1. If eight spheres were placed in a box that would just fit them they would touch each other at six points. The empty space between them would be considerable.

2. Nature allows no empty space in her occupation of space by infinite surface forces.

3. If these eight spheres were blown up gradually, the points of contact would become planes.

4. The eight spheres would then become eight cubes all contained in one large cube of eight times the volume of each small one and no space wasted.

5. As it required force to blow up these spheres let us call the cube by this name, Field of Force. Each cube requires the amount of force required to fill all space in the box.

6. There are eight fields of force which are eight parts of one whole Field of Force. There are eight cubes in one cube.
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Dr. Timothy A. Binder, D.C., N.D., U. of S. & P. President

GREETINGS!! This a quarterly journal focusing on the science of creation revealed to Walter Russell. Dr. Russell, artist/philosopher/ illuminate, spent 35 years and several different written editions describing to scientists and lay persons God's multidimensional creation processes. Known as the 'Russell Cosmogony', the concepts revealed to Dr. Russell during his 39 day illumination in 1921 show our three dimensional world of light and matter to be an extension of the One substance of God. Matter is light (patterned thoughts) spirally wound into vortices of motion, a recording of God's one idea of creation, and is motion sustained by God's rhythmic Thinking.

FULCRUM is a forum in which scholars and students can interact to exchange insights and perspectives on interpretation and application of the vortexian principles of the Russell Cosmogony. We seek to 'fan' the flames of creative thinking and to stimulate discussion, awareness, and understanding of God's two-way, creating/decreating electric universe. Without such knowledge, humankind will be forever in the 'entropy loop', in a scientific and philosophic paradigm of a Universe dying a heat death, where energy runs only down hill and everything is going into greater disorder. Our present economic, social, psychological, medical, philosophical, political, and religious systems are patterned on 'entropic' thinking and beliefs.

Our intent is to publish:
1. Questions we, as students, have concerning the Russell Cosmogony and the Russell literature.

2. Answers from students. Answers may or may not be definitive. Clarity may take time to 'unfold'. Sharing insights may or may not

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lead us to the same conclusions. The idea is to share different perspectives and stimulate/inspire thought on the subject. I expect our thinking and understanding to evolve.

3. Research and articles relevant to the Russell Cosmogony. What insights do you have concerning this Cosmogony? Have any of you puzzled over, played with, built, modeled, or written about your studies of a two-way, invisible/visible physical Universe? What have other scientists or lay persons done in past or present studies? How are chemical, physical, medical, agricultural, biological, economic, etc. systems viewed from this enlightened perspective? We are eager to review for possible publication your treatment of the Russell concepts. I have a special interest in mathematical treatments of the Russell concepts and would love to see some!

4. Current experiments utilizing vortexian principles and mechanics: transmutation, 'energy' production, gravity simulation, etc.

5. Applications of spiral/vortexian/motion-in-opposition mechanics, science, and philosophy.

We are eager for your input and feedback. Our vision of 'Vortexian' science curricula, texts, data banks, and applications in every field of human endeavor is dependent upon the continued 'desire' and 'action' of all of us, 'desire' taken into meditation and 'action' inspired from the point of Stillness within each of us. This is a collective effort, we live in a collective, interactive, and interdependent world. Our collective thinking and beliefs create our experiences. The degradation and exploitation of planetary resources is only a mirror of our collective 'entropic' beliefs and thinking. It is up to us to create the 'critical mass' necessary to manifest this new science and philosophic paradigm of Oneness, Love, health, prosperity, and genius inherent in all of us.

Chester A. Hatstat, Jr., editor

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"There is but one Creator in the universe,---one Mind, one Person, one Being. We are that Creator, that Person, that Being in the measure that we know we are."

Walter Russell
We shall use these abbreviations to reference the literature:
Atomic Suicide?: AS  The Secret of Light: TSOL
The Universal One: U1  A New Concept of the Universe: NCU
Home Study Course: HS  The Divine Iliad (1 or 2): DI (1 or 2)

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QUESTIONS FOR NEXT ISSUE

(1) Are Walter Russell’s Periodic Charts of the elements planar projections of a three dimensional spiral? If so, can we describe the spiral path mathematically and can we model it in order to work knowingly with the rhythmic, tonal nature of the elements? I am including some formulas from the 12th edition of the C.R.C. Standard Mathematical Tables and Jerome Canty’s "Golden Spiral" diagram to "seed" this question. What is the evidence for a logarithmic or a hyperbolic spiral relationship for motion in Universe?
21. Spiral of Archimedes

\[(x^2 + y^2) = a^2 \left[ \arctan \frac{y}{x} \right]^2\]
\[\rho = a\theta\]
\[\rho = -a(\theta \pm \pi) \text{ etc.}\]

22. Logarithmic or Equiangular Spiral

\[x^2 + y^2 = 2a \left( \arctan \frac{y}{x} \right)\]
\[\rho = -e^{a(\theta \pm \pi)} \text{ or } \rho = e^{a(\theta \pm \pi)} \quad \text{ etc.}\]

Also \[\log \rho = a\theta \text{ or } \log (-\rho) = a(\theta + \pi) \text{ etc.}\]

23. Hyperbolic or Reciprocal Spiral

\[(x^2 + y^2)^{1/2} = a\]
\[\rho = a \text{ or } \rho(\theta \pm \pi) = -a \text{ or } \rho(\theta \pm 2\pi) = a\]

24. Parabolic Spiral

\[(\rho^2 - a^2) = 4ak\theta\]

(2) What are everyday applications of the law of octave wave progression or rhythmic balance interchange that you can identify? Are there examples in natural phenomena or in your everyday experience that reflect, follow, or demonstrate this law in some way?

Knowledge is the power or strength for creative thinking. Knowledge belongs to the One. Thinking, perception, feeling, and action involve some degree of judgment and are therefore different levels within the electric Universe. Right thinking, right perception, and right feeling result in right action. Our efforts at right thinking, etc. open our consciousness to knowledge through continuous practice at discerning truth from untruth, reality from illusion, fear from love, or knowledge from judgment.

Chester A. Hatstat.
QUESTIONS FROM PREVIOUS ISSUE

(1) Physicists have long debated and devised experiments to prove or disprove the concept of the ether or aether. The ether was originally proposed to explain the transmission of electromagnetic waves of heat or light through the vacuum of space. Knowing the Russell concept that light does not travel, that it is reproduced from one wave field to another (TSOL, p. 169), how can we relate Dr. Russell's concept of the One Substance to wave fields and to the 'ether'?

(2) The concept of "voidance" again comes to this editor's mind. Larry Tieg's response in the Vol. 2, #1 issue sparked a latent question within me. As I write these words, the opposite "negative image" is simultaneously happening to void any and all actions on my part. The paradox lies in the seeming continuity of time and of action which perpetuates form or illusion. If everything is voided as it occurs, then how do the things I create 'today' remain for me to 'see' tomorrow?

ANSWERS

From Larry Tieg:

How can we relate Dr. Russell's concept of the One Substance to wave fields and the "ether"?

Realizing we are like a fish asking what is water and knowing words are inadequate to explain that which is beyond the mind - while nevertheless pointing the way, Dr. Russell's ONE SUBSTANCE is: The omnipresent invisible black light of space; The omnipotent unmanifest spiritual universe; The omniscient all knowing of God's Mind.

From the Divine Iliad, "For I am within all things centering them and without all things controlling them." This I AM, ONE SUBSTANCE is the Supreme Reality from which all things appear and into which all things disappear. From man's limited point of view, the concept of God points the way. When we as spiritual entities realize it fully, we are that.

The word "ether" is probably as metaphysical or spiritual a concept as science currently has. It attempts to explain what hasn't been proven in the laboratories, that space is or contains an identifiable substance, a separate unknown element unique to space.
Dr. Russell states: "Space is not empty - nor is it an ether." (NCU, p. 125) "The cosmic inert gases fill all space between the stars of heaven." (TSOL, p. 272)

We can therefore conclude that space is not empty nor a vacuum. The inert gases fill all space. "Ether" as an unknown element or separate substance doesn't exist. The One Substance, the omnipresent ocean of Spiritual Mind Knowingness is the invisible background, the movie screen, from which and against which all that appears to exist - appears.

Appearances/matter/bodies are not the One Substance. All "matter" is but motion .... extended/borrowed/projected from the One Substance, the Supreme Reality. From the invisible black light of space, visible incandescent simulated light appears as suns. Suns born planets. From planets all forms appear. Into suns all matter/motion eventually disappears. Suns themselves disappear like ocean waves into the Stillness of the One Substance.

Wave fields are the mechanics of Creation. Like water is shaped by its container, so is light. Wave fields are light's container. All matter/form/motion has two halves, one visible and one invisible - matter and spirit. The visible "solid" matter half we see/smell/taste/hear/feel. The invisible half is the wave field. Wave fields are like giant freezers in space, compressing (cold compresses) and freezing invisible black light into visible mater. The freezer is millions of times larger than it's centering matter, and its shape determines the shape of its solid half. The wave field and its solid core are equal in potential and weight, but different in volume. For example, picture a balloon the size of an elephant, partially filled with helium, perfectly balanced on an equal length teeter totter with an ant on the other end. Both are equal in weight and potential (they can teeter totter together), but different in volume.

Or picture a real elephant balancing on a teeter totter with an ant. How long would the ant's teeter totter length - lever - have to be to balance an elephant on the other end? A mile, a hundred miles, a thousand miles? At some point they would be equal in potential and could achieve rhythmic balanced interchange. The only difference would be the distance/volume of space between each of them and their common fulcrum.

And so it is that all matter has a vastly larger spiritual wave field surrounding it. This cold space is something, is probably filled with the invisible inert gases of the first three octaves of the elements (as yet unknown to science). These space wave fields
balance all matter in the universe, allow the illusion of light to travel thus making the illusion of reality possible.

Question 2: If everything is voided as it occurs, then how do the things I create today remain for me to see tomorrow?

In a single word - memory! But first ....

"Voided as it occurs" is like running on a tread mill. Each forward step is canceled as the track moves backward. (Picture how strange this would seem to a "primitive" person seeing it for the first time.) All that happens is motion - that appears to travel.

In watching a movie, we see a sequence of pictures which gives the illusion of motion. If the negative of that film were projected simultaneously with the positive, the screen would be blank - nothing. Motion appears to be because we see only half the process - the positive print or image.

Waves on the ocean appear to move because we watch only the crests, the positive half of the wave. Throw a cork on the ocean and you'll see the cork just bob up and down in one spot; like the man on the tread mill, alternating between crest and trough. Each wave is a pump, up and down, but the water doesn't actually move forward until it hits a beach or sea wall. It is the repetition of wave motion from wave field to wave field that gives the illusion of motion. And if we superimpose each wave crest upon its simultaneous wave trough, we would get a flat ocean - nothing happening. It only seems to.

Now, while we live, work, and play in world of positive half cycles that give the appearance of "reality" only, how do they remain for me to experience tomorrow?

It is our body/brain memory. If each night upon sleeping we developed amnesia, we would awaken each morning to a new/ strange/unknown world not recognizing anything. We would even look at our own bodies in amazement and wonder what is this? Who am I? What is this all about? To carry the analogy further, what would happen if amnesia took place with each breath? Probably we would be forced to be fully conscious, totally aware of each moment, fully alive, present moment to moment. A sense of awareness, a sense of "I am" would be present in each new moment and probably express itself as wonder, interest, and love. Perhaps we have just described what it is like being a baby.

With a moment to moment amnesia, there would be no time. Time is the space between memories. That is why time flies for inactive older people with few meaningful new memories and almost
stops for active/busy/doing children who live a lifetime of wonder filled excitement in a day.

There would be no past, for the past is only memories. There would be no tomorrow, for tomorrow is imagination based on memory. There would be no fear, for fear is memory of past pain. There would be no desires, for desire is imagination of past pleasures based on memory. There would be only the joy of now, wonder, love, beauty. There would probably be an expanded sense of awareness of self, a consciousness, always present, always now;

In the moment, thoughts and images would appear in the mind and just as quickly disappear, leaving no trace, no memory. We would probably experience ourselves as the motionless witness to these thoughts and images, our stream of consciousness. Awakening from sleep, we might even witness our body appearing in our mind. The question might arise, where did this form come from? Am I in this body or is this body in my consciousness? Am I in the world or the world in me? Which came first, me or the world? Was I ever born - whatever that means? What is death?

Wouldn't it be interesting if the path to remembering who we are was to practice forgetting. Amnesia anyone?

Thanks so much Larry!! Ed. note: From my limited understanding, the path to remembering who we are is forgiveness, which to me is forgetting the mistakes, forgetting to judge, forgetting the beliefs in separation, forgetting to assign reality to the body. Waiter!!, a large dose of amnesia please. And be sure to apply it liberally to the body consciousness and to the thought patterns/habits which do not reflect Truth, Love, Joy, Ecstasy!!

From Chester A. Hatstat, Jr.:

#1. Concerning the ether, I agree with Larry Tieg's that the wave fields created by the so-called "cosmic" gases are the medium by which "electromagnetic" energy is reproduced across the "vacuum" of space. Thank you Larry for clarifying this for me, for the One Substance cannot be confused with the ether.

#2. I will quote from Chapter XV of TSOL, "The Illusion of Change."

"Change is an illusion of the senses due to motion.

There is no change whatsoever in the conscious universe of knowing. There is only an illusion of change set up by the two interchanging lights of thinking to divide the One Whole Idea into many separate ideas and record them in moving matter."
The senses are the audience for the these thought pulsations. The senses are a part of this illusion. Senses are electric. They belong to the thought universe of motion and do not respond to stillness. As motion itself is non-existent, so also are senses non-existent.

The senses are but the imagined records of imagined motion, matter, and change. As such they are limited to pin-hole peeks into the vastness which extends beyond their sensing. The senses have no knowledge of what they sense. They merely record motion.

The senses respond to motion in only one direction. They sense the forward flow of time but not its backward flow. If they could register both directions, they would become aware of the stillness of this zero universe of seeming motion.

The Universal One planned it this way, otherwise there could be no sequential manifestation of thought which constitutes the creating universe. (Ed. note: The italics are mine, this sentence is for me the key to answering question #2.)

When our knowing exceeds our sensing, we will no longer be deceived by the illusions of our senses."

.........................

ARTICLE

INTERPRETING THE MUSIC OF THE SPHERES ASTROLOGICALLY WITHIN THE CONTEXT OF THE RUSSELL COSMOGONY

by Kristina Strom

In June of 1936, Walter Russell gave a talk to a group of astrologers. The words he imparted at that meeting are faithfully recorded in The Electric Nature of the Universe (U of SP, 1991). He began by saying, "I feel that it is almost a bit of insolence for one who knows nothing of the technique of so old a science [emphasis mine] as Astrology to talk to astrologers . . . I know nothing of the technique of Astrology but I have great respect for it and I believe I know the basis upon which the whole science is built." (ENU, p. 1)

The essence of his ensuing message was that while all of us are subject to the effect of each cyclical rhythm in the Universe, including that of the sun, our moon, and the planets in our solar system, such response doesn't have to be so. He explained that each "change of rhythm in the entire solar system affects everyone" and
that "every person born into a material form has a rhythm of his own which is normal to him and to him only. Each person's normal rhythm is determined at his birth moment [emphasis mine]." (ENU, p. 17) Continuing, he said that we all respond to this "rhythmic measure" in a Pavlovian manner, that "it is automatic. We cannot help it."

On the next page, however, Dr. Russell asserts that "we cannot help it, but we can change it and re-set our vibratory measure at will, as our awareness of our 'will' within us unfolds. We are not salmon; we are human beings. We are thinking men and women... We can recreate ourselves at will by our new awareness of our universality." Profoundly, he states that "the lower our mental state, the more we are automatically controlled from space", otherwise known as 'instinct', a term all aware Russell students realize he uses when he refers to "the manner in which God speaks to early forms of living creatures, (HSC, p. 567) which includes newborn human babes" (HSC, p. 568).

Unlike most species, he continues, we humans have the opportunity to move beyond instinct into "absolute control within ourselves. The cosmic consciousness experience which comes to all of us in time [emphasis mine] is the passing point between space control and self control. Until that time comes [emphasis mine] we are subjected to every change in the motion of all things. When we have passed that point, we are freed from it." (ENU, p. 18) By way of example, he humbly offered himself as one who was not (it will become clear later why I fee he should have said no longer) under the influence of "space control" or instinct, but rather one whose "awareness of Universal Thought... lifted [him] beyond limitations to the exact extent in which [his] awareness of this electric universe immunized [him] from automatic control by measurable rhythm." (ENU, p. 17)

I am inspired to write this article for several reasons. The intention of FULCRUM as stated in V.1,#1, is to publish applications of Russellian thought "in every field of human endeavor." Astrology certainly fits that category though it has been, especially in the latter part of this century, mocked and maligned by people who have never studied it in depth, from the man on the street to the group of 192 leading scientists who in 1975 released a statement disavowing
the field. To compound the problem, astrology has been misunderstood and misapplied by those who have superficially dabbled in and practiced it, sometimes in destructive ways by plying on people's fears and superstitious inclinations. The current plethora of "900" astrology numbers, most of which are bogus and deceptive scams, attests to this.

The good news is that there is an ever-growing number of sincere and scientifically savvy astrologers who are "on to something" and continue to explore this field despite enormous social and intellectual pressure not to do so. However, and I feel this is a key point, as if public and "credentialed" disdain are not enough of a deterrent, the dynamic in the profession is for the most part unfortunately similar to the one Dr. Russell described in HSC (Unit 10) regarding the physicists, engineers, and other scientists who were beginning to control gravity but were not yet aware of the underlying principles they were working with. A common result is that sometimes astrology "works" and sometimes it doesn't and no one seems to know why. In trying to solve this dilemma, researchers in the field have moved toward more and more complexity, as is typical of modern day science. The proliferation of theories, systems, techniques, and recommended applications is overwhelming, to say the least, and has created a kind of astrological smorgasbord. There's something on the table for everyone to suit their particular tastes (predispositions and preconceptions), but it would be almost impossible to partake of and digest each morsel, (achieve synthesis and enhance one's well being). In addition, most astrological theories these days are so removed from inviolable Universal truths that in as short a time span as the last two decades one concept has been "erased" by the next one to come along only to be "erased" quickly by yet the next (see HSC, p. 823). What a mess! ! ! This being the case, one might validly ask, what's the point of even considering astrology?

Very simply, I think it is important that we as Russell students sit up and pay attention when Dr. Russell talks about a "science" he "has great respect for." (ENU, p. 1) To the extent that I have studied the Russell material, my experience is that neither he nor Lao used the words "respect" or "science" lightly. As a Russell student, that's enough reason for me! I also suspect that, given the

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1 The Humanist 35, no. 5 (September/October 1975). This article was endorsed by 192 scientists, including 19 Nobel Prize winners.
current misconception of what Astrology is and lack of understanding about how it truly works, most of us upon reading ENU will dismiss the subject altogether. We will conclude that as "thinking men and women" we are, like Dr. Russell was, far beyond the influence of this particular "instinctual control."

In this article, coming from the position of having studied intensely and worked professionally in the field of Astrology for 25 years, I will reveal why reaching such a conclusion, though understandable, may not always be wise. I also wish to introduce my gleanings to date of how the science works and the appropriate use of it in the context of Russelian Cosmogony by discussing technique, interpretation, and application from that perspective.

**TECHNIQUE**

Throughout the world and throughout history, there are and have been myriad systems for charting the heavens as they appear at a person's birth. For expository purposes, the model I will begin from is the type of astrological chart most commonly used and agreed upon in our Western culture (Diagram A, p. 20). Such a chart is erected for, as precisely as is possible, the time of a person's birth which indicates when, as Dr. Russell explained, "the moment the countless billions of electric voltage-power of the sun and all of its planets are setting a rhythmic gauge upon the life of every one who comes into material existence." (ENU, p. 15) Now, in the part of the divided Universe that we perceive of and experience as Earth, roughly 230,000 humans are born each day so the exact location of birth is also considered in calculation. The position of the sun, moon, and planets are charted as they appear in time and space from the vantage point of Earth (geocentric). Such a chart accurately

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2 A good analogy to mention here is that Astrology as it is conceived of by most people today is as misunderstood and misapplied as the field of Macrobiotics, despite the efficacy of both systems in furthering one's development.

3 Regarding Dr. Russell's statement (ENU, p. 1) "[that while] I know nothing of the technique of Astrology ... I believe I know the basis upon which the whole science is built" and "because of that ... I have accepted this invitation to talk to the Astrologer's Guild," I feel that no comment on my part is needed. Matter of fact, when I read that I started laughing, thinking "Little did those astrologers know that he could rightfully say that to any group of scientists!"

4 In so doing, I will avoid astrological jargon as much as possible with the intention of creating a broad base of understanding. However, if there are readers who are familiar with the language, I would be happy to engage in further dialogue via correspondence or another article from a more technical point of view.
indicates the Earth-based or subjective rhythmic instinctual experience or condition of each person coming in. Also, inherent within this traditional system is the knowledge that life is not static: change is reflected in the transits or changing patterns of the planets during the course of a person’s life.

Diverging from the traditional model, a handful of other astrologers and I also calculate the locations of the Earth and planets as they appear in relation to the sun (heliocentric). Such a chart accurately depicts the Solar System-based or objective rhythmic instinctual experience or condition of each person coming in (Diagram B, p. 21), thus providing the balance necessary for astrology to be interpreted and applied effectively. To paraphrase the Russells, for each person the rhythmic waves of God’s thinking manifest in motion both internally and externally. Consequently, astrologers who work exclusively from a geocentric point of view are missing a major piece of the puzzle!

Another significant technical point of divergence from the traditional 360° chart is the depiction of the bodies in our solar system, both from a geocentric and heliocentric perspective, on what is known as the "90° Wheel" (Diagrams C and D, pp. 22 & 23). When we work with this conceptual model (which is not intended to mirror the heavens), astronomical configurations such as the conjunction (0° relationship), square (90°), and opposition (180°) are clustered together. The only oppositions in this kind of chart are those that are in a 45° or 135° (3 x 45°) relationship. If we divide 360° by 45, the result is obviously 8: thus the 90° Dial affords us the opportunity to interpret astronomical information and perhaps discern how it applies to us instinctually in terms of octaves!5

The last point of divergence in technique (regarding this point orientation might be a better word) from the traditional model that I use in my work is tough to talk about but is so integral that I will do the best I can. Ever since I was a young child of 8 or 9 years who was fascinated by the night sky, I have known that whether we like it or not, or whether we acknowledge it or not, we exist in an interactive universe or universal system. I somehow knew that as the sun and moon and planets and stars affect us, so do we affect

5 I am eternally grateful and wish to acknowledge T. Patrick Davis of Florida and Edith Custer of Virginia for their pioneering work in Heliocentric Astrology, as well as Reinhold Ebbertin (refolded) of Germany who introduced the Cosmobiological use of the 90° wheel.
them. In addition, when despite my sophisticated skepticism I first began to explore astrology in 1968, I would look at a chart and, amazingly, "hear" a marvelous, unique symphony. I was and continue to be incredibly sensitive to repeating themes, refrains, isolated innuendoes and discordant tones as revealed by the squiggly astronomical glyphs in a birth chart. On an inner level, I knew then that the workings of the universe had to be based in a system of octaves. I approached interpretation with the awareness that a birth chart, like a piece of music, repeated various themes for emphasis and cohesion.

In 1974, I became aware of the work of the Russells. As one might imagine, their teachings deeply resonated with my earlier perceptions about astronomy, then astrology. I studied their Home Study Course through Unit 5, but because of various factors in my life at that time I put the Course aside.\(^6\) I mention this by way of acknowledgment, because I am quite certain that the interpretative methods I have developed in the last 18 or so years were subliminally influenced by my initial encounter with Russellan thought.

**Interpretation and Application\(^7\)**

I have yet to meet another astrologer whose primary purpose is to assist clients to move beyond the control of the planetary rhythms imprinted at their birth moments. In the hands of a competent practitioner, astrology does work, seemingly uncannily so and provides information about a person's life and the goings on throughout the planet currently not available through other assessment techniques. (Even the eminent psychologist, Carl Jung, turned to astrology when confronted with difficult cases.) This is why most astrologers and their clients get inexorably locked into the system and then become confused when certain aspects do not manifest in reality or perplexed when something occurs that wasn't indicated in the charts. By contrast, I operate from an axiomatic position that to the extent a person, or group of people, are spiritually transcendent or illumined, that person or group is LESS

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\(^6\) I visited Swannanoa in May of 1993. I am pleased to report that I have since completed the HSCI

\(^7\) Much of this section (excluding the references to Dr. Russell's work, which I did not have at the time) is excerpted from a talk on "Earth Changes" I presented to a group of astronomers, physicists, and zoologists at the Cincinnati Zoo in February, 1993.
affected by planetary rhythm. As we evolve or unfold at our varying and uniquely individual rates, certain celestial influences will no longer affect us, while others will continue to do so. I work with people to help them recognize and move beyond those influences that are still operative in their lives, especially those they might not even be aware of.

In addition, I have a very clear picture of where astrology begins and where it ends. A chart does not indicate gender, heredity, culture, or specific environmental influences. Because of the rampant free will God has given us and the consequent altering probabilities, it is ludicrous to declare that astrology can reliably predict the future. However, in the field of psychology it has been observed that the best indicator of future behavior is past and present behavior. For this simple reason, astrologers have enjoyed a remarkably high rate of accuracy in the realm of prediction, but it doesn't always work. Of course, the axiom I mentioned above explains why!

This leads to another axiom: an astrological chart cannot indicate the extent to which an individual or group of individuals is spiritually transcendent, neither at the moment of birth nor throughout the unfolding course of the life. Actually, I feel that an individual's inner Will or incarnational aspiration cannot be determined by looking at or interpreting anything external to that individual's existence. Astrological analysis has suffered greatly by not recognizing and applying this elementary truth.

Having dismissed the arenas of this divided Universe to which Astrology does not apply, and realizing at least conceptually that "dimension is but an imagined effect" (HSC, p. 530), how can we interpret the music of the spheres astrologically to assist us in fulfilling the Russell's mandate that because "[we] simultaneously live in two worlds...[we] must know both of them thoroughly -- and their relation to each other" (HSC, p. 591).

The first step is to become more deeply aware of the exact nature of planetary cycles and the extent to which they affect us from the experiential vantage point of Earth (Table E, p. 24). While discussion of the impact of heliocentric cycles is beyond the scope of this article, in my experience both orientations clearly demonstrate and emphasize that we exist or operate physically in a universe comprised of geometrically connected cycles, all of which have discernible meaning in our lives. The common denominator (or
constant) is change. So, perusing the fluctuation column we notice
the familiar day and night cycles we experience as a result of the
Earth's spinning correlated with, as we move down the list,
transformation, an ambiguous actuality which is associated with
Pluto. The problem that arises when we read such a table is that the
fluctuating influence of Pluto and the other planets are cycles that
we cannot on a daily or monthly or yearly basis verify through
physical seeing; they are not cycles that we are consciously aware
of in our sensed-based lives. However, as Dr. Russell pointed out,
"people's moods, emotions, and decisions respond to any change of
rhythm, whether that change is a vital one which emanates from the
living sun or a subtle one which emanates from the dead moon" (ENU,
p.14). He cites Beethoven's "Moonlight Sonata" as an example and
infers that if this kind of response can be inspired by "the reflected
light of a dead moon", certainly we can be either influenced or
inspired by our subtle interactions with other planetary bodies.

Consequently, Table E can help reveal which celestial cycles
we are comfortable with or are aware of experientially and which
ones we are not, which ones affect us more than others and why, and
then see how they specifically relate to our unfolding as we move
toward illumination. As to the timing of significant events, we are
especially sensitive when the sun, moon, or planets complete their
spiral cycles and apparently "return" to the place they were when
we were born or aspect (interact with) those positions or those of
other planets by a factor of 90°. The orbits of the planets up to and
including Saturn are fairly reliable in a rhythmic sense; the timing
of their effects can generally be determined by dividing their cycles
by 4. Regarding Saturn, I advise more sensitive people to begin using
a factor of 8.

Saturn has long been perceived as the demarcation between the
inner (lower octave) and outer (higher octave) planets. Most people,
to one amplitude or another, respond to what are called "Saturn
cycles." As we evolve in our lifetimes on earth, every seven years
(give or take a few months) we experience "passages" in our growth.
This fact of human life cycle has been made a joke of (the proverbial
"seven year itch"), popularized by psychologists (Gail Sheehy's
bestseller Passages) as well as ceremonialized by indigenous
cultures throughout the world. In The Secret of Working Knowingly
With God (pp. 7-10), Dr. Russell describes the yearly (anniversary of
his birth or solar return) and seven year cyclical experiences that
In my work, I have found that the answer to every question is inherent in that question, if we only go deep enough into the silence to listen. From that stillness, I have gained greater understanding of the workings of the Universe. I have been enormously assisted by my teachers, particularly the Russells. Perhaps most significantly, I have learned to maintain a spirit of open inquiry -- it is from that spirit that I share this skeletal introduction as to how I perceive astrology to work within the context of Russellian cosmogony. I would be most happy to respond to inquiries or engage in further dialogue regarding this subject.

Thank you Kristina!!!

You can reach her at: Kristina Strom
171 West Sharon Road
Glendale, OH 45246
513-772-2914

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From Walter Russell's Divine Iliad:

"All things are One but made to appear as two extensions of the centered One.
"Know thou that the two extensions of My recorded thinking are divided by the One which centers the two, the One balancing the two, the One controlling the two.
"I, the One, am not divided into two as pairs of opposites of Me. I divide the two extensions of My thinking, but I am not My thinking, nor am I two.
"When man thinketh man alone, denying Me, then is man's image man's, not Mine and man's, for the pattern of My balanced, rhythmic images within man may not be seen in him; nor may the glory of My Light be seen in him or known by him.
"When man thinketh Me, through knowing Me, then is he patterned by My image and I am he.
"When man thinketh Me in him, then is man's balance absolute.
"When man so thinketh, then hath he all power that I, the Father-Mother-Thinker of Creation hath."
DIAGRAM A

MC: 05°59

06:05 * 21 17 * 04:44
11:02 09:16 * 20

05:32 18 * 05:20

05:00 10:09 * 11:08

AUG 19, 1946 * 08:51:00 AM CST +06:00

12 ST 6H26M04S 07
RMC = 96 31 05

NATAL HOROSCOPE

HOPE ARKANSAS

Koch Houses

Tropical

05:20*

04:44

03:04

05:32

05:59

MIDNIGHT

CARD FIX MUT

FIRE 0 4 0 04:44
EARTH 0 1 0
AIR 4 0 1
WATER 0 0 0

MOON IS FAST
3RD QUARTER

PLANETS: GLYPH: PLACE ID: DECL. ELEM. +/- TRIP: HOUSES: DIGNI: GLYPH ZODIAC SIGNS:

MOON 20°18 15 32 EARTH NEG: FIX SUC 8: EXALT: ARIES
SUN 26°00 12 51 FIRE POS: FIX SUC 11: RULER: TAURUS
MERCURY 11°36 17 18 FIRE POS: FIX SUC 11: FALL: GEMINI
VENUS 11°07 05 07 AIR POS: CARD: ANG 1: RULER: CANCER
MARS 06°21 02 08 AIR POS: CARD: ANG 1: DETRI: LEO
JUPITER 23°13 07 00 AIR POS: CARD: ANG 1: LEO
SATURN 02°08 +19 56 FIRE POS: FIX ANG 10: DETRI: LIBRA
URANUS 21°09 +23 13 ARM POS: MUF: CAD 9: SCORPIO
NEPTUNE 06°51 01 23 AIR POS: CARD: ANG 1: CAPRICORN
PLUTO 11°51 23 22 FIRE POS: FIX SUC 11:

NODE M. 17°16 22 50

PART OF FORTUNE = 29 II 49

ASCEND: AS 05°31 02 12 EQUAT ASC. (EP) = 07°06

VERTEX VT 20°06 +07 52 SU/MO ANGLE = 264 17°44

BILL CLINTON

IC: 30°49

ASTROWORKS
171 WEST SHARON ROAD
GLENDALE, OHIO 45246
513-772-2914

Compliments of:

20
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<tr>
<th>Actual Phenomenon</th>
<th>Time Frame</th>
<th>Fluctuation</th>
</tr>
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<tr>
<td>Earth spins on axis</td>
<td>24 hours</td>
<td>Days/Nights</td>
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<td></td>
<td></td>
<td>Light/Dark</td>
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<tr>
<td>Moon orbits Earth</td>
<td>28 days</td>
<td>Months/Cooling</td>
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<tr>
<td></td>
<td></td>
<td>Water Balance</td>
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<tr>
<td>Earth orbits Sun</td>
<td>365 days</td>
<td>Seasons/Heating</td>
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<td></td>
<td></td>
<td>Fire Balance</td>
</tr>
<tr>
<td>Perceived Phenomenon</td>
<td>Time Frame*</td>
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</tr>
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<td>&quot;INNER PLANETS&quot;</td>
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<tr>
<td>Mercury spirals Earth</td>
<td>88 days</td>
<td>Cognition</td>
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<td>Venus spirals Earth</td>
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<td>Love/Values</td>
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<tr>
<td>Mars spirals Earth</td>
<td>687 days</td>
<td>Passion/Action</td>
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<td>TRANSITIONAL &quot;INNER PLANETS&quot;</td>
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<tr>
<td>Jupiter spirals Earth</td>
<td>12 years</td>
<td>Socialization/Expansion</td>
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<tr>
<td>Saturn spirals Earth</td>
<td>29.5 years</td>
<td>Structure/Contraction</td>
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<td>&quot;OUTER PLANETS&quot;</td>
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<td>Uranus spirals Earth</td>
<td>84 years</td>
<td>Inspiration/Higher Octave of Mercury</td>
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<td>Neptune spirals Earth</td>
<td>165 years</td>
<td>Revelation/Higher Octave of Venus</td>
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<td>Pluto spirals Earth</td>
<td>248 years</td>
<td>Transformation/Higher Octave of Mars</td>
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<td>unknown</td>
<td>Awareness/Illumination</td>
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* The experiential time frame of these spirals varies due to the perception that the various planets, from our Earth vantage point, seem to sometimes go into reverse (retrograde) motion, stand still, then move forward again.
REPORT: THE WORLD FOUNDATION FOR NATURAL SCIENCE'S NEW SCIENTIFIC OUTLOOK CONGRESS
by Chester Hatstat, editor

I had the distinct honor and pleasure to present a paper titled *The Russell Cosmogony, A New Science Paradigm* at this conference held in Lindeau, Germany, Oct. 28-31, 1993. Lindeau is a beautiful resort isthmus on the Bodensee (Lake Constance) in Bavaria, bordering both Switzerland and Austria. I am happy to report I generated much interest and enthusiasm for the Russell Cosmogony amongst the natural scientists, medical doctors, researchers, and lay persons in attendance. I had several insights into Walter's science concepts which I will share with you as I review the conference speakers.

The first speaker was Dr. Hans U. Hertel, president of the World Foundation for Natural Science (WFNS) and a remarkable man with a truly peaceful "inner" presence. Dr. Hertel retired from his position in the dairy industry to devote his time, intellect, and spirit to research and promote the natural sciences. He began his talk with a quote from Pythagoras:

"Natural Science is the way to the perception of God."

Dr. Hertel is not familiar with Walter Russell, but he proceeded to spout Russell concepts throughout his 2 hour presentation. He stressed the simplicity inherent in the natural order, that (quoting A. Einstein) ours is a whole number Universe. He showed pictures and charts of the hyperbolic spiral: all motion and all systems operate within the patterned hyperbolic spiral form. The same dynamics of cause vs. effects are at work in the microcosm and the macrocosm. All creation, mental or physical, from galaxies to atoms, from cathedral to brick, starts with a vision, a thought, and a plan. The convergence of all these gathered energies decides the quality of any creation. Matter and Spirit are ONE! Evolution is the accumulation and storage of energy/information.

His Cosmic Formula of Universe is:

| Wavelength | x | Frequency | = | 1 |
| Quantity   | x | Quality   | = | 1 |
| Male       | x | Female    | = | 1 |
| In Breath  | x | Out Breath| = | 1 |
| Alpha      | x | Omega     | = | 1 |
|            |   |           |   | xy = 1 |
Dr. Hertel related how the microwave communication companies in Switzerland have obtained court orders to prevent him from publishing the information he has gathered in the Swiss Alps and in the science literature regarding the deleterious health effects of microwave radiation. He showed several photographs where the focused microwave transmission beam could be clearly seen as a swath of withering tree tops cut through a healthy forest!

It is heartening for me to meet and shake the hand of such a dedicated man of truth and science. There are people world-wide pursuing research and technological solutions with "Nature" as the model, with the Creator incorporated into the science.

To quote Dr. Hertel, "Love and Respect for Nature is Love and Respect for ourselves as we are one with Nature!"

Thank you Hans U. Hertel !!!!!!!.

Dr. Ulrich Jurgen Heinz, the "father" of Heinz Spagyrics and Cluster Medicine next spoke on the use of spagyrically prepared crystalline structures for diagnosis and therapy of human disease. Prepared from blood samples, these crystalline clusters provide information textures which can give insights into the corporeal, physical, or mind realms of the patient. Dr. Heinz presented cases from pathology, therapy, and nutrition and electromagnetic fields research showing qualitative characteristics which until today could not be seen by traditional analytical methods. These information "textures" have a proven ability to diagnose and treat pathological conditions. They can also spot "pre-conditions" or the existence of a state within the human body or psyche from which a pathological condition may generate.

Dr. Alexandros V. Boussoulengas, of the International Oceanographic Commission of UNESCO and the UN Environmental Program "Action Plan Mediterranean Sea" spoke next on "The Health of Our Oceans." His report stressed that the maintenance of Life on our planet is irrevocably and absolutely dependent on the maintenance of health of all life in the oceans. The technological-industrial development of the last decades together with catastrophic concepts regarding refuse removal have changed the seas into rubbish dumps and toxic waste depots. What to do?! Keep the information flowing and as awareness of our dependence on the oceans increases, we will collectively demand better treatment of this vital resource.
I jotted down a few facts from Dr. Boussoulengas talk. 1/4 of our atmospheric oxygen comes from phytoplankton in the oceans and with the destruction of rain forests that percentage will increase. Without the atmosphere and oceans, the earth's surface temperature would be -25°C (-13°F). Presently the earth's surface averages 15°C (59°F).

Amy S. Dahya, a chemist turned business person, reviewed for us his company's efforts to mimic Nature in the design of water purification equipment. His company, Vector Venture of Reno, NV, USA, has recently been awarded a large contract by Vietnam to provide portable, high volume water purification equipment for use in villages throughout their country. Mr. Dahya showed us some of the unique designs his company uses to keep the devices simple and easy to clean and maintain. Low energy usage was also a key design parameter in development of his "Diamond Rain System."

Mr. Dahya also had a few words to say about Natural Science:

1. Research is needed to create what he terms a Natural Base Line of information which will evolve to dominate economics. "Nature is the perfect reservoir of knowledge."

2. We need to promote and cultivate a state of mind which is in union with nature, to replace arrogance with intelligence, greed with consciousness, and ego with compassion.


4. Prioritize economically viable technologies to clean up the environment.

Mr. Dahya on water: "It is

1. Abundant
2. Available to all
3. Blessing to life
4. Only gives
5. Represents finest form of Love
6. Universal thread which is common to all life
7. Stores energy and gives it back
8. Oceans, clouds, rain, rivers, cyclic by nature
9. Most powerful cleanser
10. Healer
11. Can absorb or dissolve more than any other liquid."
Almut Kowalski-Plouda, a natural philosopher/researcher from Germany also spoke on the wonders of water. She talked on the "Knowingness of Water" and introduced me to an idea repeated many times during this conference: the information storing capacity of water. Ms. Kowalski-Plouda related how water is more than just a molecule. "Water is an intelligent storing medium for information in the form of energetic structures and thus an ideal medium for life. It is easily influenced and therefore easily destroyed. Yet, given half a chance, it always finds the strength to re-form." She further characterized water with the following:

1. Represents Unity, it is inseparable from life and inexhaustible on our planet.
2. Has polarity, the consciousness of two parts, rhythmic interchange.
3. Represents Trinity, 2 parts hydrogen, 1 part oxygen.
4. Doubling of polarity, 4 outside directions.
5. Invisible - concentrative power of the heart!
7. Love.
8. An octave unto itself.

Dr. Patricia Waldecker, M.D. and Homeopath, was up next to talk on the "Principle and Mode of Action of Bach Flower Remedies." She gave an informative description of the development of the Bach flower remedies, the manufacturing processes necessary to obtain the flower essence, and their therapeutic applications. Bach Flower Remedies give us a wonderful model for the interaction of Nature, Body, and Spirit. My thanks to Dr. Waldecker for her slide presentation and for her ability to clearly and concisely explain the complexities of the Bach flower interactions.

Of relevance to me was her descriptions of what I would term the "short range ordering" of water. This "short range ordering" gives water the ability to mimic or model complex molecules and thus be encoded with information. The water molecules entrain or "line up" along the complex organic molecule and a "duplicate" is made. This "duplicate" has electronic properties and polarities similar to the "parent" molecule, yet it is only a complex chain of O's and H's. Thereby, relatively small amounts of the active flower essence ingredient can perform work throughout a 150 lb. human being. This ability of water to store and transmit information is essential to the efficacy of the homeopathic and Bach flower essence pharmacological activity.
I can relate this ability to the "Knowingness of water" described by Almut Kowalski-Plouda. Further reflection gives me the idea of the Life force within water; the Divine intelligence centering the atoms, the water molecule, and the "short range order" of water molecules; and a thought/question of the holographic nature of all these elements and molecules and human beings.

Next to speak was an interesting man named Roland Plocher of Meersburg, Germany. Mr. Plocher, a machinist by trade, had an interest in cleaning up the polluted lakes near his village. He experienced a cosmic flash/insight wherein he got the idea of why and how to encode substances with information. By trial and error, a system was developed to transfer information of solid, liquid, and gaseous physical conditions onto organic or inorganic substances. These in turn permanently pass on this received information as a purposeful catalytic effect to the surrounding medium. Numerous practical applications with such information carrying substances, e.g., in agriculture (liquid manure), have shown that a harmonization according to Nature's laws of technically deformed conditions in Nature is possible.

For example, Mr. Plocher has a tubular device which somehow encodes the information for "oxygen" into the water of a polluted lake, stream, or water treatment plant. The anaerobic condition of the lake is transformed within 3 or 4 months into a healthy aerobic ecosystem. Liquid manures (universally used in large quantities in Switzerland) are rendered usable in 1/2 the normal "ponding" time and do not stink when used on the fields. His treatment of the lakes includes encoding sand with the "oxygen" message and spreading the sand on the surrounding farm land to ameliorate the effects of fertilizer/liquid manure run-off.

Mr. Plocher has plenty of photographs and laboratory reports as proof of the utility of the program he has developed. Yet university and government environmental scientists keep "pulling the plug" on his successes. They are blinded by the dogma of their scientific learning. This is an amazing story of science which can't accept new ideas, especially when they come from outside the scientific community.

Mr. Plocher gave his hypothesis that the sun's rays reaching the earth's surface are distorted by the industrial pollutants in the upper atmosphere. The message of "oxygen" which they convey is distorted and therefore his technology is now necessary to stop the putrefaction of the planet's surface. I experienced an "AHA" when he gave this statement. I have never completely understood Walter
Russell's concept that the "idea" for organic life on earth is in our sun. How does the "idea" get from there to here and how does the "idea" unfold. Here is a person telling me the "idea" for aerobic activity is in the light approaching the earth's surface and this "information" or "encoding" is being distorted by industrial pollutants! I think the radioactivity in the upper atmosphere is a more powerful "distortion" mechanism than chemical pollutants, but either way, this holographic projection of form (earth's ecosystem) has a carrier wave (the sun's light) which is bringing in the pattern (light is God's patterned thought in the Russell Cosmogony) to be unfolded. This, to me, is a double entendre; not only is radioactivity destroying the ozone and oxygen in the upper atmosphere, it may also be distorting the holographic carrier waves of light before they reach the earth's surface.

For more information on Roland Plocher's technology write:

Plocher Energiesysteme
Vierlachs CTMmbH Postfach 1464
D-88904 Meersburg
Germany

or fax from USA: 011-49-75-32-9775

Dr. Ronald S. Laura, professor of education at the University of Newcastle in Newcastle, New South Wales, Australia gave an informative talk on the "High-Tech"-Poisoning the World; Electromagnetic Smog. Dr. Laura holds a fellowship at the Harvard Medical School and has written several books that catalogue the biological degradation inflicted on every living being on this planet due to electromagnetic radiation. "Our Western society is so much obsessed with technical development and growth that it cannot see the Nature-destroying effects that go with it. The price Man thus has to pay is far too high."

Per Dr. Laura, electromagnetic radiation, especially microwave energy, is documented to cause:

A. Changes in mitosis
   1. Chromosomal damage
   2. Changes in rate of DNA & RNA synthesis

B. Changes in hormone production
   1. Alteration of neurotransmitters which are associated with cancer and immune system dysfunction
   2. Decreases in neurotransmitters which initiates an increase in receptors on cell membranes that transmit message to cell nucleus.
C. Changes in calcium efflux
   1. Combination of DC and AC fields causes increase of Ca flux or flow in cells. An increase in Ca flux is associated with increased cancer.
   2. Increase in Ca flux causes a decrease in lymphocytes.
   3. Increase in Ca flux causes decreased production of Melanin which causes decreases in immune system response.

Dr. Laura cut his technical presentation short to elaborate on the idea that science is no longer "neutral free." Where do we find science being investigated for knowledge alone? Science research is paid for by companies and governments with vested interests and further all research is reviewed by peers with vested interests. Knowledge is power, power is control, and control is security. The search for knowledge is occluded by these human interests and fears. Our present day science has the mark of Sir Francis Bacon upon it. The Baconian assumption that pure science entails complete detachment and that Nature is sheer weight still dominates science. The hypothesis being the only value a tree has is in its value in our technological use. Science thus has a purely pragmatic function and Nature is ours to rend as we please.

Dr. Laura left us with some food for thought. "Knowledge equates with participation and with empathy with Nature. Participation is working knowingly with Nature and equates to involvement with Nature. We are indebted to Nature."

Saturday morning Peter Leach-Lewis, founder and president of the World Foundation for Higher Spiritual Learning (WFHSL) gave an hour and a half slide, video, and verbal presentation on the works of Walter and Lao Russell!! The WFHSL is the parent organization for the WFNS. A professional photographer amongst his many other accomplishments, Mr. Leach-Lewis had visited Swannanoa this past summer and produced a slide show to envy our own Eddie Albert "Inspiring Lives" video (which was also shown to the conferees). What an odd feeling I had as I saw slides of the Palace, gardens, and Russell's art work and listened to this charismatic Scotsman praise the work of Walter and Lao. He claimed the University of Science and Philosophy to be one of the mystery schools on the planet earth, the school of science. His presentation, most thankfully, preceded my talk, "The Russell Cosmogony, A New Science Paradigm."

Dr. Hans U. Hertel next gave a talk on "The Universality of the Genetic Code." "The genetic code is the score of the harmonic
symphony of Creation, being played by the Nature orchestra and conducted by the Divine Musician. Every interference by man which is not according to natural law forces an adulteration of this score and brings unnatural creations to manifest."

As you might guess, Dr. Hertel has grave misgivings concerning genetic restructuring of our plant and animal food stocks. I will list the salient points of his talk.

1. We cannot change the parts within a gene without changing the whole.
2. Synergistically, the whole is greater than the sum of its parts.
3. Scientists say there are parts of the genetic code which are superfluous or not in use. How are we to know the evolutionary nature of the genetic code, the "inactivated" segments that may relate to the past, and the segments which may become "activated" as part of our future evolutionary progress?
4. The barriers between kind in Nature are basic to evolution and progress.
5. Science interferes with gene technology, yet possesses a minimum of knowledge concerning the evolution of Life.
6. Genetically manipulated food changes also the genetic code of humans, animals, and plants in the sense of that digested ill food.
7. We are hearing the same promises of increased quantity and quality of life by genetic engineers as was once made by the chemical and pharmacy industries, yet look at the unforeseen problems they generated which we still haven't solved. What are we unleashing upon the earth's ecosystem and how would we ever "correct" the mistakes we may make now?

"A healthy world and a healthy people need healthy food from a healthy soil, healthy water, healthy air, and from a healthy agriculture and farmers. A sick agriculture is cancer for the world."

Dr. Roberto A. A. Boschi, vice-president of the WFNS gave a concluding talk on "Science, Economy and Responsibility." "Science today is largely governed by economy and politics: The economy gives the means and politics the conditions. They both carry - together with science - the responsibility for the resulting effects." Humankind has been given "dominion" over the earth. This dominion implies a responsibility not to destroy what we love.

Dr. Boschi reiterated the Francis Bacon mentality which dominates our scientific, economic, cultural, and religious institutions. We have a male chauvinist science. Nature is viewed as the feminine and thus subject to male whims. The rape of nature
is an extension of the rape of women. Female/Nature is simply property to be exploited. Have we really evolved from the jungle mentality? The place to start is within ourselves. We must start our work at the top from Cosmic and Natural Laws and bring these laws into universal human understanding and practice.

For further information on the World Foundation for Natural Science please write: The World Foundation for Natural Science
Das Weltfundament fur Natur-Wissenschaft
Postfach 632
CH-3031 Bern
Switzerland
or FAX from USA: 011-41-33-56-2979

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A BOOK REVIEW
by Laara Lindo

THE HOLOGRAPHIC UNIVERSE
by Michael Talbot

Michael Talbot's The Holographic Universe (THU) is without question one of the most intriguing books of this decade—perhaps of this century. Here, through the implications of 'new quantum physics' and of holography, science, philosophy, and metaphysics meet and merge in a fascinating consideration of possible answers to some of our historically unanswerable questions. Through a consideration of the work of two eminent thinkers, physicist David Bohm and neurophysiologist Karl Pribram, Michael Talbot explores the manner in which the holographic model of the universe explains the structure of the universe and the working of mind and memory and provides answers for the enigma of paranormal and mystical experiences.

A profoundly fascinating and thought-provoking book for anyone, The Holographic Universe is of particular interest to any reader familiar with the writing of Walter Russell. From its first pages forward, the student of such works of Dr. Russell as A New Concept of the Universe, The Secret of Light, The Universal One, The Home Study Course, The Divine Iliad, and Atomic Suicide? experiences a definite sense of deja vu. The universe described by the holographic model, though the terminology varies, bears
remarkable resemblance to the interconnected, thought-wave, mirror-projection universe described by Walter Russell.

In *A New Concept of the Universe* (NCU), p. 57, Walter Russell expresses his disagreement with the theories of quantum physics current at that time. David Bohm became convinced of the holographic nature of the universe after years of dissatisfaction with the standard theories of quantum physics, in particular their inability to provide explanations for all observable phenomena (THU, p. 2). For the Russell reader or student, the parallels in the thinking of these two men, whose works are separated by several decades, and whose starting points are vastly different, emerge as intriguing indeed.

Although sometimes obscured a little by differences in the terminology used by the two cosmogonists, examples of these parallels abound, and sleuthing them through the pages becomes a delight to the Russell-oriented reader.

For example, here, as in the work of Dr. Russell, are detailed considerations of the interconnectedness of all things. "Most mind-boggling of all are Bohm's fully developed ideas about wholeness. Because everything in the cosmos is made out of the seamless holographic fabric of the implicate order, he believes it is as meaningless to view the universe as composed of 'parts' as it is to view the different geysers in a fountain as separate from the water out of which they flow." (THU, p.48)

The 'mirror' image nature of the visible universe is a quintessential element of the holographic view of the universe, even as it is in the work of Walter Russell (see NCU, pages 8, 30, 76, 95, & 96). The Russell student would find nothing unusual in the consideration raised by Pribram: "Was it possible. . . that what the mystics had been saying for centuries was true, reality was maya, an illusion, and what was out there was really a vast. resonating symphony of wave forms, a 'frequency domain' that was transformed into the world as we know it only after it entered our senses?" (THU, p.31)

And doesn't this have a familiar ring, Russell friends? "All points in space become equal to all other points in space, and it [is] meaningless to speak of anything as being separate from anything else." (THU, p. 41)

And so does "...when a particle appears to be lost, it has simply enfolded back into the deeper order from which it sprang." (THU, p. 47) and "Similarly....dividing the universe up into living and non living things also has no meaning. Animate and inanimate matter are inseparably interwoven, and life, too, is enfolded throughout the totality of the universe. Even a rock is in some way alive .." (THU, p.
50) Or, "Space is not empty. It is full, a plenum as opposed to a vacuum and is the ground for the existence of everything, including ourselves." (THU, p. 51)

Talbot spends much time in his book on an interesting exploration of the holographic working of mind and the nature of mind and memory. Here, too, the reader is struck by the similarities between the concept of holographic records and Walter Russell's description of all things being recorded in the inert gases. For example, on page 50 Talbot writes: "Just as every portion of a hologram contains the image of the whole, every portion of the universe enfolds the whole. This means that if we knew how to access it we could find the Andromeda galaxy in the thumbnail of our left hand." Further, these parallel concepts are marked by quite surprising similarities to the traditional Eastern idea that all things are recorded in the "Akashic records", a concept made familiar to the western world through the work of Edgar Cayce.

Rapidly reading on through page after page of parallel ideas, the Russell student will probably begin a mental debate as to whether David Bohm, in particular, has read the Russell work. It soon becomes clear that in 1921 Walter Russell envisioned a "holographic universe" although the science and the term were yet to be discovered.

There are noticeable differences in the cosmogonies, however, for though Bohm states "...every region of space is awash with different kinds of fields composed of waves of varying lengths," he remains with a boot in the camp of traditional scientific thinking, maintaining the concept that energy is within the wave itself, within matter (THU, p. 51). Russell, as is well known to his students, goes quite beyond this idea to a more unified and complete concept, which includes Mind, Creative Purpose, and Energy being located within the Source which he unequivocally names God. Though one gets the distinct feeling in Talbot's book that the exponents of the holographic model of the universe are hovering on the brink of such a conclusion, it is obvious the science is not yet ready for such a (if I may borrow the term!) quantum leap.

Nevertheless, every Russell student will find The Holographic Universe exceptionally interesting, and its brilliant concepts, presently considered boldly avant garde, a giant step in the direction of the unified view of the universe presented to science by Walter Russell over seventy years ago.

Many, many thanks to you Laara, and I will repeat our request for similar contributions from our subscribers.

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MUSIC AND THE NATURE OF SOUND, PART II
HARMONIC RATIOS
by Howard R. Davis, III

In FULCRUM, V.2, #1, I explained that the octave in music is derived from the ratio of 2:1 in the vibration of sound. Thus, a tone which vibrates 200 times per second in one octave vibrates 400 times per second in the next higher octave; and a note an octave lower would vibrate at 100 times per second.

The scales of various cultures are all derived from simple ratios for their further division of the octave into scales. Western culture has developed a slightly synthetic scale. It is derived from simple ratios, but along with the development of keyboard instruments, a system of tuning was developed which divides the octave into 12 equal parts. This was done for ease of instrumental playing. Though this system is much more flexible in enabling composers to change key centers within a piece, within an octave all notes are slightly out of tune in relation to the simple ratios from which the intervals were originally derived. This is the main reason music of other cultures sometime seems to contain notes which are "out of tune". In all likelihood, these notes are perfectly in tune in terms of simple ratios, but only seem to be "out of tune" to those of us trained within our more flexible, but in truth, "out of tune" system of music.

The following is a list of the ratios and their nearest tones found in the book: A Theory of Music by Ernst Levy and published by SUNY Press. All intervals (except octaves) vary from the "tempered system" we use. Some vary more greatly, some ratios, according to Levy (1/7, 1/11, 1/13) are not even used. The ratio composite consists of four parts: 1. string length, 2. division of string length, 3. closest corresponding note [# is used for sharp and b is used for flat, (if present) ↑ means significantly higher than "tempered system" and ↓ means lower], and 4. octave [subscript means lower octave and superscript signifies higher octave, (none=first octave, 1=second octave, 2=third, etc.)]. The limit to 16 of the ratios is arbitrary.

1/1C, 1/2C↑, 1/3G↓, 1/4C↓, 1/5E↓, 1/6G↓, 1/7Bb↓, 1/8C↑, 1/9D↑, 1/10E↑, 1/11F#↓, 1/12G↑, 1/13Ab↓, 1/14Bb↓, 1/15B↑, 1/16C↑
If instead of dividing the string we increase its length through multiplication, we get the following chart.

\[
1/1C, 2/1C_1, 3/1F_2, 4/1C_2, 5/1Ab_3, 6/1F_3, 7/1D^1_3, 8/1C_3, \\
9/1Bb_4, 10/1Ab_4, 11/1Gb^1_4, 12/1F_4, 13/1E^1_4, 14/1D^1_4, 15/1Db_4, \\
16/1C_4
\]

These tables are known as the Pythagorean tables, their derivation dating back to even before Pythagoras’ time. They were rediscovered by Albert von Thimus and later greatly studied by Hans Kayser in his work *Lehrbuch der Harmonik*.

Walter Russell, though a musician, probably did not know of any of the above. In trying to relate his chart of the elements to what he knew, he may have erred. In fact, he published two different methods of relating musical tones to his chart of the elements. The first, published in 1926 in *The Universal One* (p. 249), leaves the inert gasses out. He does, however, assign the position of the fifth (also known as the dominant and corresponding to the 1/3 ratio) to the +4-4 position. This makes sense. In the Secret of Light (p. 282), Russell includes the inert gasses and assigns them the important position of keynote. However, because he realized that to continue the scale upward he would have too many notes he went downward after the +4-4 position. I think that perhaps he was wrong both times in his attempt to relate the chart of elements to the musical scale. Since the scale he was familiar with only had seven notes and he was not familiar with the derivation of these notes, he could not see that an entirely different scale made up of eight notes might be necessary and preferable.

In deriving a scale of eight notes from the Pythagorean tables, we first move them into the same octave and eliminate duplications (i.e., 1/2, 1/4, 1/8, 1/16 are duplicates of 1 and 1/6, 1/12 are duplicates of 1/3, etc.). We get C, D, E, F↓, G, Ab↓, Bb↓, B, C (the notes derived from the table of ratios are now put in scale order within the octave). If we match these to the chart of elements we get C=0, D=+1, E=+2, F↓=+3, G=+4-4, Ab↓=–3, Bb↓=–2, B=–1, C of the next higher octave=0. A second scale can be derived from the second (string multiplication) chart. From it we get a descending scale: C, Bb, Ab Gb↑, F, E↑, D↑ Db, C. This corresponds to C=0, Bb=–1, Ab↑=–2, Gb=–3, F=+4-4, E↑=+3, D↑=+2, D=+1, C of the next lower octave=0. In music there are three principle tones within each scale. These are, in order of importance: the keynote, the dominant, the subdominant. In a scale beginning with C as its keynote, the
dominant would be G and the subdominant would be F. The tone known in the Western Musical System as the fifth (or dominant), for instance, is derived from the 1/3 ratio. Thus, these scales show a relationship between the important aspect of Russell's chart of the elements and musical relationships.

In my next installment, I will show how the frequencies for these notes can be derived and suggest a method of finding their equivalents in the chart of elements. I have had one suggestion for a measurement associated with the elements which might be the measurement for tone. Are there others? It has to be a number which doubles for each octave. Write Howard R. Davis III, 128 Whitefoord Ave., Atlanta, GA 30317 or call 404/524/8081.

Thank you Howard. It appears we are beginning to put together the information necessary to construct and model a three dimensional spiral model of the periodic chart. Keep up the good work!

From the editor's desk:

I have received several letters from readers asking the current status of the transmutation and optical dynamo generator experiments.

My conversations with our president, Dr. Timothy A. Binder, indicate the transmutation experiments are in the 2nd generation design engineering stage. He expects to have new equipment built by early spring 1994. He then plans to perform a series of tests incorporating new electric potential field coils and some innovations in "seeding" and catalyzing the transmutation reaction.

The optical dynamo generator (Russell's device for multiplying electricity) experiments are on temporary hold as our resident electrical engineer, Toby Grotz, is now on a world-wide fact finding mission to catalogue, video, document, test, and possibly bring home for development over-unity devices, equipment which can successfully produce more energy than they consume. Let us all keep Toby Grotz in our prayers and meditations, keeping him in the Light of our Divine Self keeps us all in that Light!!

This seems like a wonderful opportunity to ask you the readers to keep me informed of current work related to use of Walter Russell's scientific concepts. We are reluctant to publish articles promoting products which lack substantial laboratory and field tests.
Thank you for your continued support of the FULCRUM and your continued interest in promoting this new science paradigm.

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COMING ATTRACTIONS

Color and the Trigrams, relating the I Ching to the Russell Cosmogony, by Connie Achilles
Harmonic Table of the Elements, Part I, by Michael Riversong
Music and the Nature of Sound, Part III, by Howard R. Davis, III
Russell Cosomogony, A New Science Paradigm, by C. Hatstat, Jr.

READERS,

Please send us your questions, insights, knowledge or information relevant to our understanding of God's vortexian, two-way paradigm of creation. One purpose of FULCRUM is to initiate dialogue and inspire ACTION!! Keep us informed of any applications, research, or books relevant to vortexian mechanics you may know.

Use this form to subscribe to the FULCRUM. We are asking a $25. yearly fee for this quarterly publication. We are happy to send samples of any issue to people you think have an interest. The time is now for God's science of creation to be moved into human consciousness!!! Thanks for your Love and Support!

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