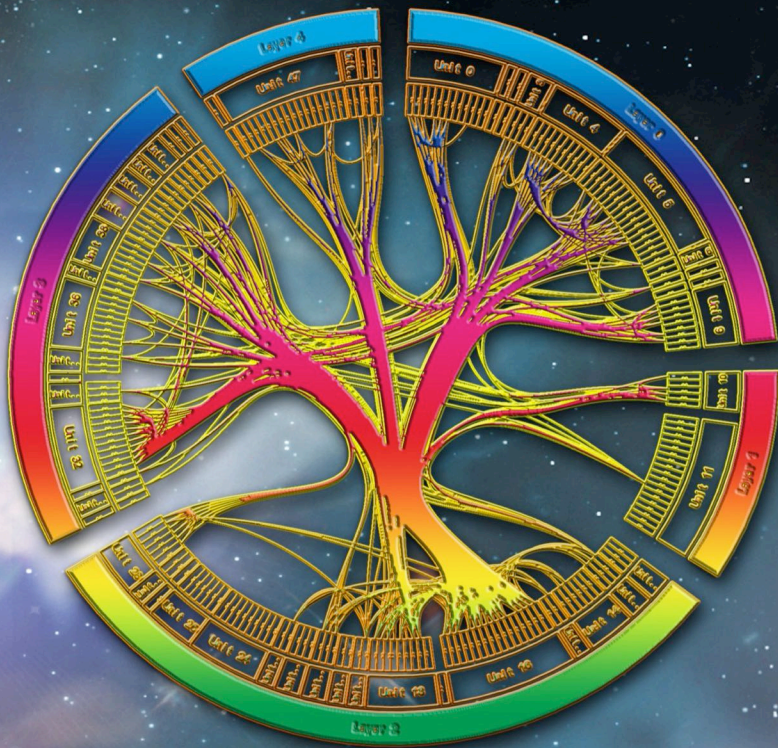
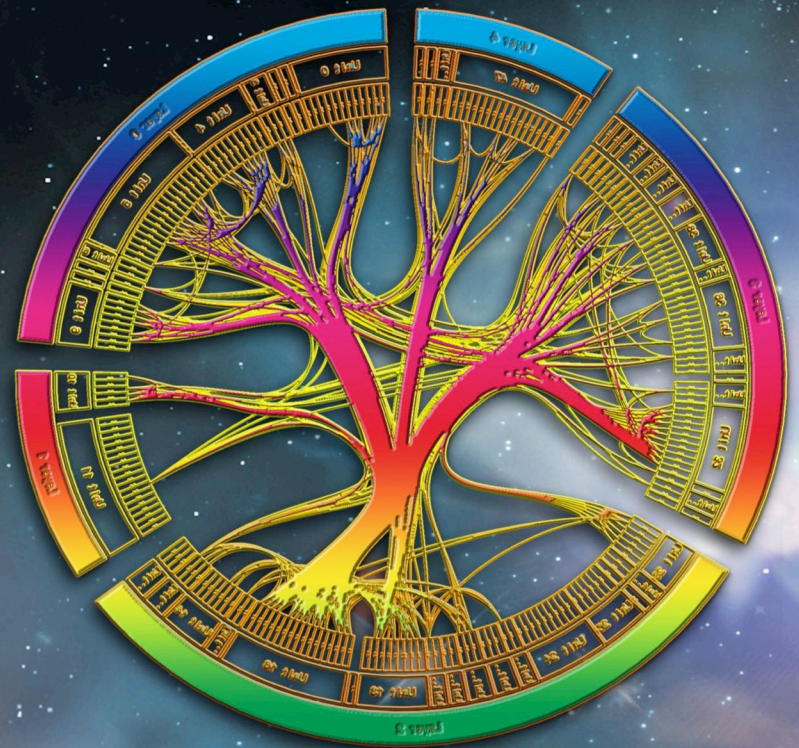


The Cause Of Existence



Austin D. Torney

The Cause Of Existence

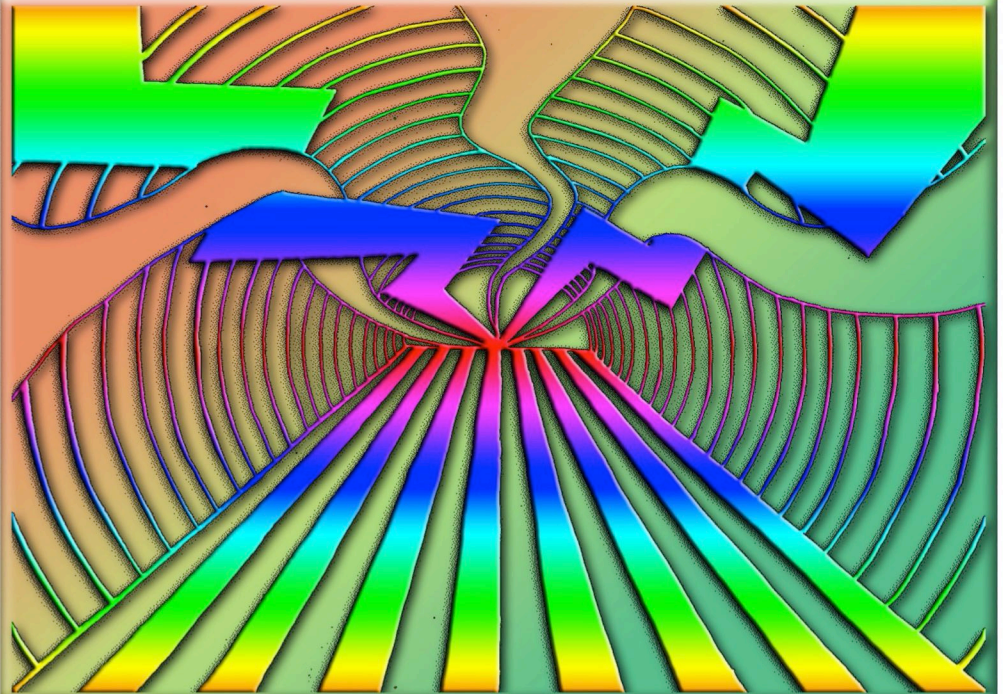


garro D. Of nitauK

To comprehend the Cosmos, one must, hence,
Find the why and how of its existence,
For incomplete answers will never dress,
Invariably wrong by incompleteness.

Forever Stuff could not have been always,
For then there is no reason for its plays,
Its total amount, and its certain stance;
It had to be created in balance.

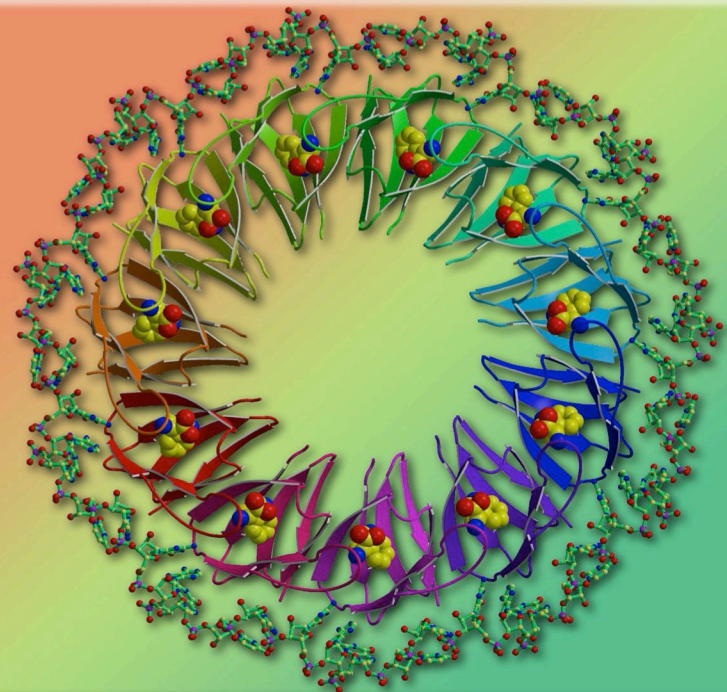
No thing can be eternal, never made,
As there's no reason for the forms' cascade,
Yet there is no-thing source to make it from,
So the default 'lawless' is where it's done.



The no-place of no laws is the first cause,
Requiring nothing but the same 'because'.
Forever and always anything goes,
This being the final answer to the TOEs.

Existents are not infinitely old:
The tale of their making is ever told;
They're not unbreakable/unmakeable;
They are no-thing, zero-sum formable.

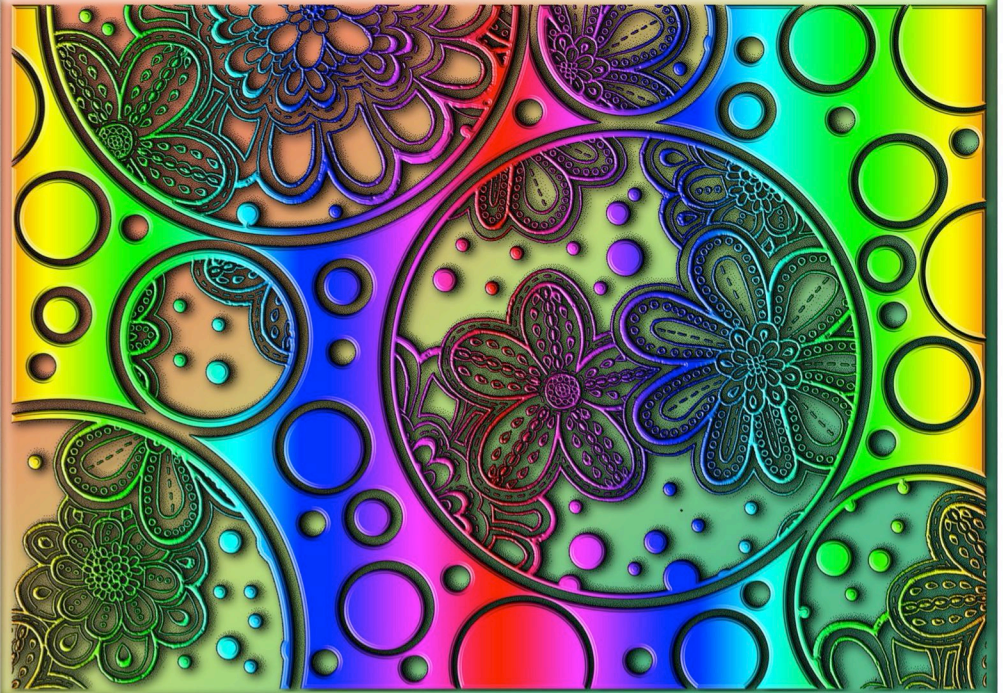
Existents ever back to no-thing trace,
Such as this universe, now in a race,
Even accelerating, from no-thing,
Of the fuel that can never stop giving.



The null balance continues, remains, then—
The reason things cannot be so frozen
That they cannot react, nor so fleeting
That all remains as chaos everlasting.

Confirmation abounds: as space and time,
Charge polarity, matter and its anti,
Kinetic/potential—stuff/gravity,
Smallest and largest, with reason and rhyme.

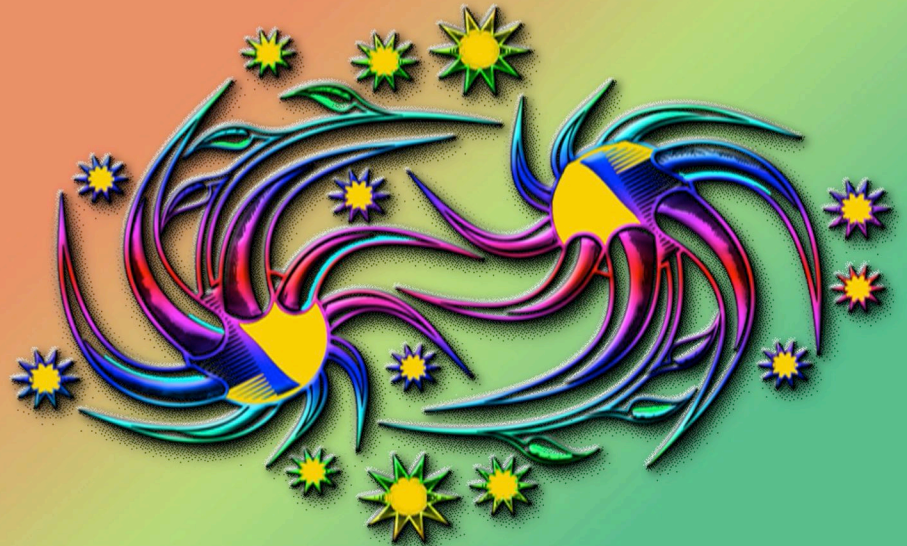
As per the explosive Big Bang Theory,
Our own 'verse appeared, nearly instantly
Going from not there to here, inflating,
A low probability happening.



As for no-thing, we knew it all along,
Philosophically, logically, as strong,
And now as fact—the triad that we love,
For there's no-thing to make anything of.

What meaning then of every- from no-thing?
Well, there was option, no deciding.
Information's content's in the same row,
For both no-thing and everything: zero.

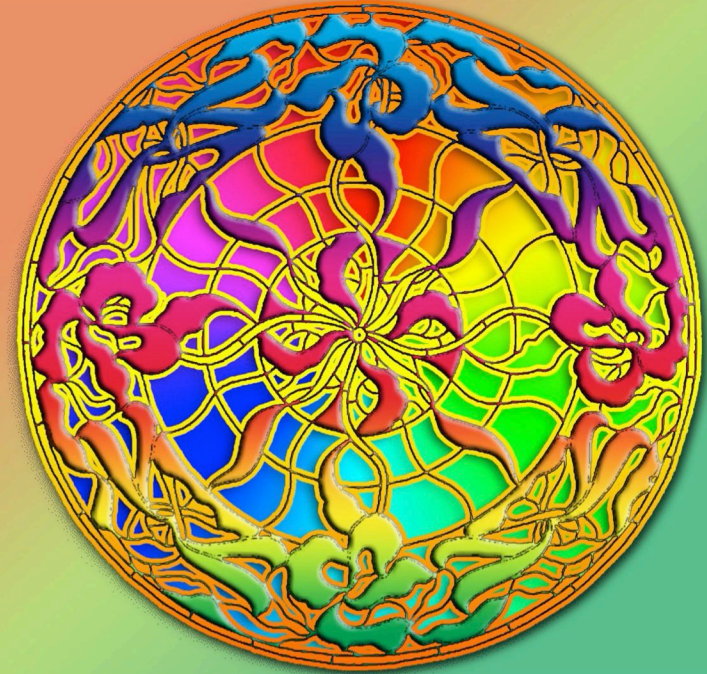
Stillness/nonexistence/no-thing/zero
Is the root of all, where anything goes,
As the state cannot remain, unconstrained,
For that state is perfectly unstable.



**This final, default condition must leak,
Making movement natural, so to speak,
Not quietus, and even afterwards,
Everything still moves, outward, every-ward.**

**The above is the basis-eternal,
Or as best as 'forever' we can call,
There being nothing before that state,
Or at least more nothing, at any rate.**

**The state is anywhere and everywhere,
Nothing beyond it but itself out there,
Which basis could be called as infinite.
A first cause has nil outside/before it.**



**So we have reached the simplest state of all,
Through the simpler, to where all gets its call,
From up here, where we are, as composite,
From organs, cells, molecules, atoms, bits.**

**In the great Cosmos everything happens,
Universes everywhere, working/flattened,
Some even the same, having more of us,
Even many times over, no big fuss,**

**Cause and effect must then do what it does,
For all that will be, now, or ever was.
Events, and will, must depend on something,
Or all the air-headed chimes would then ring.**



We are like tourists along for the ride,
But more, as ever within the play.
It's seems new: we're not on the scripted side;
There is fun and enjoyment through the day.

Nothing cannot be, so then something must;
That is all there is to tell of our crust
In a parentheses of eternity
Live, null's paternity-maternity.

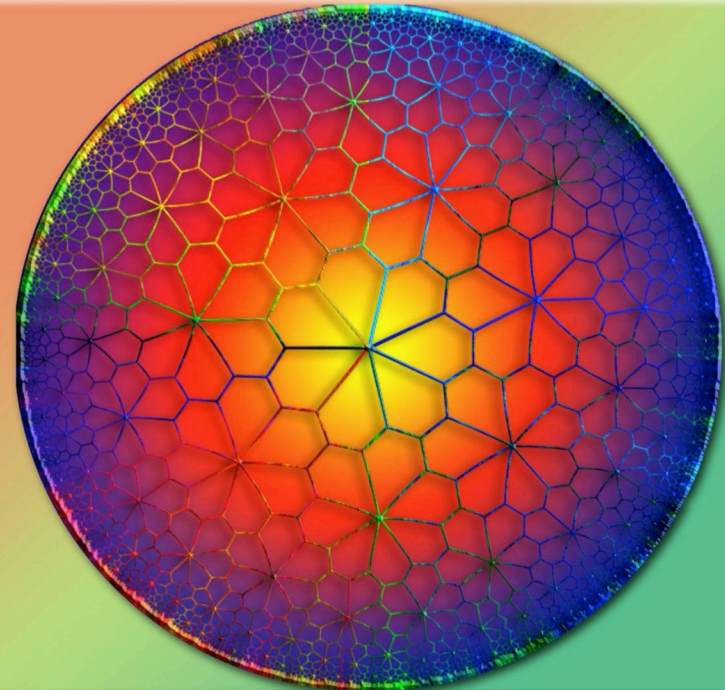
The largest is so large, near everywhere,
Since the smallest is so small, barely there.
At the mid-point there's finite unity,
We're suspended there, hovering entirely.



The nonexistence of Nothing must then be
Neutral and symmetrical, totally,
While existence within nonexistence
Must be polar and asymmetrical.

Matter represents but half of at large,
Being polar and opposite in charge,
While photons represent all the Cosmos,
Being neutral, as both plus and minus.

In free space, there can only be two, yes,
Two stable charged matter particles,
The electron and the proton: atoms,
With no lasting uncharged neutron sums.



And so too there can only be but one
 Uncharged energy particle:
 The photon one, the sinusoidal wave,
 And zero charged energy particles.

Oppositional-transitional schemes
 Abound, such as the strong/weak nuclear
 Versus the trans electric-magnetic,
 And space/matter versus past-now-future.

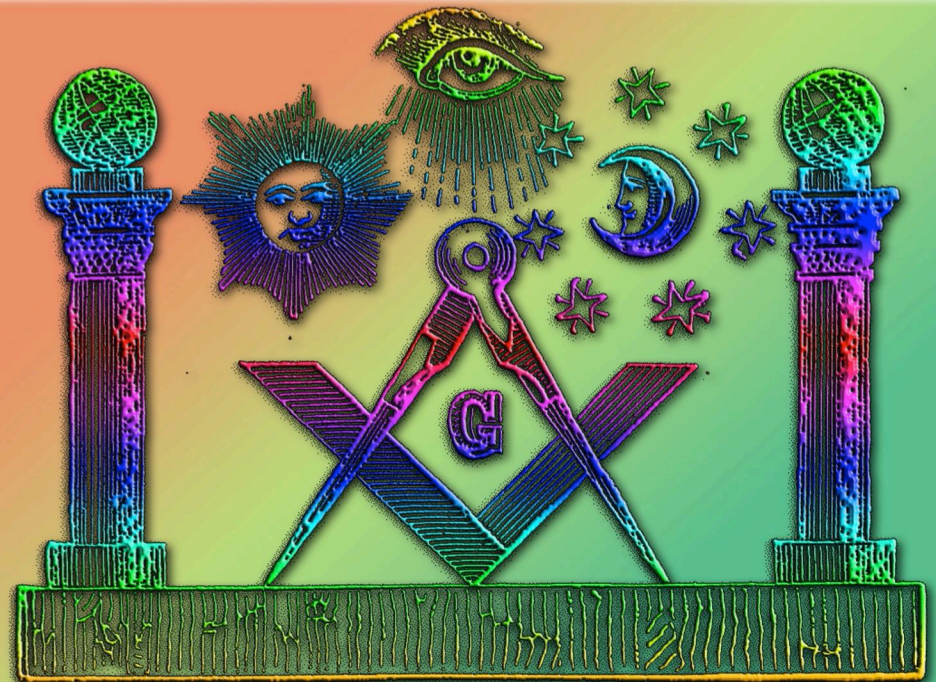
The void pulsates in a structured sequence.
 A field is present throughout space immense,
 Out of which all particles must condense—
 Occurring where the field's extremely intense.



Atoms are just bundles of inertia,
 Knots in the field and fabric of space;
 Yet matter defines the structure of space...
 The Yin is in the Yang, and vice-versa!

It is of this world that we were fine-tuned
 By evolution, millions of species loomed,
 And so we may not do so well elsewhere:
 Earth's not always, so we should go somewhere.

There is reality 'out there', for sure;
 We have senses to take it in, as pure.
 The brain paints a better face upon it,
 Such as colors for wave frequencies, etc.



Consciousness is but of a brain process,
One which can be halted, never-the-less,
By anesthesia, poison/drugs,
A blow to the head, a faint, or by sleep.

Change the brain and consciousness changes too.
Take drugs and the emotions change as well.
Damage the brain and the mind's damaged too.
Consciousness emerges only from the brain.

In identifying consciousness,
We often confuse what is floating in
The stream of consciousness with the water itself;
Thus we note not the sea in which we 'see'.



The brain interprets reality and puts
A face on the waves of sound, light, color, touch,
And a sense on molecules' smell and taste.
Consciousness is the brain's perception of itself.

Consciousness mediates thoughts versus outcomes
And is distributed all over the body,
From the nerve spindles to the spine to the brain,
A way to actionize without moving.

Conscious Awareness, which can but witness,
Is a safe haven from which to observe
The drama of our lives playing in our minds,
Granting us a sobering distance from it.



Memory's ideas recall the last heard tone;
Sensation savors what is presently known;
Imagination anticipates coming sounds—
The delight is such that none could produce alone.

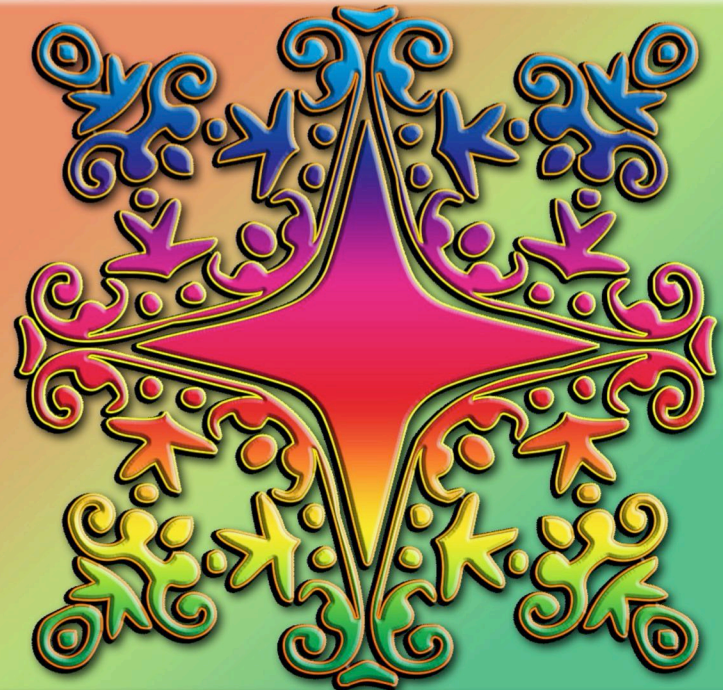
Classicists drone toward dull perfection;
Romanticists drown in feeling's affection.
Worse, others alternate between extremes;
It's not this nor that but of joined direction.

Each holds within itself the seed of the other:
Yin reaches climax, then retreats in Yang's favor;
Cyclic movement of rotational symmetry.
Rounded life is the blend of Yin/Yang together.



Why three space dimensions, plus one of time?
There must be three dimensions because the
Singularity-nothingness demands
Existential closure to nonexistence,
Which demands the compositional parity
Of positive and negative, as charge,
Which in turn demands that space be cubic:
Dimensionality inevitable.

Three space dimensions are compositional,
So the nullification of existence
At totality must be carried out
Via electric charge polarity,
An aspect of time, along with motion.



Over Man came the Triumph of Love
But Chastity gave it quite a shove;
However, Death then all conquered,
But this was not the final word...

For Time happily reigned over all,
Or so it thought—as its thrall,
But, Divinity vanquished its trend;
Yet, still, this was not the end...

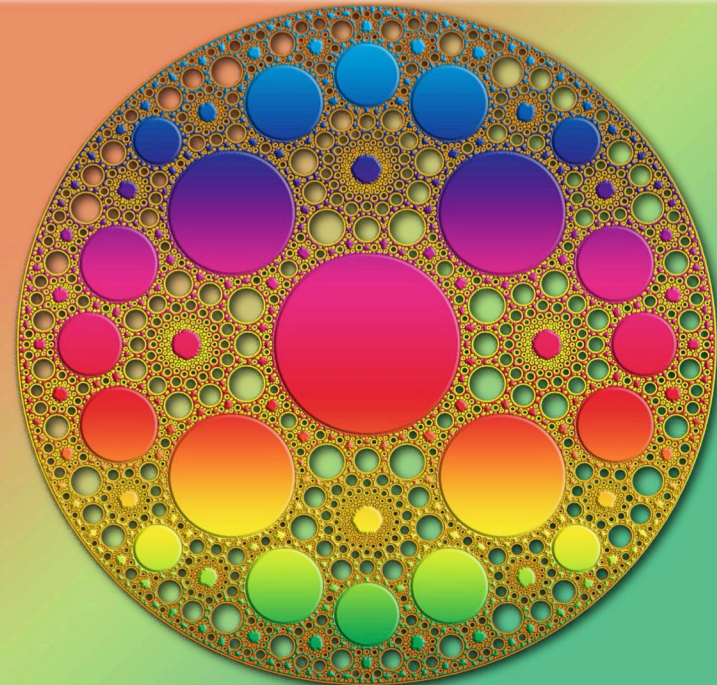
For, as ever, the basis was left to sting,
Since Nothing overwhelms everything.



Something does not compute about the way
Thought of eternity/infinity,
In that duration of eternity
Of all the past has already happened...

And that the extent of an infinity
Has been attained. Neither can be, as thought.
There can be 'boundless' without infinite.
Boundless surfaces enclose finite spheres...

They just go round and round, never ending.
N dimensions can be bounded by n-1.
A 1D line bounds a 2D finite plane.
A 0D point bounds a 1D line.



**All could be that boundless 3D space bounds
A 4D finite hypervolume cube.
This arrangement is all extent (distance),
But, inside, one distance converts to time,
By the speed of light, as spacetime distance.**

**Hypervolume (distance⁴) =
c(distance/time) * spacetime(distance³ x time)**

**So, time is but internal to spacetime,
Being just a difference of space(s).**



**So, there is no time then, externally,
And internally everything happens,
Of the boundless 'eternity' within,
Happening over and over again,
As well as many times too, everywhere,
Of the boundless 'infinity' within.**

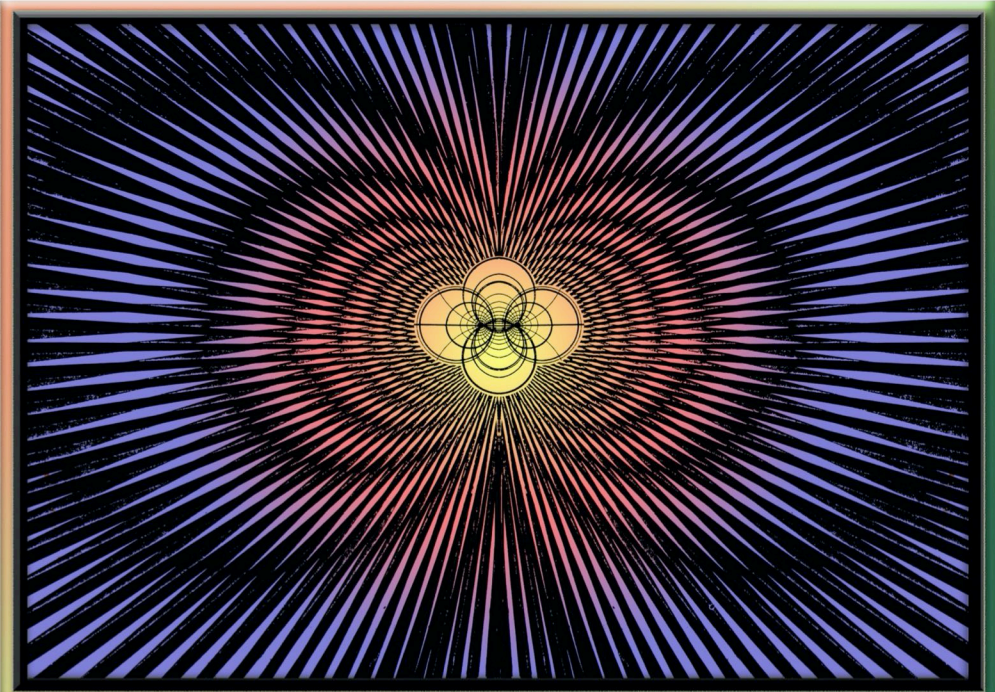
**The Cosmos contains its own history,
As well as its own 'infinite' spacetime.
Everything and every-time, each boundless—
They go round and round, perpetually.**



**Eternal causes cannot happen,
And so these must be equation-replaced:
The zero-sum balance that provides for the
Conservation laws ultimately precise.**

**Infinite extent cannot be, and so
There must be return from it, although it
Goes round and round, but seeming infinite.
Space(s) is/are a difference of time(s).**

**And it is still that existence has to be
Of nonexistence; there's no other source.**



**We are faced with two seeming paradoxes:
A distribution of nothing versus
The same exact stuff forever, unmade.
One has to give, and must give, and seems to.**

**The other, the same exact stuff, as just
Sitting around and being there, as is,
Begs the question's answer for more reasons.
Why its total amount, for example?**



(+)

C
h
S p a c e
r
g
e

(-)

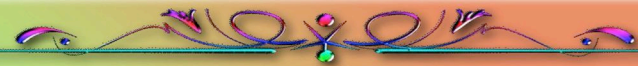


Which may be the same as

T
i
V a c u u m S p a c e
e
s

Neither Nothing nor Infinite can be,
As the same as neither complete vacuum
Nor total solidness is possible.
The midpoint is finite unity (1).





**It's as if Infinite * Nothing = 1.
Or is it Infinite * Infinitesimal = 1 ?**

**As Nothing cannot be, something must be,
But it can't be infinitely solid.**

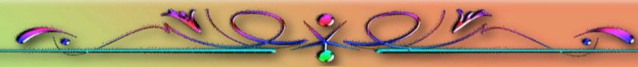
**There can't be stillness, which would be 'no time';
There can't be 'all at once': mid-point is 'now'.**

**It's as if Stillness * All-At-Once = Now.
Tiny Moves * Really Fast Moves = Now?**

**As stillness cannot be, motion must be,
But it can't be of an unlimited speed.**



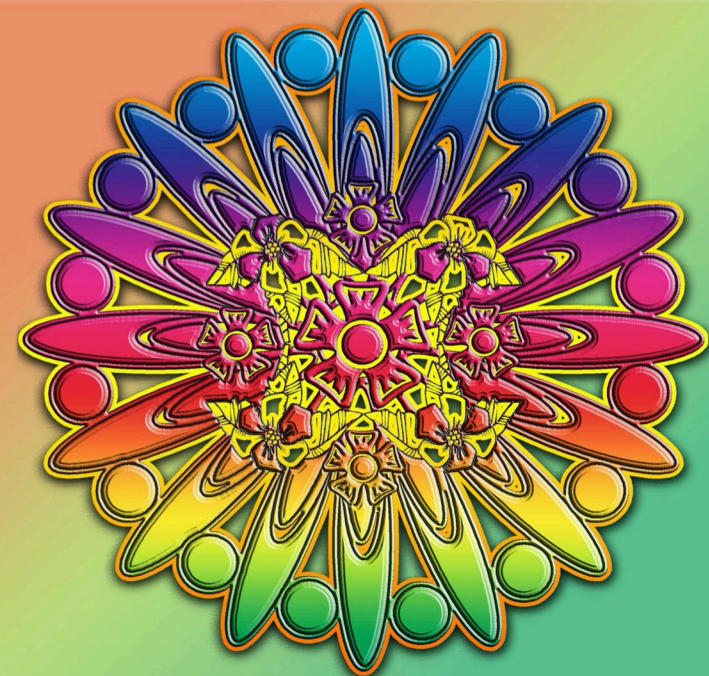
**(The Two Impossible Locked Boxes of Creation,
Each of Which May Contain the Other's Key.)**



**Eternity can't be; time's secondary.
Infinity can't be; there's round and round.**

**Infinite can't be, not the largest nor smallest:
The finite is their difference or product.
Eternal can't be, not past's nor future's,
So, 'now' is ever-present, ever 'here'.**

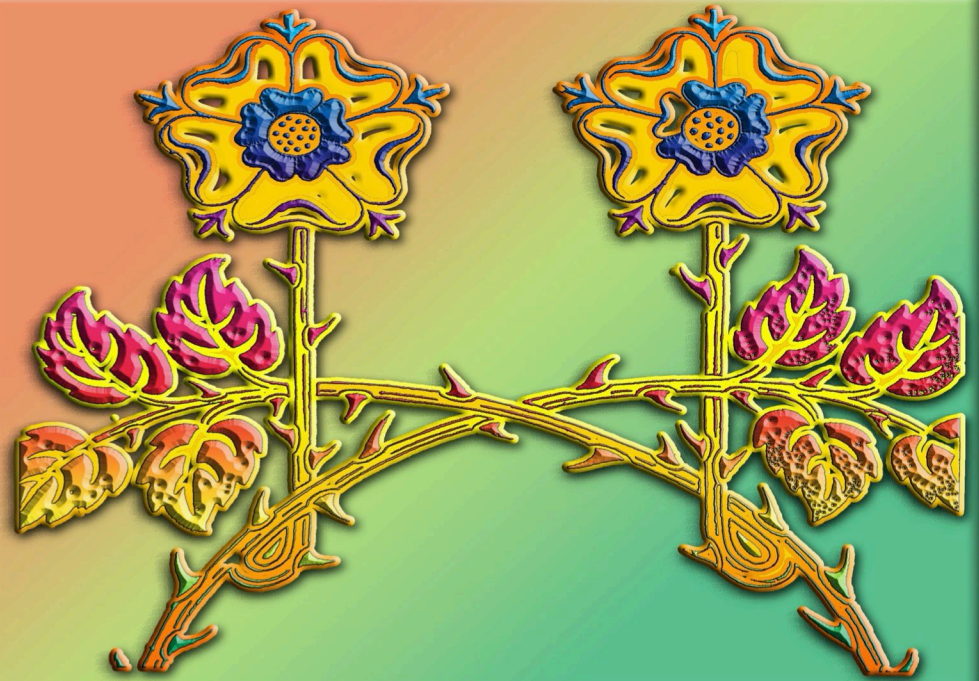
**Only no-thing can make basic thing(s).
There's no other source, no way around it.
We have to deal with this, but it goes well:
Kinetic stuff, of gravity's potential.**



**Did a lack of anything (no-thing) remain?
We know that it didn't, for there's some-thing.
What rules/limits would apply to no-thing?
None, for that state would have no laws at all.**

**This means that any-thing goes, for no-thing,
And when anything goes, something workable
Comes out of it. This is 'possibility',
And it must be the default position.**

**Either basic stuff always existed
Or it is forever made from nothing.
If always, the stuff is a set amount.
Stuff cannot have always been, in that count;**



**There would have been no point at which its total
Could have been specified, nor its makeup;
Therefore, this forces the other option,
That of a zero-sum distribution—
Balanced opposites: nature-confirmed.**

**Since all from nothing must be so, we know
That a state of the lack of anything
Must be unstable, and anything goes,
Since the state is lawless—so arrangements
Of various basic stuff may occur,
Some of which can form working universes.**



**There are no past-eternals beyond nothing.
All supposed past-eternal things end,
With nothing. Eternals, and infinites,
In actuality, can never complete.**

**In good time, millions of species arrived,
This taking billions of the years gone by.
There's no past-eternal to our universe,
For it is about 14 billion years old.**

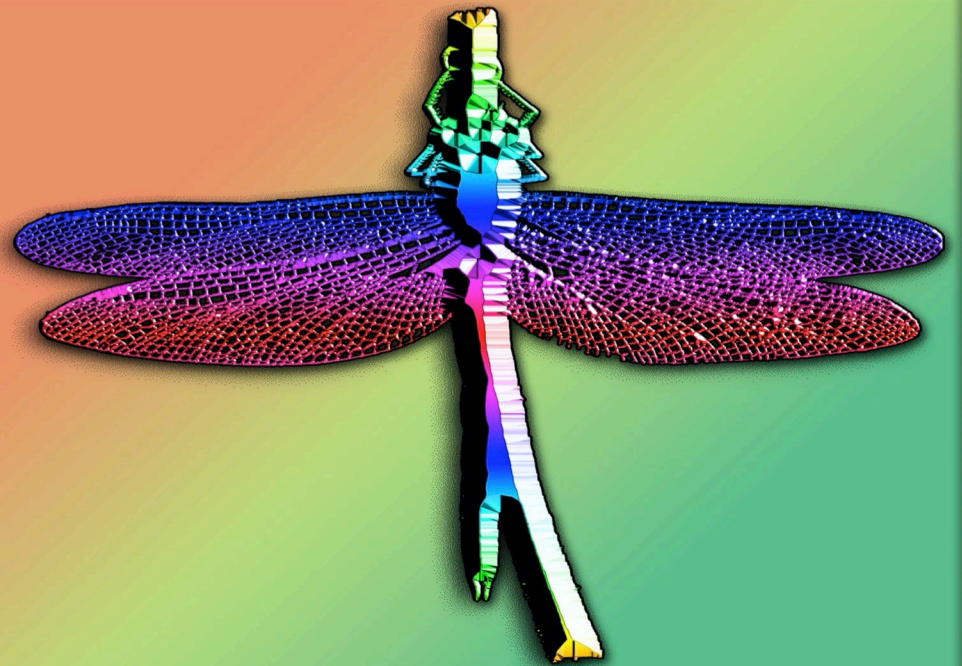
**It may disperse unto photons, but not
To infinity, for eternity,
For those endings can never be attained,
As 'never-ending' can't ever be reached.**



**Our sun is quite usable for about
3-5 billion more years, and we're on
An outermost arm of the galaxy,
A safe place, from the wild galactic core.**

**While not fully made in the shade, on Earth,
It is a great place, since most of it works.
Hydrogen and carbon dioxide
Made organics; a cell entered another.**

**All things had beginnings, like electrons,
Life, rocks, solar systems, or gods supposed;
So none can be First and Fundamental.
There's no complex from Complex from COMPLEX.**



**Our selves, or 'souls', are constructed mainly
Out of emotions that come from the outside,
And not so much from what begins inside;
Thus, our identity—our soul—is shared.**

**Self-reality comes from other people,
Since they bring out all that is within you.
Strangely, one cannot be a self alone
It's friendships that make one individual!**

**Are you lovable and accessible?
It's only by social interaction,
By loving and being loved, that your
Individual existence gains meaning.**



**A diamond sparkles through its every face,
Each plane contributing its view of space.
Such radiant richness must life reflect,
For one facet does not a diamond make.**

**I can never share a mind directly,
For there is no access; we are alone.
Mind melding works only for the Vulcans.
This loneliness leads us to company.**

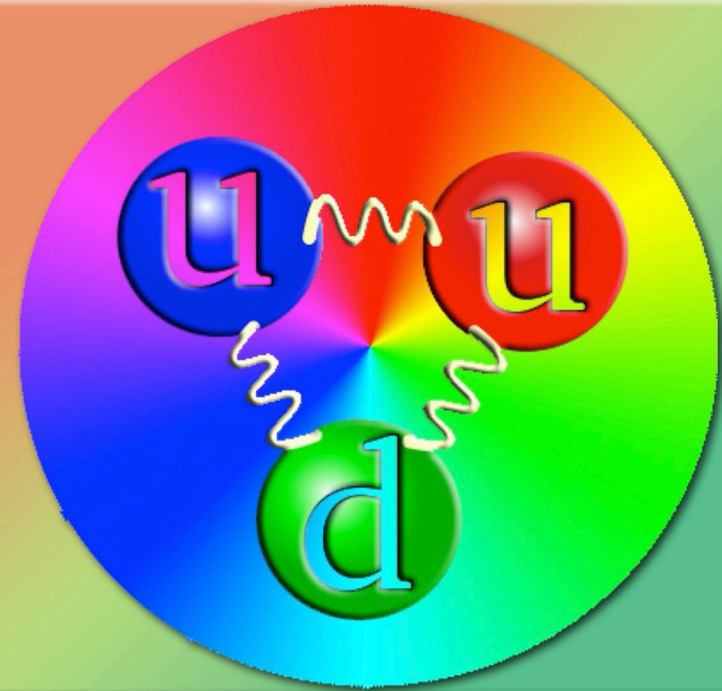
**The unbearable solitude of consciousness
Is relieved by literature, social clubs,
Movies, caring, friendships, discussion, writing,
And other sharing acts, but, mostly, by love.**



We have 'emergence' proceeding apace,
In all, but 'apace' is restrained by time,
Yet all things eventually decay/fade,
The universe unwinding, like a spring.

This slow decay allows for assemblies,
Such as flowers, trading local gains for
Losses in quality of substance,
Though not in quantity of substance.

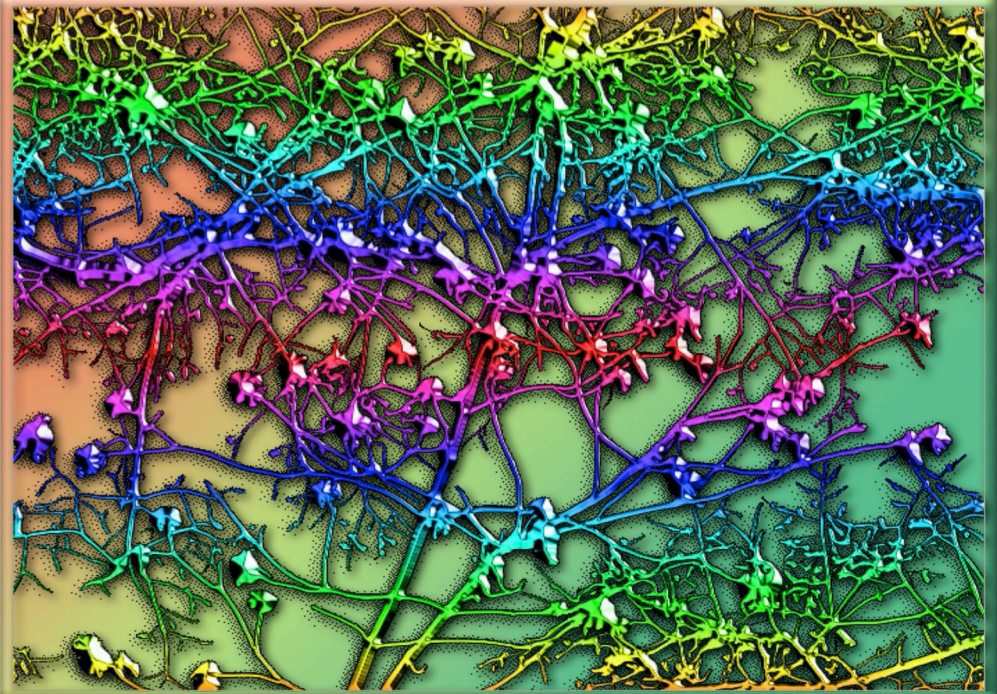
Of substance's and energy's balance,
Dispersion, and decay of quality
Comes the emergence of what we would call
Change, vision, growth, and more complexity.



The universe bubbled out of 'nothing',
Pluses forming matter; minuses residing in forces,
All in perfect balance, self-sufficient,
Needing nothing outside of itself, zilch.

Existence is a zero-balance tree,
Of opposites: matter and its anti,
Opposing charge, the weak versus strong force;
All from 'nothing', to form reality.

Totality cannot to limits cling,
Or it wouldn't be All, so it's bounding
None, granting eternity's duration,
And infinity's extent: everything.



Now, the surprise: Existence trumps essence!
Essence pales, in stature, to existence,
Even before we know it, which now we do;
‘Twas what had to be; life eclipses knowing.

Essence’s knowing is anti-climax;
It wasn’t fancy and complicated,
Nor could it have been—it was the simplest.
‘Hereabouts’ is where the excitement is.



World does not pass by; you pass through it.
Clear your being so the treasure may arrive;
This spirit sparkles of a different light,
The gemstones are of a different mine.

Like the moon, challenge night and gain the light;
Like the rose, suffer the thorn, gain the fragrance;
Of life, surrender to live forever,
Enlightened more than a thousand suns.



Epilog

Our train of thought has driven us to the answer,
Of all that borne from 'possibility' onto eternity,
Of the origin of the original disorder,
The lone dawn of our trackless radix,
Via the rails and tunnels that ever ran out:

There cannot be ever more and more
Causes beneath even more extended causes;
Therefore, intuitive or not, the causeless is,
Being such as what we observe it in the quantum.

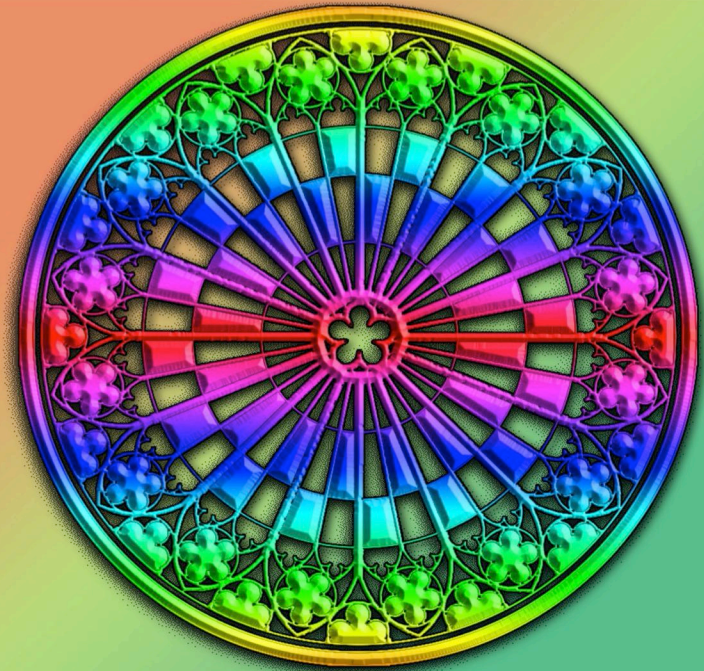
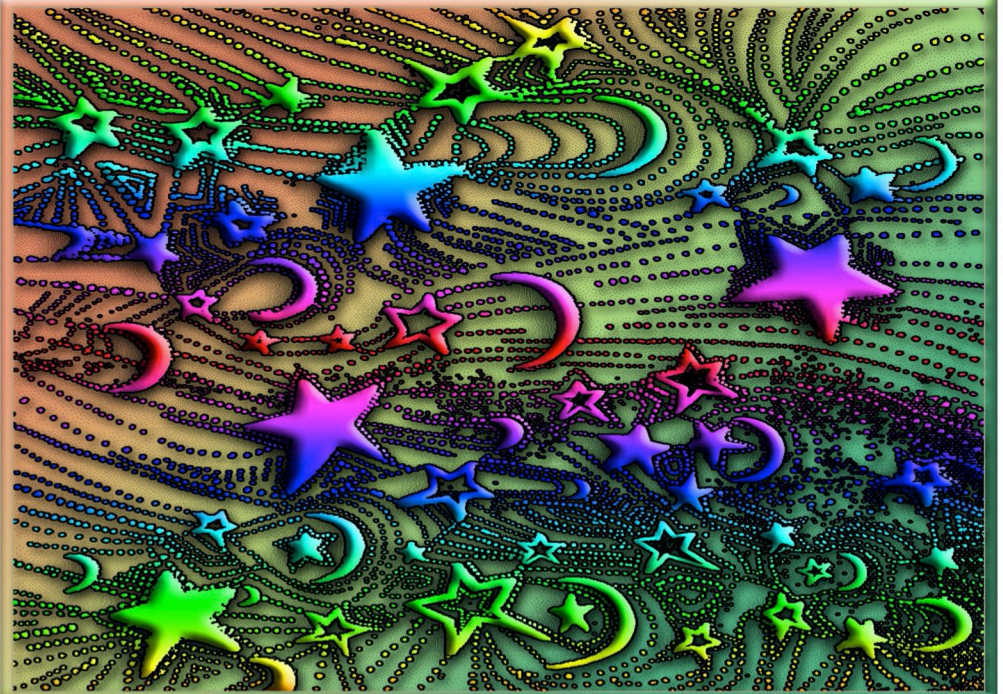
Thus, cause is only of existence's realm,
As downward thence to its root emergence—
'Possibility' needed no mother but itself,
An egg burst open, born without a chicken.

The causeless bottom is the potential
Of possibility that is/was ever there.

Since it's 'defined' as an undefined chaos,
There's no problem of no initial definition had,
Since it can't have one and so it needs not any.

Things themselves become
And go of 'virtual' potential,
Some things remaining as the rather-enduring real.
The potential is as near to simple as it gets,
Second only to the nonexistent Nothing, of course.

So then, the potential is of no mind or 'seeing',
For that thought system can never be constituted,
As there are no more fundamentals upon more;
For the Potential is already the ultimate basis.



**Simple things ever combine, and further up,
And/or go must through phase changes,
Leading to more complex composites/forms.**

**Nothing, not existing at all,
And not even being able to,
But, perhaps threatening to,
Is the simplest state of all,
So, it must ever jiggle about,
Manifesting as loose 'change'.**

**You might say, then, that, that is exactly why
There had to be the potential for things;
Otherwise... Total Nothing, forever.**



**We have now reached the unexpected TOE,
One that even satisfies the ongoing trend,
For, looking down, we've always observed
The ever descending simplicity of Nature.**

**Now, as such, we can't really expect to find
An Ultimate Complexity sitting
Around there at the simplest point.**

**We didn't find Mind there;
Thus, we are ever free to be.**

**This causeless bottom 'fate'...
Was/is, too, a 'magical' state,
For anything can become of it.**



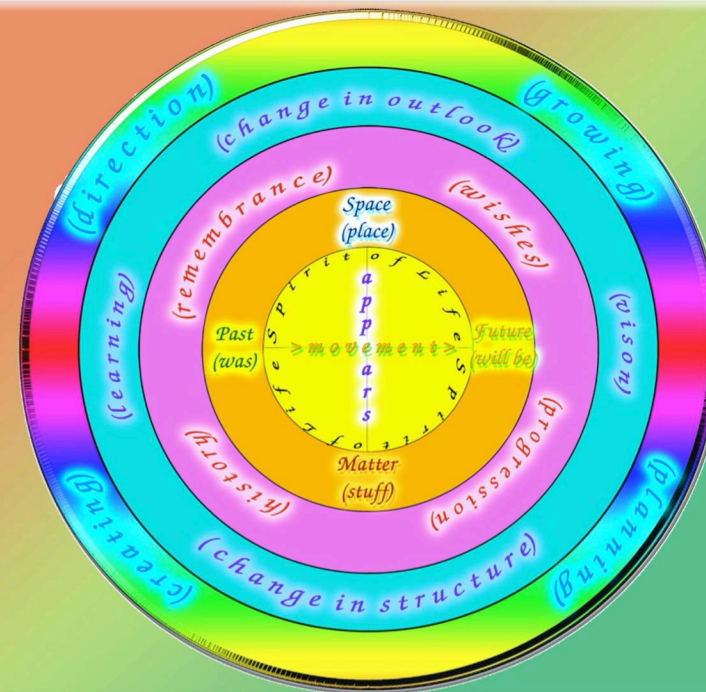
The Ultimate Cause and Effect of All That is...

According to a philosopher, “everything in the universe has a cause and is thus an effect of that cause.”

This looks true. We don't know all cause of what goes on in the universe, as science is ongoing, but we have certainly sized up a lot of it. We know what's in stars from a spectra barcode, for example. We predicted the neutrino using multiple, separate areas of science—a huge example.

That was the fact part, but the referenced one is a philosopher, and probably one who relies on facts, and by extension, goes on to say that everything in the universe has a cause, which, too, retains facts, but I guess the philosophy extension, if any, also has to do with the “everything” conclusion.

The alternative would be that an event could happen with no cause, making it a mini-first cause without anything responsible beforehand for it doing what it does. Perhaps s/he considered this, too, using it to bolster the conclusion. So far, so good, as science has covered much of the spectrum from the very large to the very small, from the local to very far away, from Relativity to Quantum Mechanics, and science ever marches on. It can truly have no dogmatic mythology carved into stone for all time, unless shown. Such, if all events have causes, free will falls, and so this is yet another overlap of magisteria. All will have to work it out. Again, ignorance of the other position will not do. Science is now getting into showing person's behavior, via brain scans, but it is in the early stages. The other magisterium, although sluggish, seems to have adapted, somewhat, as science has progressed.



If we join with philosophers, things always needing cause, we still note that s/he said ‘in the universe’, but not about the forming of the universe. The age of the universe is well shown, and it is finite, and once it was not there, if the Big Bang and expansion/inflation stuff is correct. We can pretty much see back to some of the very early days.

I wonder if the philosopher says, too, that all things must have beginnings, such as universes? They could have been from other stuff, so we will move on. I wonder if the philosopher says that all base existent things must have beginnings, or that the base existent things were always around? These are the only two options, but one of them must be correct—and here logic shows its main power. S/he is not worried about complexities, such as even molecules, for those are composites of base existent things, as science has shown.

The philosopher wonders and ponders...

She is getting ready for an ultimate analysis, but wishes to warm up first. Thoughts surface from the organ of the brain. She is the universe come to life, and it is trying to understand itself, which at the moment is about cause and effect.

Some very tiny base existents came into being, or they always were, and, while they were not yet atoms, clumped into stars eventually, with gravity as a cause, along with possibly dark matter, but she doesn't need all the details of 'why', for the clumping was known to be so.

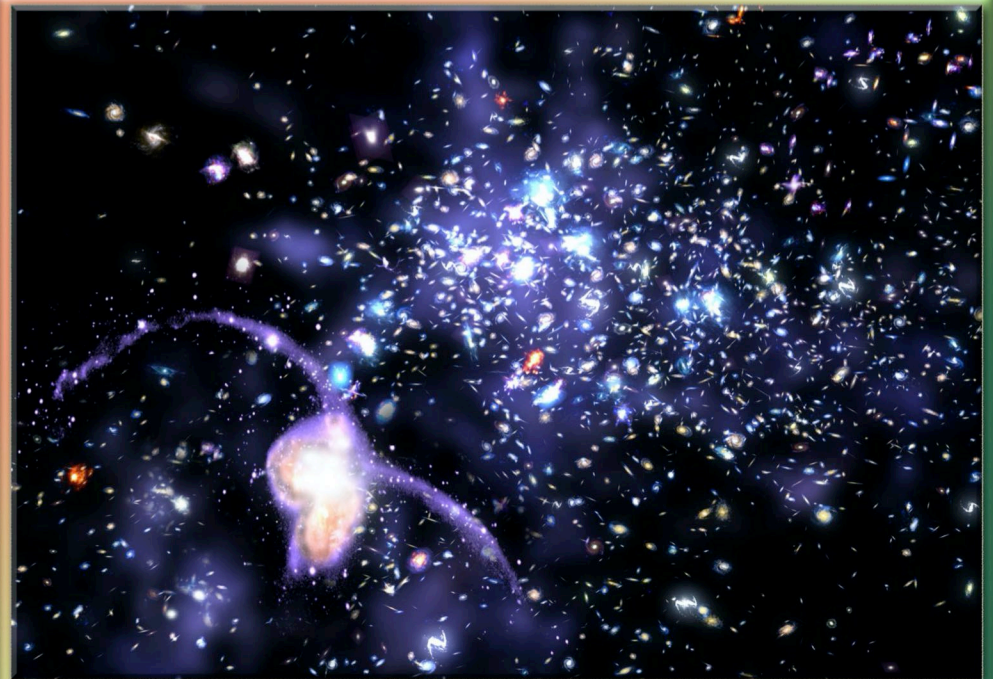
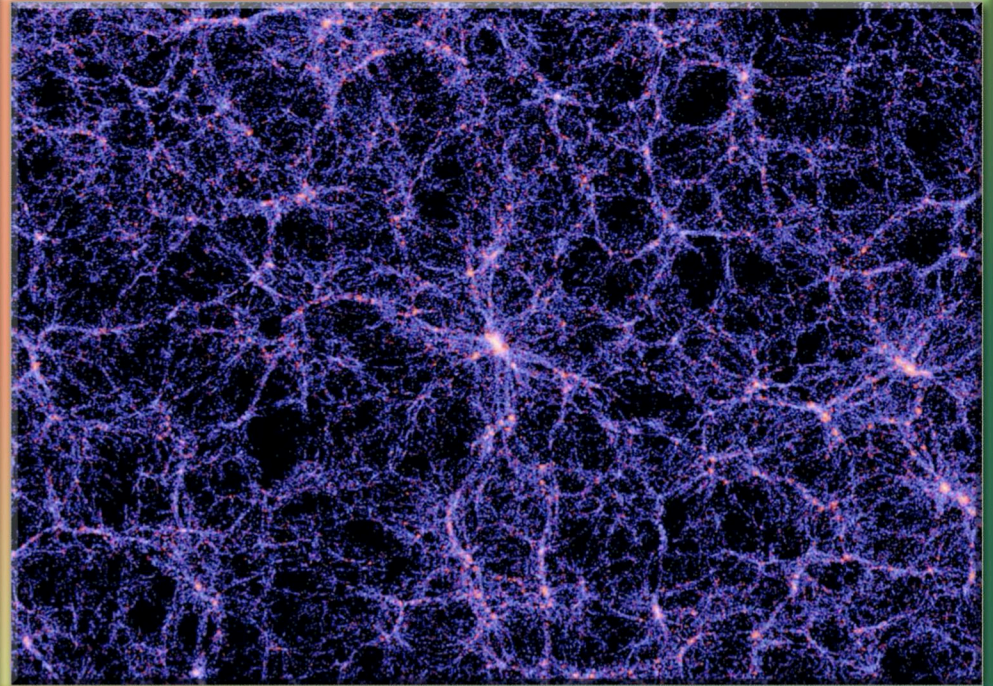
The stars clumped into galaxies, and the galaxies are even as like pearls on necklace string, as many of the remnants can be seen; however, what is important is that stars spewed out some of the lower and simpler atomic elements, as this is why the stars shine. She could refer to the causes from a textbook, but already knew them, so she went on. We are those stars, s/he thought, as we are made of stardust.

So far, so good, for cause and effect within the universe.

Millions of years had passed, maybe even billions.

She noted, too, that some stars went supernovae, as they were of an unstable size, or some such cause, exploding and spewing much of the rest of the atomic elements into space.

So, now there was a multitude of different types of atoms all over the place.



The long yardstick of time passed did not stick in her throat, for she was used to knowing that things took and still would take a really long time to develop.

A part of her wishes to leap ahead to the ultimate analysis of the cause of the base existents, but was enjoying the review, and did have the discipline to complete it.

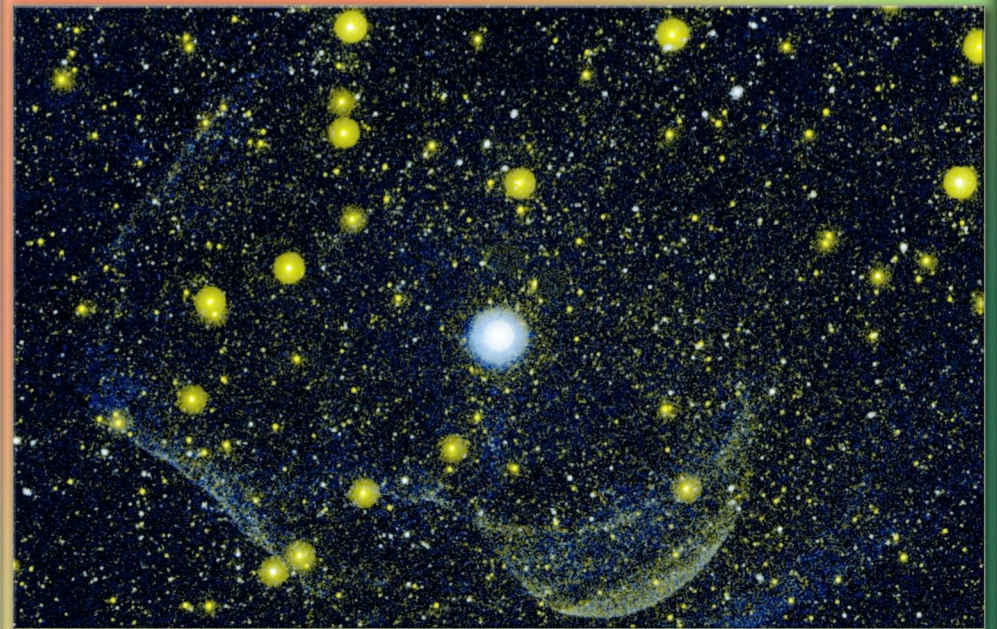
Billions of years passed by, not a whole lot happening, overall, that she could note, but for gradual accumulations, so she went to the next step, which was solar systems forming, and sped up her film through several more billions of years.

There were planets, at least one very favorable, the Earth, for life arose upon it, somehow, as tiny organisms, such as bacteria, which, over, two billion years, created an oxygen atmosphere, exuding it as a waste product, for it was as poison to them. This was photosynthesis.

So, now there were cells.

Things progressed, life metabolizing, its signature, and increasing, perhaps from a cell somehow entering another cell.

So, now there were rudimentary organs.



She raced through a few more billion years.

There were now millions of species.

Dinosaurs seemed to be the Kings and Queens of forever, but then one day they were gone, which opened up the field for more progression by evolution.

Proto-man appeared, then near-man, and finally humankind.

The brain had much evolved, along with consciousness, that which she was now using to think about cause and effect.



One brain neuron can't do anything by itself, but a lot of them can, especially a hundred billion of them, with trillions of connections. More is different (than one), she thought, because, really, more IS different than one, for then there can be connections, and that is what made for the 'emergence'—its cause.



The Philosopher-Logician-Scientist-Theologian, a person for all seasons, because of being versed in all seasons, considers the two options, greatly fortified by the knowledge that one is right and one is wrong:

1. Base existents must have beginnings, but there is a lack of any existents for the base existents to be created from.

2. The same, exact base existents always were, are, and always will be, ever enduring, never made (unmakeable), no lessor parts (unbreakable), but have no accounting for their total number (amount), form, whereabouts, or properties.

Note: A proposal that there is an infinite regress of things made of ever lessor things is subsumed under

(2) has more areas listed only because there are many areas to be considered, while (1) only has one area, but it could a big one to overcome.

Methods:

A. Disprove one by self-contradiction logic—and the other is forced.

B. Prove one by logic—and the other cannot be.

C. Do both (A) and (B) to have a doubled conclusion of overkill.

D. Confirm one or the other; logic is still ‘nice’, but unnecessary.

(2), since it has no beginning/creation aspect but has the ‘always’ aspect. Of course, s/he suspects that the causes would take forever to surface and do anything, but lets that pass for now.

At first, just ‘anyone’ might, at first glance, wish to throw both of these options right out of the window, but the PLST person is restrained and constrained by knowing that the base existents either had to be created or that they always were, since the options are in opposition, covering all the bases; so she concludes that she is obviously missing something about one or the other, because one of the options must be so, has to be so, and is so. But which? There is no presumption of them being equi-probable or not. The investigation is unbiased because the truth is sought.

E. Do both (C) and (D) to have a quadruple conclusion of a double-double overkill: Prove one by both logic and confirmation in nature and disprove the other by both logic and no confirmation (which is really the confirmation of the other).

Of course, (E) is the gold standard, and (D), as well, for confirmation makes logic quite beside the point, (C) the silver, since it is an improved step toward confirmation; however, (C), as with (A) and (B), still serves to point thinkers to a consistent direction, which could be more than they had before.

The PLST investigator wants a complete solution, for incompleteness is not any kind of solution.

She ponders. Do both (1) and (2) have anything in common? If so, that would surely be a truth. Both have existents, but we already know that something exists. Nonexistence didn't happen. What we think of as the base existents or even just near to them are very tiny, minuscule even, compared to our size. The universe shows 10,000 galaxies in an area the size of a grain of sand or even less, in a telescope trained on a dark region of the night sky, which makes for a really lot of stuff. Well, these are just a loose collection of notings at this point.

Hmmm... (2) has forever stuff and (1) has created stuff, which, having happened, could happen more, or again, at least making its basis sure to have been enduring always. Some kind of 'always' is a truth, but an 'always' has to be eternal, so to speak, using duration,

She goes to sleep on it, hoping the investigations of the logical and/or confirmations will lead to some resolution, for one of them has to be correct. S/he is still joyful that s/he has the answer in hand, for it is one of two. S/he, the universe come to life, has made great progress in figuring itself out.

Any takers on continuing the preceding?

A true seeker is needed to fully address the content, in depth, with clarity.

or, it just is, versus is not, using only existence. What is external has no beginning, no cause, making it causeless, but what about that effects always have causes? It would have to be that which could be no other way, for what is eternal has no decision point, no options. What could replace initial cause and effect being thrown out of the window? What kind of condition could surely be the one and only possible default situation that must be there by itself with no other options?

Inescapably, what we might call the 'All', or 'Totality', had no choice or decision beforehand in its existence being so, which is new and fine information for people to utilize; however there is still the matter of whether by (1) versus (2).



Diamond Head Crater and Waikiki Beach



To the Wall of Cause, With An Open Door

She was an adventurer, as many vacationers are, but was more than that, for she was prepared to stay on, somehow, in the right place.

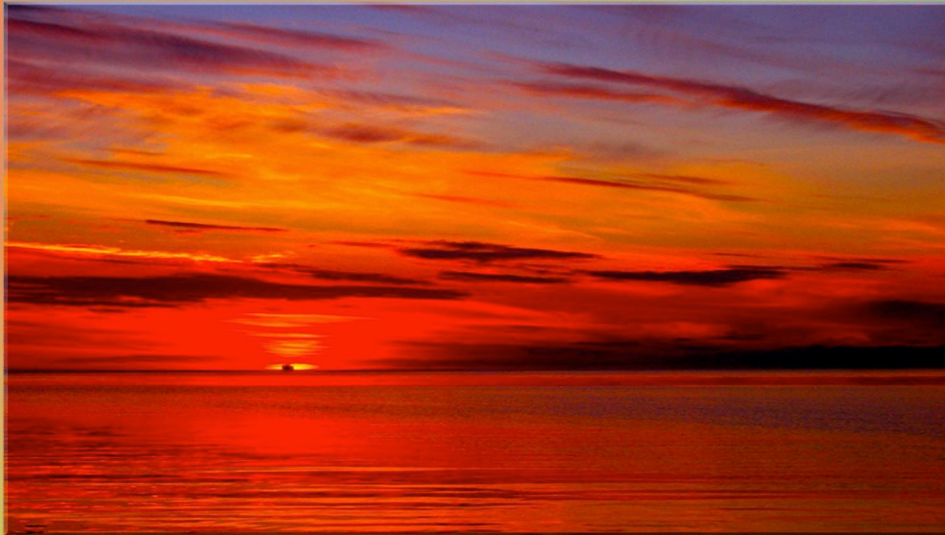


Honolulu, From Diamond Head Crater

After landing at Honolulu International, in Oahu, she she took in a few sights, and then boarded a flight to Hilo, Hawaii. Taking a ferry would have been long and slow, although delightful in its own way, for another time.



Molokai, Maui, and Lanai passed beneath, off to the side, on the left, and then the plane was over the open ocean, still heading southeast.



The Ticket To Cause And Effect

She mulled over the two option that she had seen posted on a science site, concerning original cause and effect. She had two revelations, the latter spurred by the former.

The answer, for either option, was of the simple category, neither fancy nor complex, for those kinds of aspects ever appeared only later on, involving parts, reactions, and connections higher up.

Secondly, she concluded, life's existence precedes, in importance, greatly, that of finding the essence of ultimate cause, but for the lone area of our curiosity about it, albeit coming up often. Yet, it usually soon paled away within the brightness of living, just as it ought to, the light of the candle more useful than why the wick burns, the felt state of being more than the states beneath that make it up, the adventure in a new land eclipsing the reasons that it formed.

She took out a map of southern Hawaii. Here it is, South Point and its beach, the last land south before Antarctica, and then perhaps Africa, if the water at the pole rose from the melting ice. A diversion to Easter Island would be nice, along that endless, but great ocean route. Ah, here is the 12-mile dirt road on my map, off HY 11, which exit could be barely noticeable.

She thought, Won't he be surprised that I found him from his even redirected 'true seeker' post.

She deplaned, bought a backpack and a sleeping bag, and rented a Honda motorcycle. So far, it was a land where not much English was spoken, but at the airport, with only a few white faces.



Lava Keeps Forming New Land on the Big Island



Laid Back Hilo

Palm branches were waving just overhead as she spun up dust on the trail that was called a road, thinking, A great logician, ever trapped with a cave, could, from a grain of dirt, infer the universe.



In the winter, many arrived in the archipelago from the Northern Hemisphere, with a really lot from Canada, a really cold place, and some even from hot places, like India, and in the summer from the Southern Hemisphere. It was like the United Nations having an outing. She drove up a mountain, toward the end, and could see the ocean from there.





She walked to the bushes on the side of the beach. Persons of interest were sitting at a table, way across the beach, in the shade of a nook, with laptops, and one was rolling cigarettes, selling them.

It was windy, so he was just taking a pinch out of the green bag at a time. Some would pay and leave right away, but some would linger, and engage, and so they would get their cigarette for free, and some would remain for quite a while, probably negotiating to stay under their wing when their hotel time is up.

She surmised, That must be Joe next to Austin, and I can read his lips, with my glass, and, oh, it's funny: Joe's saying "I'm an old man! And soon to be a married man, on St. Patrick's Day." Well, so the girls are hitting on them, but they both look spry.

Ah, let the true seeker engage, with depth, within his ongoing dialog concerning the clarity of reality.





Keen Eyes, From Afar. The nook is at the left, just above center.



Close Up Shot Of Joe and Austin In the Shade

She approached Austin, smiling, and he offered, “Cigarettes, fifty cents, the going rate, but they have full flavor and they are long and hand rolled, free if you stay a while.”

She took one, relating, “Hand rolled, by your machine, now put away, as cranked really, Rio menthol pipe tobacco, \$16 a bag, put in a slot, with a little door that closes over, so as to have just the right amount, a metal half-cylinder going out into paper tube”

“How did you know? You didn’t even light it up yet.”

“I spied on you from those bushes way over there.”

“Good, I like that; you are prepared.”

She lit up, inhaling deeply, remarking, “Help concentration, such as for working out reality clear and dear, the most often wondered question on Earth’s sphere.”

“I am an old man who is still very young at heart.”

“And I am the one you seek; I am P-L-S-T.”



Austin nearly fell off his chair, and then did, as a joke, then got up and gave her a hug, Joe adding a jug.

She was thirsty, and drank a long gulp, saying, "Yes, I came all the way here, following your internet and confirming it by the GPS info in your Hawaii photos."

"You are indeed Sherlock's younger sister."

"And in deed, a Detective."

"And I could hardly even get anyone on ToeQuest..."

"To delve in depth into the deep of the two options."

Austin thought a bit, noting, from a grain of sand in a nook at night, a blind PLSTD could not only infer the universe, but its cause of existence as well."

Now she fell off of her chair, on purpose, asking, from the ground, "How did you know my thoughts?"

"We think alike; in fact, we are the same: both extrovert & introvert, sensing & intuitive, thinking & feeling, spontaneous & orderly, though INFP based."



The Villas



Joe and Donna



The Abode

She asked to stay and Austin and Joe indicated that they were already going to invite her, so she set up her sleeping bag in the abode. Food was obtained and all went out to eat on the deck, under the starry sky.

She began, “The first option, that of the base existent things having beginnings, via their creation, has two cases, the first being that they come from something else; however, they are already supposed as fundamental, so that case cannot be, not only because they are already the base, but because there is no source of anything to make them of, which leads to the second case of the things being made by or of nothing, such as a distribution of opposites. Now, the only no-thing is a complete lack of anything, which we call ‘nothing’, it having no place, no forms, no laws: no anything. So, the opposites would have to sum to zero overall. Reasons and ramifications will tell.”

She continued, “Yes, there will be more to it, once we confirm it, which is not only by disproving the second option, that of stuff forever, but also by finding it or its remnants in nature; so, for now, onward.

“When people say that stuff or fields have been around forever, they mean just that, such as always being, never made, causeless, and eternal, meaning past-eternal for all of the past eternity, the same exact base existents that, of course, would still be, and always will be. Any comments so far?”

Austin piped up, “Eternities never complete, both by definition, ‘of that which can never be attained’ and in the actual, as they cannot have beginnings or endings, true even if we rid ourselves of time and say that they simply are, versus not. So, some people may use ‘eternal’ and the like as a shortcut word meaning an actual, completed eternity, and with ‘infinity’, too.”

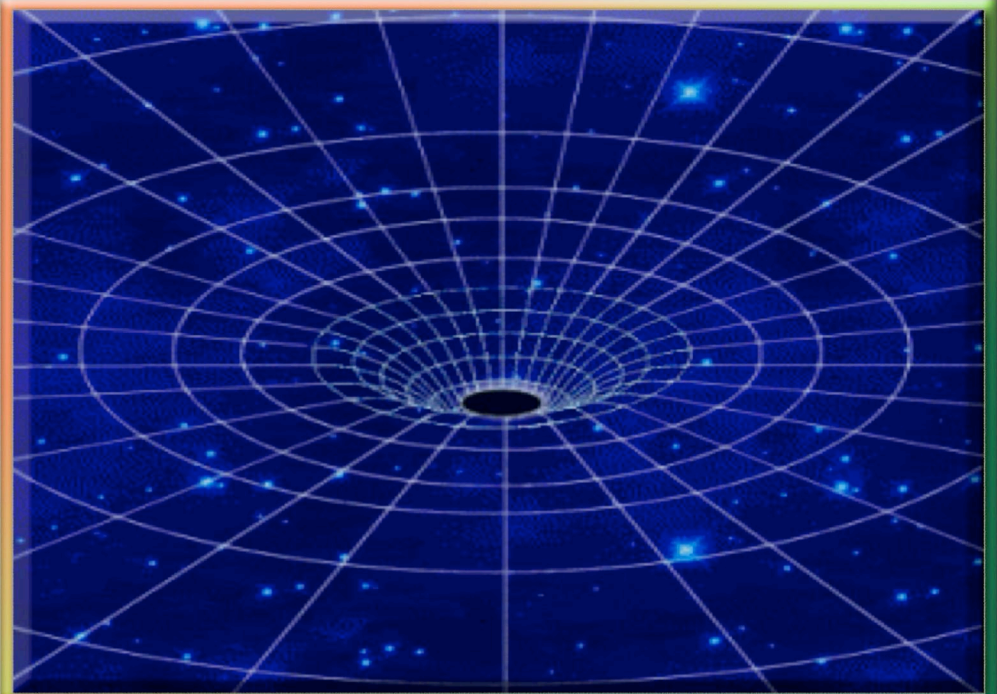


Austin added, “Or also/or because their tiny size, although that is relative to us, is, too, a part of the necessary balance, representing a mid-point of extent.”

“Yes, and can I have a smoke? So, events with low probabilities must still eventually happen, out of nothing, such as universes, even ones with trillions of stars. Big Bang researchers suggest ‘symmetry’ as a basis for the universe, and we might note that a lack of anything has perfect symmetry. If the universe encompasses everything (time, space, and matter), *nothing* exists outside of it and therefore *nothing* existed before it, leading to a total baryonic number of zero. So, anyway, this symmetry has all of the forces being equal, with everything so hot and dense that matter cannot even form yet, nor spacetime, or at least it was the same everywhere, although twisted and convoluted—nor any separation yet; it was pure symmetry.”

Joe continued for her, as her words were drying out, and she need a drink and a rest, “Obviously the symmetry was broken, making for less ‘order’ and more chaos, the tendency being for ‘entropy’ to march on. Spacetime arrives when what is called ‘supergravity’ separates into the combined nuclear forces (strong, weak, electromagnetic) and gravitation. Matter makes its first appearance during this era as just a composite form, called Grand Unified Theory or GUT matter. GUT matter is a combination of what will become leptons, quarks, and photons. In other words, it contains all the superpositions of future normal matter. But, during the GUT era, it is too hot and violent for matter to survive in the form of leptons and quarks.”

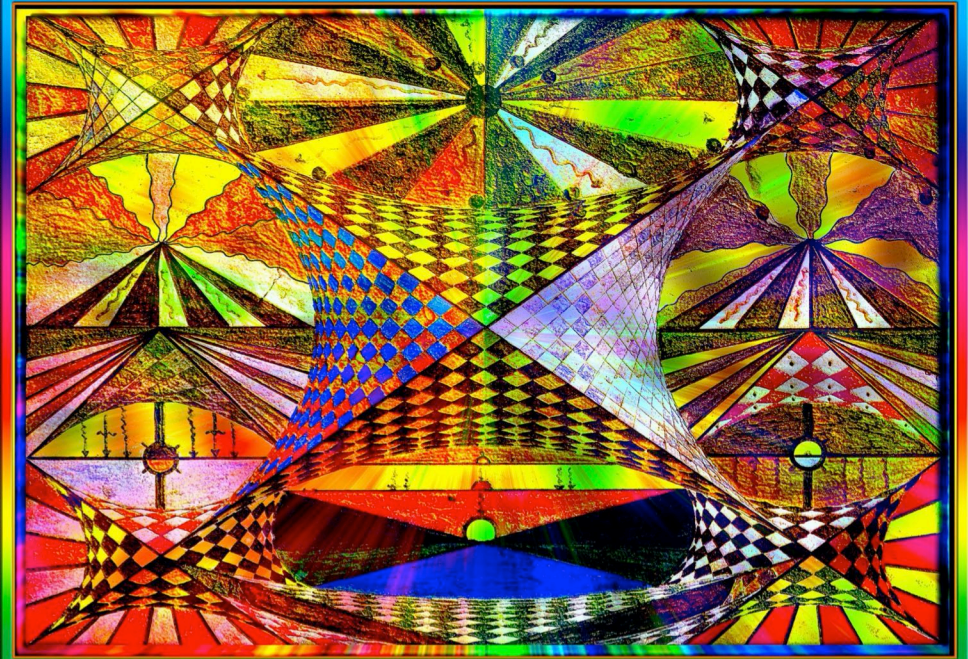
“Thanks, Joe, I need that,” she replied, “and it’s some of the sexiest stuff that I’ve ever heard.”



Austin said, “Me, too,” and noted, “Even though the baryon number is extremely small (10^{-10}), why isn’t it zero? In Nature, there are only three natural numbers, 0, 1 and infinity. All other numbers require explanation. What caused the asymmetry of even one extra matter particle for every 10 billion matter/anti-matter pairs?”

She said, “One answer is that the asymmetry occurs because the Universe is out of equilibrium. This is clearly true because the universe is expanding, and a dynamic thing is out of equilibrium, for only static things are stable. There are particular points in the history of the universe when the system is way out of equilibrium, and those the symmetry breaking moments. And Noether’s conservation derivations, such as from time-translation, may lose their kilter if time alters from its point-of view invariance.”

Joe’s wife-to-be, Donna, noted, “Notice also that during the inflation era, any asymmetries in the microscopic world would be magnified into the macroscopic world. One such quantum asymmetry is CP violation. As the Universe expands and cools the process of creation and annihilation of matter/anti-matter pairs slows down. Soon matter and anti-matter has time to undergo other nuclear processes, such as nuclear decay. Many exotic particles, massive bosons or mesons, can undergo decay into smaller particles. If the universe is out of equilibrium, then the decay process, fixed by the emergent laws of nature, can become out of balance if there exists some asymmetry in the rules of particle interactions. This would result in the production of extra matter particles, rather than equal numbers of matter and anti-matter, and we have one in 10 billion, for we know the photon count.



“In the quantum world, there are large numbers of symmetric relationships. For example, there is the symmetry between matter and anti-matter. For every matter particle, there is a corresponding anti-matter particle of opposite charge. In the 1960’s, it was found that some types of particles did not conserve left or right-handedness during their decay into other particles. This property, called parity was found to be broken in a small number of interactions at the same time the charge symmetry was also broken and became known as CP violation.

“The symmetry is restored when particle interactions are considered under the global CPT rule (charge - parity - time reversal), which states that that a particle and its anti-particle may be different, but will behave the same in a mirror-reflected, time-reversed study. During the inflation era, the rapid ex-

pansion of spacetime would have thrown the T in CPT symmetry out of balance, and the CP violation would have produced a small asymmetry in the baryon number. This is another example of how quantum effects can be magnified to produce large consequences in the macroscopic world. CP violation, by itself, is not sufficient to resolve the matter/anti-matter asymmetry. However, it is an example of what may be a class of reactions that produce more matter than anti-matter. The sum of these reactions explains the baryon number.

The discovery of the cosmic microwave background (CMB) confirmed the explosive nature to the origin of our Universe. For every matter particle in the Universe there are 10 billion more photons. This is the baryon number that reflects the asymmetry between matter and anti-matter in the early universe.

the radiation era. At recombination, these cosmic background photons escaped from the interaction with matter to travel freely through the Universe.

As the Universe continued to expanded over the last 14 billion years, these cosmic background photons also ‘expanded’, meaning their wavelengths increased. The original gamma-ray energies of cosmic background photons has since cooled to microwave wavelengths. Thus, this microwave radiation that we see today is an ‘echo’ of the Big Bang. Whew, now I need a drink! Here’s to the CMB!”

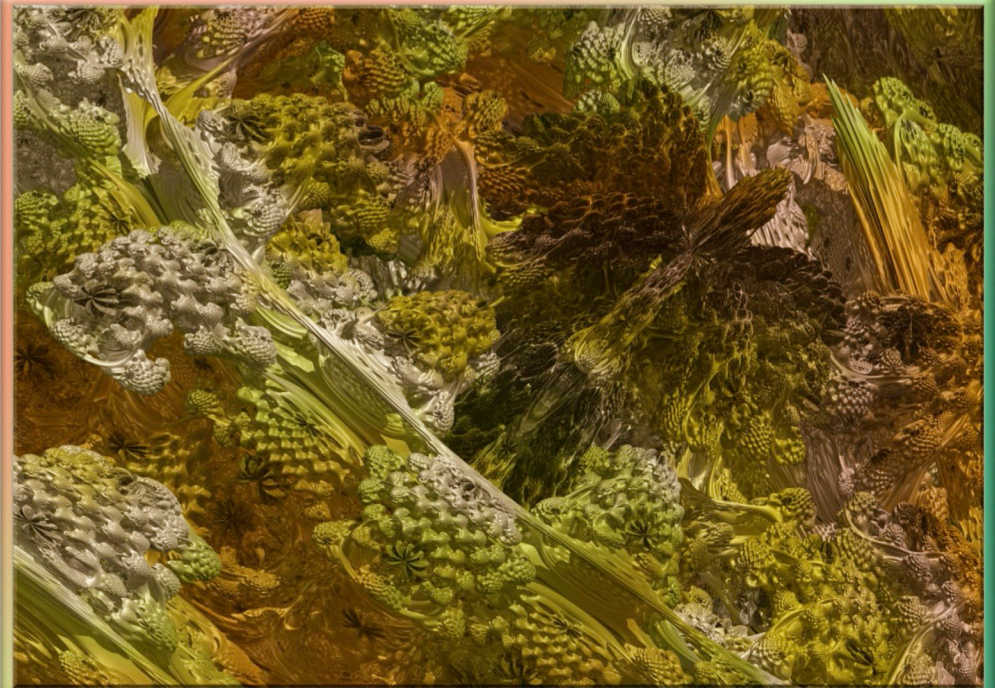
Austin added, “During inflation, the virtual particles of the pairs appearing got separated so quickly that they couldn’t annihilate, and so they went to be rather enduring.”

“And endearing,” added Passiona, the PLST. “Space-time separated from matter and the rest is history.”

“Looking around the Universe its obvious that there is a great deal of matter. By the same token, there are even many, many more photons from the initial annihilation of matter and anti-matter.

“Most of the photons that you see with your naked eye at night come from the centers of stars. Photons created by nuclear fusion at the cores of stars then scatter their way out from a star’s center to its surface, to shine in the night sky. But these photons only make up a very small fraction of the total number of photons in the Universe. Most photons in the Universe are cosmic background radiation, invisible to the eye.

“Cosmic background photons have their origin at the matter/anti-matter annihilation era and, thus, were formed as gamma-rays. But, since then, they have found themselves scattering off particles during



Passiona paused, looking up into the starry night, noting a few by name, saying, “We are the stars.” She then paused, and said, “Let us wrap up nature as we know it, as well as the future’s possibilities, and then let us get back to the cause of existence and its implications.

“Central to the beauty of our theories of how the Universe works is symmetry, as expressed by Noether's theorem, a statement that for every continuous symmetry there exists a conservation law, these being invariance of the laws of Nature to spatial translation, temporal translation, and rotation, making for conservation of energy, mass and angular momentum. One symmetry that is not conserved is mirror symmetry. CP violation shows us that the Universe is chiral, a fancy word that means parity or handed-ness; the Universe distinguishes between left and right handed in-

teractions; nature looks different in a mirror. Finding symmetries in a theory is important. Finding symmetries that a theory does not possess—a broken symmetry, is even more important.

“When dealing with particles and their interactions, global symmetry makes no sense, Why should the behavior of particles here on Earth have any effect on observations of particles on distant stars. Instead symmetry is restored through the use of a gauge field, a field that carries the information of symmetry around the universe. For example, by demanding that electromagnetism obey local gauge symmetry we are forced to accept the existence of electromagnetic fields and the massless gauge boson as the photon. Similar requirements on all quantum fields produces quantum electrodynamics (QED). Objects in uniform motion or acceleration must also obey the laws of nature, thus, imposing local symmetry on motion forces a new field, the gravitational field described by general relativity, to appear.

“The Standard Model is incomplete, as it does not specify the values of fundamental constants nor does it combine with gravity. Two possible avenues for extensions of the Standard Model are grand unified theories (GUTs) and supersymmetry (SUSY). To unify weak and electromagnetism we simply write down a theory with enough gauge symmetry to accommodate the four mediators bosons (photon, W^+ , W^- and Z_0). Through the use of the Higgs mechanism (where a general field fills the Universe in which particles can interact to acquire mass), we break the symmetry to get three massive bosons, W^+ , W^- , Z_0 , and one massless boson, the photon. To unify gluons with the other sub-atomic force carriers we need a new, larger gauge

symmetry to bring everyone together. A new symmetry would make the distinction between quarks and leptons go away, at least until the symmetry break; until then we have GUT matter.

“One consequence of quark/lepton symmetry is that protons, once thought to be stable, must decay under GUT. However, this is a problem for GUT, as current experiments have not been able to detect proton decay and its half-life must be greater than 10^{32} years. We are also unable to experiment at the GUT level as we would need to force quarks within a radius of 10^{-31} meters in order to exchange a GUT boson. This would require energies on the order of 10^{15} GeV which is 10^{13} times greater than our current technology. But, ultimately, GUT fails due to the gauge hierarchy problem, the fact that the difference between the electroweak and GUT symmetry breaking points implies two differ-

ence masses for the Higgs boson (10^2 GeV vs. 10^{15} GeV) means the GUT is insufficient.

“To have a complete set of all possible spacetime symmetries, one symmetry is missing in the Standard Model. This would be the ability to transform particles into different particles, ones with different spin. This symmetry, called supersymmetry, transforms fermions into bosons and vice versa. Thus, the distinction between particles of matter, fermions, and particles of force, bosons, would blur. Evidence of supersymmetry would show us that Nature has utilized all mathematically consistent spacetime symmetries.”

They broke for desert, which was a kind of pudding. Austin had more roast pork, which was the main meal. Joe had vegetables. The SouthernCross show, low. The Milky Way was bright, edge on. A mon-goose scurried through the grass, into Joe’s trap.

“So”, Joe said, “All happenings of things, such as the universe trace back to nothing, the no-thing cause, the prime mover, the Ground Of Determination, G.O.D, an unfortunate use of letters, for it is not ‘God’, since it isn’t a system of mind, as a being who plans, designs, creates, and so forth, plus, systems are composites, and so they cannot be fundamental, nor can even any single, base existent be fundamental, nor can the cause of existence be any other way than it is—no choice. These are some of the implications. Everything can happen, and probably over and over again, and ‘everything’, as like the Library of Babel that contains all possible books, even gibberish, has the same information content as nothing, which is zero, as a distribution of nothing. Meaning becomes but local, in out lives, as overall, there isn’t any, and even there, question about free will arise.”

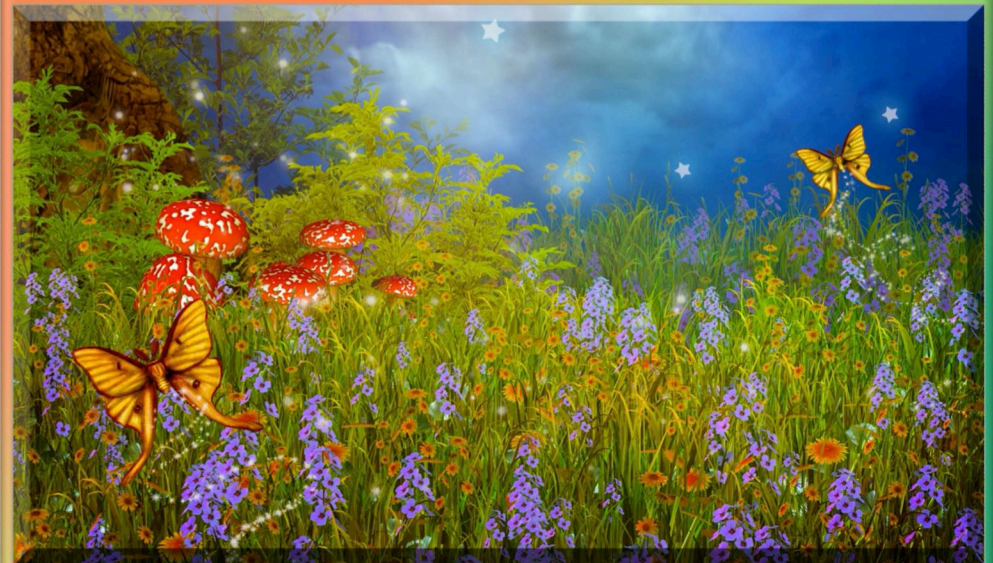


“Yes, Joe, you have laid bare the implications. Pandora’s box of truth has opened wide, it having been futile to have tried to keep a lid on it. Dogmatic mythology is gone, having been replaced by what some may call ‘The Universal Acid’, from Dan Dennet’s chemistry class, that which eats through all folk tales and superstitions, but the truth is ever sought, wherever it leads, and the knowing of it becomes a beauty, which, when combined with goodness, equal love, in total.

While we don’t want to overload Joe’s term, G.O.D., with what really ‘God’ has been wished to be, we still have the origin and source, as nothing, the simplest state, one which apparently never sleeps, ever jittering about, as loose change, some of its local symmetries persisting, such as pairs of oppositely charged particles of matter and anti-matter, the weak force for changeability, that of nuclear decay, balanced by the

of opposite polarity of charge, with only one stable uncharged energy particle, the photon, as neutral, which seems to be both positive and negative together in peace, representing all of totality, and no stable uncharged matter particles and no charged energy particle. There is a symmetry here. And, a charged matter particle—pick either plus or minus polarity, represents but half of totality. Presumably, as spacetime is 4D, and space’s 3 dimensions are compositional, only one dimension is left, time, by which existence can be nullified in the overview, and so time must have a 4th dimensional aspect, beyond what it does as duration of motion, that being as energy-charge, a 4th dimensional distance, such as the difference of space(s), which is a spacetime distance, as distinguished from space’s distances, for externally, all must be symmetrical, but internally, polar opposite.”

strong force, for stability, via binding the proton and the atom, the positive kinetic energy of mass of matter being canceled out, again, as ever, only in the overview, by the negative potential energy of gravity, a kind of space versus time, at least internal to spacetime, the magnetic checking itself by turning electric, which transformations ever continue as electric back to magnetic, in the self-regenerating wave of e/m , everything versus nothing, fields versus particles, the largest versus the smallest, longer versus shorter, light making matter and matter making light, standing waves going both inward and outward, positive and negative curvatures of space, mass converting to energy and energy converting to mass, as in $E=MC^2$, waves versus particles, as wavicles, along with the curious condition in free space of only two stable charged matter particles, the electron and the proton,



Fredrick arrived the next day, from ToeQuest. “So, what is the universal number? 0, 1, or diverse?”

Passiona, now all rested up, replied, “Well, either it’s ‘42’ or the following, which I’ll begin with a verse:”

— The Infernal Regions —

Hellholes hurl thousand light-year jets of fear,
In Centaurus, cross the galactic sphere.
Supermassive darkling beasts devour all;
Abandon hope, all ye who enter here.

“Roger Penrose showed that black holes have to exist. In their ‘singularity’, time, space, matter, and light go out of existence, so to speak, back into the state they came from; so, now, as we know that a singularity can be, and this bolsters the reverse idea of a Big

sarily taking up a lot of room, for all its variations constituting everything.

“Earth had enough of the right conditions in one place for life to appear, which is a relatively rare event, but it had to happen somewhere, among everywhere and everything, and, although life is relatively rare, it can propagate, so, then, the universe must be awash with it.

“Existence is information. The information content of everything and nothing is the same: zero. Pure symmetry has all information as equal. The singularity changed form, into a universe, still containing everything—and that is why it had to be so large.

“Since the prime mover has no causes going into it, it has no inputs of direction to say that it should have a specific, certain, limited outcome, and so then it is that it has all possible symmetric outcomes, which is

Bang from a singularity of symmetry, with inflation, that has other reasons going for it, too.

“The universe is as unimaginably huge, as much as the singularity was incredibly tiny, yet they are the same essence, although the form has changed. The unified verse of the universe, in the reverse inverse of a black hole’s singularities, as an evil twin, as Hawking’s great insight, is diverse and obverse in a way that reflects and shows the initial symmetry, one that I take to be the singularity of nonexistence, or nothingness, for that is the only candidate for a source, though we fruitlessly yearn for another completion to the verse.

“Perhaps the information of everything in the singularity was in a potential form, as all superimposed; whereas, as expressed by the change of form into the universe it became actual and separated, thus neces-

everything, as all variations thereof, within the initial symmetry that had to be, causing the polar results of opposites.

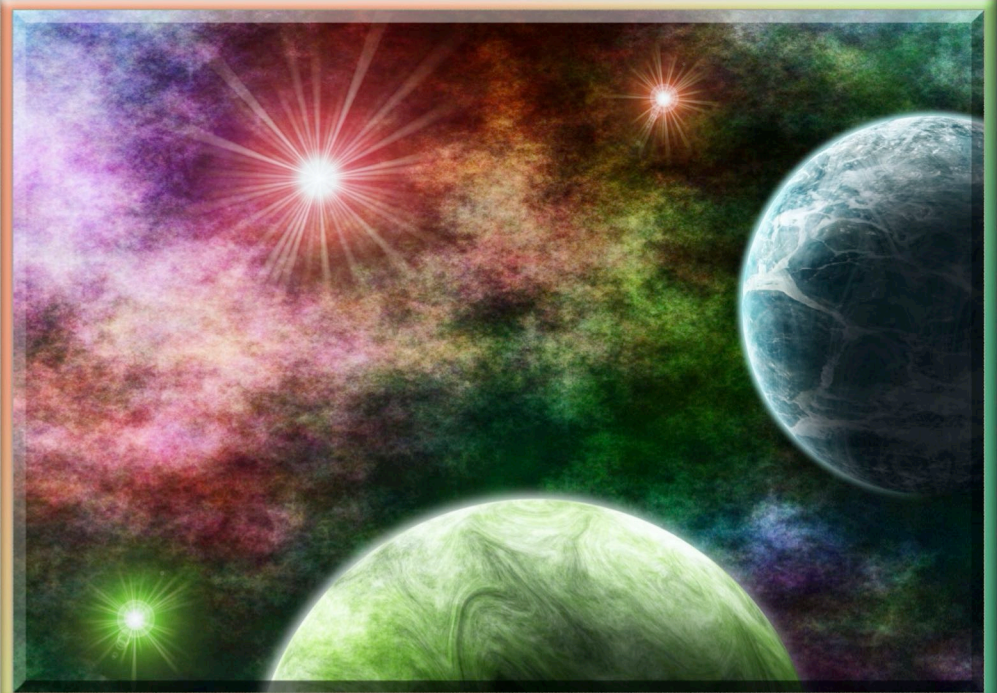
“Time, distance, space, spatial expansion, gravitational attraction, position, momentum, relativistic effects, quantum physics, forces, etc., are all related, complimenting each other. For example, it takes a spatial distance to measure an interval of time, more properly, a spacetime distance, and an interval of time to measure a spatial distance, of spaces, really. Each allows the standard by which the other is gauged and as with position and momentum, for when you focus on one, the other becomes increasingly uncertain. Do, too, do the electric and magnetic forces keep each other in check, and there are many more examples, as some of which we have already told. A Stuff Forever idea has everything as diverse for all time”

“What about symmetry breaking? Fredrick asked.

“Well, either the slight breaks in symmetry were inherent, and magnified, or they became since the perfect equilibrium could not be maintained during inflation’s rush, and, so, now, there are 10 billions photons for every matter particle, since one matter particle was left over for every 10 billion matter/anti-matter annihilations. All that then went on is due to those extra matter particles, without which there would only be light, and no ‘us’. Perhaps even the symmetry break was necessary, as a part of everything, although minuscule, but it made all the difference, as now writ large.”

“And the end of the Earth would be...? asked Fredrick.”

“All good things must come to and end, though, as time must march on...

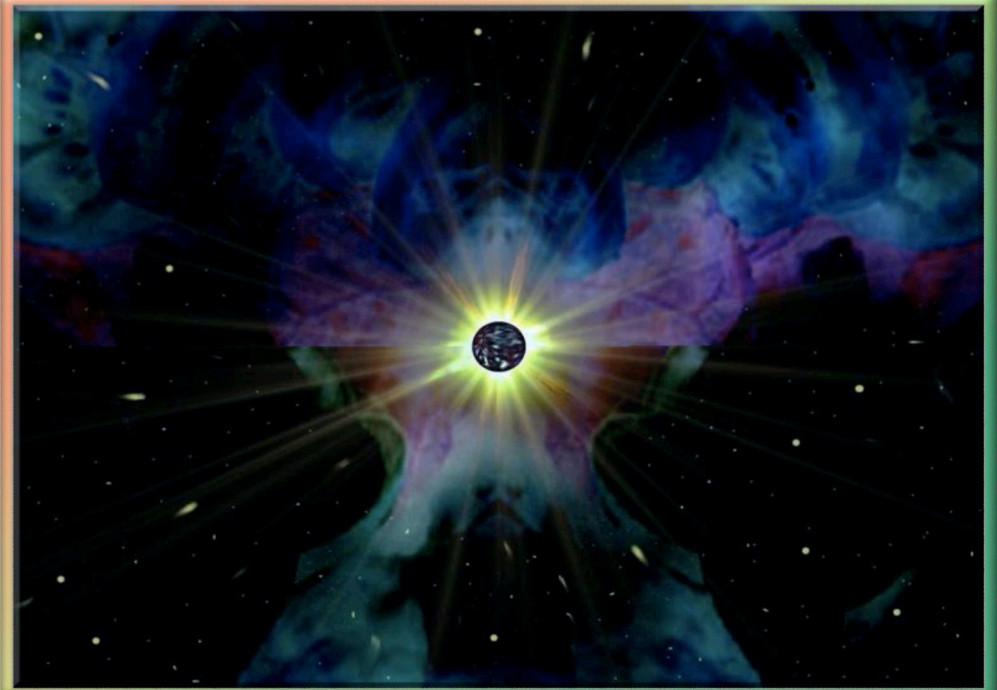


— The Finale —

**Beyond the pale, aft the last perfect day,
The Earth’s atmosphere incinerates away,
Mercury and Venus within the sun,
For the Crimson Giant is on his way.**

So, the universe had a beginning, and the essence is still here, in another form, and we are quite within it, not beyond it, for there is nothing else inputting into it. Diverse? Yes, but only as much as it could be, within the symmetry.

So, the ‘1’ became like $\frac{1}{2}$ and $\frac{1}{2}$, but that is still ‘1’ overall, or, as in my extended view, ‘o’ became ‘1’ and ‘-1’, which is still ‘o’, or nonexistence, making that existence is not from ‘o’, but just another expression of it.



“Where are we in all this? “a beach boy wondered.

“We see that sizes can be ordered, even if the singularity size was not relative to anything. The singularity was able to go from small to very large, from single to multiple form, from hardly anywhere to as far as we can see, in close to no time. Apparently, the formation of spacetime made for this. In a way, we are now seeing what the singularity was made of, as like expanded by a magnification. If there were quantum fluctuations, they are now written large across the night sky.

“To find the ‘why’ and the ‘how’ of existence, one would have to derive the absolute, default conditions that force the symmetric necessity. Symmetry is an inescapable conclusion, and if super-partners are found, then nature will have used all possible symmetries, as all the rest are already employed.”

“Matter and anti-matter, space versus time, polarity of charge, mass versus gravity, and others all play a part, as exposing symmetry; so, the ultimate answer is to be found in why symmetry absolutely has to be, no other option possible, and, of course, a causeless prime mover can’t have any, unless it has all of them, as equal, and this is Symmetry.

“Of course, all nature’s symmetries are related, and so it is all together that they should be considered as the prime mover’s symmetry, so, overall, symmetry always rules. When things are polar opposites, the overall symmetry is still maintained.

“Since existence has to be, then there was no choice, which is in accord with a prime mover having no inputs to it. It has no time and no space, but can change into those, at least as within it, as long as those somehow ‘go away’, overall.”



Earth couldn't be farther out in space, alone;
In all directions it rolls along, unknown.
Look at the stars piercing the depths of time
They beckon, warm and welcome, the fires of home.

Imagination lights the mind to shine.
To cool Venus's reasonless passion.
To warm Mars' martial song with compassion;
Between those two orbits, the Earth is mine.

As again, the prime mover has no impetus or direction from any inputs but what it already is, it then does something of only itself, such as its becoming our universe, obviously, and perhaps also does anything and everything, since there would not be any directive, such as to just produce quarks and leptons in pairs, unless that change in form was of a default that could only be that way.

“If the universe were to be shown to sum to zero, that would settle the question, for the universe is still one and the same with the prime mover, as there would be no other sources.

“The universe is seen to have a symmetry in its elementary particle pairs, so this and more is a clue to something deeper. There was, then, no option, for there not to be symmetry, but what is the default, forced condition for symmetry, that is, what makes

“Stuff Forever admits of no creation, and thus no Creator, and From Nothing is not God, but the opposite; so, in conjunction, these two options disprove the ‘God’ idea, since they are the only options, one of which must be true, which is a great accomplishment; so, all God ideas are now shown to be wrong. And for sure, believers will go on to say that ‘God is greater’, but, since that is what they are out to show they can’t use it beforehand as an input.”

Cyperium arrived, from SciForums, showing a passage from a book: *“Whereas relativity established the subjectivity of time’s passage, quantum mechanics challenges the conceptual primacy of time itself. Today’s scientists seeking to combine quantum mechanics with Einstein’s theory of gravity (the general theory of relativity) are convinced that we are on the verge of another major upheaval, one that will pin-*

for symmetric necessity? Is it the potential for a largest versus a smallest?

“It’s not only that infinity cannot be attained, nor infinitesimal infinity, but it also seems that complete solidity cannot be (or last), if a singularity tries to be, as well as nothing not being able to be (or last). The same for eternities not being able to be past- or future-complete. All of the above could be that which forces a finite realm as a mid-point, in the ‘now’... as if Largest (or infinity) times Smallest (or zero or infinitesimal) must equal One, as a necessary, default, finite unity.”

“Ah, noted Austin, “we have reached the end—of the beginning. What else?

“Just some implications and a review. First, a theological one, for I am a theologian, too, of ‘God’ Disproved...

point the more elemental concepts from which time and space emerge. Many believe this will involve a radically new formulation of natural law in which scientists will be compelled to trade the space-time matrix within which they have worked for centuries for a more basic 'realm' that is itself devoid of time and space.

— ‘The Time We Thought We Knew’

Passiona replied, “No-time—no-space as fundamental makes sense, as cosmological physics have space and time as spacetime separating out afterward, so, it sounds like an all-at-onceness, which has no time, and an everything-in-superposition. In no-time-no-space, there are no fixed-things, making for it to be a no-thing, at large, which is ‘nothing’, from which fixed-things emerge.”



Passiona continued, “In this pre-time, pre-space realm, there is no going from here to there, since ‘here’ is already ‘there’, so there is no space, this resulting from there being no time. One could ‘say’ that the instant ‘here to there and everywhere’ is like infinite speed, but it isn’t, being only like it, for there is no time or space to go through. This superposition of all is what I mean as necessary from a From Nothing or a Lack Of Anything state having to be a default, lawless state of ‘anything goes’.”

Cyperium noted, “The singularity is everything happening all at once and at the same location.”

“Yes, as one single point would not be space, for at least two would be required.”

Cyperium went on, “The Big Bang and everything else would be the singularity ‘dissected’, or a kind of projection of the singularity. That way, reality can be

‘one’ with the singularity, because every event that has ever taken place is contained within it. Kind of makes sense if we think about it, because no external source is needed for all of the events to take place as they are already accounted for in the singularity. It becomes a closed system. In fact, we are the singularity, simply a definition of the contents within it.”

“Very insightful,” said Passiona, “and it thus clicks with me, helping me connect with other things. So, yes, as in holism, the whole changes form, but it is still the whole, and the whole could be a ‘hole’ (nothing) or a ‘whole’ (everything), either of which would seem to have the same information content: zero.”

“And it’s not like anything not from the singularity could stick its nose in, so what is of the singularity is all reflected here, and is, still, as you say, the same information of the singularity, and so everything does



end up happening somewhere, sometime, among our trillions stars and more, including a lot of waste, as we can see, but Earth is here, millions of the right conditions coming together, including a moon for stability. No wonder the universe is so large, for everything had to be accommodated.”

Cyperium added, “So, in a way everything was set long ago, already having happened, in its own way, but is now ‘happening’ (or just seeming to) for us, since the broadcast had to slow down in its playing-out form once spacetime and the speed of light came into form. But it doesn't solve the original question though, which could be rephrased as ‘Why the singularity? Why everything?’”.

“Well,” she answered, “no point of deciding of anything specific is possible, as the buck stops at the prime mover, plus no time is there anyway.”

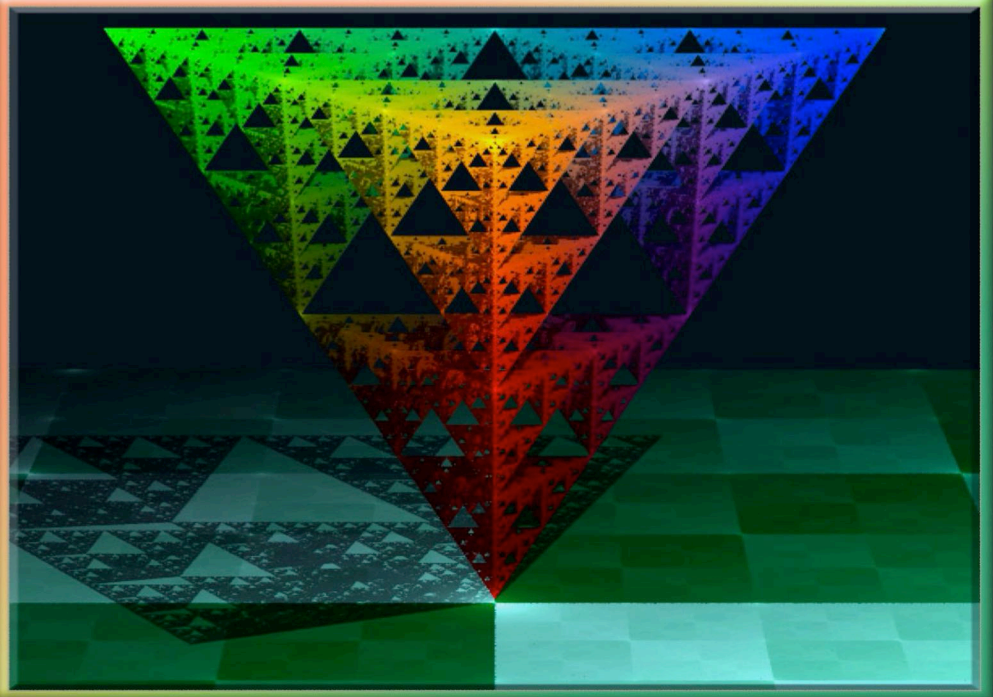
Passiona continued, “And no time and no space means it has to be a singularity. Then, like a pencil trying to stand on its point, it fell, the perfect symmetry of everything/nothing toppling, breaking into opposition pairs, such as space and matter, and the strong and the weak forces, and transitional pairs, such as electric/magnetic, and past/future.”

Cyperium remarked, “I can't imagine what something would be if it has no definition at all.”

“Well, it's the very minimal, simplest state, as nothing.”

“True, I'd say myself that the singularity was undefined, but it doesn't mean that it is truly undefined in reality and that it has no laws whatsoever, perhaps it is only undefined to us.”

“The default would be the law of no laws, which is really the absence of laws.”



Cyperium pondered, “Perhaps containing the entire universe simply creates laws that are too hard for us to understand, after all, the singularity would have to govern the entire universe at all times, all at once. Perhaps that’s the reason it finally broke into the time-space universe we see today? It was simply too complex to handle, so the only way was to spread it out into the Big Bang and handle each piece.”

“It had to, as we know, it not being able to remain as it was, but we don’t know every bit of it yet, or how often it happens, but it happened once so it seems that it could happen again, as another universe, or ours could change form again. Seems we are getting very close to fact, though, what with cosmology, and philosophy and logic for future science to zero in on to confirm all the more.”

“So, it’s really the absence of law, which is what we’d expect as the default position, as well the absence of anything, which is nonexistence, for that is all that is left for existence to come from, as a change in form of nonexistence, such as a distribution of it as opposites. We wouldn’t even consider this if we weren’t in a bind, but we like a bind that has only two answers, which are, or were: Stuff/fields Forever versus stuff/fields from No-thing.

“The prime mover sits where the chain of effects from causes ends, it having no inputs coming in, thus being everything/nothing, but it’s more like all the causes and effects are still exactly the prime mover, and nothing else, as just another form, as there couldn’t be anything else doing anything; so, subtle is the difference between reductionism and holism, if any.”



She added, “As for considering ‘infinite’, that is not an amount, but infinite stuff over infinite space would at least result in an average finite energy density of 1, in universal units.”

“What about spacetime being 4D?” He asked her.

“One of my favorite observations on what we often forget is that spacetime is 4D, not 3D, time being a kind of 4th dimensional elevation of spacetime distance, not a regular 3rd dimensional space-type distance. So, some think of time as a difference of spaces, which is not just one space.

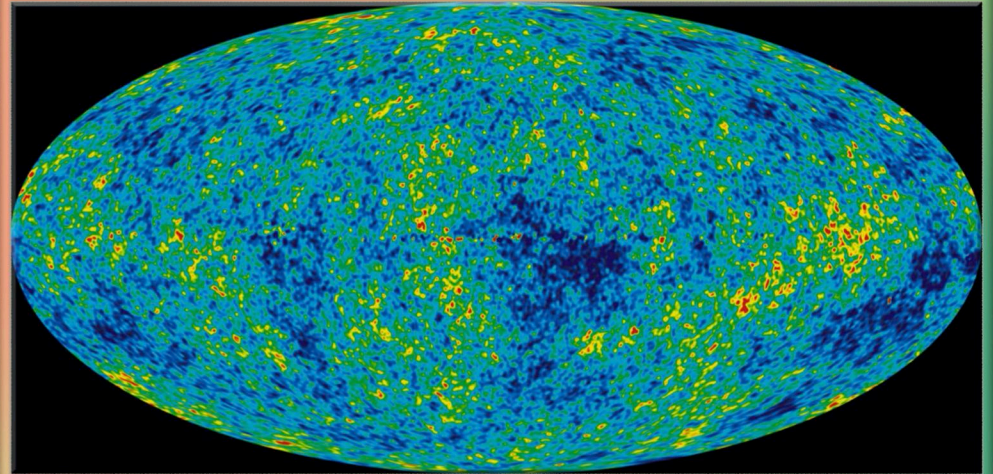
“At the level of totality, all there would be is 4 distances—making for a finite 4D hypervolume, whose boundless, but not infinite, ‘surface’ would be 3D space, bounding the 4D construct. This is because $n-1$ dimensions can always boundlessly bound a finite n -dimensional entity.”

“Internally, one of the 4D distances converts to time, the speed of light being the dimensional equivalence ratio of space distance to time:

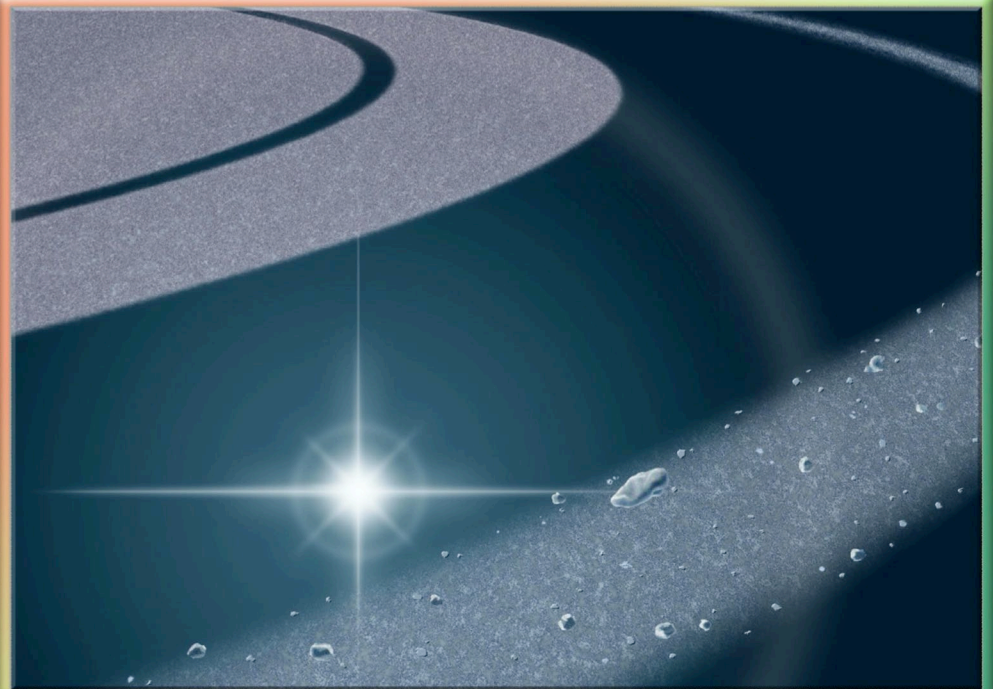
spacetime (dddt) = $c(d/t)$ / hypervolume (dddd), or

hypervolume (dddd) = $c(d/t) * \text{spacetime (dddt)}$

“Travel at c and there is no time. One of the more curious symmetries for me is that of positive and negative charge, as this could be a part of the 4D elevation, positive or negative, somehow relating to what we call 4D or time. Since space’s 3 dimensions are compositional, only one degree of freedom would be left for the nullification of existence, if that happens, and so the opposite polarity of charge could be fulfilling that role, or most of it.”



WMAP's CMBR



“So, if the symmetry of totality is zero, which is perfect symmetry, then we have closure on that, for if existence is another expression of nonexistence, then we have three space dimensions, plus a 4th, because the singularity of nothingness demands existential closure, which demands compositional parity of positive and negative, as, say, charge, and more, which demands hypercubic space. Our universe’s dimensionality is then as inevitable as its existence.”

We all had a good night’s sleep, she promising to wrap it up the next day.

She began, “What exists has quantity. For example, the total amount and overall/individual-parts of size/volume. This is what it is to be or have being. What exists must have a beginning, in order for its quantities/qualities to be made exactly what they are. Therefore, existence is secondary to what produced and determined it, which is a seeming paradox, since nonexistence is the only possible source.

“Eternal existence doesn’t work, though, since it doesn’t come from anything—a seeming paradox, and thus would have no definition stage, unless not coming from anything means that it came from nonexistence—still a seeming paradox, but now the only option. Existence cannot come from prior existence, for then we just have the same problem with that, plus we are ever speaking of the base existents. There are no



true paradoxes, only misunderstanding. We are greatly missing something in our analysis.

“We don’t like it, but the only two options—existence from nonexistence vs. eternal existence, have become one and the same, for the proposed external existence reduces to “from not anything” to be ‘from nothing’. We still don’t like being led toward a lack of anything (nonexistence) as the source of existence. Something has to give, so we might make up magical happenings, but all becoming from nonexistence is already as magical. There can be no paradoxes/magic. We are indeed missing something, but we don’t know what it is, for it cannot be a ‘what’. Cause and effect has run out, and so it needs a replacement.

We stew, but in the meanwhile we turn to science to have a look at nature’s setup. Amazingly, a zero-sum balance of opposites is indicated. Opposite polar-

ity of charge cancels out, going away, in the overview, both because they are opposites, as such when matter/anti-matter annihilate, each being half of totality, producing photons with no mass or charge, but just energy, as waves 180 degrees out of phase, the positive/negative aspect either gone or somehow living in peace but still potentially canceling out as opposites. Photons may clash, and then matter/antimatter re-arises. Light makes matter and matter makes light. And what of matter/anti-matter? They are opposite as well, as opposing waves, making for opposing matter states and opposite polarity.

“The positive kinetic energy of existents is said to be opposite to and canceled (at totality) by the negative potential energy of gravity. The strong nuclear force, for stability, is opposed by the weak nuclear force, for changeability. Time is a difference of spaces

to philosophy/logic and science/math. ‘God’ is the opposite of nothing or stuff forever, the only two options, both of which indicate ‘from nothing’, and so ‘God’ is out.

“One still may not like it, but we still have that all base existents must have beginnings, which is the point of determination of how they are, plus their total amount.

“So, as to go down even seeming one-way, dead-end dark alleys, it’s good take an even closer look at how nature is, for the essence must continue in it, for what else would there be to enter in to it. So, we are looking to see the only way in which nothing/nonexistence could express itself as existence in its distribution.

“Amazingly, there are only three stable particles in free space, and no more (we always implicitly include

and spaces are a difference of times. The universe was not here and then it was here, also indicating everything as to be from nothing.

“So, now we have a correspondence of philosophy/logic to science/math of the zero-sum; however, one still may not like it, so one ‘just says’ other things, but they don’t pan out, such as for first beings and Beings, as things/entities/existents must also have beginnings, and so they cannot be First and Fundamental, not to mention that they must even develop way later on than the base, or even after more secondary existents because they are composite—and worse, as they are very complex, even to the nth degree of so-called ‘infinite’.

“We must discard that which we only wish and desire as what ought to be, for this has but emotion/imagination as its basis, and it is even totally counter

their anti-particles, as well, even if they are not explicitly referred to). These three particles must be the base existents—the realest reality. There is a limited symmetry to them that reflects ‘from nothing’.

“The electron and the proton are both charged, oppositely, and no uncharged stable matter particles are found in free space, as well as no other kinds of stable charged matter particles. The neutron decays within minutes into an electron and a proton. There exists only one uncharged particle—the energy particle, as the photon, which is its own anti-particle. This all means that there are only those three ways to make the three stable particles (which then go on to form all else higher, as secondary and more).

“There has to be two kinds of primal waves, opposing, one of ‘something’ and one of ‘anti-something’, which can only produce the matter particle ‘sum-

things' of matter/anti-matter with opposing charge, as well as the neutral energy particle.

"We look at all of nature now, to be sure, and, yes, waves are ubiquitous in it, composing everything, at heart. The two opposing waves must be the prime existents, with electrons, proton, and photons being the base centers of oscillation, with mass, charge, and energy effects being secondary (not the realest reality).

"Some still don't like facts over their wishes, so they may 'neglect' and they still may 'just say' their dreams of what ought to be, even repeating them, since they have grooved their brains on what has fired together getting very much wired together and thus as appearing very often to consciousness as being correct since they do ever think of it, it always coming to mind. It is not an easy thing to overcome one's own persistent thoughts/emotions, so belief, if strong,

"Some may still 'neglect', this all being hard to face in light of what they wish for, which is otherwise—toward a SuperBeing. They may continue to state myth, some even going so far to proclaim it as truth and fact, but, we forgive, for that is a human tendency. Strong emotion can bypass the rational portion of the brain.

"Back to science, as the trail of evidence continues, and so we have followed, as we are after the truth, not wishes. The box of truth opens, no matter who wants to put a lid on it. We may never be the same afterwards, but we philosophers/logicians/scientists/mathematicians/theologians are ready to go on, even if the answers are as a universal acid that eats away our superstitions and folk tales.

does often continue on, of its own momentum, accompanied by emotion, which has a direct path into consciousness.

"The opposing waves must ever be generated, even waves within waves and the corresponding wave envelopes within wave envelopes, usually annihilating and not amounting to much at all. Sooner or later, though, even as a low probability happening, they amount to something really large, which then must meet a bandwidth limitation, for the infinite of the actual is impossible, meaning that infinite density cannot occur. Then, 'boom', a 'bang' into a universe, scattering everything really far, so that all does not annihilate. One billion photons remain, for every matter particle proton, more or less, science coming through for us again, in this count.

