conditions, a battle for survival, acute awareness of light and dark, a lively 'social life' and even a sex life – the latter, of course, done discreetly through a third party."

The mineral realm includes in its topmost stratum the soil of the earth's surface, and this in turn is covered with the thin green film of the *realm of plants*, which feed upon mineral salts. Two very definite changes enter at this point. The realm of plants or of living tissue is cellular in structure, and is sensitive to light. Being cellular, it is endowed with changing form in quite a different sense from the fixed crystalline form of minerals and metals. Being sensitive to light, it is able by means of a photosynthetic mechanism based on chlorophyll, to transform the solar radiation into energy for its own use. Thus in contrast to the lower kingdom, which in comparison seems amorphous and dead, the world of plants is particularly subject to the formative influences of the planets and to the life giving influence of the sun. (7)

Plants also possess psycho-spiritual qualities. Many trees, plants and fungi have medicinal properties and have been employed as healing agents throughout history, in diverse cultures and regions of the world. Today they are still a prominent component of indigenous medicine, herbalism, naturopathy, and Chinese and Ayurvedic medicine. During the course of human evolution, certain plants were discovered which possess 'higher elements' having psychoactive spiritual effects which can aid the process of inner transformation in human beings. These include tobacco, tea and coffee, cannabis, grapes and hops, opium poppy, peyote, psilocybin and ayahuasca.

Animal Kingdom

Animals, unlike plants, are capable of independent motion. They possess complex sensory attributes and exhibit many new functions and abilities. Within the animal kingdom, biologists distinguish between invertebrates and vertebrates:

Living and feeding upon the world of plants is the very much thinner but immensely important realm of invertebrates. Ten out of twelve of the main groups of animals, including the infinite army of worms and insects upon the earth, of molluscs and crustaceans in the sea, belong to this realm, which number millions of species. Most invertebrates enjoy the power of locomotion, and besides feeding on plants, they render the return service of breaking up and aerating the soil for them . . . When we come to the realm of vertebrates we find a very much sparser and tenuous layer. Every square inch of the temperate and tropical surface of the earth is alive with invertebrates, but vertebrates in comparison require square feet or even up to acres for their elbow-room. At this point again a very definite change appears to enter, as distinct as that which separated plants from minerals. For the implications of a spinal column and its dependent nervous system and brain, however rudimentary, are enormous. It implies parallel systems of afferent and motor nerves, that is, a system for conveying impressions from the outside world to a centre where they are sorted and arranged, where certain deductions result from this arrangement, and from which an appropriate motor order is sent out by a second system to the muscles. Vertebrates, at any rate potentially, enjoy the power to see and act. They are able to transform not only solar radiation in general to their own use; but individual impressions created by such radiation. They react not only to the brightness of light, but to a certain specific pattern of light, sound, and other vibrations. (8)

Indigenous traditions teach that all living things, and especially the animal kingdom, have lessons to impart through their experience, wisdom and medicine power. Traditionally, shamans worked with animal spirits ("helpers" or "guardian spirits") in their journey through the spirit world. In many cultures certain animals are regarded as sacred and imbued with spirit:

bears for their strength, introspection and self-knowledge; elephants for their patience and wisdom; lions for courage and nobility; dogs for their loyalty and unconditional love; cats for their independence and psychic vision.

Human Kingdom

What exactly distinguishes human beings from the lower realms of nature? What qualities, capacities and possibilities are uniquely human? Rodney Collin, a student of Gurdjieff's Fourth Way teachings, explores this fundamental question in *The Theory of Celestial Influence*:

Finally, we come to the *realm of man*, a layer so rarefied and tenuous that only twenty human beings are found on an average square mile of the Earth's surface. Man lives on plants, on invertebrates, and on the fleshy parts of vertebrates. When we ask in what, objectively, man differs from the other realms of Nature, we are at first at a loss for an answer. What is there in man which is not metal, mineral, vegetable, and does not belong at least potentially to animals? There are certain obvious traps to be avoided in trying to answer this question. For example, we must avoid using different words for things simply because they apply to the human world. We must be careful in calling 'intelligent adaptation to the environment' in man what we call 'conditioning' in animals, 'cultural memory' in man what we call 'herd instinct' in animals, and so on. Thus men live in cities, but so do bees and termites. Men transmit knowledge from generation to generation, but so apparently do migrating eels. After many apparent differences, due to scale or point of view, have been disposed of, we are left with a very short list of purely human characteristics. Men, for example, cook their food, use tools, wear clothes, think in concepts, are influenced by a sense of right and wrong . . . These all spring from a very special sense of *relationship*, a dawning consciousness of *oneself in relation to the universe*. We may say, for example, that the use of tools is a practical expression of this sense, the wearing of clothes an emotional or artistic one, thinking in concepts an intellectual one, the sense of right and wrong a moral one. There can be no tools, except where the craftsman feels his relationship with inanimate materials. There can be no right or wrong, except where man feels his relation with other living beings. All these characteristics arise from the feeling, inherent in the race of men but very dim and confused in the individual – "Here am I, there are other creatures, around us lies the universe." (9)

Collin suggests that our most human quality is our ability to ponder the meaning of our own existence and that of the universe. Who am I and why am I here? "Man is not only able to think but is also *able to be aware of his thinking*. There is not merely a conscious being, but a being capable of being conscious of its consciousness; not merely a thinker, but a thinker capable of watching and studying his own thinking. There is something able to say "I" and to *direct consciousness* in accordance with its own purposes, a master or controller, a power at a higher level than consciousness itself."

What is truly manlike is still only *potential* in him. We can say that it seems to depend on a higher nervous system, which gives him the possibility of being conscious of his own existence and his relation to the surrounding universe. Man can be conscious, and through consciousness he can understand. Only in this is he a man. Thus he is man by the *potentiality of his organism*, rather than by its actual working . . . All but one impulse and sensation which man finds in himself belong to the lower realms of Nature; his only manlike attribute is the potentiality of consciousness, of feeling both separate from and at one with all creation. (10)

A human being is uniquely characterized by the possibility of self-awareness. The quality of self-awareness is the determining factor in the inner development of an individual. "The power of self-awareness is *essentially* a limitless potentiality rather than an actuality. It has to be developed and 'realized' by each human individual if he or she is to become truly human."

The higher the level of being of an individual, the deeper, richer and more panoramic one's perception and understanding of the world. "Integration means the creation of an inner unity, a center of strength and freedom, so that the being ceases to be a mere object, acted upon by outside forces, and becomes a subject, acting from its own 'inner space' into the space outside itself."

Close observation discloses that most of us, most of the time, behave and act mechanically, like machines. The specifically human power of self-awareness is asleep, and the human being, like an animal, acts – more or less intelligently – solely in response to various influences. Only when a man makes use of his power of self-awareness does he attain to the level of a person, to the level of freedom. At that moment he is living, not being lived. Numerous forces of necessity, accumulated in the past, are still determining his actions, but a small dent is being made, a tiny change of direction is being introduced. It may be virtually unnoticeable, but many moments of self-awareness can produce many such changes and even turn a given movement into the opposite of its previous direction. To ask whether a human being *has* freedom is like asking whether a man *is* a millionaire. He is not, but he can become a millionaire. He can make it his aim to become rich, similarly, he can make it his aim to become free. In his "inner space" he can develop a center of strength so that the power of his freedom exceeds that of his necessity. It is possible to imagine a perfect Being who is always and invariably exercising its power of self-awareness, which is the power of freedom, to the fullest degree, unmoved by any necessity. (11)

Within humanity itself there are many gradations of being and self-awareness, and almost unlimited possibilities of inner development. "There is a hierarchical structure of gifts inside us, and, not surprisingly, the higher the gift, the more rarely it is to be found in a highly developed form, and the greater are the efforts required for its development."

At the human level, we can clearly perceive that it is open-ended. There is no discernible limit to what Man can do; he seems to be "*capax universi*," as the Ancients used to say, and what *one* person has done, shines thereafter like a light in darkness as a capability of Man, even if no second person is ever found able to do it again. The human being, even in full maturity, is obviously not a finished product, although some are undoubtedly more "finished" than others. With most people, the specifically human faculty of self-awareness remains until the end of their lives, only a germ of a faculty, so under-developed that it rarely becomes active, and then only for brief moments. This is precisely the "talent" which according to traditional teachings we can and should develop threefold, even tenfold, and which we should on no account bury in the ground for safekeeping . . . When contemplating the four levels of Being we notice a progression: from lifeless mineral to the self-aware person and onward – to the most perfect, most thoroughly integrated, enlightened, free "Person" we can conceive. This helps us not only to obtain a clearer understanding of what our ancestors were concerned with when they talked about God but also to recognize the one and only direction our life on Earth must *develop* if it is to have sense and meaning.

(12)

Throughout history, human beings have sensed that there may be levels of being beyond the human realm, sometimes referred to as the 'angelic host.'

In a hierarchical structure, the higher does not merely possess powers that are additional to and exceed those possessed by the lower: it has the power to organize the lower and use it for its own purposes. Living beings can organize and utilize inanimate matter, conscious beings can utilize life, and self-aware beings can utilize consciousness. Are there powers that are higher than self-awareness? Are there Levels of Being above the human? . . . The great majority of mankind throughout its known history, until very recently, has been unshakenly convinced that the Chain of Being extends upward beyond man. This universal conviction of mankind is impressive for both its duration and its intensity. Those individuals of the past whom we still consider the wisest and greatest not only shared this belief but considered it of all truths the most important and the most profound.

(13)

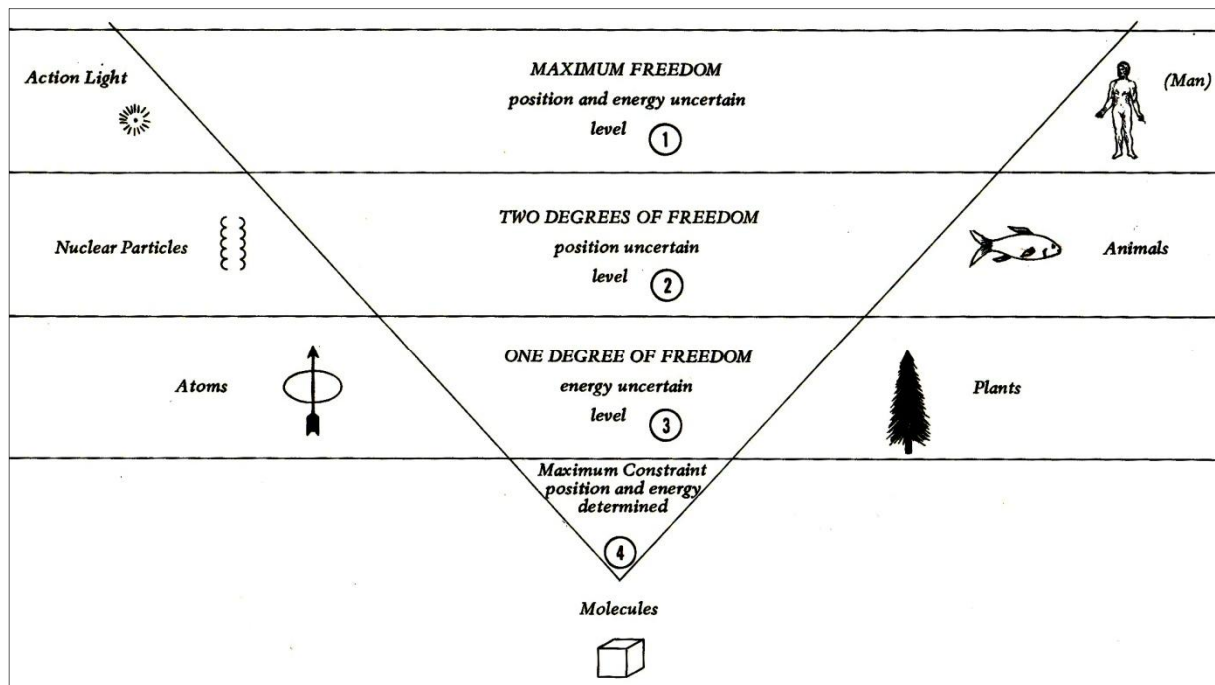
Arthur Young's 'Reflexive Universe'

Arthur M. Young was an influential, visionary 20th century thinker, who invented the Bell helicopter and founded the Foundation for the Study of Consciousness. Over a period of more than four decades, he developed a revolutionary theory of the multi-dimensional nature of the universe which encompasses, and bridges, the fields of science, religion, myth and philosophy. "Young claims to have identified the basic pattern of the universal process which he believes

explains the evolution of life and consciousness. He views the universe not as a structure, but as an interrelated process put into motion by purpose."

His theory of process is a serious candidate for a scientific meta-paradigm of the future. It organizes and interprets in a most comprehensive way the data from a variety of disciplines – geometry, quantum theory, theories of relativity, chemistry, biology, botany, zoology, history, psychology, and mythology – and integrates them into an all-encompassing cosmological vision. Young's model of the universe has four levels defined by degrees of freedom and of restraint, and seven consecutive stages: light, nuclear particles, atoms, molecules, plants, animals, and humans. Young was able to discover a basic pattern of the universal process that repeats itself continuously on different levels of evolution in nature. The explanatory power of this meta-paradigm is complemented by its predictive power. Like Mendeleev's periodic table of elements, it is capable of predicting natural phenomena and their specific aspects. By assigning a critical role in the universe to light and the purposeful influence of the quantum action, Young made it possible to bridge the gap between science, mythology, and perennial philosophy. His meta-paradigm is not only consistent with the best of science, but it is also capable of dealing with non-objective and non-definable aspects of reality far beyond accepted limits of science. (14)

Figure 1. Descent of spirit into matter and ascent of matter into spirit



Young's model of the evolution of life and consciousness takes the form of a V-shaped arc representing a continuous seven-stage process of descent and ascent in which powers are accumulated in a particular sequence:

Light is judged to have total freedom, and is the first level in Young's arc. The second level, the descent from light into nuclear particles, introduces the constraint of force and time but some freedom of motion remains. At the third level atoms are constrained in position, but still have freedom to absorb or release energy. At the fourth level molecules are constrained in both position and energy and so provide the determinism on which higher entities, cells and multicellular organisms can build . . . During the descent from light into nuclear particles, into atoms, and then into molecules, the period or duration of a cycle gets greater at each successive stage of development. Eventually, at the fourth stage, the period of the photon creating the bond of the molecule is long enough to make control of other molecular processes possible. It is at this stage that polymers occur. Polymers are organic chemicals that store energy; thus chlorophyll collects the energy of sunlight. The origin of life occurs in the middle of this fourth stage, and it is at the fourth level of organization in the universe that the descent stops and there is what Young calls "The Turn." At this right angle turn a voluntary ascent begins. On the ascent, the progressive levels of life regain the freedom lost during the descent from constraint of time and space. Plants gain the freedom afforded by growth and reproduction to conquer time; animals gain the freedom afforded by mobility to conquer space; and humans gain dominion of both through their ability to recognize and use laws. The theory of Process has seven specific stages, of which the first four stages lose freedom and become subject to the constraint of time and space, and the last three portray the overcoming of these restraints. Strict determinism, says Young, only holds at the bottom of the arc. At the higher levels it is replaced by freedom. (15)

Young's theory is based on surprisingly few principles (16):

- The universe is a *process* put in motion by purpose.
- The development of process occurs in seven *stages*.
- Within each stage there are seven *sub-stages*.
- Each stage develops a new *power*.
- Powers are *cumulative*; each stage retains the powers developed in previous stages.
- Powers are evolved sequentially in what are called *kingdoms*.
- The process follows an *arc of descent, turn and ascent*.

<u>Kingdom</u>	<u>Power</u>	<u>Characteristics</u>
1. Light	potential	no mass or charge, quanta of action
2. Nuclear	substance	binding, force of attraction and repulsion
3. Atomic	form, identity	acquires its own centre, creates the properties of the elements
4. Molecular	combination or separation	the building blocks of life
5. Plant	organization	growth and reproduction, the cellular level
6. Animal	mobility	action and satisfaction, eating and sex
7. Human	dominion	memory of one's own actions leads to knowledge and control

Light

The first kingdom of light is unique in that it has no mass, no charge, and has a constant velocity (300,000 kilometers per second). Light possesses frequency and wavelength and is transmitted in whole units or quanta (photons). Photons are unpredictable and have total freedom. Young believes that "light is the unitary purposive principle which engenders the universe and has the nature of first cause."

Nuclear Particles

The step down from light to the level of protons and electrons constrains the particles to motion within a sphere. The second kingdom of nuclear particles is the first occurrence of permanent mass and charge. An important attribute of fundamental particles is that they have no identity. "It is impossible to know whether an electron leaving an atom is the 'same' electron as the one that entered it."

Atoms

The second downward step in the sevenfold process confines the electron to movement in a circle around the nucleus of the atom. Atoms, unlike nuclear particles, have a clearly defined location in space. "The atom acquires an identity because it possesses a nucleus, an unchanging center, which survives the encounters that affect its periphery (its shell electrons)." In each atom, the number of proton-electron pairs determines the *atomic number* which defines the various elements (e.g. hydrogen = 1, helium = 2, lithium = 3, etc.). The periodic table of the elements shows the periodic recurrence of similar chemical properties.

Molecules

While atoms organize proton-electron pairs, molecules combine atoms. At this level of process there is the maximum amount of constraint and a stricter determinism than earlier kingdoms. Molecules are the building blocks of life, as they display myriad possibilities:

There are only about one hundred kinds of atoms; there are countless kinds of molecules. Atoms as atoms exist only singly; when they combine they form molecules. When molecules combine, the result is another molecule. If we make atoms analogous to the letters of the alphabet, then molecules, being combinations of atoms, are analogous to words. Atoms, like letters, are limited in number; molecules, like words, may be constructed endlessly. (17)

Plants

Visible evolution begins with the plant kingdom. Each cell of a plant is identical in terms of genetic structure. The principle of organization guides the growth of plants in a way that is far beyond the biology of simple cell division. "The development of the power which leads to reproduction, and the plant kingdom, reaches its ultimate expression in the flowering plants, whose perfection of the seed principle has produced the biosphere – the vegetation which covers the earth." The unique manifestation of plants occurs in several interrelated ways: size and growth, self-reproduction, increase of order or organization, hierarchy, and negative entropy or storage of energy.

Animals

The animal kingdom is much more highly organized and "intelligent" than the plant kingdom. Besides freedom of movement, animals are able to seek external sources of energy. "The plant growth is movement toward an indefinitely remote goal, which is in constant direction, either against gravity or toward light. The animal movement is toward specific and attainable goals – water, food, a mate, shelter – and in any direction."

The animal incorporates the power of organization and growth which it inherits from the plant kingdom. But it develops a new power. The goal of the animal kingdom is *mobility*. That is not mere motion, nor even self-motion like that of an automobile. It is *voluntary* motion. The animal moves in quest of food. For the grazing animals the quest is continuous; for predators, occasional but more strenuous. And almost all animals are under constant threat from natural enemies. The animal therefore requires sense awareness to find its food and to warn it of enemy approach. It must evaluate conflicting stimuli and must choose between alternatives. The deer may be motivated by thirst to go to the water hole, but if it scents a lion it will refrain. The animal is perpetually having to decide on a course of action, when and where to move. This is a different order of mechanism from the tropism of plants. In fact, it is not a mechanism at all; it involves *value judgments*. (18)

The development of animals follows a progressive evolutionary path through a sequence of sub-stages that recapitulate the evolutionary attainment of previous kingdoms:

The animal evolves in stages or levels of organization. It begins as a single microscopic cell, very much alive but with a very small radius of action. Its next step is to gain size by becoming multi-cellular. Size attained, it acquires identity through creation of a stomach, then other, coordinating organs: heart, liver, intestines, etc. Its next step is metamerization: the body laid out in a chain of segments, as in the earthworm, with the organs in sequence, like an assembly line. It is now ready for the innovation that makes true mobility possible, the articulated foot. Finally, the whole organism is coordinated under the central nervous system. Note that it is just this kind of evolution, the advance to more complex form, that is not explained by survival. The leaps to higher forms of organization are inherent in all processes, atoms and molecules as well as living creatures. (19)

Humans

Human beings are capable of a level of evolution qualitatively different from the evolution of the animal kingdom. "Animal evolution consists primarily in developing a physical organism that through its mobility can obtain food and by its internal organization can transform food into available energy. Man begins his evolution with the animal vehicle already perfected." Humans are uniquely different from animals in a number of evolutionary respects:

- upright stance freeing the hands
- thumb opposes the fingers making it possible to grasp objects
- employment of sophisticated tools
- larger and more complex brain
- communication through spoken and written language
- ability to plan and reason, capacity for abstract reasoning
- self-consciousness and self-awareness

Humans are capable of a much wider range of behaviours than animal species. "In the ability to use different tools, to function in different ways, he contrasts with the animal, which is committed to one element, to one diet, to one habit pattern, and therefore is that function. Thus man can *have* what animals are compelled to *be*, and man's being is freed to take on greater challenges."

Human evolution contrasts with that of the animal in that the possibility of *understanding* natural law is added to the trial-and-error syndrome of the animal; this understanding offers the possibility of a much more rapid evolutionary advance. This third evolution is still subject to the need for individual effort, for pain and travail. But it also affords the joy of creative endeavour and the enjoyment of aesthetic sensibilities. The solution is no longer cloaked in the darkness of inherited instinct which depends (like the mating instinct) on blind obedience to sensory clues

that vary with the seasons; it invites the self to explore the world both of the senses and of the abstract reason, the heights of art, the emotions of love, the discovery of truth. Like the plant and animal evolution, this third type has its laboratory at the fourth level, where the law of cause and effect affords the opportunity for recognition of truth, for the enlightenment that is the goal of this evolution. Once recognized, the law of cause and effect makes it possible to bring an effect about, to make determinism serve will. Thus the universe is a school in which the monad learns. (20)

Young's theory of process shows that evolution progresses through many successive stages, culminating in the human kingdom. He believes that the purpose of humanity is "to have dominion over nature, to rule it and care for it, to conceive and attain goals beyond immediate necessity."

We have evolved through billions of years, perhaps even through many universes, from photons and atoms through molecules, cells, and ultimately through animals to reach the stage at which we could be born human and start learning to talk at two years of age and in some cases write symphonies at seven. We have worked long and hard to reach this state, and we have done so by our own efforts. And now the question: what has sustained us in this climb? There can be only one answer. It is sustained by the basic and most fundamental of all powers, the premonition of a goal implicit in the photon that started it all. This premonition sustains the quest. It is the thrust, the passion that makes life continually try to excel itself to evolve and, in almost all mankind has led man to postulate a state of being beyond himself. . . . So the source of the faith in what is beyond oneself is a timeless overview, the same dynamic orientation that has pushed the physical vehicle through its development and that has guided our steps up the ladder of being since the universe first came into existence. (21)

The human kingdom, according to Young, is composed of four principles or "bodies":

1. A physical body which is essentially a collection of molecules.
2. An "etheric" body with the power to create order and organize material which eventually appears as a creative mind and a sense of self-identity: "The function that makes concept formation possible and requires a body with its nervous system, sense mechanism and brain."
3. An animating body or soul which makes possible experiences of pain and pleasure, and creates the function of memory. "The fluid nature of the soul is what adapts it to taking on the imprint of experience. Like water passed from one vessel to another, it takes the form of the vessel it is in, and supplies the content of experience."
4. An immortal spirit or *monad*, called by Aristotle *nous* and in Hinduism the *Atman*, which is the essential seat of consciousness, will and conscience, unique to the human kingdom. The

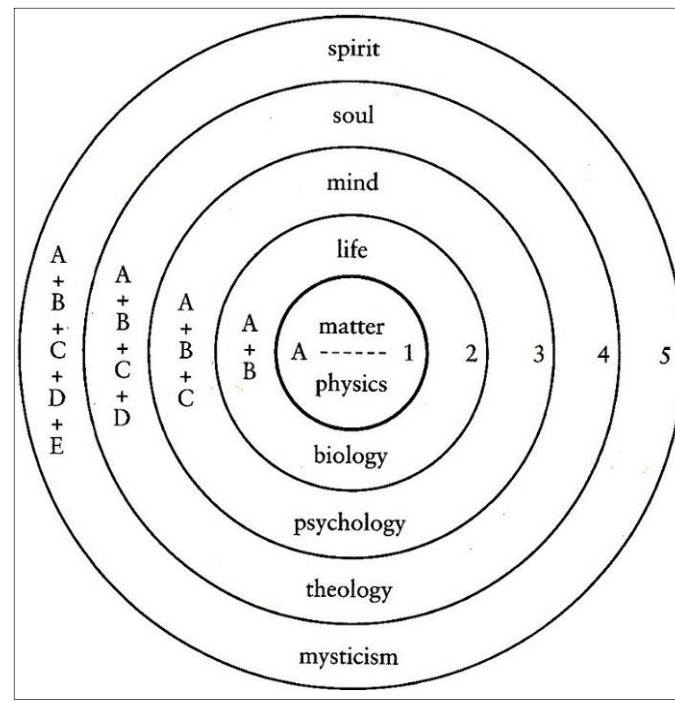
monad is prior to the soul and outside of time. It is the light that dawns when a human being attains enlightenment and creation comes at last to recognize itself. "This essence is analogous to the eye that can see everything but cannot see itself."

Ken Wilber's 'Spectrum of Consciousness and Being'

Ken Wilber is a leading theorist in the field of transpersonal psychology, who has proposed a model for the order and hierarchy manifested in reality based on levels of consciousness and being. Drawing from the tradition of the 'perennial philosophy,' he has synthesized and integrated cosmological concepts from Hinduism, Buddhism, Taoism, Sufism, Christianity, Judaism and Western psychological and philosophical teachings.

He posits that consciousness and being form a hierarchy of levels, ranging from the lowest, densest and most fragmentary to the highest, subtlest and most unitary. "The levels are different from each other in that they are different degrees of consciousness in which the 'higher' transcends the 'lower' and not the other way round. What divides them is that each world has a more limited and controlled level of consciousness than the world above it. The lower consciousness is unable to experience the life of the higher worlds and is even unaware of their existence, although it is interpenetrated by them." In his model Wilber distinguishes five primary levels: spirit, soul, mind, life and matter:

Figure 2. The spectrum of consciousness and being



<u>Level</u>	<u>Plane</u>	<u>Characteristics</u>
Spirit	causal	transcendent, formless, timeless, pure awareness the source and nature of all other levels
Soul	subtle	archetypal, transpersonal intuitive perception, visions and insights
Mind	mental	ego, personal self thinking and feeling
Life	biological	sentient matter/energy
Matter	physical	inanimate matter/energy

As we ascend the 'spectrum of realities,' there is an increase in the level and degree of consciousness, a greater degree of free will and an increase in the ability to create our own environment. There is also a significant interaction between the various levels: "In a truly holistic fashion these various levels are mutually interdependent, interconnected and interpenetrating, and not discrete or isolated from each other. They blend subtly with each other without any hint of discontinuity."

In this formulation of the nature and structure of being, one can list a series of aspects or levels of being that are referred to as domains. One can then talk about these domains as levels of consciousness associated with relevant forms of matter. For instance, the mental domain is that mode of consciousness that we associate with mental phenomena and the various thought processes, and which possess attributes and functions relevant to that domain. What is more, these domains are interactive, thereby denying any isolation between them. In its ascending phase, the model begins with matter and moves through life, mind, soul and spirit which is seen as the ground of the others and the goal of them all . . . It can be seen that each level of the stratified order transcends but includes its predecessor and contains functions, capacities, and structures not found or explainable solely in terms of its predecessor. For example, capacities and attributes of the domain of life, as studied in biology, often involve concepts of physics relevant to the physical domain, but the reverse is not true. The domain of physical matter at the bottom represents least being in the sense that being, or Spirit, is least expressed at the physical level but experiences the greatest limitation and privation of its innate freedom and movement. Paradoxically however, and very importantly, the physical domain shares a common aspect of being with all other levels, a fact which at first is hard to grasp but which is fundamental to the Great Chain. What all the levels of being share is the Ground of Being, or Spirit. (22)

In Wilber's model there are two processes or movements – involution and evolution. Involution is the descent and enfoldment of higher levels of consciousness and being into lower levels of reality, and is sometimes described as “a progressive precipitation of the lower from the higher; each lower dimension is a *reduced subset* of its senior dimensions.” Evolution, on the other hand, is the path of ascent which generates successively higher levels of consciousness and being – an unfolding or creative emergence of higher domains from lower dimensions of reality:

According to the perennial philosophy, in order for evolution – which is the unfolding of higher structures – to occur at all, those higher structures must, *in some sense*, be present from the start: they must be enfolded, as potential, in the lower modes. If not, then evolution is nothing but the creation *ex nihilo*, out of nothing. And the story of involution is simply the story of how the higher modes came to be lost in the lower – how they came to be enwrapped and enfolded in the lower states. Involution, or the enfoldment of the higher in the lower, is the pre-condition of evolution, or the unfolding of the higher states from the lower. At the extreme point of involution – which is simply the *pleroma* or the material world – all of the higher and highest states of being lie enfolded as *undifferentiated potential*. The highest and the lowest, the infinite and the finite, spirit, mind, and matter – all are enfolded as undifferentiated and unconscious potential: and that is the ground-unconscious. Evolution is simply the unfolding of that enfolded potential – all the various modes of being can then eventually emerge from the ground-unconscious, starting with the lowest (pleroma) and ending with the highest (Atman). (23)

From this perspective, evolution is a living, organic process flowing through the ‘Great Chain of Being’: “The stage-levels of evolution show increasing structural organization, increasing complexity and integration and unity, increasing awareness and consciousness. There is even a sense in saying that each higher level is more real, or has more reality, because it is more saturated with Being.” The final two stages of this process are the soul and spirit level.

The soul realm is associated with archetypes and the Platonic Forms. “There is still some sort of subtle subject-object duality. Although soul apprehends Being, or communion with God, there still remains an irreducible boundary between them.” In the final level, soul unites with absolute spirit or Godhead as all boundaries dissolve in timeless Being. “Spirit is the Ground or Reality of *all* levels, and has no specific qualities or attributes itself, other than being the ‘isness’ or ‘suchness’ of all possible and actual realms – in other words, the unqualifiable Being of all beings.” Paradoxically, spirit is both completely transcendent to the world and completely immanent in the world:

On the one hand, spirit is the *highest* of all possible domains; it is the Summit of all realms, the Being beyond all beings. It is the domain that is a subset of no other domain, and thus preserves its radically transcendental nature. On the other hand, since spirit is all-pervading and all-inclusive, since it is the set of all possible sets, the Condition of all conditions and the Nature of all natures, it is not properly thought

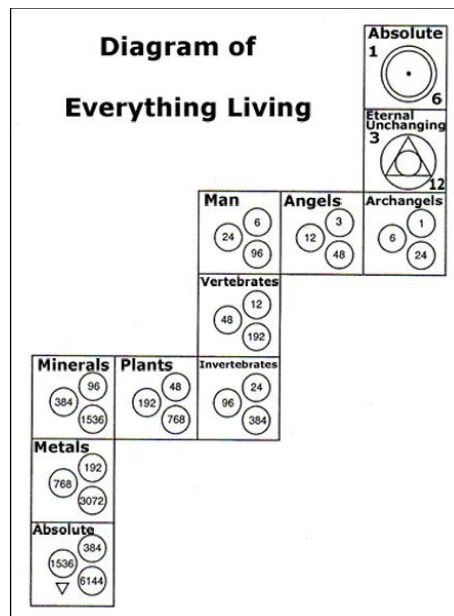
of as a realm set apart from other realms, but as the Ground or Being of *all* realms, the pure *That* of which all manifestation is but a play or modification. And thus spirit preserves (paradoxically) its radically immanent nature. (24)

The 'Diagram of Everything Living'

The 'Diagram of Everything Living' (also called the 'Step Diagram') was first presented to the Western world in 1917 by G.I. Gurdjieff in talks with his Russian students. The diagram is essentially a classification of everything existing in accordance with its level of being and its relationship with the rest of the universe. Gurdjieff stressed that the diagram was a truly comprehensive system of the classification of cosmic energies and entities that included levels of reality both below and above the human realm. "The classification leads us far beyond the limits of what we call 'living beings' both upwards, higher than living beings, as well as downwards, lower than living beings, and it deals not with individuals but with classes in a very wide sense. Above all, this classification shows that there are no jumps whatever in nature. In nature everything is connected and everything is alive." Therefore, every existing thing can be classified in relation to its place in the cosmic order:

You should understand the principles of the classification and the definition of living beings from the cosmic point of view, from the point of view of their cosmic existence. In ordinary science classification is made according to external traits – bones, teeth, functions; mammals, vertebrates, and so on; in *exact knowledge* classification is made according to cosmic traits. As a matter of fact there are exact traits, identical for everything living, which allows us to establish the class and the species of a given creature with the utmost exactitude, both in relation to other creatures as well as to its own place in the universe. These traits are the cosmic traits of being. (25)

Figure 3. 'Diagram of Everything Living'



The diagram is in the form of a ladder with eleven squares, with each square denoting a specific level of being. The central number in each square of the diagram refers to the average 'hydrogen' of each class. In Gurdjieff's cosmological system 'hydrogens' are energies which can range from coarse to fine. They indicate the density and rate of vibration, as well as the level of consciousness and intelligence of various varieties of matter: the higher the number, the denser the matter and the less the intelligence.

Within each square, except the two highest, the 'hydrogen' in the lower circle indicates what the given class of being feeds on; the 'hydrogen' in the upper circle shows the class which feeds on these entities; and the 'hydrogen' in the middle circle of a class defines what the being is. For example, man is defined as 'hydrogen 24', feeds on 'hydrogen 96' (invertebrates) and is food for 'hydrogen 6' (archangels). "Every kind of creature, every degree of being, is defined *by what serves as food for this kind of creature or being of a given level and for what they themselves serve as food*, because in the cosmic order each class of creature feeds on a definite class of lower creature and is food for a definite class of higher creatures."

The Step-Diagram presents the Universe as a strange kind of psycho-physical digestive-tube in which everything eats and is eaten. According to this diagram and its inner significance everything is defined *by what it eats and what eats it*. We eat all sorts of things, but we do not imagine that all sorts of things also eat us, although after a time on this planet we may come to suspect it . . . We must grasp that a man may be eaten *in many senses* – not merely physical. Everything is food for something else, and something else is again food for something else. Pain and useless suffering feed the Moon, the body the Earth. Now we can see in visible nature that life eats life. Animals, birds, fishes, insects, eat each other. We eat them. Or again, a cow eats grass and we eat the cow and so on. If everything living ate the same thing, living creation would be impossible. Things are cleverly fitted in, often into very odd corners. One thing is food for another in very odd ways. So you see that when it is said that everything is defined by what it eats and what eats it, the definition is very interesting. (26)

The term '*reciprocal maintenance*' has been coined to describe this cosmic process in which all energy, matter and life in the universe maintain and sustain one another through a process of 'cosmic-interchange.' This allows the variety of forms in the universe, through their complex interactions and mutual support, to be nourished by a mutual exchange of substances. Reciprocal maintenance creates a pattern whereby every class of being produces energies or substances that are required for maintaining the existence of other classes.

This concept was expressed as a creation myth in Gurdjieff's great opus *Beelzebub's Tales to His Grandson*. He writes that when His Endlessness (God) realized that his dwelling place, the Sun Absolute, was vulnerable to the ravages of time, He created the universe into which He expelled time. The Law of Reciprocal Maintenance (or *Trogoautoegocrat*) functions so that the universe is nourished by an exchange of substances, thus protecting the Sun Absolute from the destructive results of time, i.e. change, decay and death. "Nothing separate and closed can

continue to exist without renewal from outside itself. Cosmic harmony is maintained by the universal giving and receiving of energy through the interaction of different classes of being.”

The lowermost square in the diagram has no name. According to Gurdjieff it represents so-called “dead matter” which lacks the ‘Holy Ghost.’ It is a state of matter which is incapable of development and so is incomplete and unfinished.

There are four squares in the diagram above the level of humankind. The squares called ‘Angels’ and ‘Archangels’ represent higher levels of being imperceptible to most human beings. Gurdjieff equated angels with planets or planetary gods and archangels with suns or stars. Dr. Kenneth Walker, a student of Gurdjieff, believed that angels and archangels were symbols of the invisible realms of higher levels of spiritual evolution:

Consciousness and life are for me keys to the understanding of the great cosmic drama which is being played out there in the gigantic theatre of space and time, for without consciousness and life the play would be entirely meaningless. One feature of supreme importance is the fact that consciousness has been climbing to higher and even higher levels *pari passu* with the evolution of the physical body it inhabits. The materialists regard this ascent of consciousness as the result of the evolution of more highly organized physical forms, but it is at least as likely that these physical forms are the *result*, as that they are the *cause*, of this ascent . . . The cosmic drama being played out in space and time is the drama of the evolution of consciousness and of mind, and the parallel evolution of higher physical forms has accompanied it as a means towards that great end. Having accepted consciousness and mind as the primary creative forces of the universe, I see no reason why they should not have produced conscious and intelligent beings as far above the level of man as man is above the level of the amoeba. For me it would be entirely ridiculous to imagine that the little biped creature living on this planet somewhere on the fringe of a well-nigh limitless universe marks the zenith of the achievements of Consciousness, and I no longer experience any difficulty therefore in accepting the two squares marked ‘angels’ and ‘archangels’ in Gurdjieff’s step-diagram. (27)

The square above the Archangels and below the Absolute is named the ‘Eternal Unchanging’ and is symbolized by two concentric circles with a point at their centres. John G. Bennett, a student of Gurdjieff, equates this level in the diagram with the process of *Trogoautoegocrat* or reciprocal maintenance, which oversees the energetic exchange and spiritual workings by which creation is maintained.

The highest square is the Absolute, which is symbolized by a circle within a triangle with a point at its centre. The Absolute is under one law – the Will of the Absolute – and so is completely unconditioned. The energy and spiritual power of the Absolute can pass through all the

lower levels of the universe. It has been characterized as the first principle, the universal Self, or the *Brahman* of Hinduism, which underlies and supports the world of manifestation and form.

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