

from : IAM

to : ZHTM

Remember an idea you had years ago in which you expressed the notion that even Motion itself was quantized at the sub- subatomic level ? (Jumping / No continuous smooth transition as the human eye and even our crude instruments would have us believe.)

Well in line with your encouragement to write my thoughts down (also given years ago) ; here is a small exercise in that direction (of quantized motion) to see what it will take to make such an idea match up with the now known facts of physics. (Within the limits of this non- physicist knowledge of course.)

If the thoughts expressed henceforward , can one day be shown to reflect the reality , then such notions as jumping or shifting an object through space over long distances , (with no motion in between the point of origin and arrival) would become an appropriate goal to work towards.

Take note that cogwheel acceleration will prove to be of pivotal importance since it is the only means to obtain near light speed momentary motion , no not to push any object directly but to open or rather lock into the structure of space itself ; allowing for such transference / shifting of objects. In other words , large scale quantization even if only momentarily.

Other technologies needs to be married to this of course. Such technologies will include among others :

Liquid Gears to replace solid cogwheels and Direct Analog Recognition Circuits to deal directly with the complex waves that will be created since a binary computer may be too slow.

The words , (structure of space) , might sound to you like some Sci-Fi word and you would be correct.

However if you read on you might just see the reality around you in another light , especially the common held perception of us humans to refer to space as a vacuum, will come under review. Naturally this work starts at what can only be imagined to be the most basic structure of creation.

Please do not pass over the Subs at the bottom of some graphic pages at least on your first read, since their subject matter explain much of the technical reasons for certain hard to swallow concepts you will find in the Main text.

(SOME OF THE CONCEPTS MAY REMIND YOU OF STRING THEORY AS WELL AS QUANTUM LOOP GRAVITY THEORY , THESE TWO BEING MORE WELL KNOWN AND REASONABLY DISCUSSED IN SCIENTIFIC MAGAZINES. This gates model however are not based on either of these theories.)

This work in progress can in whole be called : ON MOTION AND MORE.

However this first portion of this work deals with : THE IMAGINARY ATOMIC MODELER or gates model.

Later portions of this work will deal with Liquid Gears and Direct Analog Recognition Circuits etc.

Interested ? Well see for yourself.

Enjoy!
iam

(End)

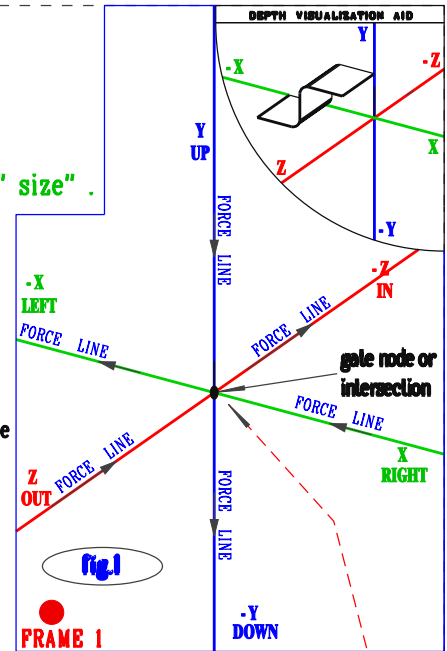
IMAGINARY ATOMIC MODELER = IAM

Consider a singularity of infinite density and infinitely large "size".

In order to create an object in the singularity, imagine a 3 dimensional matrix or array throughout the infinite volume and by means of this array of vibrating force lines, particles can be defined by grouping or herding in patterns these lines vibrating ends at their intersection nodes or gates. Basic rules are then assumed for what happens at these gates and the number of vibrations or flips per time unit that can be assigned to a force line or string are also limited to a manageable short list of 8 values.

The graphic description of the smallest unit of the 3d-matrix is as follows : a simple xyz axes : See fig. 1 :

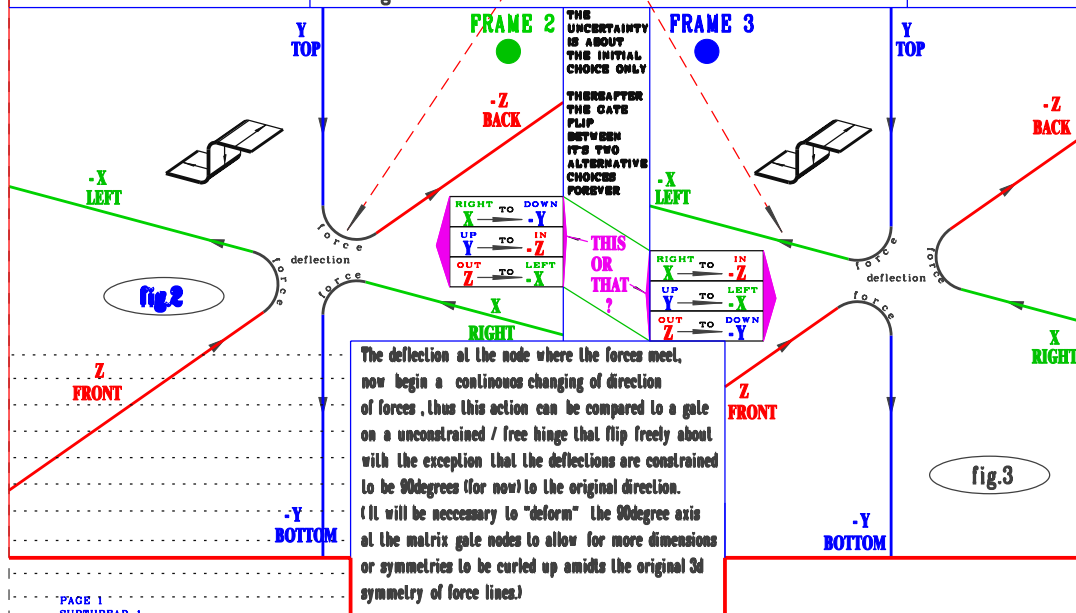
Three lines of force acting as indicated in x, y and z directions intersect (for now at 90 degrees to each other) See Sub ()



Now let us apply the 1st rule or assumption : Lines of force do NOT Cross each other.

Question : What will the result at the gate nodes be then ?

Can you tell from fig.1 which deflection direction of the force lines of either fig.2 or fig.3 will be the first result / choice after applying the first rule at the gate node / intersection?.



A. continuous flip at the gate node now occurs from the result of fig.2 to fig.3 and back to fig.2. or reversed. This continuous gate flip constitute the vibrations and are assigned a certain predefined set of values per time unit from a short list of 8 such values.

goto page 2 : main 2

The deflection at the node where the forces meet, now begin a continuous changing of direction of forces, thus this action can be compared to a gate on a unconstrained / free hinge that flip freely about with the exception that the deflections are constrained to be 90degrees (for now) to the original direction. (It will be necessary to "deform" the 90degree axis at the matrix gate nodes to allow for more dimensions or symmetries to be curled up amidst the original 3d symmetry of force lines.)

The deflection between the force lines from fig.2 to fig.3 OR fig.3 to fig.2 occurs without any transformation in between, since they, the force lines, simply keep on deflecting from off from each other. Note that from fig.1 you cannot tell innitally which way the forces will go. The deflection possibility in this diagram thus STARTS off completely uncertain, BUT after the force line's make their choice an observer will always be able to tell henceforth what their next choice has to be. This is so since there is no allowance made in this imaginary model for the gate's to pause and re-choose at random the next deflection. This restriction is necessary for reason's that will later become clear. Take note that this initial randomness at the beginning of the construction of the structure of space will also lead to usefull aplication later especially where the perception of the constant speed of light and for that matter other constants are concerned since this model allow for a little bit of variance on "constants", on especially the super large scale, volumes of space.

original layout

IMAGINARY ATOMIC MODELER = IAM

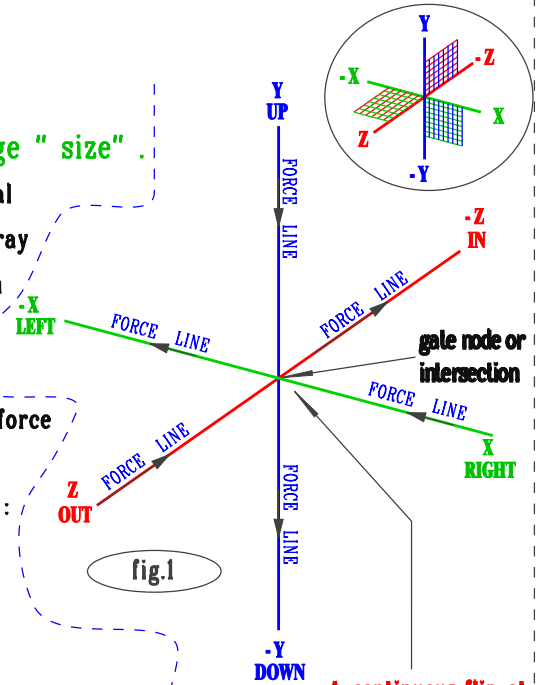
Consider a singularity of infinite density and infinitely large " size" .

In order to create an object in the singularity , imagine a 3 dimensional matrix or array throughout the infinite volume and by means of this array of vibrating force lines , particles can be defined by grouping or herding in patterns these lines vibrating ends at their intersection nodes or gates.

Basic rules are then assumed for what happen at these gates and the number of vibrations or flips per time unit that can be assigned to a force line or string are also limited to a manageable short list of 8 values.

The graphic description of the smallest unit of the 3dMatrix is as follows : a simple xyz axis : See fig.1 :

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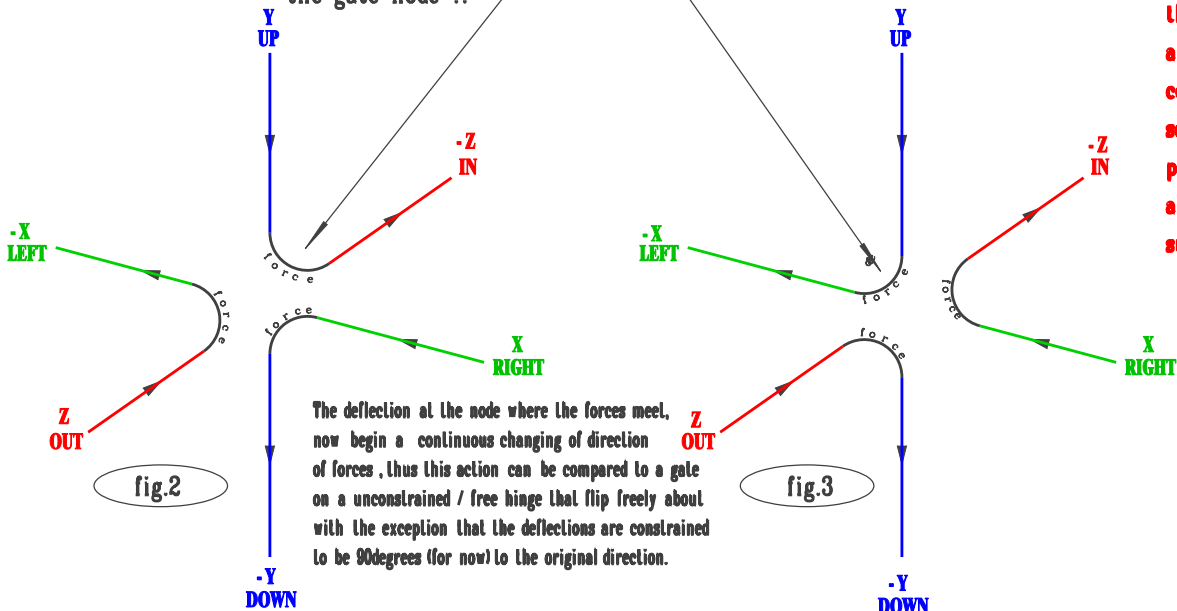


A continuous flip at the gate node now occurs from the result of fig.2 to fig.3 and back to fig.2. or reversed. This continuous gate flip constitute the vibrations and are assigned a certain predefined set of values per time unit from a short list of 8 such values.

Now let us apply the 1st rule or assumption : Lines of force do NOT Cross each other.

Question : What will the result at the gate nodes be then ?

Can you tell from fig.1 which deflection direction of the force lines of either fig.2 or fig.3 will be the first result / choice after applying the first rule at the gate node ?.



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IMAGINARY ATOMIC MODELER = IAM or gates model

1st LINE Consider a singularity of infinite density and infinitely large " size" .

2nd LINE In order to create an object, imagine a 3 dimensional matrix or array

3rd throughout the infinite volume and by means of this array

4th of vibrating force lines, particles can be defined by grouping or herding in

5th patterns these lines vibrating ends at their intersection nodes or gates.

6th Basic rules are then assumed for what happen at these gates and

7th the number of vibrations or flips per time unit that can be assigned to a force

8th line or string are also limited to a manageable short list of 8 values.

9th The graphic description of the smallest unit of the 3dMatrix is as follows :

10 a simple XYZ axis : See fig. 1 :

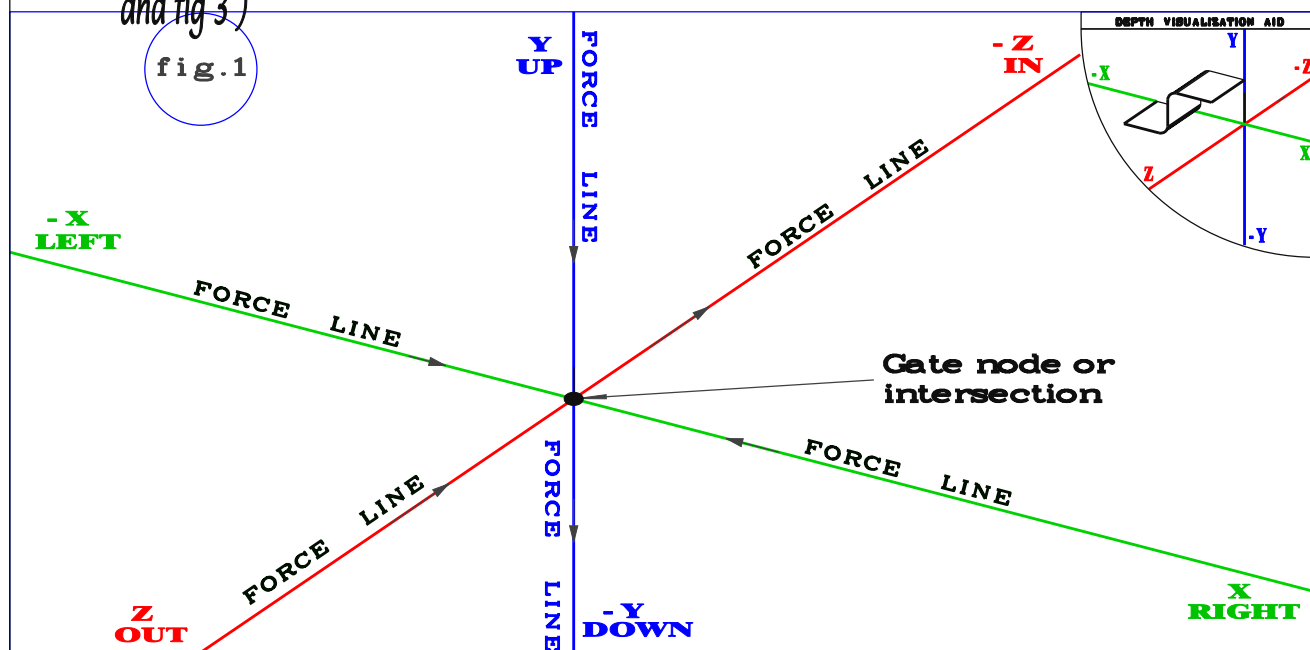
11 Three lines of force acting as indicated in x, y & z directions

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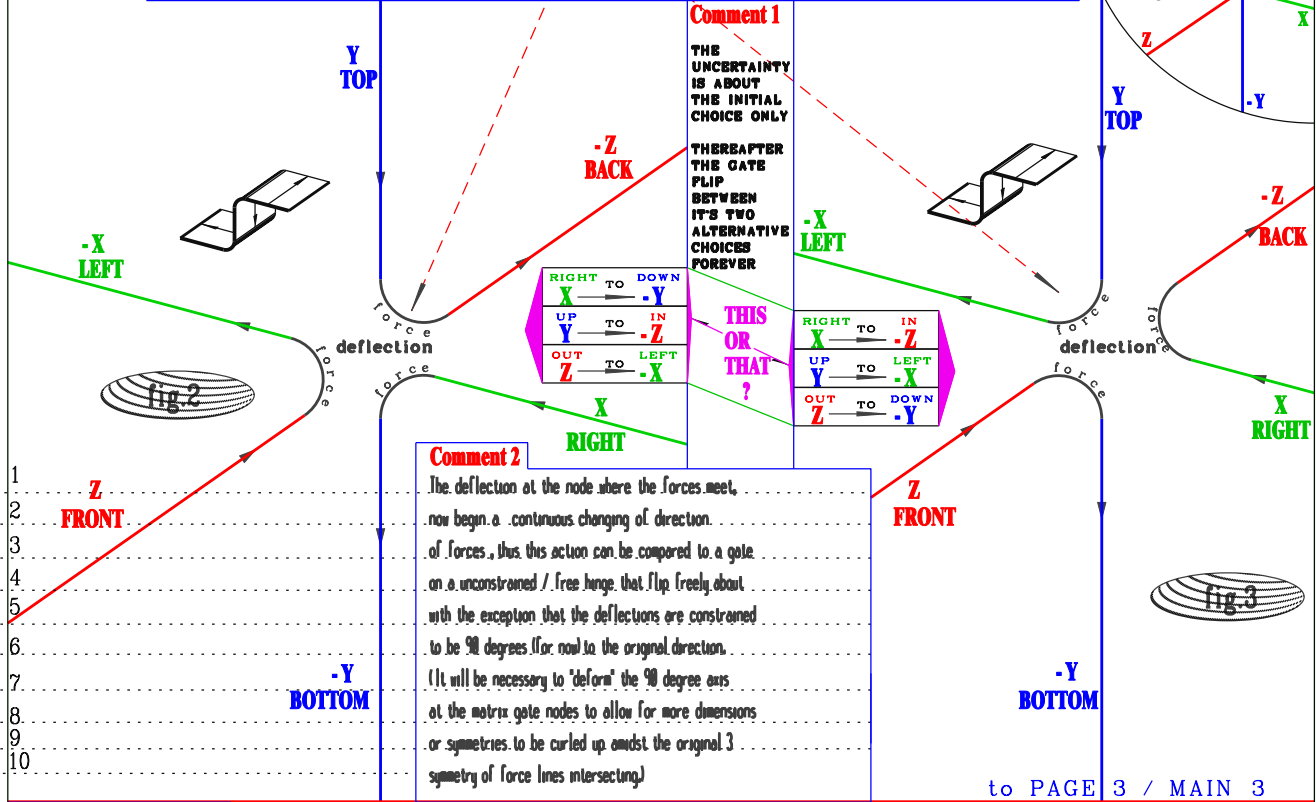
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Question : What will the result at the gate nodes be then ? (Answer on page 2 in fig 2 and fig 3)

to PAGE 2 / MAIN 2



Question 1 Can you tell from fig.1 which deflection direction of the force lines of either fig.2 or fig.3 will be the first result / choice after applying the first rule at the gate node / intersection?.



PAGE 2
SUB THREAD 1

A continuous flip at the gate node now occurs from the result of fig.2 to fig.3 and back to fig.2. or reversed. This continuous gate flip constitutes the vibrations and is assigned a certain predefined set of values per time unit from a short list of 8 such values. The values are 2, 3, 4, 6, 7, 10, 12, 24. This allows for a sufficient (for now) variety of combinations on the 8 corners of a symmetry box. (It is easier to visualize the force lines as boxes.)

PAGE 2
SUB THREAD 2

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1st How then is the matrix constituted or how does it look ?

2nd Answer :

3rd Add many such active gates as in fig.1
4th together in a 3 dimensional array such as in

5th fig. 4

6th Exercise :

7th Try to distinguish one gate point from another in this array.

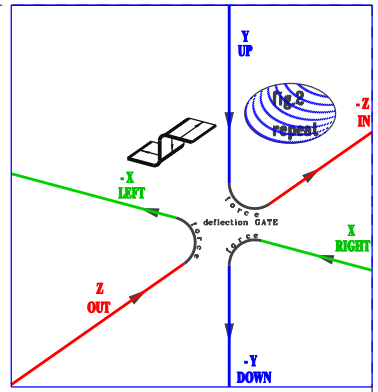
8th Yes it is difficult to focus on one gate amidst all the others.

9th Now if the distance between points are made to be smaller than the smallest known
10 Subatomic particles and an infinite number of gates are imagined to exist ,
11 then you can see why we can only deal with a few gates or one at a time to
12 illustrate the workings of the Imaginary Atomic Modeler.

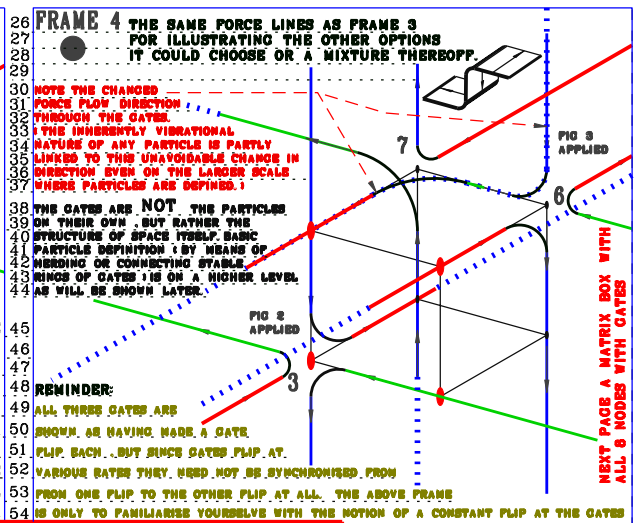
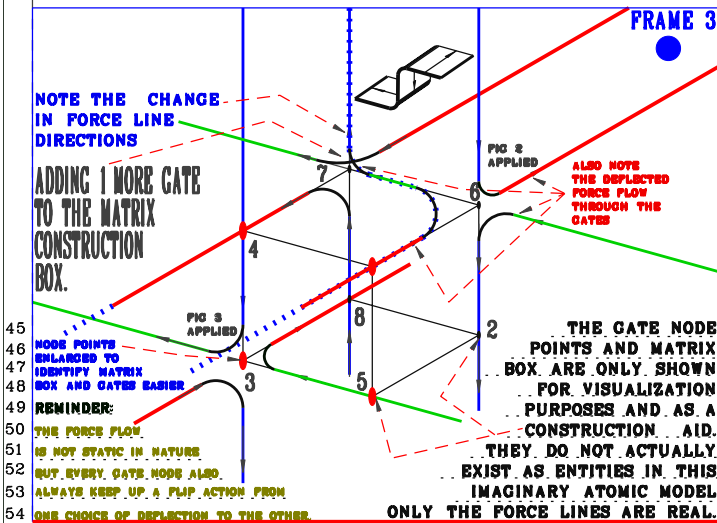
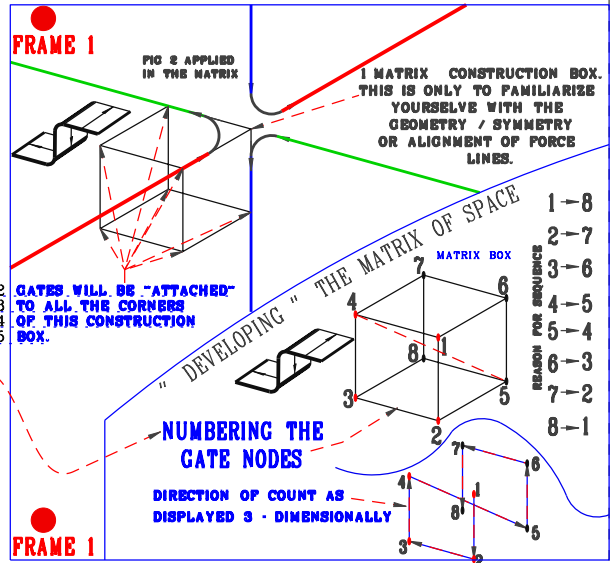
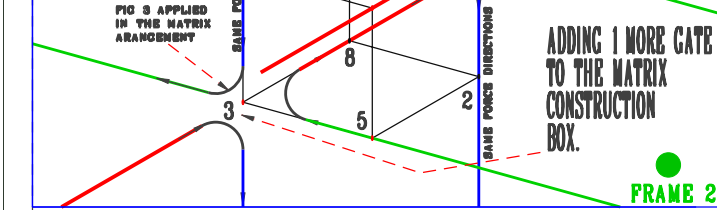
13 Question :

14 How can an object be defined in this volume of gates ?

15 Answer - next page.

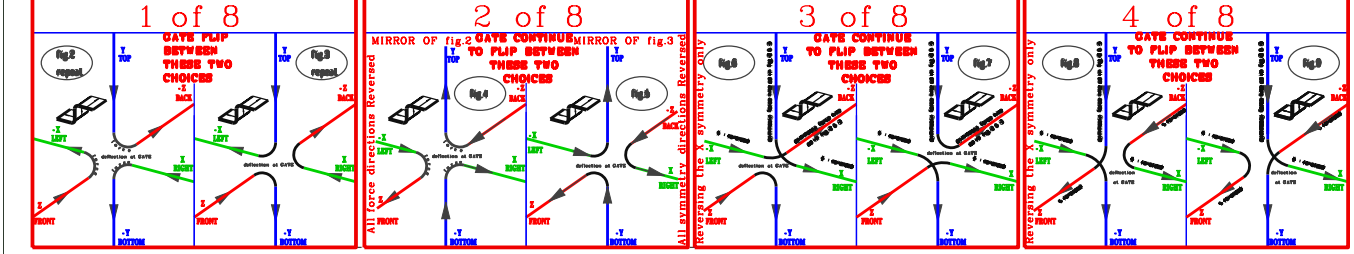


16 FIG 2 COULD HAVE BEEN APPLIED AGAIN
17 BUT FIG 3 ARE SHOWN TO ILLUSTRATE THAT
18 SIMILAR FORCE LINE DIRECTION GATES, CAN VARY
19 IN THEIR CHOICE OF DEFLECTION, IN THE MATRIX.



page 2 : sub 2

For 3d (or using only 3 lines of force) : there are at least 8 combinations of force symmetry line directions / deflections, as well as 8 mirrors of them. For our purposes we will stick with only 2 gate combinations. to SUB 3



The above gate layouts are also illustrated on the following pages in an enlarged way.

How then is the matrix constituted or how does it look ?

1st

Answer :

2nd

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3rd

together in a 3 dimensional array such as in

4th

5th Exercise :

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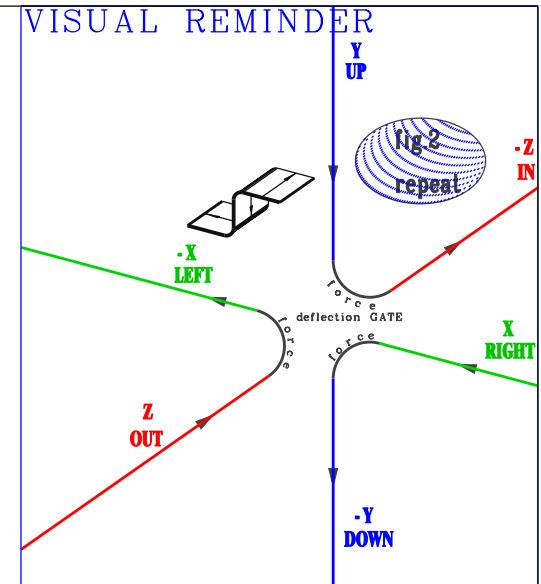
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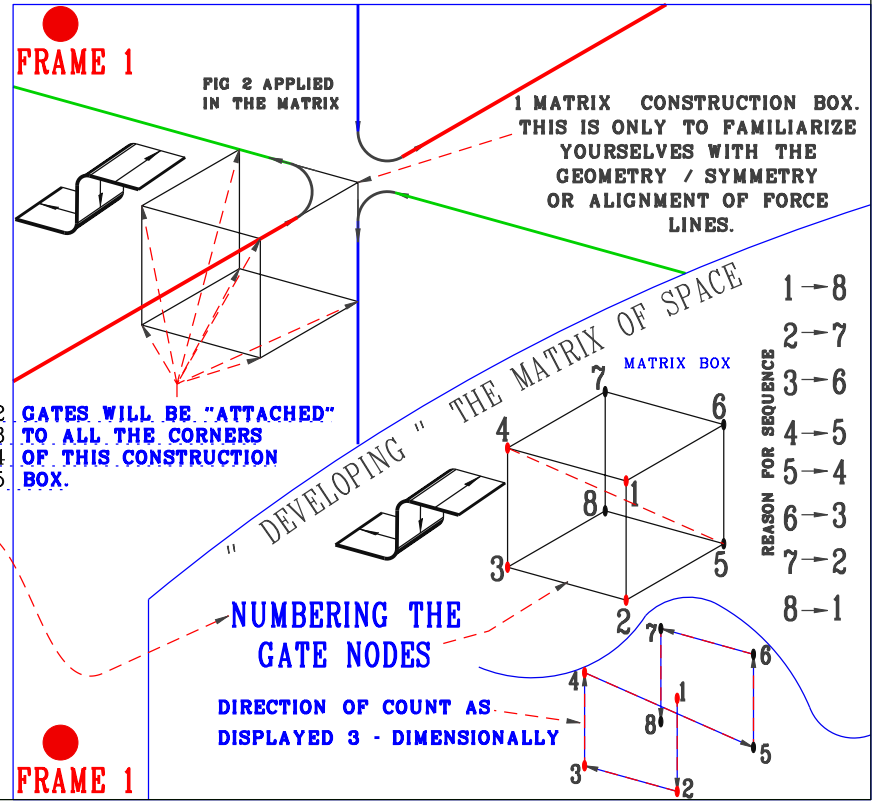
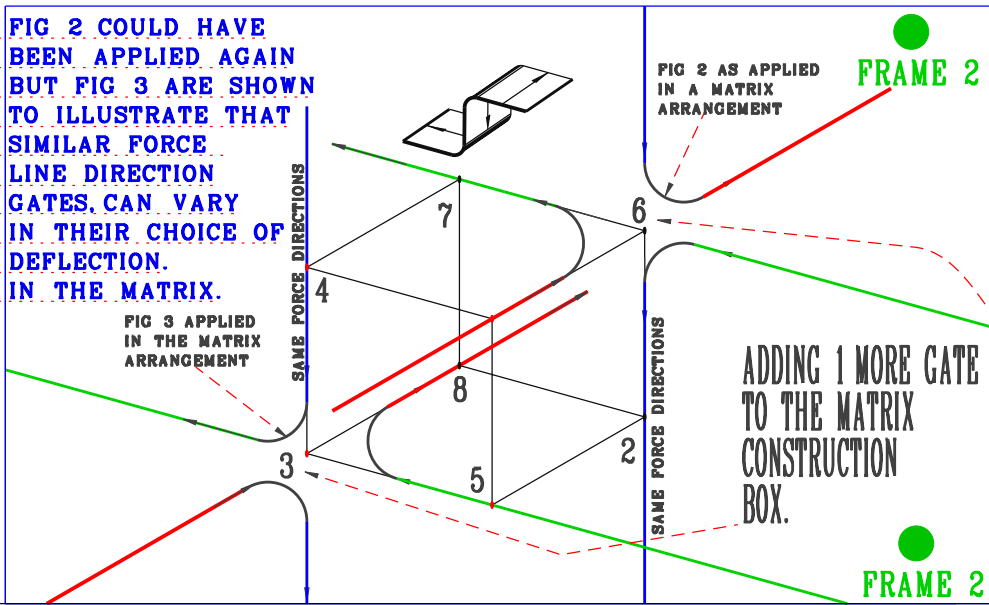
13 How can an object be defined in this volume of gates ?

14 Answer = next page.

15



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24 DEFLECTION.
25 IN THE MATRIX.



1st How then is the matrix constituted or how does it look ?

2nd Answer :

3rd Add many such active gates as in fig.1

4th together in a 3 dimensional array such as in fig.4

5th Exercise :

6th Try to distinguish one gate point from another in this array.

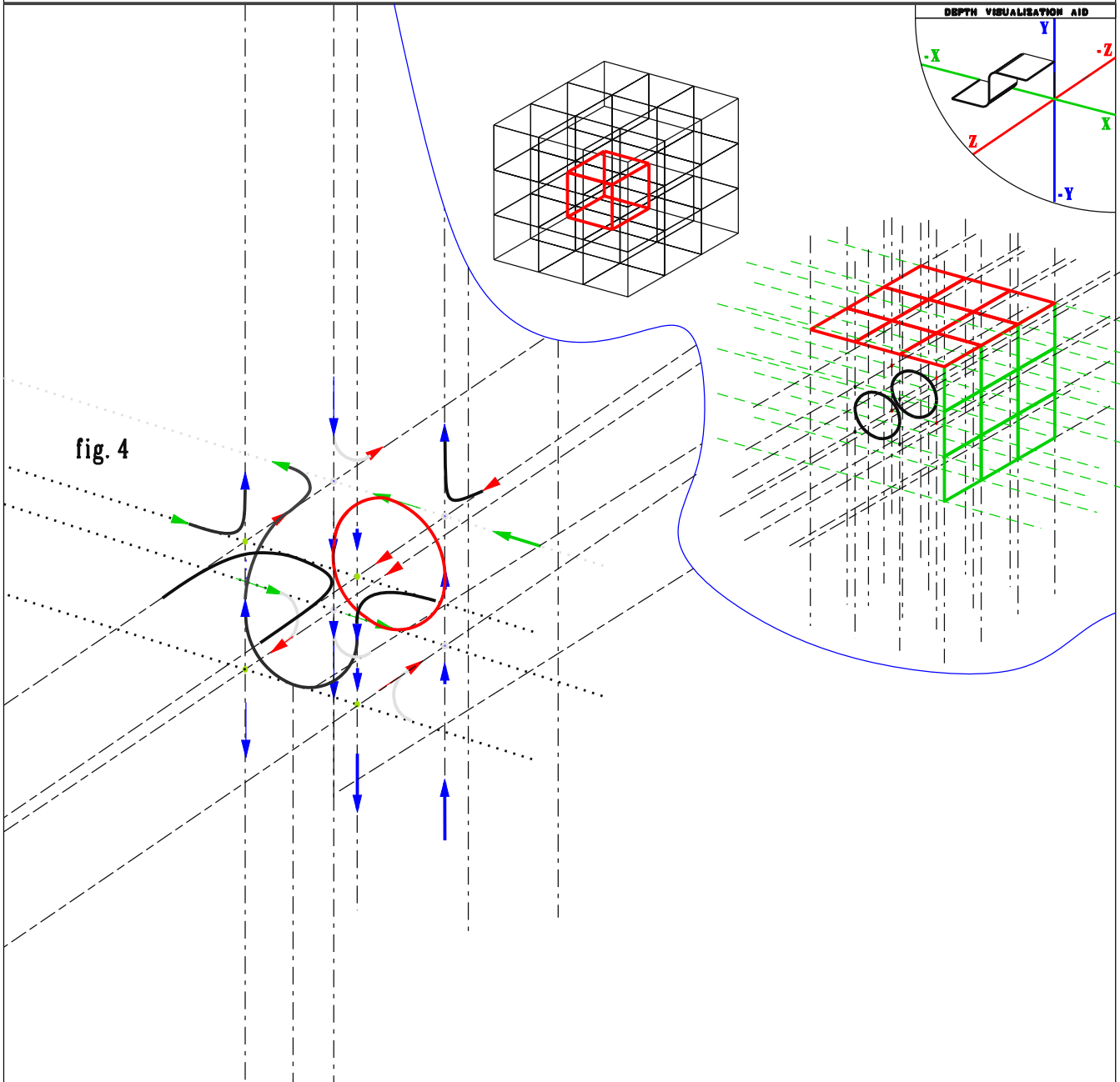
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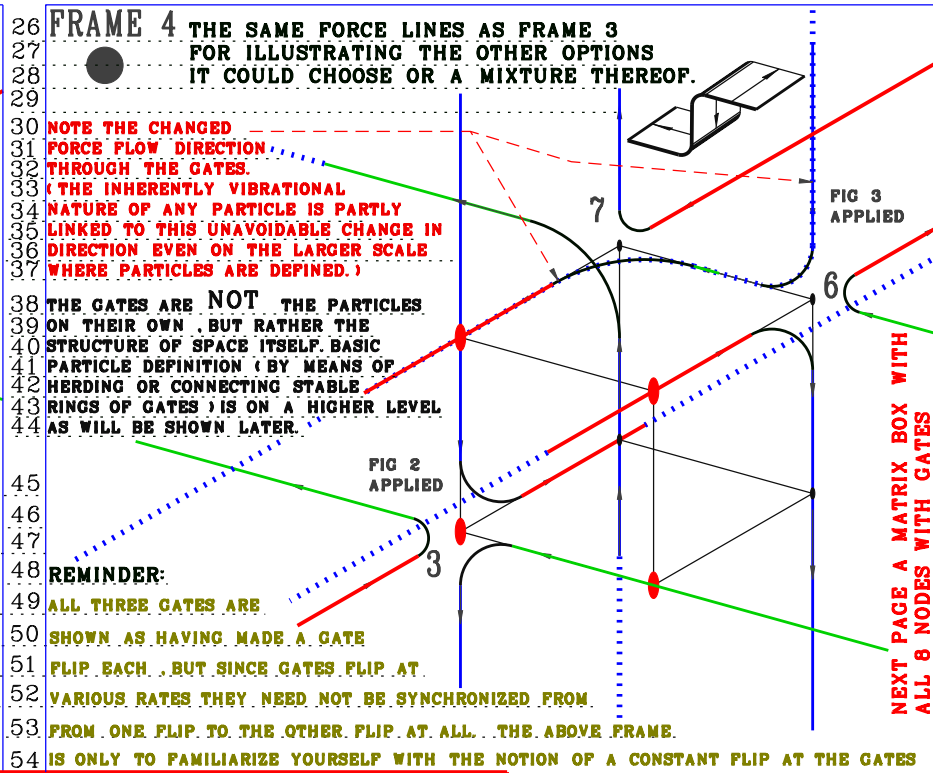
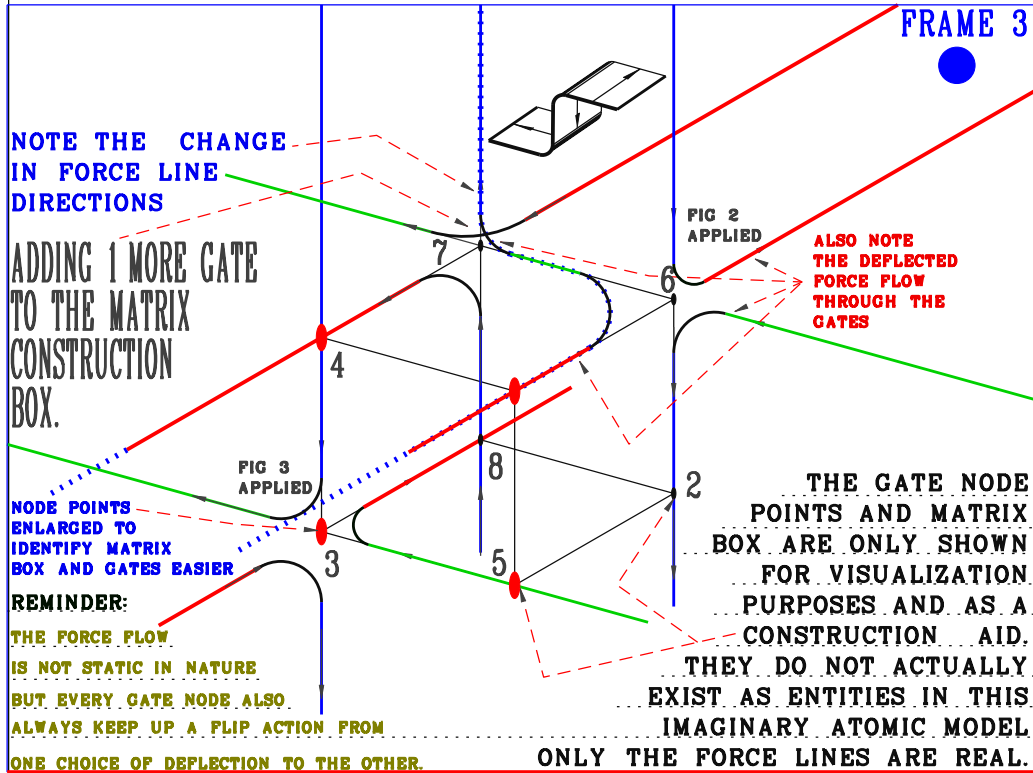
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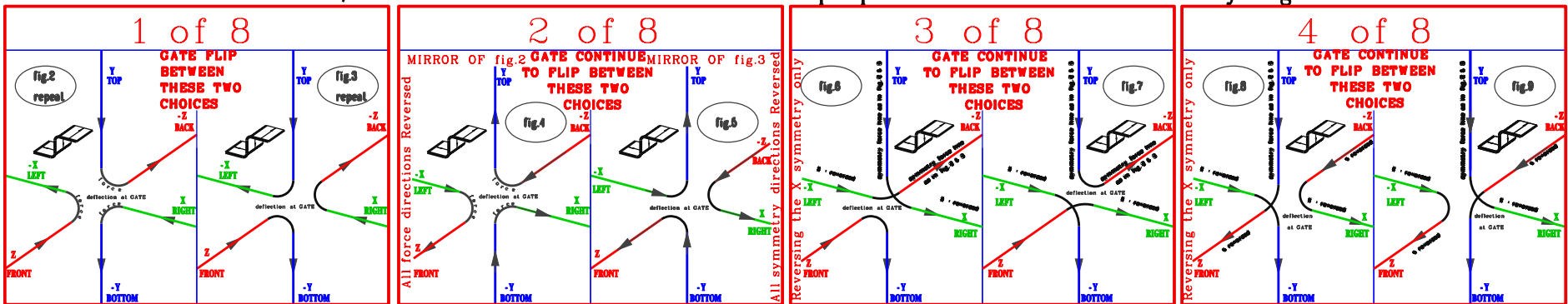




Goto page 3 : main 3

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to SUB 3



The above gate layouts are also illustrated on the following pages in an enlarged way.

1 1 of 8

fig.2 repeat

Y TOP
 -Y BOTTOM
 X RIGHT
 -X LEFT
 Z FRONT
 -Z BACK

deflection at GATE

GATE CONTINUE TO FLIP BETWEEN THESE TWO CHOICES

fig.3 repeat

X	1	-X
RIGHT	→	LEFT
Y	6	-Y
TOP	→	BOTTOM
Z	3	-Z
FRONT	→	BACK
READ GATE AS ABOVE		
OR		

1
3
6

2 2 of 8

MIRROR OF fig.2

fig.4

Y TOP
 -Y BOTTOM
 X RIGHT
 -X LEFT
 Z FRONT
 -Z BACK

deflection at GATE

GATE CONTINUE TO FLIP BETWEEN THESE TWO CHOICES

fig.5

X	2	-X
RIGHT	←	LEFT
Y	5	-Y
TOP	←	BOTTOM
Z	4	-Z
FRONT	←	BACK
READ GATE AS ABOVE		
OR		

2
4
5

MIRROR OF fig.3

All force directions Reversed

All symmetry directions Reversed

3 3 of 8

fig.6

Reversing the X symmetry only

Y TOP
 -Y BOTTOM
 X RIGHT
 -X LEFT
 Z FRONT
 -Z BACK

deflection at GATE

GATE CONTINUE TO FLIP BETWEEN THESE TWO CHOICES

fig.7

X	6	-X
RIGHT	←	LEFT
Y	2	-Y
TOP	←	BOTTOM
Z	3	-Z
FRONT	→	BACK
READ GATE AS ABOVE		
OR		

2
3
6

4 4 of 8

fig.8

Reversing the X symmetry only

Y TOP
 -Y BOTTOM
 X RIGHT
 -X LEFT
 Z FRONT
 -Z BACK

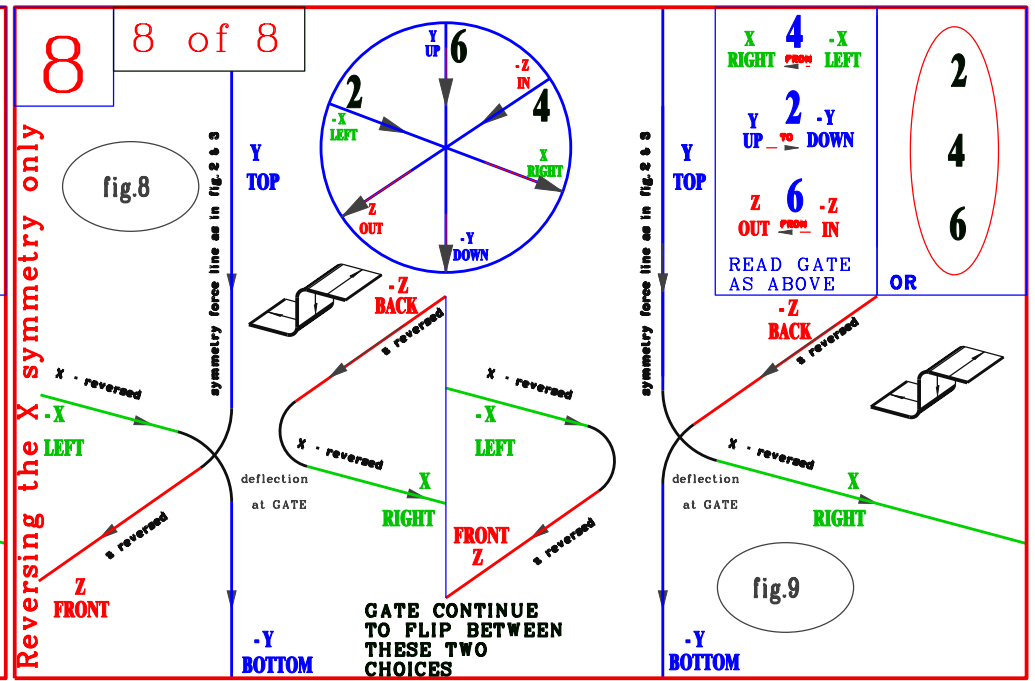
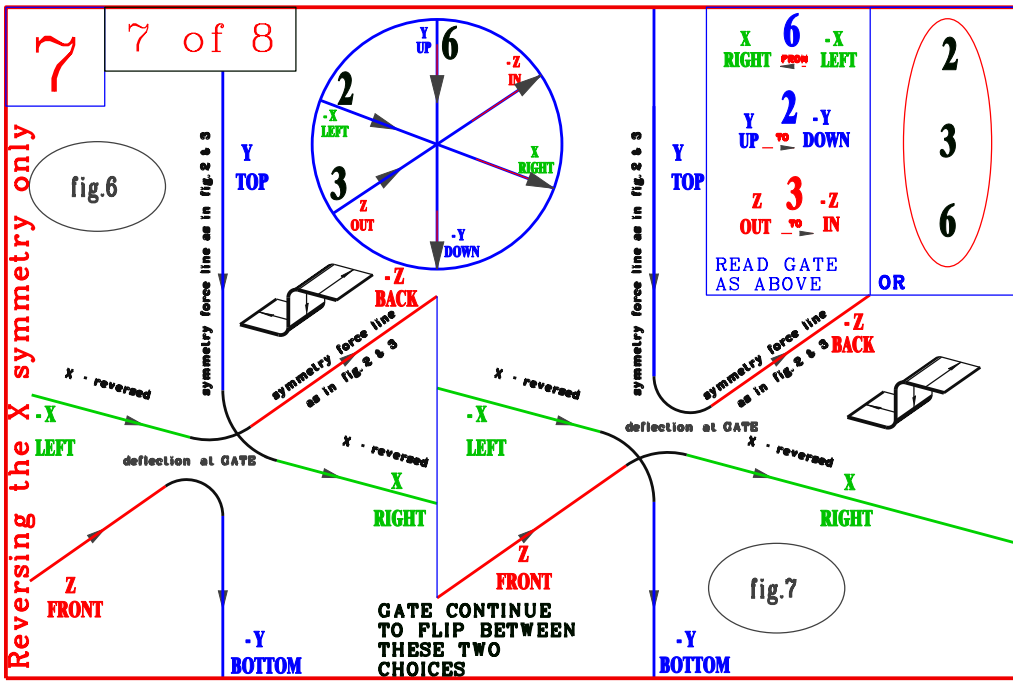
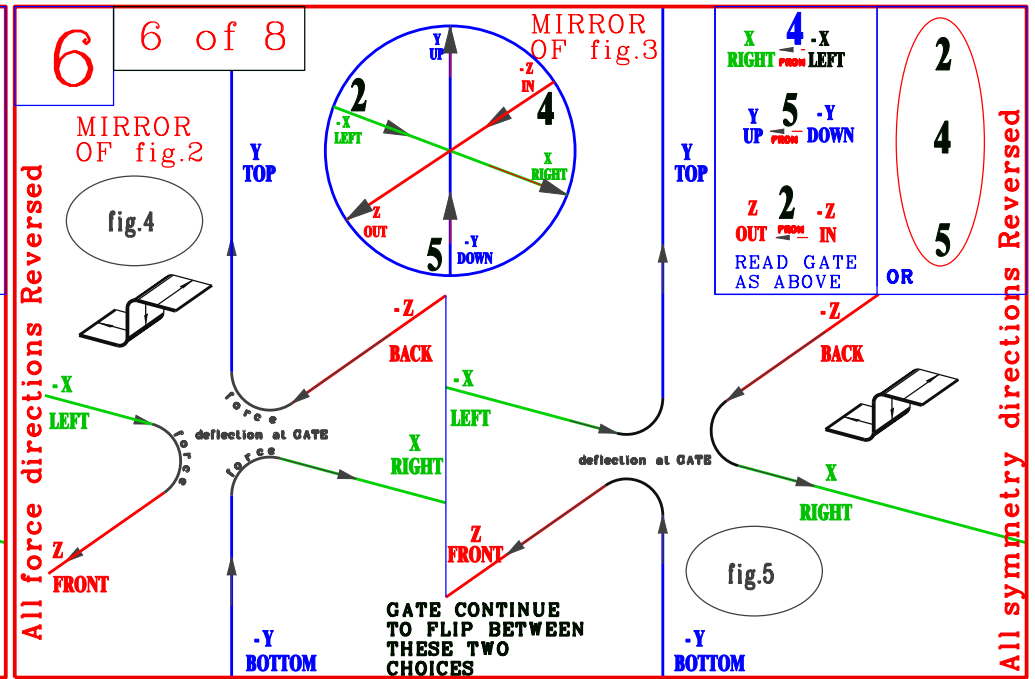
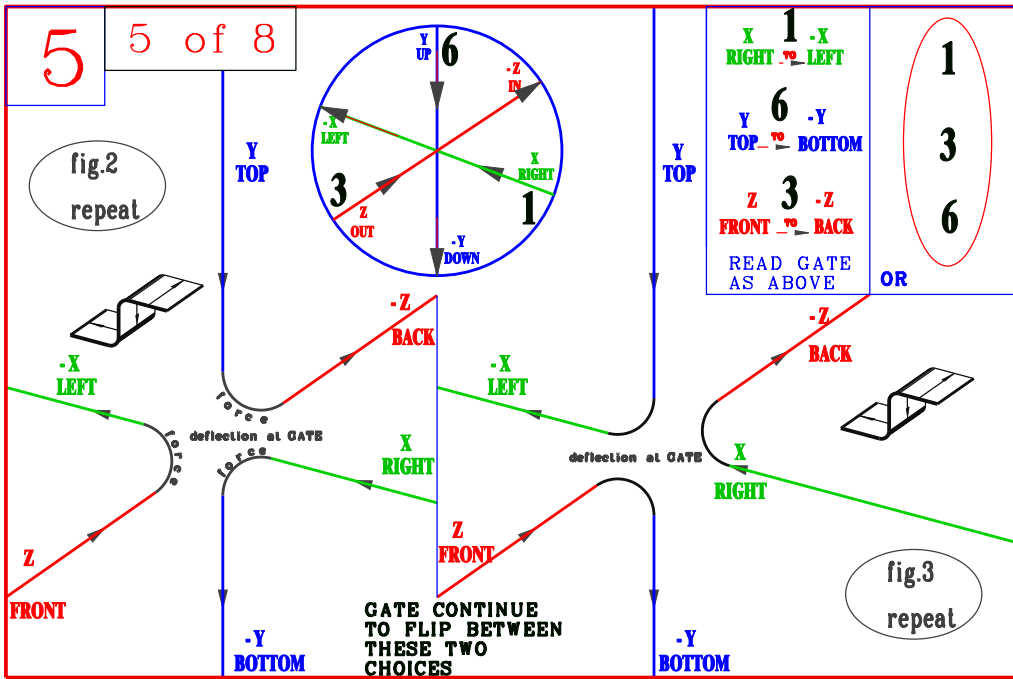
deflection at GATE

GATE CONTINUE TO FLIP BETWEEN THESE TWO CHOICES

fig.9

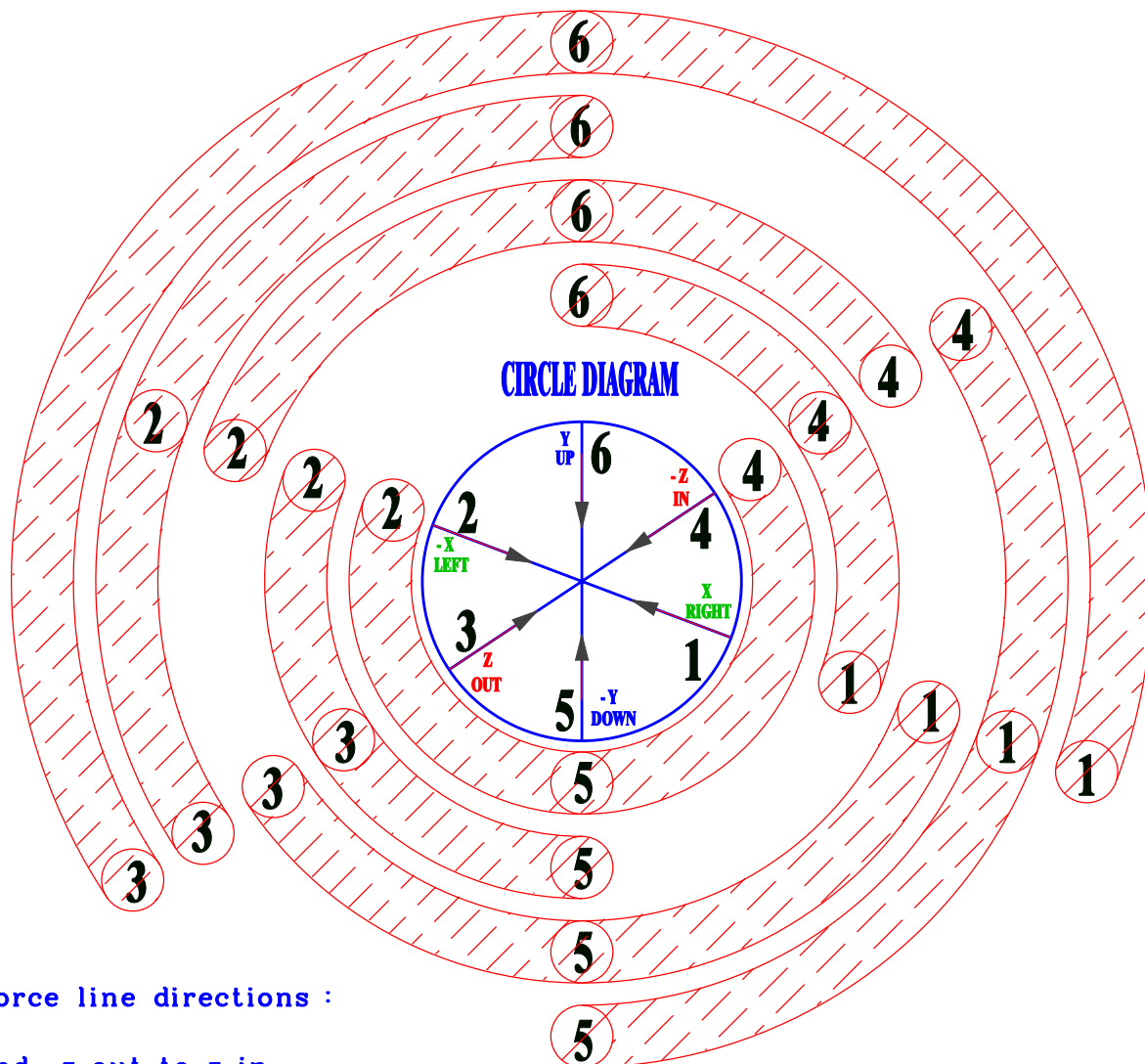
X	4	-X
RIGHT	←	LEFT
Y	2	-Y
TOP	←	BOTTOM
Z	6	-Z
FRONT	←	BACK
READ GATE AS ABOVE		
OR		

2
4
6



THIS PAGE SHOWS WAYS IN WHICH TO EXPRESS THE COMBINATION POSSIBILITIES OF a 3 FORCE LINE GATE.
(On the next page , the gates 5 TO 8 are shown.)

FORCE DIRECTIONS	X TO -X RIGHT -- LEFT = 1	NUMBER NAMES	2 = OPPOSITE DIRECTION -X TO X LEFT -- RIGHT	FORCE DIRECTIONS
	Z TO -Z FRONT -- BACK = 3		4 = OPPOSITE DIRECTION Z FROM -Z FRONT -- BACK	
	Y TO -Y TOP -- BOTTOM = 5		6 = OPPOSITE DIRECTION Y FROM -Y TOP -- BOTTOM	



Reason why numerals are substituted for force line directions :

One may read for example gate no.1 as :

x-right to x-left and y-up to y-down and z-out to z-in

which is a cumbersome way of referring to the force line directions:

Therefore the easier discription would be simply to describe a gate as

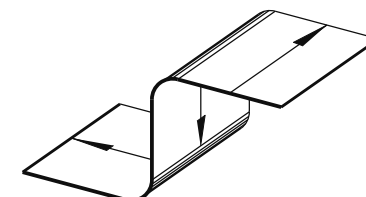
a no.1 gate or for a finer discription as a 1 3 6 gate as in the above case

or if it is a no.4 gate , then it's finer discription would be 2 4 6.

The finer discription allows thus for a sense of the directions of the

force lines to be crasped. In order to have this sense of direction, the

Circle diagram may prove to be an easy aid to remember the directions.



Circle Diagram

Note : The FLIP box diagram below illustrate the connectedness of the various GATE FLIP RATES to each other.

The continuous gate flip constitute the vibrations and are assigned a certain predefined set of values per time unit from a short list of 8 such values. The values are 2 , 3 , 4, 6, 7, 10, 12, 24. This allows for a sufficient (for now) variety of combinations on the 8 corners of a symmetry box. (It is easier to visualize the force lines as boxes.)

The connectedness or stability of a gate (how easy it will hold hands) depends on divisibility of numbers.

THE NUMBER 12FLIP GATE FOR INSTANCE WILL HAVE A GREAT FRIENDSHIP WITH THE NUMBER 24FLIP GATE : HOW ?

Well ;- 6 to the 12 flip gate flips will be available to the 24 flip gate's 12flips (Remember the 50% away flip needed in order to vibrate !)

Since the 24Flipgate can then only connect with 6 flips on the part of the 12 flip gate (It cannot suspend it's other flip's and wait). Then at least 18 of it's flips will be forced either off it's home symmetry set in order to find a mating gate node set or to thread through it's home 4d symmetry to other home symmetry gate nodes also "instantaneously looking" for mates.

Using this box you can then see which combinations will be most agreeable to hold hands and thus form stable particles. Check out number 7. Since it is a prime and also do not fit in easily with any other division result ;- it only make itself available once every cycle of 24GateFlipates are completed for connection in it's home symmetry set and thus merit special attention as a building block for "fleeting" or "neutral" particles that is difficult to detect but because of it's flip rate being so "out of touch" with it's home symmetry it is forced to go and thread more through the 4d symmetry to search for gate nodes and to find more of symmetry set connections. IT IS EASY TO SEE WHY 7 WOULD ACT AS A "GLUE" TYPE PARTICLE IN THE STRUCTURE OF SPACE. The 3Flipgate and the 10Flipgate are also inclined to do so but to a lesser degree.

2	This gate flip 2 times																					
3	Meanwhile this gate flip 3 times																					
4	And this gate 4 times																					
6	and this gate 6x's																					
7	etc...																					
10																						
12																						
24																						

FLIP RATE BOX DIAGRAM

Text Page 1 *Symmetry // n. (pl. -ies) AS DEFINED BY THE OXFORD COMPENDIUM:-*
^{1 a} a correct proportion of the parts of a thing; balance, harmony. ^b beauty resulting from this. ^{2 a} a structure that allows an object to be divided into parts of an equal shape and size and similar position to the point or line or plane of division. ^b the possession of such a structure. ^c approximation to such a structure. ³ the repetition of exactly similar parts facing each other or a center. ⁴ Bot. the possession by a flower of sepals and petals and stamens and pistils in the same number or multiples of the same number.

¹ There are at least 8 other basic combinations of force line directions on the 3 dimensional axis and each one has its corresponding opposite "choice" of gate flips resulting in a total of 16 possible choices if you explore all 8 . However for our purpose we only use one 3d gate combination with its corresponding gate choice, thus giving us 2 flip combination possibilities. Later force lines will be added to create a needed 4 lines of force intersecting to create an inter meshing matrix amidst the 3 line symmetry. When this 4th dimension or 4th symmetry are introduced it will then become necessary to change the force line intersection angle's at the gates from the present easy to work with 90 degrees, to something more or less than 90. This is to avoid the problem of eventual symmetry intersection as it become necessary to add more matrices amidst the original 3d/symmetry.

² A few points must now be raised:

- a) Should time be viewed as the 4th dimension?
- b) Why do we need more symmetries or matrices inter meshing with the 3d matrix?
- c) What is symmetry intersection?
- d) Is there such a thing as a Constant Speed of Light in this Imaginary Atomic Model?

³ Answer to question a) Should not time be viewed as the 4th dimension?

In this imaginary model; time is not considered as a dimension at all but it is viewed simply as motion itself. Yes time is motion. No Motion, No Time (as we experience it). The reasoning is;- that since you cannot separate literal motion from objects (even subatomic particles and you cannot separate time from movement, then the perception of time is totally interwoven with the motion of particles relative to each other. (Even in your brain.) Thus if there were no two particles in the infinite volume, that can move relative to each other, the concept of time simply would not exist in the Linear manner we perceive it now. Linear Time as we humans perceive it, only came about with the beginning of objects that is less than infinite. (Obviously less than infinite in size as well as motion.)

⁴ Now it became possible to measure objects motion/timing relative to each other. In the singularity that is infinitely dense as well as filling the infinite volume; the linear perception of time as we know it, did not always exist, since the singularity itself clearly cannot move relative to anything else ; there being no place for anything else apart from or outside of the singularity. Any "stirring" in this singularity would thus instantaneously act "across " infinity itself. The rather obvious conclusion being that instantaneous action do not require any passing of time at least in the linear manner we know. (The *exception* being instantaneous/ infinite events *unrelated in action* from one another.) If this imaginary atomic model could be proved to reflect in any small way the reality, then we could speak of the beginning of time, not only as an attention catching phrase but with a literal meaning .

Text Page 2

¹ At this point it is necessary to deal with a view held by some that seem to suggest that the literal vacuum that we commonly refer to as space, that this vacuum itself had a beginning.

This idea suggest that a “ big bang infinitely small singularity ” explosion brought about space (space=emptiness of vacuum) itself and are still now expanding. Now of course any question as to what is outside this “bubble” of “vacuum” are left unanswered thus suggesting that we are not supposed to ask or even think of that sort of ;– so what was outside the singularity before it exploded ;– question. Yes, a question that is answered by ignoring it and thus denying the right to ask the question.

² Such thinking cannot be supported in this gates imaginary model. This model start with the reasonable assumption that the **nothingness of a literal vacuum (literal space) cannot be created**. Thus the only conclusion being that the infinite volume always “existed”. Moving on from that reasonable conclusion, that “a” nothing cannot be made / created or come into being, we then ask the next logical question:– So where does the something we are composed of come from. This is a fine question to ask even if it is a bit obvious sounding because we are definitely made of something as apposed to literal nothingness. The only answer being then is that the something (or undefined mass/ undefined energy) we are composed of at the lowest subatomic level, must also have always existed, yes never created. The use of the word undefined is to indicate that the atomic and related formations that we now observe this mass to be in, had a beginning yes a creation /shaping point where such formation/defining in the forms we now observe took place.

³ The idea that there is an eternal aspect to the universe may not sit well with all because it lead to the consideration of that three letter word ;–GOD. A word many are uncomfortable with. However before such a consideration is made;– another question need to be asked. In this consideration of nothing as compared to something, this is the important question that arises ;– So why would there be anything at all in the infinite volume. Why is it not just empty?

⁴ At this point the only reasonable application of Circle logic this author has come across, come into being. This is so because a direct reason to explain the existence of something as apposed to nothingness simply cannot be given. Other than to say ;– I do not know. That admission however is not the Circle logic itself. The Circle logic is as follows:

1. Since we do exist, we cannot deny the existence of at least originally undefined mass existing in the “midst” of the literal nothingness of a true vacuum, the infinite volume.
2. Therefore the state of infinite volume originally can logically and obviously only be like we see in Binary logic. Either it is On or Off, Yes or No, Something or Nothing. Clearly if the eternal state of the infinite volume was, Nothing in it, no undefined mass;– then none of this considerations / discussion / life, would take place.

Text Page 3

¹ Now since we can conclude with certainty that the state of the infinite volume is **Something in it**, we can only conclude that, (undefined) mass exist because it always existed. Now that is for sure a Circle logic example and the only reason why it is proposed as reasonable is because of the fact of the existence of mass cannot be denied.

² While the “Why?” of the mass/singularity's existence cannot be answered, the fact of its existence cannot be questioned.

³ TAKE NOTE THAT the question;- Why? can only be reasonably applied to something that has had a beginning since the word ;- why;- suggest planning /designing / limited to a particular function. Anything or Anyone to whom the question ;-why- cannot be applied because of that one's eternal existence / never having been created but always having had existence;- such a One would then have complete freedom in the most absolute sense, no limitation in any way whatsoever other than the fact that such a one Cannot Not Exist. (The word WHY is usually connected to questions like why did this or that happen. The word HAPPEN are a time word = suggesting linear time and thus the word WHY can be linked to time limitation / expectation = Not to be easily applied to something infinite SUCH AS IN THE CASE OF TIMELESSNESS -NEVER HAVING HAD A BEGINNING.-ALWAYS BEING THERE - IN EXISTENCE.)

⁴ Thus you **cannot go**, in your reasoning, to a time before the Singularity existed and ask why it came into existence since the singularity Always existed - we are the time limited creation ;- the natural state of original existence is infinite.

⁵ Excepting the limitation of the word -Why- is not to be compared to an acceptance of “magic” where a lack of explaining is the excepted norm. (More on “Magic” later .) The Word WHY *logically* cannot go beyond a certain point. “WHY” Cannot go beyond infinity as far as our linear past time line are concerned.

⁶ However as mentioned above, **exception** is taken by this author to the idea that volume/nothing can be created. **The idea that nothing is a different kind of something cannot be supported by this gates model.** The word ;-Nothing- really means just that. In this Gates Model the word ;-nothing- is taken most literally . Excepting then the infinite volume with mass in the midst of it that always existed, the next logical questions is ;- How much mass?/What is the nature of this mass. The short answer to how much is;- Infinite mass at every point. Why? Lets start some reasoning as to the basic reasons for an infinitely large singularity.

⁷ More on the basic reasons for a infinitely large Singularity.

The idea of an literal empty infinite volume existing at one time does not make sense since it would not in any way begin to explain the existence of the “something” that we definitely are made of. Therefore the gates model begin with the assumption that “mass” always existed and originally was undefined, thus a singularity. How much mass? Answer: - infinite mass of infinite size : - to answer how much mass. Why so?:- because there would be no reason to conclude that this undefined mass would be somehow focused in a infinitely Small point.

Text Page 4

¹ To suppose such would be similar to saying that the nothingness exploded and what came from that, formed the particles we are composed of. To repeat:- This gates model do not make provision for the literal nothingness – empty space in its most literal meaning to produce something from nothing.

² The well known scientific statement that energy/mass cannot be created or destroyed but can only be changed from one form to another, is one of the basic thoughts adhered to by this Gates model. Since the idea of a infinitely Small point having had all the mass is unacceptable for this model (infinitely small = nothing), – then only the infinitely large option are left. Yes, filling the whole infinite volume.

³ There would be **no point** to assign only a arbitrary limited volume or limited density to the undefined mass / energy in the midst of the infinite volume since that would raise a unexplainable question of why would there be such limitations?.

⁴ Since there is no apparent reason as to why the singularity / original mass, has to be infinitely small, what is left is only the option of infinitely large size in mass as well in density as a description of the Singularity. Thus this conclusion of an infinitely large singularity is the result of a “cornering” of thought. There is no other logical options left.

⁵ Without any reasonable alternative explanation about the original state, we are then left with the choice for the gates model of the infinite volume being “filled / occupied “ with a undefined mass in the original state and being infinitely large and infinitely dense at all points.

⁶ Still remaining is the question why? – Why what? = Why did the singularity produce the patterns we call particles/energy.? The idea that the infinitely large singularity would just “stir” – or move in some fashion in itself without any reason whatsoever is an unacceptable idea in the gate's model. The theory of the gate's model's structure indicate that the singularity must posses the ultimate quality of self awareness – being alive. Only a thinking entity thus being in full control of the singularity and originally being the totality of the singularity itself, up to the point of creation, can explain the ordered structure of the gate's and the original motion creating that structure as well as the continued display of dynamic energy / motion, needed to make the gate's function.

⁷ To reason as some do that we need not ask any questions about the singularity's state before it “exploded” (Big Bang ; infinitely small singularity theory) – that sort of avoiding the issue – would be intellectually dishonest. Why ;– because **SOMETHING** must have caused the singularity to STIR / move (even if you believe in a infinitely small original singularity). That cause can only be linked to a **self aware will** – a Wanting to cause such movement / stirring, regardless of whether your singularity is infinitely big or small.

¹ *Without such a **WANT** to create, the infinite volume would simply remain in an empty state, there being nothing to stir it or rather to stir in it ;– no initial impulse. Even if you believe in a “naturally” pulsating = always exploding, from time to time, infinitely dense singular point/points ;– causing existence, you are still left with the question: Why? (Just because:... is not a reason on its own.) There really is no avoiding the issue of an **Intelligent Creator who always existed**, being the reason for our existence.*

² **TO SUM IT UP: A self aware willpower is required to explain the existence, without such an alive entity of will ;– that always existed;– there would only be a *remaining of the infinite volume in its state of nothingness.***

(The concept of a infinitely dense singularity that is ALSO infinitely small = no length or width or height ;– is taken as just a fancy way to describe the word NOTHING ;– in this gates model = “Anything” without dimensions or volume can not be a Thing at all but is indeed a reference to Nothingness.

³ All particles for instance like the electron that is considered to be point particles with no dimensions are actually in this gates model taken to be a single gate node operating at their respective distinguishing flip rates and while the node may indeed be a deflection point it is never taken as really dimensionless since it is intrinsically linked to the dimension of length in the force lines making up that gate. However it is easy to see how such a gate node “moving/jumping” about around a nucleus against the “background (giving rise to charge)” of the other gates that make up the structure of space can easily be detected and “seen” as point like while it is actually a force line node point . (Take note that the Gates model naturally deal with the so called particle or wave question asked about the nature of subatomic particles. The issue just disappear as you advance in your understanding of this geometric/ structural approach to the nature of the existence at the subatomic level since you will see that every structure naturally has to exhibit wave behavior as well as particle characteristic's for the gate's model to work and the question of ;–“What is charge?” are easily resolved.) There is no allowance made in the gate model for an infinitely small singularity that operate independently of the infinitely large singularity.

⁴ Of course if you prefer to believe that nothingness can produce something ;– Or if you define nothingness as a different kind of something ;– then in that case you should stop reading this since this letter are meant for a person who accept it as reasonable that nothing is just that ;– NOTHING. (The observation of so called vacuum energy particles that are reported to be “popping” in and out of existence” at the subatomic level are easily explained in this gates model as a very natural and really necessary part of the action of the force lines and thus are not at all an indication of something arising out of nothing. This gate action across symmetries ;– which is what this “vacuum” energy really is, will be discussed in detail later (see: Text Page 13). When you come upon that section please remember that this gates model indicate that our existence are mostly defined by the grouping of symmetries according to their frequency of gate activity and any existence / object defined on a set of gate frequencies will only really interact with awareness (whether the “object” is alive or not) of it' s own set of gate frequencies that it is made of.

¹ Many other set's (mathematically close to each other) of gate frequencies are required to exist in order to make the gate's model stable, meanwhile objects defined on different gates sets, pass "through" each other without any or much awareness of each other. The only interaction are the necessary grabbing across gate sets symmetry temporary particle foaming interaction some call "vacuum" energy that occur throughout the infinite volume not just between particles defined on different gate sets. (This grabbing will later be used in an expanded explanation of the mass of the universe:- as to why some of the mass cannot be detected.)

MORE ON THE GRABBING ACTION LATER. Now let's get back to some fundamental principals.

² We were (PRIOR TO THE SUMMING UP) addressing the issue of questions that need or need not be asked.

³ Now do not get this line of reasoning wrong. There are indeed some things for which there logically is no need to search for an answer - things that are indeed beyond question. An example of such a logically no need to be asked question would be ; What is beyond infinity? Or ; what is outside the infinite volume. Such would be a useless question that by definition are already answered by the word:- infinite; and thus cannot be explained any further (though we will labor on this point soon).

⁴ The question:- Why did the singularity stir:- is not in the useless category - but in the:- need to be answered category. The alternative response: - to turn your mind away from The Question and to pretend that there is no answer or that it makes no sense to ask why the singularity stirred ; - is really only a way to avoid the only possible answer:-An **Intelligent all powerful CREATOR** exist.

⁵ To sum it up: - To reject the logical conclusion of a creator who CAUSED our existence leave you with only one alternative.:- That the Nothingness exploded, stirred or continue to stir entirely on its own with no reason behind it. Just because ; - Yes just because it does; = no further reason or reasoning / thinking on that subject needed. **Now that would be an acceptance of a profound believe in Magic.** (Since "magic" require no reasoned / scientific explanation by its very definition- You not supposed to PROBE how it works - just to accept that it works- mysticism being attached to it = magic.)

⁶ Now are you as an intelligent person willing to accept THAT as a reason? To shut your mind down like that? The fact that some highly intelligent individuals are

indeed willing to shut their minds down on that question yet are willing to exert their minds to the utmost to explain the results of the singularities “stirrings”:- seems dishonest and illogical.

⁷ Why illogical? Because a scientific approach should examine both the cause and the effect / results of any matter under investigation TO THE FULLEST LOGICAL EXTEND. POSSIBLE . Yet when it comes's to the existence of the something we are composed off – we are encouraged by such ones to think: – – –there is ultimately no cause to investigate but let's study the effects / results anyway.

Text Page 7

¹ Why dishonest?:- Because in this “shut your mind down” reasoning there seems to be a hint of the fairy tale story of the Emperors New Clothes. This fairy tale emperor was duped on his silly pride by clever scam artist into wearing wonderful “clothes” that cannot be seen by “stupid” people. So deluded was *he* that it did not occur to him that there would be at least one “fool” in his kingdom – who would then see through his “clothes”. Only the honesty of an innocent child brought him to his senses along with the rest of the people who also did not want to look stupid by revealing that they see the emperor walking about without clothes.

² Can you allow similar prideful reasoning to persuade you not to look further into the matter? Those who want to shut your mind = who say that there are no need to question why the singularity “stirred” / exploded – if indeed it “exploded”: – such ones simply want to avoid the question of GOD– a Creator – a single One that caused us to be.

³ This bilking / avoidance on their part is for their own personal reasons. Whatever those reasons are ;– they will have to deal with those individual reasons themselves ;– that does not mean they are right to insist that others who ask the Question ;–Why?;– is unreasonably.

⁴ It would be indeed unreasonably to ask ;–” What was before the infinite volume? . That is so since the infinite volume always existed. It conceptually cannot be created ;– thus there was *no before*, before it. Yet it would not be unreasonable to ask:–“So what filled that infinite volume/ Or what occupied the infinite volume or was it a literal vacuum? These are reasonable question forming a departure point for deductive reasoning.

⁵ INSERT FROM File: oN THE nATURE oF THE sINGULARITY
As to the basic reasons for a infinitely large Singularity.

⁶ Those reasonable questions are such because we exist and thus the substance we are made of must originate from what originally and always occupied / filled the infinite volume. “Originally and always”;– because there is **no *outside*** to the infinite volume and thus the stuff that we are made off could logically not come from outside ;–there being no beyondness to the infinity.--- Now that really labors the point.

⁷ So that original undefined stuff must always have existed (Remember the gates model do not except the idea that the literal vacuum, nothingness just gave rise to substance/mass / energy .) The original substance always existed and no reason can be found for the gates model to suggest that the original substance had to be limited in size or had to be a single infinitely dense point. Such a point is conceptually the same as nothingness –as apposed to an infinitely thin line that can exist even as a rotary center line to a rotating object ;– that we do see in everyday spinning objects while the center of gravity point in a non rotating object remains a purely abstract mathematical point for calculation purposes with no real existence that can be directly interacted with, that is without a *rotation* center **line** being created such as when you calculate an objects moment of inertia around a *rotation* axis.

¹ Since we exist and know that we did indeed not always have existence but became ;– or RATHER was brought into being as the patterns we occupy ;– then this clearly indicate a change in the singularity's state. Only a creator – a one who let's become ;– that is what the Hebrew personal name for the creator ; JEHOVAH mean ;– (a very fitting name) ;– can cause such a change in the original state of the singularity. Creation thus require an act of will ; –a will that can only be attributed to a self aware entity. The nothingness did not and would never stir on its own to produce us / create the universe. Nothing produce nothing – *Something pre-existing and infinite dynamic energy (always active, always been alive) can produce something else afterward.* That is the DEPARTURE POINT for the gates model.

² The choice then is clear:– to assert that the *nothingness gave rise to us* OR accept the conclusion that a self aware entity that has always existed, by an act of will and continued will is responsible for the existence we enjoy. Continued will ;– because of the fact that the activity at the subatomic level require a source from whence their motion come.

³ Now if we suppose that these particles keep on moving / rotating / spinning etc. just because... then we will be back to the unscientific nothing bringing forth energy idea.

⁴ That very unscientific “answer” ;– JUST BECAUSE ;– is a totally unacceptable idea. After all we cannot accept an answer only fit for a magic show to be the foundation of our understanding of the origin of the universe. In the gate's model it is our Creator who by his control over all of the singularity ultimately keeps the action of gate's opening and closing ;– active. Without such a continued act of will, on our creator's part, all definition of objects will cease and thus instantly the existence we perceive in our minds and see with our eyes and detect with our instruments will be erased. Fortunately we are given an assurance that such would not happen, an assurance that can only be found in the Bible. For further information on that assurance only that source can give you real answers. Please do ask. You will receive answers to your questions.

⁵ At this point i realize that i have made the assumption that you the reader know why there would be instantaneous action in a singularity that is infinitely large. To be clear on that fundamental point ;– Instantaneous action will take place in the singularity because there is no compression possible in the singularities substance, since there are no particles separated by vacuum from each other. Any “point” being “moved” in the singularity would then instantaneously have its action “transmitted” for an infinitely long “distance” in the direction of the “intended” motion since there is no end to the singularities incompressible substance in any direction.

⁶ Why intended motion? ;– Because *no real linear* displacement NEED take place in this incompressible substance. Only the continued application of wanting to move a specific point in a specific direction take place. A continued pressure of will . Such a will than can only be linked to the intelligent self aware one being in full control of that willpower. In turn it then become clear that intelligence must have motive for creating ;– *principled* love being the only motive / goal that makes sense since such love would also be the only thing of value any intelligent creatures can return to their maker.

¹ To continue with the physics of things ;–you must also note that the gates model do NOT allow for a big bang with energy in its electromagnetic/radiation form being the first act of creation. Rather this gates model START with the force lines as the real beginning of definitions / creation that is less than the infinitely large singularity itself.

² The force lines very nature indicate a supreme intelligence with self awareness that willed it into existence, in other words a One that let's become, in control of the singularity and **originally** having such self awareness spread across the full singularity itself and always been in existence and self aware considering that the singularity, since it is infinitely big, could *not come or arise from somewhere else* ; because there is no place “outside” the infinite volume, to put it another way. **The first cause in this model is thus never magical, reasonless action, that just occurwithout cause, but active, purposeful, intelligent design by that ONE.**

³ Thus the force lines very “self connecting” design allow for the coming into existence of that most “elementary” of stable particles such as the proton and electron, thus Hydrogen, all based on the “key” particles that also interact with these stably grouped particles to set off the gravitational effect . In the midst of vast clouds of hydrogen, a natural birthplace for stars come about, long before they group into galaxies. Thus when enough stars form close enough in a mass of hydrogen, a galaxy grouping congeal out of this vast cloud in some cases leaving remnants of such clouds, some as still active star nurseries nearby the “newly” formed galaxies.

⁴ Naturally in the case of a portion of a vast cloud of hydrogen imploding (due to the key particles function to create an attractive action we call gravity (more later)) to form the core of a star, a massive fusion explosion will result with an initial startup output of energy far higher than the output of the completed “adult” star that will follow. In the vast voids such explosions will always be occurring as hydrogen clouds will form there even continually due to gate activity with the startup of stars causing the big startup energy outburst. This can be referred to as the issue of Void Space refilling as touched on by the note on hydrogen clouds forming .

⁵ The very random nature **designed** into the gates contribute to the forming of more stable particle definitions in (take note) “long undisturbed” voids with what can be described as **mini creation events** while such explosive events are suppressed nearby already stable grouped gates or “occupied space” with its more volatile foaming gate's making such spontaneous forming of new stable (Hydrogen) gates difficult next to such stable gates since it tends to “rip apart” new attempts at stable gate formations from the gate matrix. Anyway this forming of more particle definitions will be mentioned again later.

⁶ (Note: The randomly unpredictable nature of the initial gate choice should not be confused with free will and moral choosing we humans partake in. The gate's choice is merely mechanical, there being no moral beneficial/good or bad end result in their choice as we may experience in our choices. It is simply a matter of left or right, up or down. This mechanical “free will” choosing structure are fundamentally needed for the gate's model foundation as will be discussed next.)

¹ Now let us first deal with some fundamental questions.

Number one: Why do we need more symmetries than 3 lines of force?

² Main reason: Since the gates are presumed to flip at different rates (needed so that a variety of forces can be defined), the **Necessary** problem of ***flip disconnection*** will arise no matter how you herd and match the vibrating gates together in order to define particles and their varying forces. **To counter THIS flip disconnection more symmetries are needed.**

³ Note: What makes a particle “stand out” from the rest of the gates (and interacting with each other) surrounding it ;– **is the “sameness” of its gates flip rates in a stable loop arrangement,** while the surrounding gates (that appear or are experienced as open space, vacuum, to the observer) are in a random, unstable, mixed gate, **foaming**, state. To put it another way, if you put a small group of black sheep in the middle of a large flock of white sheep, then you are sure to notice the black sheep since they will stand out (The reverse is of course also true). Thus a definition of a “particle” can be made by the group sheep (gates) that stand out – even though they are all sheep (gates).

⁴ Note: There exist a need for such randomness as indicated by the idea of hydrogen forming –more later.

⁵ To continue with the question of why we need more symmetries than 3 force lines:– Even if you only define a particle by using gates of one type of flip rate only, you will still have at the boundary surface of that particle structure; other gates flipping at a different rate than your defined particles gates.

⁶ In addition there is the not to be ignored fact that the continuous gate deflections are (for now at 90deg. off each other) forcing every gate to seek an “off” symmetry connection before matching up to even a same flip rate gate on its home symmetry.– but we are getting ahead of ourselves – let's first come to the base reason for more symmetries than just 3 force lines. **HERE IS THE FUNDAMENTAL REASON / THE BASE REASON FOR MORE SYMMETRIES:** To see the reason we will need to **count** a little.

⁷ **THE Basic REASON FOR MORE SYMMETRIES** continued: Let us count a little: For instance ; you may have a gate flip rate of 12 at your boundary that now has to match up with a 24 gate or 10 gate of the immediately surrounding matrix gate structure.

⁸ By simple division you will note that there will be a mismatch or gates opening and closing with no matching connection with other gates at times. (eg.: $24 / 12 = 2$) so a match is only taking place every 2nd time for the 24th gate flip if it try to match with the 12 flip rate gate We may forget about the 50% away deflection because Every gate undergo this away deflection. So the issue arise ; what do the 24th flip gate do with its other 12 flips (every 2nd flip) that does not have a mating flip with the 12th flip gate? Will there be a situation where there will be no connection available for some gates at times? This cannot be allowed.

¹ NOTE: This problem / issue of disconnection are indeed of a serious nature because it undermines the notion of stability of the structure of the gates model if left unresolved.

² If force lines are to be flipping alone without joining up for even one flip then the imaginary atomic model will be comparable to a moving car losing a wheel or two for a moment before getting it back. Such an absurd idea will obviously not be acceptable; so the need to solve the loose flip problem arise to ensure that the basis of reason for this imaginary model is one of **stability**.

³ How do we solve this loose flip problem?
This **forces** a very interesting and ultimately **indispensable** solution unto the gates model.

⁴ **SOLUTION: Create other symmetries** (lines of force) that can connect with such "loose" or unmatched lines of force of the "original" 3d symmetry. Thus when a 24 flip gate connect 12 times with a 12 flip gate; what does it do during its other 12 flips?

⁵ Answer: The 24 flip gate connect up with **another** dimension or symmetry set of force lines for these other 12 flips. This goes for any other combination of gate connections even where such gates of whatever flip rate are in a stable loop arrangement with matching flip rate gates in their home symmetry set. (Remember the flip rates are presented simplified. The rates are really 12 of the 24 flip gate available to mate with 6 of the 12 flip gate. This is due to the 50% EVERY gate has to spend in deflection away from its previous connection.)

⁶ However for such stable loops much less "off" symmetry connections are needed due to the fact that the deflections are spending less time away from the matching gate. The description "less", indicate / include a minimum of 50% of the time that is needed for any gates in a stable loop to connect away from its stable, same flip rate partners. The gates that are not stably connected and surrounding these stable loops are using 50% of their time at minimum plus whatever time is needed to match up with odd flip rate gates; off or away from their home symmetry set.

⁷ Result: The end result of this reasoning reveal to us the vital need for not only one 3d matrix universe but, to begin with, at least one other 4d matrix amidst the "original" 3d matrix of x y z forces and their gates. With amidst is meant, 4 force line's projecting from the node points of a 3d box 's corners, with these 4 lines having a cross node at the center point of the 3d box 's volume.

⁸ Actually many more inter meshing symmetries are needed so as to solve complex combinations of "loose" flips. To make a stable loop such that its gates match up "off" symmetry during their obligatory 50% away flip, will require at least the presence of a 4 line symmetry inter meshing with a 3 line symmetry and since the gates are presumed to pass on their flip rates during motion so that a stable particle can keep its shape during motion, **another** 3 line symmetry is needed.

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¹ Why? To supply mating gates from the intermediary 4th symmetry while the original 3d symmetry matches up with its home symmetries neighboring force lines during its other 50% that it is obligated to do. (pew !! _rather see if you can get a better idea of this by looking at the pictures.)

² Thus we can conclude that no symmetry set can be left unmatched and simple geometry lead us to draw a 3d box plus an inter meshing 4"d" box from the 3d's corners plus an inter meshing 3d projected from the center cross nodes of the 4d box, giving us a minimum of 10 force line ($3 + 4 + 3 = 10$) symmetries needed to interact for a stable gate loop to tread from the first 3d symmetry to the 4d symmetry and back to the first 3d symmetry through the second 3d symmetry (a minimum loop). (Once again:_see if the pictures make more sense=Pictures / Sketches To be added later.)

² Naturally we can only easily interact with particles defined in the symmetry spectrum we are made of . Why so? Because of numbers and their nature. Simple math dictate that some gates that click at rates that are more capable (?-explain later) of being divided by each other as compared to others, will "crystallize" or group more readily with each other. Thus a "devision" will come into being between groupings of matrix's where the result will be a variety of universes that co-exist amidst each other's symmetry groupings or spectrums but with only a minimum interaction across spectrums such as when the total lack of a mating gate should force a force line to go and "look", and find a mate outside of its group of 10 symmetries. This sort of outside the group action are more readily to be expected in very high density situations such as a star's core or other dense objects and even explosions of the nuclear sort or some other controlled high density device. (This as apposed to the more "feeble" foaming across symmetries in "normal open" space also - more later.)

³ At this point you may ask yourself this question ; Why do we not solve this gate mismatch "problem" by keeping all the gates in the one 3d symmetry at **one flip rate** so that there will be no need for any of this tricky matching up and thus no need for other symmetries?

⁴ The simple answer is this ; If there are no variation in flip rate, there will also be no possibility of creating / herding together gates so that it **stand out from amongst the rest** and thus form a particle. It will be like trying to see a grouping of 5 white sheep amidst a thousand other equally white sheep, they just will not stand out.

⁵ In addition ; we need gate rates also for the purpose of creating the different forces needed to keep our existence going. From the nuclear forces to gravity are linked to these gates being of differing rates. In *summation* ; **gate rates are needed to create a difference.**

⁷ SO, WE ACTUALLY NEED THIS GATE MISMATCH "PROBLEM" BECAUSE IT CAUSE IN THE SINGULARITY AN EXISTENCE COMPOSED OUT OF A RICH SCAFFOLDING OF MANY SUPPORTING FORCE LINE SYMMETRIES WITH THE ABILITY TO FORM particles THAT CAN PASS RIGHT "THROUGH" EACH OTHER IF NO SYMMETRIES ARE SHARED. (The particle object's "sketched" on the gate flips actually pass closely alongside each others gates.)

¹ THUS A MUCH MORE FLEXIBLE UNIVERSE CAN BE BUILT. (If it was possible to use only 3 symmetries then you can vaguely compare the 3sym model to a microchip that is hardwired to only deal with 8 bits as opposed to a chip that can deal with 32 or 64 bits in parallel at a time. I am sure that most of us will chose the greater ability of the 64 bit computer over the 8 bit processor.) MUCH MORE CAN THUS BE ACHIEVED IN A MULTI SYMMETRY UNIVERSE.

To recap ; another question: Are this gates model only limited to 10 symmetries?.

Answer: No, since no reason is at hand to justify such a limit. Many more symmetry sets or spectrums may exist.

² To put it another way ; if this model can on this point be proved one day to reflect the reality, we would then understand this visible universe to " hide " in its midst other, invisible to us (as long as it does not interact with us), force line structures or groupings/spectrums as previously proposed. Note that all these symmetry based universes would be infinite in size ("filling" the infinite volume) due to the fact that this model refer to them all as being composed of infinitely long force lines inter meshing at their own respective nodes or gates.

³ BIG NOTE: THE REASON SUMMED UP:

The Imaginary Atomic Model (or gates model) simply has to have this multiplicity of force lines / matrix gate structures, amidst each other for the totality of symmetries to be stable. (There may be many symmetry sets of infinite "sized" universes intermeshed with each other and ultimately supporting each others stable operation.)

⁴ To recap: –Thus it is a fundamental understanding of the gates model, that right now objects that might be defined on another symmetry or spectrum of symmetries than our own might be passing right through us (actually past the gates that define our atoms in our symmetry set composing our universe) without much interaction with our defined stable particles in our home dimension/ 10 symmetry spectrum.

⁵ Note: Perhaps you realize what the words "without much interaction" imply some interaction. (Remember feeble interaction across spectrums mentioned previously)

Yes, that would be correct since it is clear that any other matrix symmetries existing across the infinity and based also on the gate flip structure would then also need to "park" or match up their own respective loose gate flips temporarily with other "neighboring" symmetries or symmetry spectrums.

⁶ The result to be observed by someone who can see at the subatomic level, would be a constant seemingly random foaming or subatomic static, caused by a temporary defining of "particles / structures " that appear and nearly instantly disappear (from the perspective of the viewers home symmetry) as the gates temporarily match up across the symmetries in order for each symmetry to maintain its stability. **(This may be the effect considered and described as vacuum energy by some .)**

¹ This parking/ matching up can at times create some temporary loops that define a stable particle in this gates model ; but due to the fact that this action may be across or off its home symmetry spectrum, there will be a near instantaneous “tearing” apart of most such particles that form close to a grouping of gates that define already stable particles. Naturally if this off home symmetry gate matching can result in what would appear as randomly created stable loops, then on that symmetry combination, a new particle will establish itself. Actually a new stable particle definition crystallizing, would be the more correct description.

² The gates of such 'already there' particles will tend to want a share in these new gates, due to the fact that they must flip, thus pulling a temporary stable arrangement apart. (Remember the phrase “long undisturbed voids“?)

³ Void space, meaning with no or very few stable particles (or stable symmetry gate definitions:– to use a more hair splitting but more accurate definition) in it will provide a better birthing place for the continuous creation of more stable particle loops with no “already there“ defined stable particles, to tug and pull them apart. Thus the “spontaneous” forming of hydrogen in void space. The gate's are then designed to be always producing new particles in those vast “empty” spaces between galaxies / galaxy clusters .

⁴ **It is useful to take note of the following point:
All of the structures of symmetry force lines can combine in ways that create these temporary structures, not just the already defined stable particles in each symmetry.**

⁵ Also note that part of such a momentary structure may indeed be part of a stable particles; outside surface gate's ; and thus such a structure will also disappear due to the fact that a particle move in its path in its home symmetry spectrum, making gate matches of convenience with many other symmetries along its infinite journey.

⁶ More: This cross symmetry foaming can be described as the Standard interaction. The implication of course is that there are other 'Non standard' ways of interaction to be taken note of. At least two others come to mind. One is Prime interaction. What is it?

⁷ Prime interaction refer to the inability of a gate flipping at a prime numbered rate such as seven to easily match up with gate's of its home symmetry spectrum, most such gates are clicking at a rate of even numbers. (Remember the statement:– gates that click at rates that are more capable to connect ... well here follows the explanation.)

⁸ To continue: For instance a number 7 gate, if it find itself next to a no. 6 gate, will not easily rematch with the no.6 gate after the initial connection with the no.6 gate. Why? Because the no.6 gate will more readily match up with another even numbered gate, for instance a no.4 gate or a no.12 or no.10 gate that may be next to it.

¹ (Remember there are assumed to be more even number gates than prime number gates for the gates model) Thus the no.4 gate will have 2 match points with the no.6 gate while it will only match up with the no.7 gate one time. See the Gate Cycle Match diagram.

² Because the no. 6 gate will have to complete another full cycle before it can gate join with the no.7 gate again. (In order to simplify things we will ignore for now the 50% minimum mismatch All gates undergo, which if noted would complicate things not to mention the treading through the 4d symmetry and second 3d symmetry – but let's not dwell on that now.) (All the above are based on the assumption that the gates in question are not defined as part of moving particle structures on differing trajectories, that may separate after an initial touching.)

³ Of course if the no. 7 gate needs to match up with a no. 10 gate, it would have to "wait" for the 10th flip on the part of the 10 gate to match up again while a no. 6 gate will match up with a 10 gate at every 5th flip (The halfway point) on the part of the no.10 gate. (6 and 10 share a lowest common divider; 2: – no such luck with a prime.)

⁴ Finding the lowest common divider between one gate and the gate it has to match up with, make it possible for you to see what number of matches there will be between them.

⁵ The point being: A prime flip rate gate and in particular as in this case seven, will be forced to find matches on “neighboring “ symmetry spectrums much more – than “easily” matched gates (non–primes) will find in their home symmetry spectrum.

⁶ The Result: The interaction of the prime gates will have fleeting interaction in their home symmetry but a large cross symmetry presence since it is forced so much more often than the even numbered gates to match up:– off dimension or other than on its own symmetry spectrum. Failing to find a match off symmetry will force it (explosive situation) to move/ jump in its home symmetry spectrum toward the nearest available “open/matchable” gate.

⁷ Note: Home symmetry spectrum refers to that minimum of 10 force lines together serving as a spectrum of symmetries or subspace spectrum. – The use of the collective word Home symmetry allow for the possibility of other sets of 10 or more force line combinations inter meshing with our known universe on which particle definitions can be and with some particles perhaps even sharing / overlapping with our home symmetry. Thus the need to think of a spectrum.

⁸ Also note anyone existing on any symmetry spectrum refer to any other symmetry spectrums as subspace. Thus particles with wildly differing spectrum selections will not easily interact, other than through particle collisions with structures that have an overlapping symmetry spectrum subspace “bandwidth”.

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¹ So: Particles composed mostly of prime gates will have a very fleeting interaction in their home symmetry set or spectrum ;– very difficult to detect on one symmetry spectrum, actually, just passing through you in their billions without much affect as it may appear. However, it also will serve as a universal cross symmetry "glue" because of its forced interaction across a very much more wider than usual variety of symmetries in order to find mating gates so as not to have “loose” flips.

² Wider interaction than usual than the non – prime gates. Thus the affect of this prime interaction would be discernible as a universe wide invisible mass, since its braking effect will only be seen in the inability of easily seen particles mass to completely explain the motion and attractions between large scale bodies / groupings such as stars & galaxies. (Imagine this action as thousands of tiny hands grabbing / threading momentarily across symmetries and then briefly hold unto other symmetry groupings/ spectrums and thus causing a slowdown or greater “viscosity” / “thickness” in the structure of space then would be the case without this cross “grabbing/ fleeting touching ”.)

³ Take note that the prime gate's actions are radically out of proportion to the action of its fellow non–prime gates since non–primes will act mostly in their home symmetry spectrum and thus have a much lesser range of across or “off” home symmetry spectrum interaction or presence. Of course, because of the fact that there would be more non–primes (even number) gates, their cross symmetry foaming additionally also add to the invisible braking / glue affect and thus to the larger perceived mass of the universe. (Prime or Non–Prime interaction should not be confused with gravity, that force like the nuclear forces being in this model a higher “zoom out” definition of the arrangement of gates. – More on gravity later.)

⁴ A second substandard way of interaction is Regional Volume interaction. Number 2 is a little more subtle since it require you to keep in mind that the force lines gate's really do not have to chose their gate direction in any mathematically predictable manner but they are really free in their original choice when they were created.

⁵ Thus a force line infinite string, will have at its intersection nodes an unpredictable sequence of gate choices (to say the same thing another way). It is then conceivable that one or some gate sequences have all made the same “ initial decision” for instance to flip their gates all in the same manner for a portion or all of their crossing nodes along their infinite string.

⁶ That volume of space defined by those originally “uniform choice ” gates will then have a characteristic that differ from those regions of space that originally have a more mixed combination of gates on their strings.

⁷ What will then be so different about a volume of uniform space (gates) as apposed to mixed space (gates)?

The answer - on next page.

¹ Answer: In order to understand the subtle difference an illustration may help. Take for instance a diver who has to cross a stretch of beach to get to the sea. The beach happens to be full of randomly spaced holes. (Mixed space/gate choices) Thus the diver has to make continuous adjustments in stride in order to step over these small but deep holes. This will be time consuming.

² However, as the beach are being crossed, the diver comes upon a stretch where the holes in the area in front of the diver are all equally spaced. (Uniform space) So: If these holes are spaced just shorter than the divers maximum stride, then no continuous adjustment for that portion of beach will be needed. Thus the diver will now be able to walk faster. Faster than over the random hole spacing. The opposite will be the case (the diver will be slowed down) if the uniform spacing is just too long or too short of the preferred stride range. Thus in such a case of the holes not being in sync with the diver's stride, even if the spacing is uniform, the diver will also walk in a time consuming way.

³ Conclusion: A particle moving through any volume of space will be affected by the mixed or uniform, gate character of that region of space. A slowing down or a speeding up can be one of the affects to be observed of a particles behavior due to the variation in character in any region of space as apposed to how a particle would behave in an adjacent region. The phrase "one of the affects" suggest more unpredictable changes as a particle move from region to region. That would be the case since as you may have reasoned, all of what is concluded for one symmetry also goes for all others.

⁴ Thus since all symmetries would have regions of uniform space or mixed space overlapping or enveloping another, then the cross symmetry foaming will also be affected as well as any defined particle crossing that zone in space.

⁵ Note: Regional volume interaction however should not be mistaken as only referring to some portions of space. All of the infinite volume of gates display a regional interaction based on their gates ability to make their first choice in an absolutely free manner thus creating certain unpredictable larger volume characteristics.

⁶ Some issues are brought to the fore by the regional volume interaction idea. One issue would be the question: are any region stable and constant in its character? The answer is no for a uniform volume of gate choices (uniform space.) Why? Due to the fact, as you might have guessed, gates jump around in this gates model. Thus the tendency is towards mixed space as defined particles move into regions of uniform gates, thus pushing the gates forming the uniform space into mixed arrangements.

⁷ Only a uniform definition that stretches across multiple overlapping symmetries may prove to be strong enough to withstand this invasion of mix making particles for some time but must ultimately give way as the particle spread happen across various symmetries supporting its character. The exception being a case where the uniform subspace interaction form a zone so powerful that it stops or alter drastically a particle characteristic entering it before the particle alter the uniform zone's character.

¹ If this regional volume interaction idea could one day be prove to be real, then the exploration of space would become even more interesting then it already is. We may discover things even way beyond the collective imaginations of our SciFi dreamers as we explore the infinite volume.

² Another issue brought to the fore by this regional volume interaction (Rvi – for short) is the matter of the speed change that will be expected as a particle passes into regions with differing gate choice overall characteristics. (Different than the particles originating regional volume). This brings up the long ignored, in this gates model, issue of the constant speed of light.

³ Already it should be clear to you that there would be a variation in this “constant” depending on which Regional volume (Rv – for short) you measure this speed in and are able to compare that measurement with another Rv's speed. However, even in a particularly mixed Rv, you may detect a small speed change of lights “constant” in so called vacuum, as accidentally or by design (in a lab) small pockets of uniform space are created by the coherent (such as with lasers) moving around of particles. Naturally the scattered moving around of particles promote Mixed space.

⁴ *Since we are on this issue of speed, let us also deal with the big question ; why would light have a (near) constant speed at all, even for any particular Rv. At the back of your mind you might have answered this for yourself already, but let us indulge a little for the sake of clarity.*

⁵ **Answer: The speed of light, in this gates continuum, are fundamentally dependent on the click rate of the gates regardless of Regional volume changes.** Thus the gate combinations making up the photon (this goes for all particles) can **normally only move as fast** as the “slowest gates can be opened “ (and match up with other gates) in its path. Therefore you will generally find a regional volume top speed in “vacuum” of light for that particular Regional volume and symmetry grouping/spectrum.

⁶ To illustrate the Speed of light's Near Constant in a regional volume:
A Car traveling on a large farm with many farm gates can only move as fast as the opening of gates can be handled: The faster the gates are opened, the faster the car can pass through . The same goes for slowness. THE SPEED OF LIGHT THEN IS DETERMINED BY THE SPEED OF THE GATES – HOW FAST THE SLOWEST CLICK RATE CAN FLIP. Thus on different symmetry set's / groupings you may get very fast gates on one set, even millions of times faster than on our own symmetry set where we, for now, say that our range of gate flips per time unit is between 2 flips at the slow end and 24 flips at the top end. This as apposed to a symmetry set where the gates on the slow end flip at 2million flips per time unit and maybe 24million flips at the top end. –If such variation in symmetry sets can be proven then it would be nice to use such a fast symmetry set for linear travel (or faster computing using the same processor as in your home symmetry) if one can lock into it somehow. Of course a much slower symmetry set than our own can be used to store things in it that we would like to protect for some time against the effects of entropy (disorder/randomness) of our own symmetry set.

¹ Naturally this gates model allow for another way of “motion”, something that does not “normally” occur .To put it bluntly ; the notion of an infinitely dense singularity of infinitely “large size”, lend itself to the concept of instantaneously transmitting a particle pattern to any co-ordinate in the infinite volume without any motion in between the point of origin and the jump point. (No bending of space or wormhole tunnels here, more a erasing at one end and a recreating at the other: more comprehensive comments later – perhaps another writing).

² Of course the three main issues of: Locking into the structure of space ; Preserving the particles pattern and handling the accuracy of the co-ordinate (the longer the jump, the bigger the numbers needed for accuracy of placement); need to be dealt with along with such issues as Scouting ahead, since you do not really know at a distance what the Regional Volume's character will be that you may be jumping into. Now things really gets to be interesting.

³ However, before we briefly deal with jump/gate shifting without motion in between, there is a need to go back to a more fundamental question, that of the problem of symmetry intersection, being one of the sub tread questions remaining unanswered so far.

⁴ Then we will deal with the effect of particle keying “explaining” gravity and its relationship to particles of a prime gate combination streaming from stars, before we get to this very interesting proposition of gate jumping.

⁵ Now the problem of symmetry intersection has to do with the need to avoid a geometric intersection of force lines outside of their natural nodes crossing points. The need for more symmetries inter meshing with each other causes this potential problem that can only be solved by making the force lines at their gates intersect at values less or/and more than 90 degrees at their nodes. (This slantedness leads to the fractional relationship between particles such as an electron considered as having a mass of 1 and a proton a mass of 1.8etc... instead of a nice round figure such as 2. (Explaining that is a matter of geometry – more later.) (For simplicity sake: the mass of the Proton are severely rounded off.)

⁶ So, just how can a (“subspace”/smallest scale) “adjustment” in direction cause a higher level fractional relationship as well as limitations to the stable structures possibilities and higher scale quantum energy “bands”? (That question is really too much – but let's continue.)

⁷ These are some of the questions that will become clear as we explain the need to avoid symmetry intersection.

⁸ Note: What Symmetry intersection is not. It is not the transference of an object between symmetries, disappearing from one's home symmetry set and appearing in another. That action will be discussed later ; maybe in another writing.

¹ What it is: Symmetry intersection is a structural issue that had to be dealt with at the beginning of creation in order to provide for the possibility of the symmetries existing at all.

² Symmetry intersection really refer to the force lines crossing each other where it is not supposed to cross each other. We are not only talking of the 10 force lines, whose lines when drawn in a geometry arrangement easily pass each other and only connect at the nodes as they should even while the lines are drawn at 90 degrees to each other. No, we are here referring to the need to allow for other home symmetry sets curled up amongst the 10 and thus the need to avoid lines crossing each other “off node” or in a disorderly manner.

³ If the symmetry structure is kept at 90degrees, then as you add more symmetries by projecting lines from the original cube's corner nodes and continue with the line structure that naturally will form if projected from each successive node, then a problem emerge.

⁴ To illustrate.:

If you draw a line for a short distance and then perpendicular (90deg) to it draw another line for a short distance (same length) and continue this, then at some point the original line will be crossed or cut by a projected line.

⁵ In a similar manner the symmetry lines (at 90deg.) , even in a 3 dimensional array will come to the point of cutting each other at points other than the preferred nodes, in fact the more symmetries you add, the more cut up the whole system of lines will become ;– making the whole model useless since a disorderly “system” of “fractured” lines and their ever, closer to each other, gates will appear. Such a situation will lead to self destruction of the very gate system as the force lines are cut ever shorter leading to a return to a uniform singularity with no definition other than itself as the gate nodes become indiscernible from amongst each other.

⁶ The solution of course is simple:

Let the lines intersect each other at a an angle other than 90deg. Such as?

Well let us try 105deg. and 120deg. for the first 2 lines intersecting with the 3rd line being the baseline. Now if every symmetry line are then also angled so as to miss another symmetry line and only crossing at the nodes of its home symmetry set, the notion of a squeezed cube might appear in your mind. Of course these other degrees would have to be different from the above mentioned 105 and 120, because any regularity will bring symmetry intersection once more into the model. The comparative notion of a snail shell with its spiraling structure and the compartment walls at always differing angles will do well to picture the effective inter meshing of the symmetries amongst each other. Just how many there must be made room for is a question we do not yet bother about in this model.

¹ To return: Did you note the squeezed box/cube idea? Then you may already have concluded that the structure of space, the symmetry lines intersecting, in this gates model, are “deformed”. The word symmetry still apply as each line do have an infinity of parallel partners (For instance the x–line:– being the base line.) The deflection of angle is in, for argument sake, between the y–line and the z–line. Of course these lines also have their infinity of parallel partners. (This goes for all symmetries.)

² Now this concept of the gates being in a lopsided, *slanted* relationship with each other form the bases to those questions. Which? Well let's repeat them.

³ Repeat:

So, just how can a (smallest scale) “adjustment” in direction cause a higher level fractional relationship as well as limitations to the stable structures possibilities and higher scale quantum energy “bands”? (That question is really too much – but let's start some sort of answer.)

⁴ To tackle the fractional relationship between particles first we need to compare the structure of space with an everyday object. Let us use a grain of sugar . Begin with one.

⁵ Imagine using this sugar cube as a “cornerstone” and now you carefully stack other sugar cubes tightly around it and also on top of it. Eventually you will end up with a large sugar cube, but still a cube shape. Thus, when it comes to **this** particular geometric shape amongst others, then the large scale shape is dependent on or can reflect the shape of its smallest crystalline shape. A simple shape's such as a sugar cube can then reflect its smallest scale geometric shape on the larger scale to put it another way. If however you need to construct a sphere out of sugar cubes, only an approximation can be done of the spherical shape for obvious reasons.

⁶ The reason why the spherical shape is mentioned is due to the importance of that shape.

⁷ Why is the sphere shape so important?

The answer can be found in the basic need for rotary motion even at the sub atomic scale where the need to maintain a certain distance from a central point in any direction becomes critical for particles and the forces between them.

⁸ At this point you may wonder what this all has to do with the fractional relationship between subatomic particle masses but bear with me as we revisit the sugar cube.

⁹ This sugar cube now undergo a change ; some of its sides are longer than the others. Note then the result if you try to build a larger cube out of this lopsided imaginary sugar cube (its not really a cube shape anymore). Well, you won't get the perfect cube shape with all the same length's on the sides and the spherical shape will also be more difficult to approximate.

¹ Note that the lopsided sugar cube idea link us to the concept mentioned previously of a squeezed box/cube idea used to describe the alignment amongst the symmetry force lines. Thus on the subatomic scale there will arise a need on the part of the Designer ;–to marry or bridge the divide between the needed lopsided 'box' structure of space with the need for spherical distance to be maintained between particles as well as in the makeup of particles themselves.

¹ NB: This model do not envision stable particles as little spheres, rather as dynamic loops with knotting or touching points, but we still need circular shapes even for the smallest combination of a stable arrangement of gates. A circular shape like a coin (its edge being the loop) when being made to spin, will of course describe a sphere. (Of course we know that things both large and small do spin about in our universe ; thus this unavoidable need to accommodate circular motion / shapes.)

² **At this point you may begin to note the need to overcome the necessary problem of allowing for a spherical shaping to be described on a structure that is lopsided and thus not immediately suited to the spherical pathway.** its like fitting a perfect spherical ball into a perfectly square hole so that no gaps or the least of gaps show up.

³ If the natural shape of the lopsided "crystalline" structure of space where to be taken as a building block and just like the lopsided sugar cube, we just build from there, making no adjustment for the needed spherical / loop structures, then on the larger scale that lopsidedness will show in a much more dramatic fashion as is now evident in the relationship between particle masses but also in their shape. Imagine a banana shaped planet or sun just to exaggerate a bit, but such would be the case if you just build without making that "adjustment". (In this exaggeration we ignore the fact that a banana shaped subatomic particle making an attempt to spin would probably not be stable for long and as such any larger shaped particle build on it would not even exist.)

⁴ While we need the lopsidedness to allow for the multiplicity of symmetries to exist at all, there sure exist a need for at least a close approximation of a circular/spherical pathway for motion not only at the planetary level but also even more so at the sub atomic level.

⁵ Perhaps you realize that the words "approximation" and "adjustment" contain the answer to that question as to why there is this fractional relationship.

⁶ The answer then is simple:
SINCE NO PERFECT CIRCLE MOTION CAN BE TRACED ON THE SYMMETRIES AT THEIR SMALLEST MOST ELEMENTARY LEVEL, THE ONLY SOLUTION IS TO WORK WITH STABLE PARTICLE SHAPES AT A HIGHER "ZOOM UP" LEVEL THAT APPROXIMATE THE CIRCULAR PATHWAY.

¹ The conclusion being ; that since the stable “loops” that make up the building blocks of the elementary particles are not really spherical, you are not likely to find (to make a jump in logic) any relationships in particle masses that is exactly divisionable (without fractions) when you compare masses. This is so since a (comparatively) **odd** number of stable gate loops need to be combined to make one particles spherical or near spherical pathway as opposed to another particle type which may require a difference (in number– obviously) or/**and shaping** in its' arrangement of stable gate loops to form a stable particle amidst the “randomly” foaming gates in its immediate vicinity.

² In order to break down the above statement it is necessary to state some fundamentals: Number one being this: The fundamental fact that our existence / energy is quantified, (not infinitely variable):. . . indicate a stepped or well defined structuring of space (space meaning here the volume of the singularity that is infinitely large).

³ If our existence (including the forces between “particles”) were composed of small little spheres / balls of mass drifting/moving around in a literal vacuum, then in that case it would be difficult if not impossible to find a quantum effect. There simply would be no reason for such a quantum “limitation” since the spheres would be able to come as close or as far away from each other with an infinite positional adjustment in the gap distance possible between particles. Of course such a composition of little balls will also tend to drift off into the literal vacuum making such an existence rather impossible.

⁴ To get back to basic statements: The gate continuum is needed in so much that there never existed a literal vacuum and thus the only option for existence, that is to a degree independent of the one singularity that is infinitely big, would thus require a **scaffolding of force lines** with the characteristic of independent initial choice and that mutually support each other in a ordered inter meshing. (Remember: The one symmetry set of 3 and 4 force lines with its infinite number of partners, need other sets of the same description intermeshed with it to help out when there is no gate to match up with during a flip cycle at any one gate node.)

⁵ Another basic statement: The need to have different gate flip/click rates arise because of the need for **different forces to be defined** for use on the higher level of organization of creation. Thus the **need** for flip rates cause the **need** for multiple symmetries sets (or universes), the one symmetry set or sets we are defined in; being the universe visible to us and easy to interact with while quite a few universes intermeshed with our own but invisible to us and difficult to interact with are required for this gates model to exist. The presumption being that our existence need only about 10 symmetries and yet more symmetries are needed to catch the odd gate not finding a mate on these symmetries.

¹ Take also into account that the gate continuum cause a maximum speed limitation on any particle definition in linear motion. Why?; because a particle can only move as fast as the minimum speed that the gates in front of it and the gates it is composed of can flip. Remember the illustration: *A car moving on a farm road with many gates will have its top speed curtailed by the slowest to open gate it has to pass through.* Even the fastest opening gate will have a slow down effect on it as opposed to no gates being in its way.

² Of course, in the singularity there are never a situation were a particle face no gates, since the particle as well as the very structure of space is actually gates. ***Remember, we may think of a particle as a separate thing from the gate structure of the singularity /space, but is in this imaginary atomic model really only a separation by means of gate herding or combination so as to be standing out from the background of gates around it.*** To illustrate ; it is like finding a way to color one drop of water and place it in the middle of an ocean of water, without the one drop of water losing its color but rather maintain its distinctiveness.

³ Not to be ignored is the question of: Why are the lines of force of infinite length? Reason: If you move a single point of infinite density and that point being infinitely small (in the midst of an infinitely large singularity remember), then in the direction of motion, there will be instantly an infinitely long line since there is no compression of the singularity possible in that direction, there being only a hardness stretching for ever in that direction. If the mass that fill the infinite volume were for some unthinkable reason less than infinitely dense (some sort of viscosity to its character) then, in that case no infinite force lines can come about and actually space itself would be unstable since any particles composed of such a compressible substance will simply flow into each other.

⁴ The reason for assuming the infinite volume to be filled with a infinitely hard and infinitely large singularity is a process of elimination. For instance : The volume we are in is infinite since there is no reason to suppose that distance would somehow stop at some point or in any direction. The next step would be to assume that we are composed of something since our very existence indicate that we are ; and thus cannot be made from the literal nothingness. (Sorry for being so painfully obvious – and hair splitting.) If the infinite volume were to be literally / really empty, then it will take a profoundly magical/unexplainable event for the nothingness to stir ;– explode from a singular point and bring about a big bang with us as one of the results.

⁵ Since it is much easier to accept that nothing produce just that ; – nothingness, it is easier to conclude that the something, (originally mass / energy) we are composed of always existed. Thus that which filled the infinite volume correspond with the notion that energy cannot be created or destroyed (into nothingness) but are merely changed from one form to another. The real issue to be addressed is: in what quantity / form was this initial energy.

¹ The reason why the gates model propose this energy/mass to be of infinite density as well as infinite size is because of this simple question ; – Why !. Why what?

Well, why would the singularity be filled with mass/ energy that is less than infinite in all its characteristics, size (volume/extent) as well as density. Since no reason come to the fore, as to a limit on density, the option of infinite density, the only one left, must be the case. (Remember, the singularity can't be empty (we exist) and since there is no reason to attach a specific density to the energy/mass (and size) that always existed in the infinite volume, the only option left being that of infinite energy density / mass as well as size as the only description that fit the singularity.)

² Reasonless magic of course won't do for this description of the singularity as well since such would not be an acceptable reason as to explain why our existence happened. **Rather a acceptance that the singularity own the quality of self awareness and thus made room for lesser self awarenesses such as ourselves;- to exist in ;- can be the only reason to ascribe the first action of creation to;- as well as the subsequent design that is evident to the unbiased mind in all the creation we see.**

³ Note that this is the only conclusion possible since the singularity just would not have stirred if there were no consciousness **wanting** it to stir. The idea of a singularity of infinite density and infinitely small in an infinite vacuum stirring / exploding **without any reason** do not make sense nor do a continuous / repeating process of inflation / beginning and subsequent ending / imploding with no reason / wanting behind it.)

⁴ This demand for a reason can be further strengthened by glancing at the concept of entropy defined by some as the tendency towards "disorder" in any system and yet we see at the subatomic level not disorder but initial order. **Yes, initial order indicate to my simplistic mind that an arranging action took place and such planning actions indicate intelligence and cannot be ascribed to the nothingness that stirred on its own without reason.** The conclusion of accepting the singularity to be infinite in size and volume as well as being self aware and existing forever in the past and present from our viewpoint, seems to be the only end result of deductive reasoning.

⁵ Only an alive, self aware person can exercise reason, that conclusion being a much better basis for the origin of our universe than unexplainable reasonless magic especially **since magic require blind belief without any explanation as to why the magic work while faith in a creator begin with a requirement of proof of intelligent design as found in the things we see in our own sphere of experience. Such proof are abundantly seen in the order in creation.**

¹ As to the motivating reason itself ;– If you recall the bible's statement that:– God is love, then it is reasonable to ask, can such a motivational quality of love be exercised towards nothingness, mere “empty space”?. No reasonable person will love mere nothing, and thus the need for creating ultimately other intelligent entities including ourselves to respond to that love ;– that being both the purpose of our existence as well as the reason for creating in the first place from our Creators viewpoint.

² Of course our higher level of free will connected to our own individual self awarenesses, (not the mechanical free will of the structure of space) are required since it is inconceivable that any purpose or satisfaction can be gained from our Creators viewpoint by making us robotic in our response to that original principled love. We then simply have to exercise a choice, as to whether we will except that love and respond by following the Creators love or whether we reject that love and follow our own ideas such as taking our existence for granted.

³ Of course, this choice is yours and yours only to make. The basic deductions so far are only to point out the base reasons for certain statements made at the start of this writing. As to other points such as this question: – How then has our Creator made it possible for our individual self awarenesses to exist in the midst of the original One self aware singularity?. This work offer no direct answer to such questions other than this disclaimer. – That this work do NOT propose that God's self awareness is omnipresent as some may conclude. That idea, as some new age individuals may believe, suggesting that God is within themselves/ their heads, would defeat the purpose of free will. A brief or thorough look at humanity will convince you that there are no almighty Godship in any human. We are limited entities with the responsibility of free will and the purpose of love. Whether our Creator then has limited his active self awareness in some way in the singularity while allowing ours “room” to exist is a matter we see no need to speculate on further other than to conclude that our Creator, the one who lets become, do exercise full and needed control in this volume of mass / energy of the singularity in which we are created to exist. At this point we will return to the physics of things since a deeper discussion of Jehovah our Creator will require a desire from the reader for more spiritual things and that is not the purpose of this writing ;– but the Bible's.

⁴ Before returning to the discussion on the needed lopsidedness of the structure of the symmetries, we need to say something about time. In this gates model ;–time is only a higher level concept in our mental perception of motion arising from the physical nature of the symmetry force lines. In acknowledgment to mr. Einstein, this model conclude that relative displacement create the perception of time. However in opposition to the notion that time itself is a dimension, this gates model simply allow for the minimum base unit of time to be the numerical difference in displacement between two sources of motion. Time do not exist independently of such motion or the objects moving.

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¹ If there were only one object (the singularity) “moving” with nothing else to compare its motion against, no time concept need exist. Only the creation of “things” that is less than infinite can make time possible because then there will be multiple objects to compare / relate each others displacement to. Even in our everyday measurement of time, we really compare a physical displacement with another physical displacement and then call that comparison time. An example being the displacement that take place in watches, whether electron induced vibrations or small gears and springs or atoms, in more precise atomic clock's, the displacement as counted and compared to the displacement of the objects being measured are then called “The Time” taken to complete a certain action. Time then is itself a relative comparison of displacement. No displacement, no time, as mentioned in the first text page. (to repeat):- Thus if there were no two particles in the infinite volume, that can move (be displaced), relative to each other, the concept of time simply would not exist in the Linear manner we perceive it now.

² The memory of Yesterday's events is thus a recording of object displacement. So we humans are inclined to separate the concept of time from the notion of displacement and speak of time as if it is a separate thing on its own, making statements like this ; - The time it took for this or that to happen Much easier to say of course than to use the more accurate but hairsplitting statement ; - The displacement between this and that making up this event is..... Of course all this railing against time is only to excuse myself from having to treat time as a dimension and to point out that the singularity with its characteristic of infinity in all its qualities are not at all subject to time as we experience it. Time thus is created from the flip numbers differing from each other and at a higher level of organization it is an invention for the mind to deal with just like every thing else that is created. **Time began.** *(When the first entity with self awareness and lesser than the original singularity were created, then the mental perceiving of time started as we experience it today.)*

³ Of course since we do not have a vocabulary that make it possible to speak easily without using time as if it is an object, i will be stuck with that use of words and may be forced to use phrases like ; - the time interval between.... when a more cumbersome but accurate way would be to say ; - the displacement of this object was like this as compared to the displacement of the other object.... However you will now of course understand when such time speak are spoken, what is really meant, refer to displacement comparison. Phew !! Let's move on.

⁴ The discussion on the lopsidedness of space / symmetries need to be returned to. The need for the symmetry force lines to intersect each other at a variety of angles thus create an effect that will impact on the larger scale of grouping. (Note that every type (x or y or z) of force line has its own particular intersection angle relative to the other force line's angle.) This symmetry lopsidedness thus cause on the most fundamental level of the structure of space an inability (to create on the higher level), relationships (in the mass of particles as well as in the fundamental forces), that is exact in a numerical manner. So instead of an an proton being 1900 times or 1800 times as massive as an electron, it is measured at 1836 times the mass of an electron.

¹ Naturally the slanted nature of space cannot be held up as the only reason. The range of the relationships between masses are from the intelligent design choices for the benefit of our existence, made by our Creator with the full knowledge that the lopsidedness or distorted but necessary, nature of the symmetries, will make absolute round figure relationships improbable. So why this going on about roundness? It is not to bemoan the fact that round figure's would have been easier to work with. Rather this slanted nature of space fundamentally influence motion and the construction of atoms itself on the larger scale.

² On the larger scale, begin to refer here to that grouping of gates that form the first stable "key particle" loops from which all other stable combinations are constructed. How does this "key" particles behave on "top" of this slanted "sub frame"? Well you may have guessed already that no literal straight line motion can be executed by any particle in this gates continuum. Even three quantum jump points is not likely to line up in a straight literal line. Thus there can be only "zigzag" motion at the level of the "key" particles. To wound up that long winded statement:- The very vibrational nature of higher level particles are attributed to the needed distorted / slanted nature of the symmetry force lines. If the force lines were kept at 90 degrees to each other, with all the limitations coming with that arrangement, then quantized (broken) but straight line motion between points will be possible. With the slanted arrangement of force lines, no straight line is possible but rather a **wave action** as will be found in the smallest particles. The wave nature of particles in motion are thus built into the structure of space due to the alignment of the force lines. Naturally the (slanted) grid gap distance of the symmetry lines of space, will determine the minimum (smallest) wavelength possible.

³ Another very important influence springing from the slanted symmetries, is the limitations to the stable "key" particles **rotational alignment**, that can exist as well as the spiraling motion forced unto the smallest "key" particles when they are in motion. The "key" particles, are always in motion, just as the gates are always clicking. – (Back to "time speak" you may note.) However before we discuss these limitations at the higher zoom level, we first need to define what is meant by the word "stable" in this gates model.

⁴ With the word "stable particle loop" is meant ; – that sequence of gates that stick to each other (mathematically due to a shared click rate or easy divisibility) and is displaced (when moving) as a unit, in the midst of the other gates surrounding it without losing that original pattern of gate sequencing nor deforming its shape permanently to put it another way.

⁵ Thus this stable loop "key" particles that make up all others are constructed from gates sequences that match easily, mathematically. How mathematically? Well, it depends on the gate flip rates for that "key" particle definition to be the same or the easiness of division overlap (the more overlap the more stable) in the case of an "exotic" particle made from a variety of gates flip rates.

¹ You may also note by now that this model's basic assumptions are based on geometry and not the constants as measured in modern day physics. This is not because of some problem with these constants but due to the reasoning that the underlying symmetry structure of space give rise to these constants, and thus the stable particles, during the creative process. The constants did not exist before the force lines since the original self aware singularity that pre-existed before all else, have only one applicable physical constant ;- that being the quality of infinity to all its aspects such as volume and density and thus mass also being infinite.

² Since in our physics calculations we cannot practically use any infinity as a value, then reasoning backward it seems clear that the very finite constants we do use, must have come about from the creative construction of space, a design result for our benefit.

So, this leave only geometry as the only means to describe that stage and level of creation that binds our necessary limitations to the infinite singularity itself. The theoretical physicist methods include the option to base his calculations on a mix of observed and already "proved" measurements and some postulate of what may be. In a similar manner of approach, this imaginary atomic gates model is open to a comparison with the more "established" constants, (for our regional volume of space) for the purpose of seeing what sort of construction / alignment and gate groupings at various zoom levels will give rise to any particular constant.

³ Now to get back to the limitations on rotational alignment and the spiraling motion:-

We will need to keep 4 fundamentals in mind.

Number one being:- The gate Flip Rates making up the "key" particle.

Number two being:- How Many gates there are in that stable arrangement.

Number three being:- The shortest possible wavelength due to the grid spacing.

Number four being:- The "fit" of that key particle within the grid "volume" for its size.

⁴ Number 4, you might have gathered, is the one factor, "fit", that will determine if a sequence of gates even with the best mathematical "overlap" connectivity will "crystallize" into a stable "key" particle. This is so since the volume's as sketched out by the alignment's of the symmetry lines, will require a very exact number of gates to link ("hold hands and form a ring") at the same moment while also fitting into the play "pen". The "play pen" boundary referring to the boundaries defined by the symmetry lines.

⁵ Take note of the importance of shape as it effect motion:- If the symmetries merely intersected at right angles to each other ;- then in that case, "any" or a vast variety of stable particles at just about any diameter could exist. With the lopsided gates model however a quantized limitation as to what key particle rotational alignment can exist, now come into play. Note:- the slanted or non - right angled nature of space is not limited to just one plane ; since in the 3d force line intersect at least 2 of the force lines needs to be other than 90 degrees and also the 4d force line may have up to 3 intersection lines other than 90degrees.

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¹ You may begin to discern that the lopsidedness of space are then lopsided in various directions, making a stable particle fit a very exacting matter. Only certain sizes of stable “key” particle collections can thus exist in a particular symmetry spectrum. (Remember ; a symmetry spectrum may refer here to a combination of $3 + 4 + 3 = 10$ force lines, but for exotic particles with multiple symmetry spectrum overlap stability, this may of course be more. – Also note by way of reminder: many more spectrums of a similar 10 force line combination, curled up amidst each other may exist, with their gate nodes being their only touch point with other symmetries. Their stable particles may be defined by a vastly higher or lower gate rate of flips, making combinations in that spectrum preferably for those mathematically, “near to each other”, gates. So, it will be indeed be an exotic particle that can link its gates stably across such spectrums that otherwise would be near invisible to each other. Anyway, it has already been shown why we need a lot of symmetries ;– to be a scaffolding for each other's loose flips;– and investigating the structure of space would be plenty enough to keep one busy for ever.

² Back to the limitations:– Well we later see that the multiple plane lopsidedness create certain (to borrow a phrase), islands of stability, where a stable grouping can exist. This then is the basic reason for our sub atomic particles and thus on the larger scale whole atom arrangements (stable grouping of “key” particles) being what and where they are in relation to each other. Of course, the initial alignment of force lines are not randomly chosen but are so created with the end result relationships forces and particle qualities in mind so as to support our existence.

³ Perhaps the question may still come up in your mind:– can lopsided alignment really cause these gaps between stable particle groupings (atoms)? To answer that in a (hopefully) conclusive way, require a quick return to the square block comparison. Remember if you glue a lot of cube's, of the same size, together for the purpose of approximating a sphere, then the larger the radius, the closer to a sphere shape your construction will come. Adding another layer of cubes will just make for a closer approximation of a sphere and you can continue to make a bigger and bigger sphere ad infinitum. The “stable” spherical rotary important shape can then easily exist at nearly any radius in a cube shape 90 degrees intersecting force line matrix. These geometry facts lead to the conclusion that such a “square” structured space construction, would have accommodated nearly any size / radius of particle (imagine a proton being as big as the Earth or Jupiter etc.). Yet we do not see such a near continuous profusion of particles of just any size, filling our existence but rather what appears to be a limitation / “quantification” on the sizes that can stably exist at the atomic scale. Therefore the symmetries in the gates model cannot be “square aligned” if it is to reflect the reality of “quantification”.

⁴ So that leave only a lopsidedness as the only option left for the force line alignment. Yet you may wonder, will it really cause any big difference in particles size possibilities from the “square” arrangement? Well to really see why, you need to draw multiple (next to each other) parallelogram shaped areas (same side lengths as the square) on a flat plane. Then use the same number of parallelograms as used for the squares to try to fit a near circle shape over.

WITH THE SLANTED SYMMETRY FORCE LINES, SEVERAL SPACE CONSTRUCTION PROBLEMS ARE SOLVED BUT RESULT IN A ROTATIONAL LIMITATION TO 2 AXIS OF ROTATION. (ON THE LOWEST LEVEL ONLY)
 IN ORDER TO DEFINE A PARTICLE THAT CAN FOLLOW THE SPHERICAL PATHWAY, OR ROTATE ON IT'S GEOMETRIC AXIS.

WITH SIMPLE SYMMETRY WITH IT'S FORCE LINE ALIGNMENT AT 90degrees TO EACH OTHER, 4 AXIS OF BALANCED ROTATION IN A PLANE IS POSSIBLE (ADD THE Z- ROTATION THEN IT IS 5)

AXIS 2

AXIS 1

AXIS 1

AXIS 2

WHY THE STRUCTURE OF SPACE IS SLANTED

THE BLOCKS ARE NOT THE CONSTRUCTION OF SPACE ITSELF BUT RATHER THE POINTS WHERE THE CROSSING OF LINES TAKE PLACE THAT REPRESENT THE GATES POINTS.

AXIS 1

THE BLOCKS ARE NUMBERED SO AS TO ILLUSTRATE AN EXACT EQUIVALENCE BETWEEN SQUARE & SLANTED SPACE.

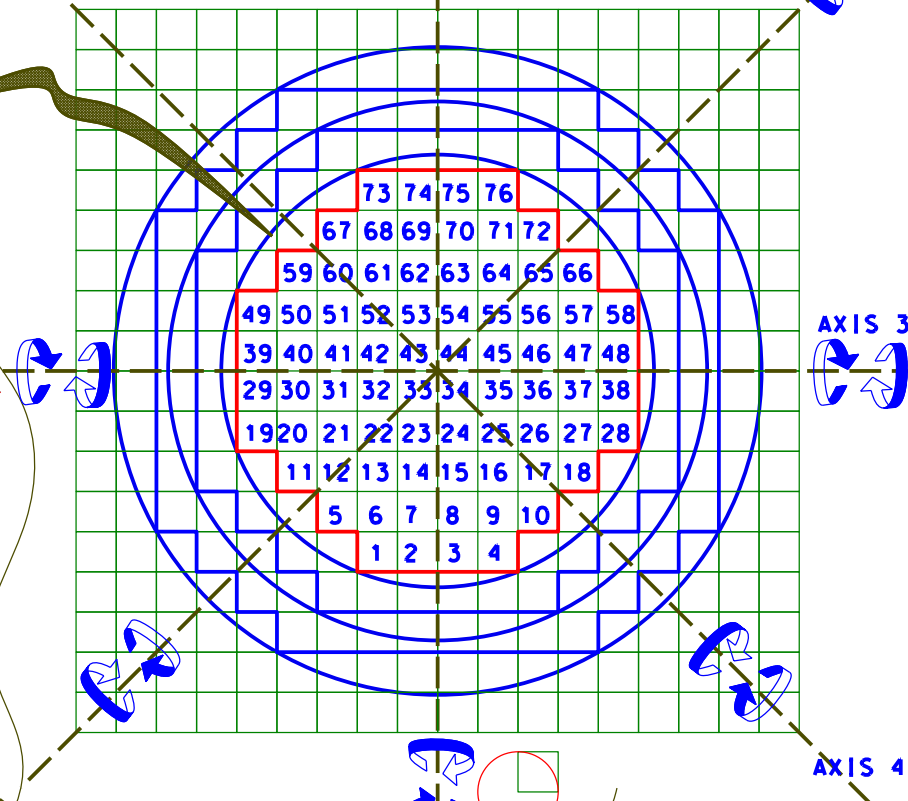
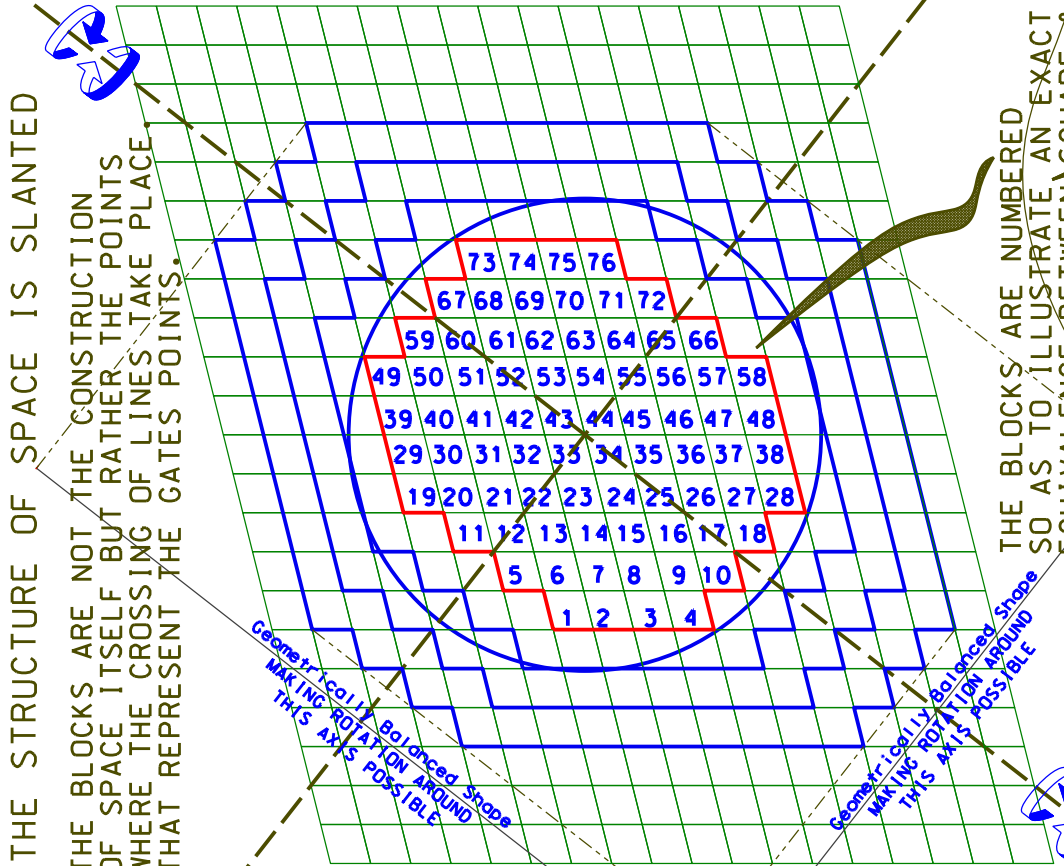
Geometrically Balanced Shape
 MAKING ROTATION AROUND THIS AXIS POSSIBLE

Geometrically Balanced Shape
 MAKING ROTATION AROUND THIS AXIS POSSIBLE

HOWEVER THE MULTIPLE PLANE SLANTED SPACE CONSTRUCTION GIVE RISE TO VARIOUS LIMITATIONS AS TO WHAT LARGER PARTICLES CAN BE DEFINED AS WELL AS A VIBRATIONAL NATURE TO THAT PARTICLES SINCE NO STRAIGHT LINE MOTION IS POSSIBLE BUT RATHER A ZIGZAG MOTION AT THE LOWEST LEVELS OF PARTICLE DEFINITION.
 THIS "DISTORTED/SLANTED" SPACE MODEL IS THEN THE "REAL LIFE" GATES MODEL SINCE IT REFLECT THE QUANTIFICATION AND WAVE NATURE OF PARTICLES AS A NATURAL END RESULT.

HOWEVER THIS SQUARE SPACE CONSTRUCTION WILL CAUSE SYMMETRY INTERSECTION IF .THE NEEDED, MORE FORCE LINES ARE ADDED IN BETWEEN THIS MATRIX FOR THE BENEFIT OF THE FLIP ACTIVITY OF THE GATES SO THAT GATES ALWAYS MATCH UP.

THIS SQUARE SPACE MODEL ARE THEN ONLY INITIALLY USED TO EXPLAIN THINGS AT THE START BUT NEED TO BE DISCARDED AS THE GATES MODEL ADVANCE.



SLANT DIAGRAM

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¹ Continuing from point 4, text page 30:

If you compare the parallelogram block's shape grouping within the circle with the equivalent square block grouping in their circle, then you may notice that the Square block have at least four rotational axis possibilities through the geometric center of the Square construction. The parallelogram's Slanted construction are limited to two rotational axis possibilities though its geometric center.

² The limitation in rotational axis possibilities as shown on a single flat plane are an important indicator of the limiting characteristic of slanted force lines on the rotational possibilities for particle groupings that can exist at higher zoom levels. However it does not fully explain the notion of quantification as seen in nature, that is, if you only use that one plane in the gates model. Therefore we must take into account the fact that there are in a ten symmetry force line spectrum;- at least 7 slanted force lines ($2+3+2 = 7$), in relation to their respective 3d and 4d groupings. Therefore at least seven planes of limitation exist to produce the quantification effect. However before we discuss the implications of multiple slanted planes of force lines on particle definition and quantification further, let us look at a summation of points of some base reasons for the choices made so far. { To get to 7 slanted lines: $(3-1=2)+ (4-1=3)+ (3-1=2)$ One being subtracted because it is the baseline .}

³ Remember, this gates model assume that particles are defined on a spectrum of a minimum of 10 force lines so as to provide a scaffolding for preventing loose clicks and thus picking up loose gate flips = 1st Point Also ;- the reason for the slant is to accommodate (the needed) more force lines passing next to each other so that they only meet at their designed for node / gate points and do not intersect at other points as would happen if the lines intersected square to each other thus cutting up the matrix into ever more but useless force line pieces in such a impractical square arrangement.

Thus to avoid symmetry intersection

there is a need forthe slant / lopsidedness = 2nd

Point The multiple slanted (in various directions) symmetries then impose a limitation as to what rotational possibilities can exist at various zoom levels of particle construction.

Multiple slants are then a sculpting "tool" for causing the "quantum" structure = 3rd

Point The summation of points thus indicate that one need leads to another need, which then end up at this point at quantification. Thus the need to ___connect every gate___ leads to the need ___for more gates___ at an offset from each other, leading to the need for those "other" gate's ___force lines to be slanted___ so that they can pass each others line structure and thus curl up amidst each other and this multiple slants lead to ___limitations in rotational axis possibilities___thus leading to limitations or ___step gaps in the size's___of particles that can be composed from that rotational and orbital possibilities available___as well as quantification of energy at the atomic level. In addition the ___wave nature of particles___ are due to this slanted substructure as particle definitions simply have to "weave / zigzag" their way in any direction they may move___leading even to the effect of precession (in the rotational axis of spinning objects).

¹ The above of course indicate a design process of choices made by our Creator for the benefit of ultimately making a habitation for intelligent life in the midst of the infinite volume. At this point we need to return to the issue of multiple slanted symmetries and see how that quality combined with the gate offsets, is a force for quantification.

² So how can multiple axis of rotation slants contribute to particles and more particularly, groupings of particles making up the the atoms, being confined to islands of stable existence.

³ Beginning once more at the 3 dimensions intersection lines of:– x y z, we need only to slant the:–x and:–y force lines in relation to the:–z force line. So that leave 2 force lines at a slant. Additionally, since we use a 4 dimension force line symmetry connected to the 3d “box” at the 3d box corners, then the 4 dimensions has a cross node point or gate in the middle of the 3d “box's” volume. Now this center point becomes one corner point of another 3d box.

⁴ Now at this point we need to *introduce* the notion of *symmetry grouping offset* as we place the 3 + 4 + 3 line dimension boxes together to form the 10 symmetries needed for our assumed minimum symmetry spectrum. The offset idea is due to the fact that the second 3d box is connected to the center points of the 1st 3d box with the 4 line dimension serving as a link.

⁵ The offset is then in the geometric relationship of the 2nd 3d box and the 1st 3d box gates and how they pass their flip rates between them. Take note that since every gate naturally have to click away from its main force line direction in order to exercise its function as a gate, then the center point/ node gate is in a natural position to capture the gate clicks from the gates surrounding it. Remember, the box idea is used for illustrative purposes so that it is easier to visualize the gate arrangement which really should be described as a infinite number of force lines inter meshing at an offset to each other.

⁶ To get back to the slants:– this center node idea apply to all gates really, since they are all individually center to other gates surrounding them. The slant however are not assumed to be similar in this gates model for all force lines. At this point another new idea must be introduced into the imaginary atomic model. This is the assumption of *mirror slant*.

⁷ Remember, the original basic assumption as first rule was that force lines do not cross each other's path's and from there all other assumptions flowed up to this point. Now the second basic assumption:– that the force lines of the 2nd 3d “box” are slanted as a mirror or opposite slant to the 1st 3d “box” are introduced for the sake of balance. Balance in what?

¹ Answer:– To provide a basis for balance in the rotational axis possibilities. Remember, the rotational axis (for a circle approximation) on this squeezed /slanted symmetries are limited to two axis's on a flat plane as compared to square 90deg structured force lines where at least five rotational possibilities can exist. Now you may see that while the 90 deg line force line intersections cannot be accepted into this model due to symmetry intersection problems it would create, the useful rotational “freedom” that such a 90 deg structure can bestow on even the smallest particle definition are lost in the slanted force line gates model with its greatly limited rotational axis slants (only 2 for slanted space but 4 if space was 90deg, square structured). So to sum it up: – We do not want the 90 deg intersection of force lines but we sure would like to have at the most fundamental level of space the greatest rotational possibilities for the maximum variability when construction of particles at a higher zoom level take place.

² However since you cannot have both a 90 deg structure as well as a needed slanted structure, then the only way to get a variation or variability in rotational slants in the slanted gates model will be at higher levels of gate grouping. So the question arise:–at just what point of the higher construction grouping of gates can there be more than 2 slants on a “flat” plane in the slanted space model? At this point the need for mirror slant of the 2nd3d box need to be explained since it will bring that variability as low or close to the basic gates level as possible.

³ What does the word mirror slant imply? It indicate that the force lines making up the 2nd 3d box are not parallel to that force lines making up the 1st 3d box. In fact it is exactly opposite to each other. How? By having the 2 slant lines at the one box corners “lean left” while the other box have its 2 slant lines lean right at its corners. What does that achieve?

⁴ Well, if we take 2 flat plane's through either of the two 3d boxes, we still have a limit of 2 rotational slants per plane but with one important difference between them. The one plane will have 2 slants in the opposite direction then its mating plane 2 slants. Now when we use these two 3d boxes by defining a “key” stable particle across them, a base “key” particle with 4 rotational slant possibilities come into being if we use only the one plane . Yes it (the rotational axis angle) is still less “spaced /angled offset from each other ” than the 4 rotational axes which would be at 90deg of each other, yet it compare well with the 4 axis line's that is in the plane of a square space grid particle definition since there is now the at least the same numerical number of rotational possibilities. Using this arrangement thus bring the slant possibilities to a lower level than

would otherwise be possible in a slanted gate continuum where all slants is parallel to each other.

⁵ Well the above serve as an introduction to *mirror slant*. However there is much more to this mirror slant than just the need to maximize the rotational slant quantification possibilities = That is to make more rotation axes directions possible at the lowest level closest to the gate node definitions itself. Note: The Gates themselves do not rotate and are unable to do so. Their action is restricted to passing the click rates along through the node points. Only Higher levels of particle definition (More than 3 Gates - "Holding hands") engage in rotational action. See Also Rotational Axis Vibration.)

¹ This assumption of mirror slant predict another necessary concept. This is the concept of **precession quantum jump**. This essentially means that a base “key” particle while it is rotating (and what particle at the subatomic level does not rotate) can make use of only the one 3d box whose defined rotational plane's it uses at that moment. To put it another way . That particles definition can only exist on that 3d box at that moment. This is so since it would be impossible for a particle to spin in the 1st 3d box on one slant and at the same time spin in the 2nd 3d box on another slant. Even if the 2nd 3d box force lines were in parallel and not mirror slanted and thus rotationally of the same alignment, it would still be impossible for a key particles rotation to exist across both these 3d boxes at the same time. This would be due to the basic offset between boxes, the one box having a “starting” corner in the center of the other box. So no line up of rotational axes will be possible across the boxes even without mirror slant;- and we cannot have basic rotation with two axes, without breaking up the particle definition.

² The only way then to have a particle change axis of rotation (precess) in this gates model is to limit the existence of that particle to the 3d box who's quantized rotational axis it is using at that moment. The moment there is a need for the particle to change rotational alignment beyond the two possibilities that is on the 1st 3d box corner it is on presently ;- then the whole particle definition have to flip over to the 2nd 3d box so that it can make use of that 3d box plane of rotations, which at the most base level would be the only rotation axis possibilities left open and those axes being mirror slanted. Thus a pulsating action will occur between the two 3d boxes with the 4d gate point used as a transference point for the stable gate arrangement to join up first in the one 3d box and then completely shift to the other 3d box as the key particles jostle and bump into each other and thus force **precession** shifts in each other's rotational alignments.

³ This quantum jumping is not always cyclical since a key particle can stick to any rotational alignment as long as it is *not forced to precess*. Thus rotational axis precession jumping can be a rather random / unpredictable sort of jostling action across the 3d boxes of our minimum symmetry definition through the 4d gates when a particle is “stationary”. When a key particle definition is forced to move in a direction however, there will be a change in the particles behavior from a random swifting of rotational axes to a more cyclical predictable near “sine wave” motion perpendicular to the axis of rotation of the moving particle.

⁴ So, when a “key” particle move in a direction it will have as part of its qualities a constant precession in its rotational axis. This precession jump then become a predictable pulsating feature of that particle. Why pulsating? Due to the small but not to be ignored offset that exist between the 3d boxes;- an offset distance that must be crossed. Why is this important? It is important since this offset distance will cause the center point of rotation to shift in its plane and as the “key” particle move perpendicular to the rotary axis 3 motion actions (other than basic gate flips) are now being performed by the particle at the same time. A particles Identity can be unique due to the various vibrational aspects to each particle.

A unique identifier similar to an IP Address (Computer on the Internet) can be had for each particle. (More Later)

¹ On the one hand there is the rotary action of the “key” particle about its own axis. Then there is the secondary twirling action of that rotational axis as it shifts (precess) its position around a center point to predefined (quantified) alignments / angles to that center point. These two motions are then finished off with a pulsating cyclical shift of that same center point as the stable gate's of a “key” particle in linear motion are forced to move from one 3d symmetry to its “near” mirror 3d mating symmetry in order for that shape/object to keep rotating on its own axis and precess / twirl that same axis.

² This shifting / pulsating twirl point will then trace (from an observer's viewpoint) unto the structure of space what will look like a near sine wave squiggle pattern. Why near sine wave? Answer:– a perfect sine wave will not be immediately possible but rather two “twine waves” ;– one due to the 1st 3d symmetry's twirl point and the second “twine wave” other due to the second symmetry's twirl point. Since the twirl points are offset to each other due to the squeezed leaning box alignment of the force lines ;– there will be a phase difference in the twirl points linear motion. Thus the one “twine” wave will lead the other near mirror wave.

³ The “twine” wave form is then the most basic of all wave shapes but since every particle has two such waves (hence the name Twine indicating Two) closely associated with it, these waves will not ordinarily be observed / sensed separately. They would in everyday measurements be observed as a combined resultant. A combined resultant of two “Twine” waves shapes come out as a single Sine Waveform. This can be graphically / mathematically proved. (See the graphic layout on Twine waves in EB_WAVEFORM program.)

⁴ To sum things up:– it can be concluded so far that the structure of space that we are defined in;– is shaped such that one Twine wave need to be one 24th out of phase step with its corresponding Twine wave on the near mirror symmetry we need in order to exist. Remember:– – Why “near” mirror? Because of the phase shift difference it is called “near” because the “twine” wave comparison of two such wave shapes indicate that they are nearly identical with only a small piece of one wave leading and a small piece of its mate trailing that do not match. The flip / mirror structure of one 3d to its 3d partner are however exactly alike if placed next to each other with the angles being the exact same but with opposing slant directions.

⁵ Take note that in this gates model objects are defined by using symmetries in sets of two as described above, thus 3d with a transfer 4d and a out of phase mirror 3d “near” to the 1st 3d. (The word “near” also refer to the physically close location of the mirror symmetry.) No other higher sets of symmetries are needed (such as 5d or 6d) but only a unknown number of 3 + 4 + 3 sets with every grouping of such 10 force lines making separate universes amidst the others possible. Naturally the main separator between sets will be the alignment of force lines as well as the click rates which may vastly differ from set to set. Remember:– the space structure need to make allowance for many symmetries in the scaffolding for mutual support of force lines gate's flipping and thus the need to avoid symmetry intersection by adjusting angles of such force lines to avoid being 90 deg to each other .

1 The question why would a one 24th out of phase choice be made?
This choice is made since it can already be mathematically be proven that a double wave (Twine wave) can be generated from a simple relationship between a circle and a square.

2 This relationship is Demonstrated in the program EB_Waveforms and it indicate that a simple sine wave always is the resultant of two more Complex Twine waves interacting or "canceling" each other out with this relationship between them:-
ONE WAVE IS A MIRROR AND A REVERSE FLIPPED COPY OF THE OTHER AND IT IS ALSO ONE 24th OUT OF PHASE WITH THE OTHER TWINE WAVE.
Previously the conclusion was reached that One Particle on its own can generate a Twine Wave. However Let us now consider another option: -Option 2 for Twine wave generation:-

3 Postulate (Logic Jump):-

If the structure of space is fundamentally structured so as to propagate moving particle structures in waveforms as Twine, with an **identical mating** particle that is moving closely to it in a reverse mirror fashion ; 1/24th out of a cycle of phase ; then our "cancellation" result of two inter Twine waves interacting;- RESULT in a Sine Wave being observed / detected.

Thus an **energy subduing effect** may be present in the universe since the resulting Sine wave (we detect in photons etc...) will carry less "punch" so to speak. If the seemingly singly particle can be split however, then the Twine relationship become untangled and the real energy that the single particles carry on their own (exposing the following of the natural symmetry slantedness) will come to the fore as two separate particles that move with a Soliton waveform pattern without easily stopping.

Now:

If an elementary particle such as the photon were in fact to be two closely coupled particles (as described above), then the energy of a split photon would be greater than the subdued particle when mated with its reversed / mirror partner. Splitting the photon may be achieved by the collapsing sound bubble that has already been observed to achieve small burst of high energy. SEE FURTHER NOTES ON THIS TOPIC IN THE EB_WAVEFORMS COMMENTS IN THE FREEBASIC SOURCE PROGRAM. ALSO NOTE THAT IN THE LATEST EB_WAVEFORMS PROGRAM A CORRECTION AS TO THE Distance VARIABLE 'S' USE ;- NOW PRODUCE MORE DETAIL OF FINER CURVETURE IN THE TWINE WAVEFORMS BEING DISPLAYED.

4 The above Postulate are motivated by the possibilities presented by the mathematical discovery or rather rediscovery of the relationship between a Circle and a Square to each other where one point of the Square are fixed to the Circle and the opposite corner point of the Square is fixed to a Pivot. The Center of the Circle is also fixed as a rotary point. Simple Rotary Motion is then applied to the Circle....

¹ The x-y Co-ordinates of this “Elementary Motion Construction“ of a Circle / Square in Joint motion are then traced taking special note of the Co-ordinates of the Two Remaining Corners of the Square.

² Tracing these Remaining Corners on a “Grid” produce the resulting Two waves that at first glance remind you of sine waves.

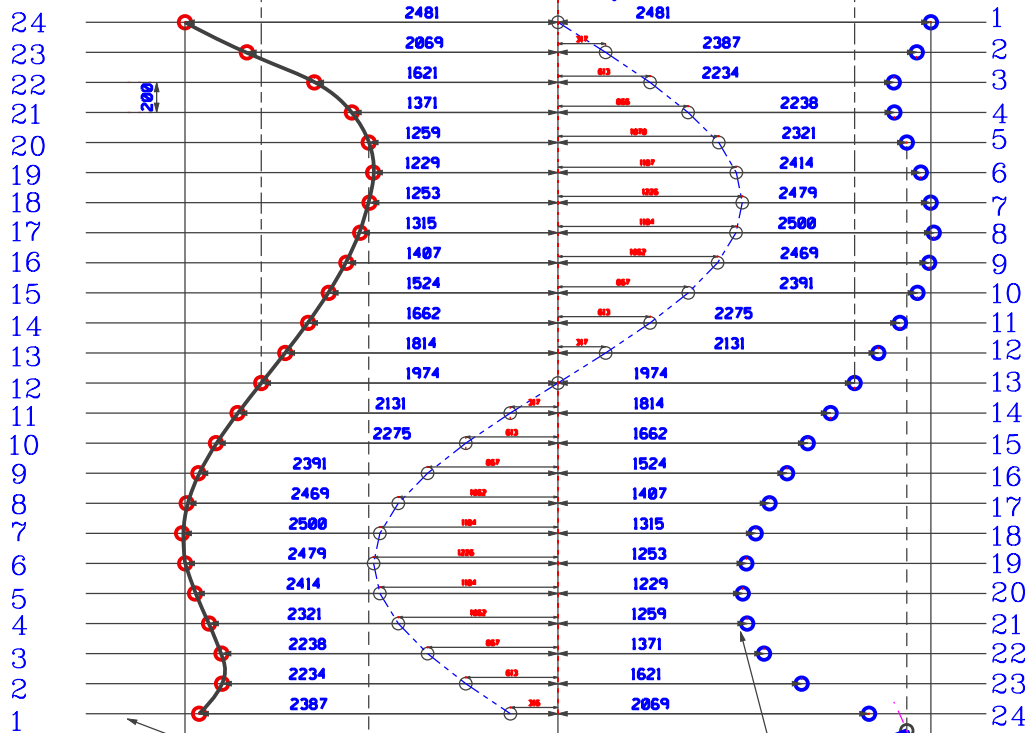
³ However it soon become clear if you look closely at their HUMP Shape and at certain values of distance between Pivot and Circle center a odd change in path (Double Hump) is seen and a sharp crest at maximum distance between Pivot and Circle. (Best to see the Program in action)

⁴ However the point of mentioning these waves shapes now is to indicate that each single wave of a Twine wave then constitute or can represent the wave action for one 3 dimensional slanted symmetry acting in unity for a particular particle. Each stable particle chain are constituted across two such 3d symmetries and joined together by a 4d symmetry. The TWINE (double) wave shapes are geometrically forced to be as they appear due to the WEAVING OF OF THE STABLE HALF PARTICLE'S AS THEY CLOSELY FOLLOW EACH OTHER, ONE STABLE HALF ON THE ONE 3D AND THE OTHER STABLE HALF ON THE SECOND COUNTERSLANTED 3D. Note that the second 3d is also physically positioned so as not to cause symmetry intersection with the first 3D. Therefore any half particle will follow the lead half particle which is on the first 3D with what will manifest to our measuring instruments as a phase difference.

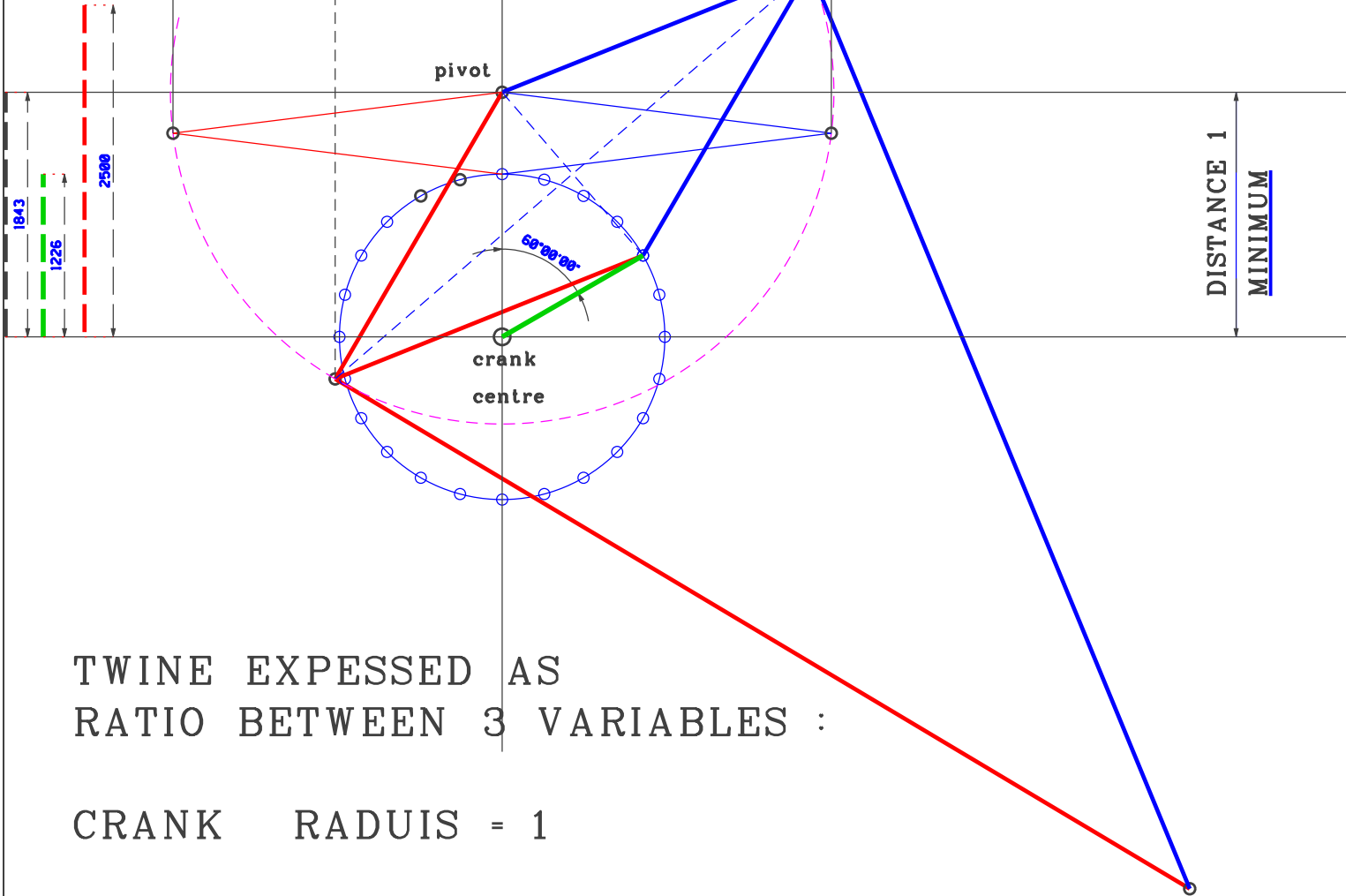
To complicate things further we need to realize that this motion of

Note to IAM (Why a reverse mirror slant in the second 3d? -need to be linked to Twine Wave.)

BOTH SIDES HAVE THE SAME EQUATIONS APPLIED TO IT.



HOWEVER THEIR REVERSE MIRROR IMAGES DO NOT MATCH.



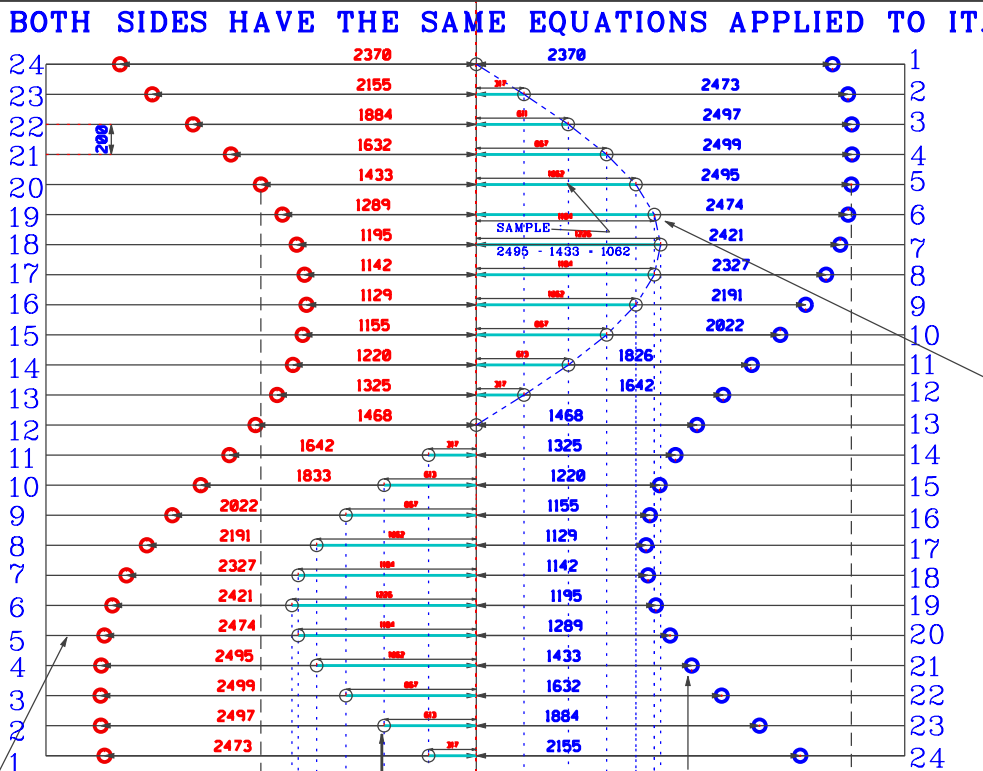
TWINE EXPESSED AS
RATIO BETWEEN 3 VARIABLES :

CRANK RADUIS = 1

SQUARE LINKS = 1.50326.....

PIVOT TO CRANK CENTRE DISTANCE = 2.03915.....

IT SEEMS THAT TWO TWINE WAVES SUBTRACTED FROM EACH OTHER IN A REVERSE MIRROR FASHION RESULT IN AN EXACT SINE WAVE

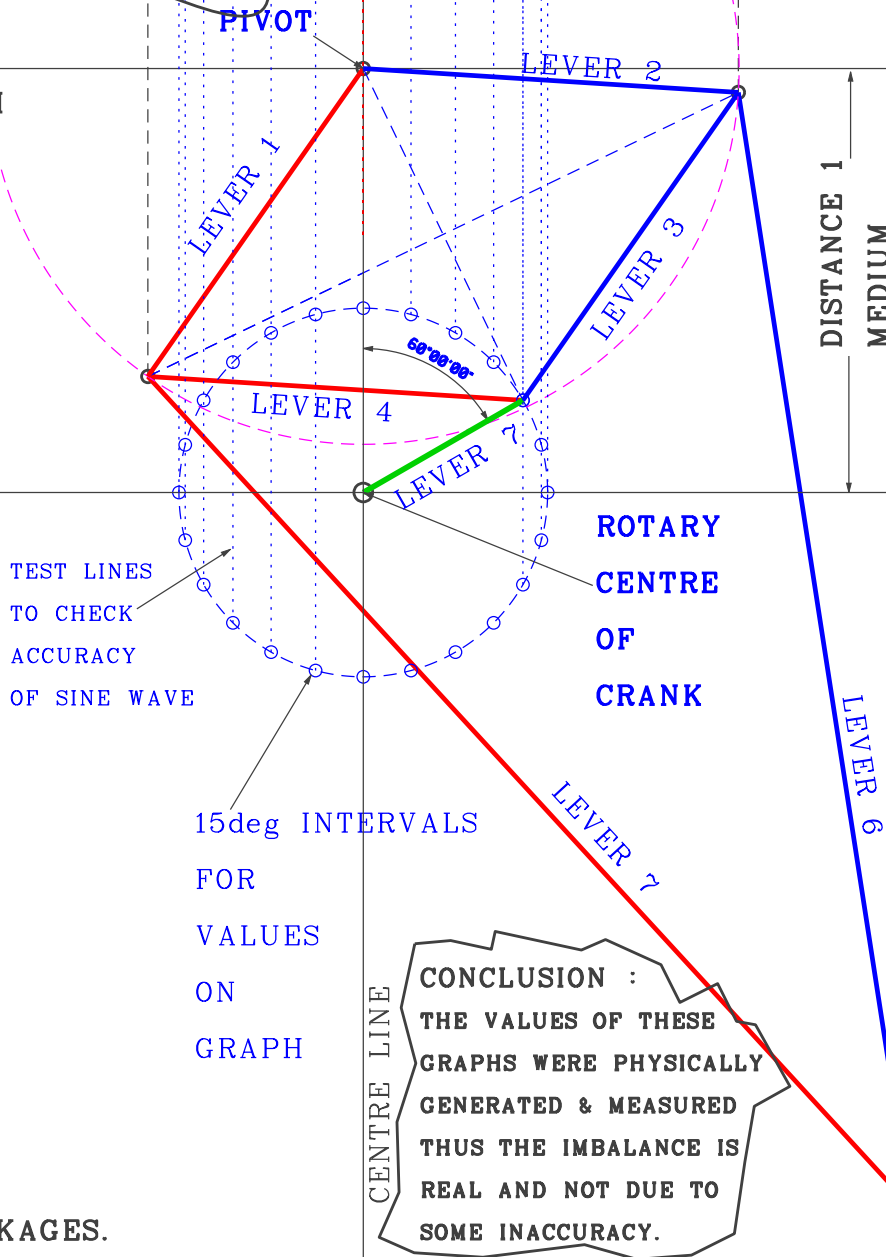


THESE TWO OUTSIDE GRAPHS (RED & BLUE) MAY REMIND YOU OF A SINE WAVE BUT THEY ARE NOT. THE SINE WAVE IN FACT RESULT IF YOU SUBTRACT THE VALUES OF THE GRAPHS FROM EACH OTHER. BY THE WAY THIS WAVEFORM BECOMES MORE RADICAL IN IT'S SHAPE AS THE PIVOT AND CRANK'S CENTRE ARE POSITIONED AT IT'S MAXIMUM AND MINIMUM DISTANCES (1) FROM EACH OTHER. THE HUMP SHAPED DISCRPTION OF THE TWINE WAVEFORM MAY APPLY AT INTERMEDIATE DISTANCES BUT THERE IS A DOUBLE HUMP SHAPE THAT DEFY DISCRPTION AT IT'S MINIMUM VALUE AND A SHARP CREST SHAPE AT MAXIMUM.

HOWEVER THEIR REVERSE MIRROR IMAGES DO NOT MATCH. UNLESS THEY ARE OUT OF PHASE BY 1/24th

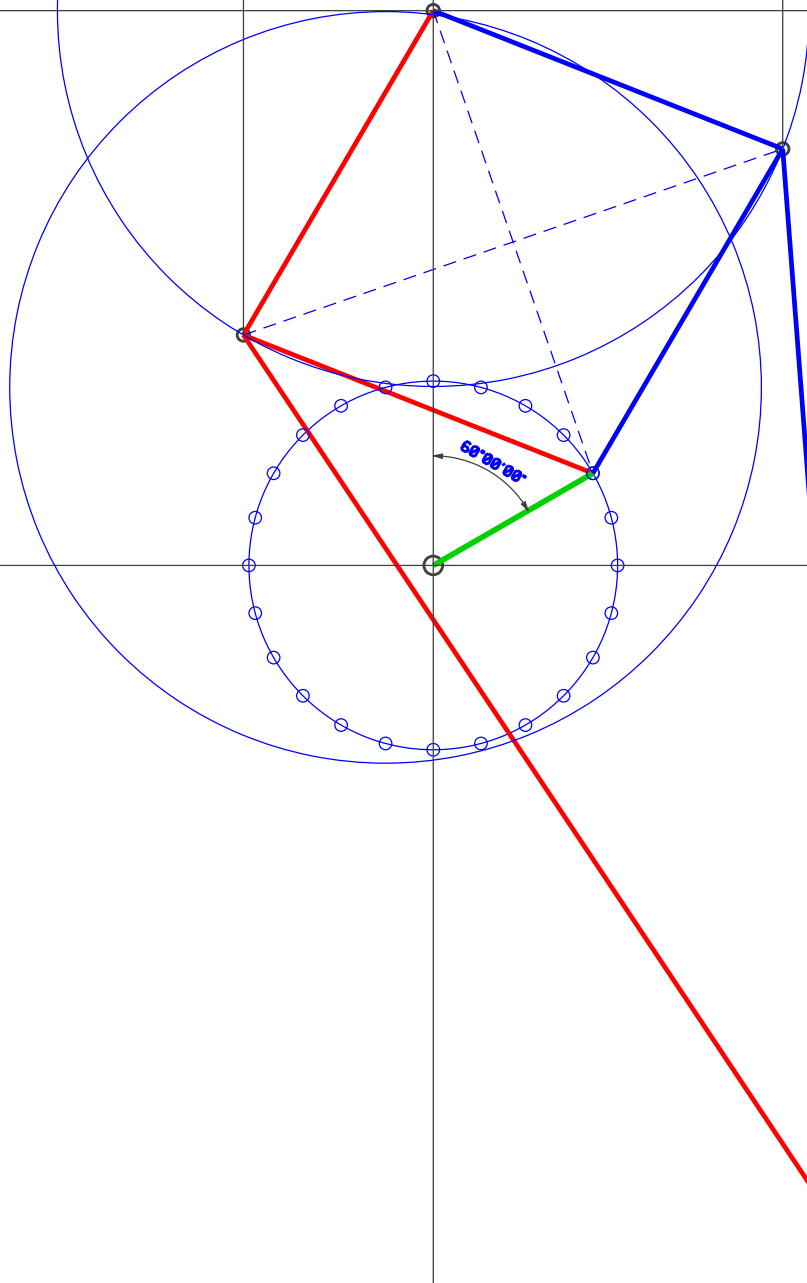
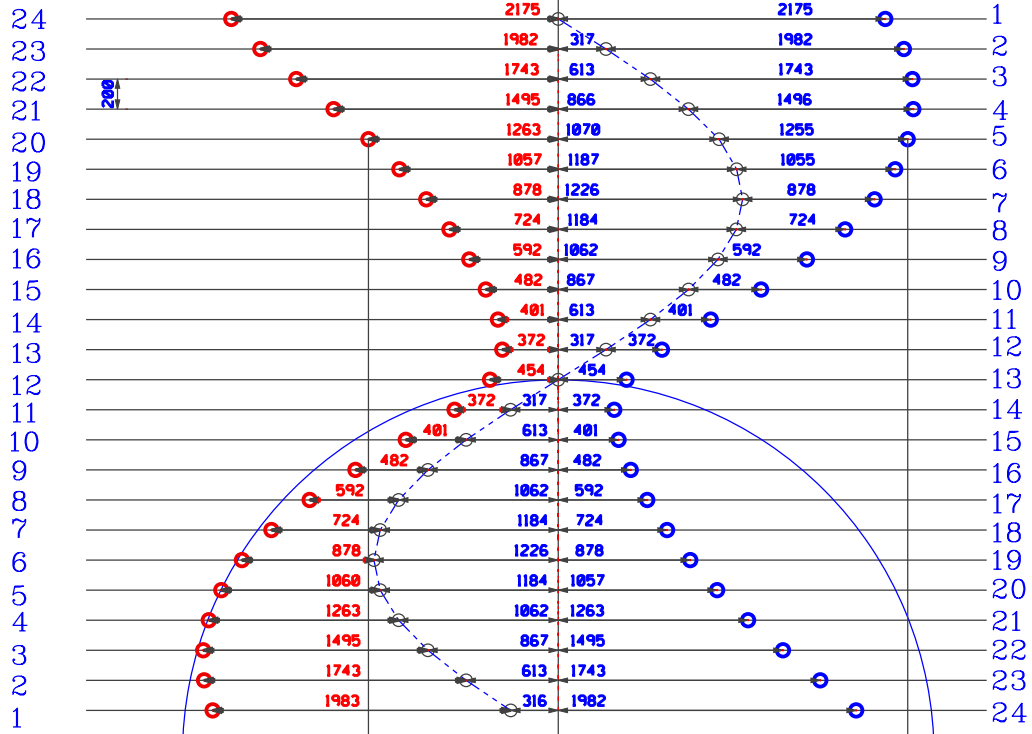
QUESTION !

IS THE VALUE OF PI AS USED IN THIS EQUATION (pi = 3.141592654*) NOT ACCURATE ENOUGH ? THUS CAUSING THIS UNEXPECTED IMBALANCE OR IS THIS A CASE OF THE CIRCLE INTRODUCING THE SO CALLED CHAOS INTO THE SYSTEM AND THEREBY THE IMBALANCE IS INHERENT TO THIS ARRANGEMENT OF MACHANICAL LINKAGES.

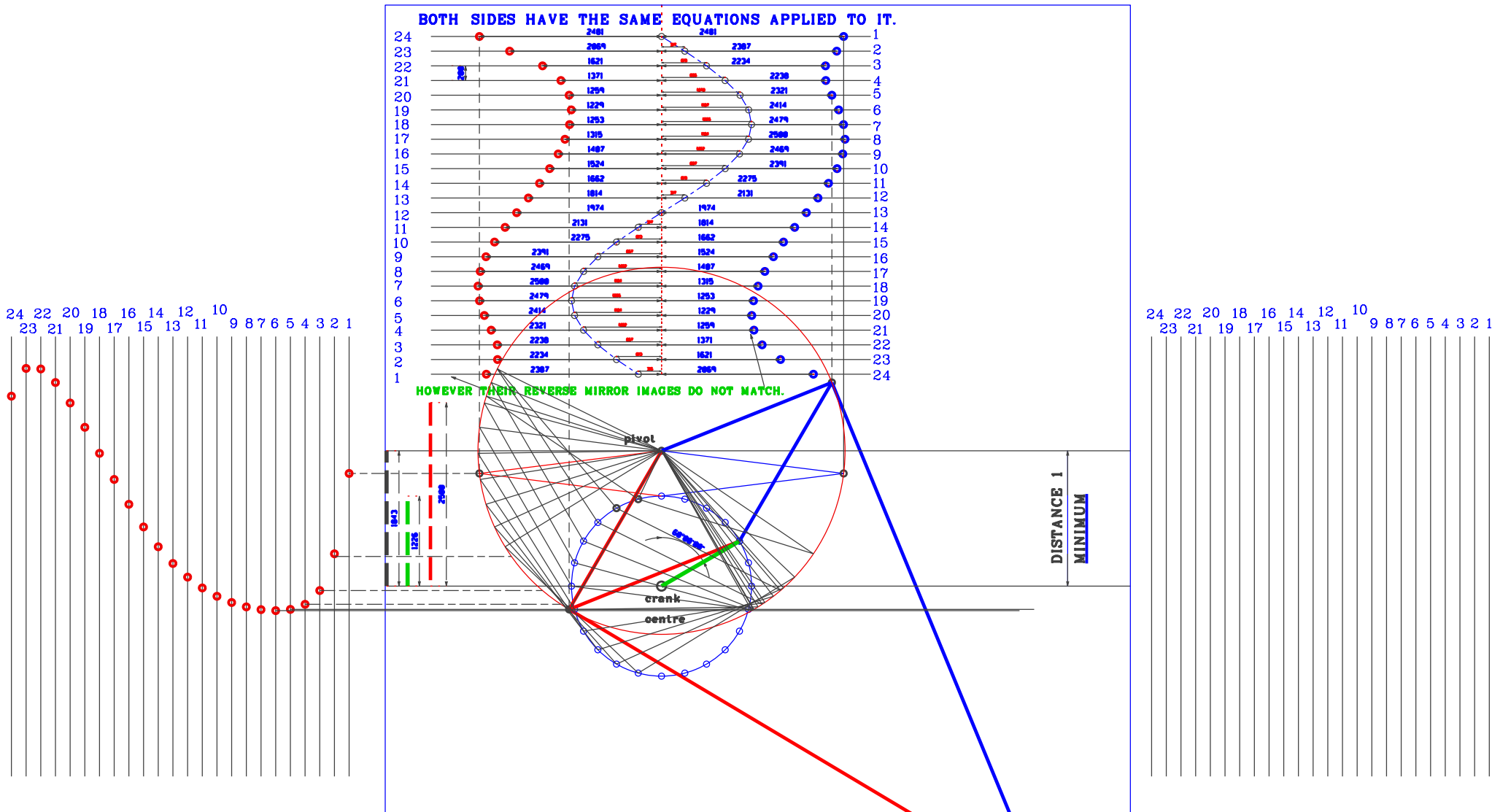


CONCLUSION : THE VALUES OF THESE GRAPHS WERE PHYSICALLY GENERATED & MEASURED THUS THE IMBALANCE IS REAL AND NOT DUE TO SOME INACCURACY.

BOTH SIDES HAVE THE SAME EQUATIONS APPLIED TO IT.



DISTANCE 1
MAXIMUM



TWINE EXPESSED AS
RATIO BETWEEN 3 VARIABLES :

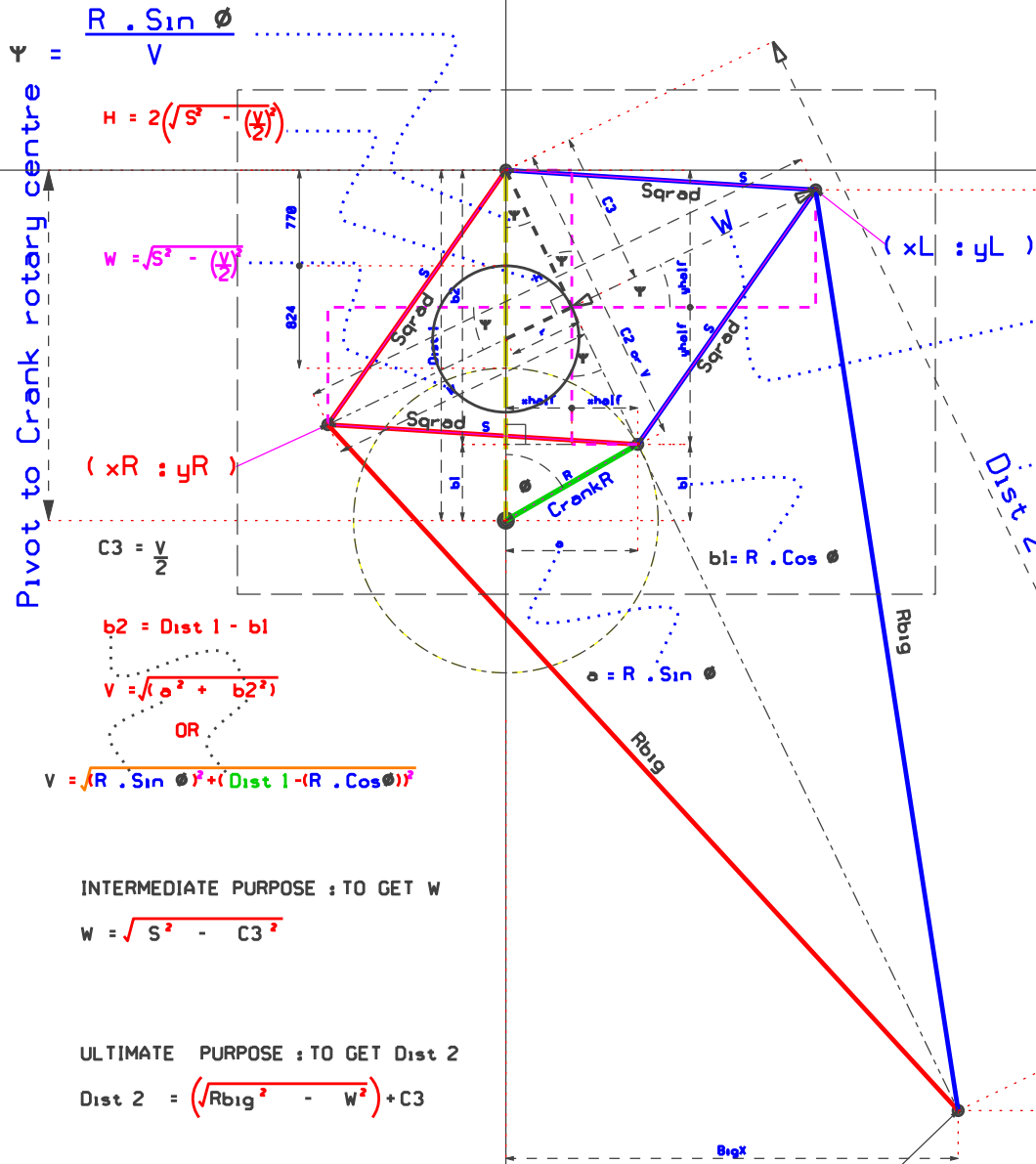
CRANK RADUIS = 1

SQUARE LINKS = 1.50326.....

PIVOT TO CRANK CENTRE DISTANCE = 2.03915.....

ANGLE IN RADIANs = DEG * (PI / 180)

eb calculations



INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

ULTIMATE PURPOSE : TO GET Dist 2

$$Dist\ 2 = \left(\sqrt{Rbig^2 - W^2} \right) + C3$$

The values generated from this formulae can be used to determine to what extent any true curvature are generated by the free end of the EB.

Answer : No true arch curve (with constant radius) are generated but a curve (with constantly changing) radius length.

Free Pendulum End

$$Dist\ 2 = (SQR ((Rbig^2) - (W^2))) + C3$$

INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

ULTIMATE PURPOSE : TO GET Dist 2

$$Dist\ 2 = \left(\sqrt{Rbig^2 - W^2} \right) + C3$$

$$Y = \frac{R \cdot \sin \theta}{V}$$

$$H = 2 \left(\sqrt{S^2 - \left(\frac{Y}{2}\right)^2} \right)$$

$$W = \sqrt{S^2 - \left(\frac{Y}{2}\right)^2}$$

(xR : yR)

$$C3 = \frac{V}{2}$$

$$b2 = Dist\ 1 - b1$$

$$V = \sqrt{(e^2 + b2^2)}$$

OR

$$V = \sqrt{(R \cdot \sin \theta)^2 + (Dist\ 1 - (R \cdot \cos \theta))^2}$$

$$b1 = R \cdot \cos \theta$$

$$e = R \cdot \sin \theta$$

ANGLE IN RADIAN = DEG $\times \left(\frac{\pi}{180}\right)$

eb calculations

$$\Psi = \frac{R \cdot \sin \phi}{V}$$

$$H = 2 \left(\sqrt{S^2 - \left(\frac{V}{2}\right)^2} \right)$$

$$W = \sqrt{S^2 - \left(\frac{V}{2}\right)^2}$$

INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

Pivot to Crank rotary centre

(xR : yR)

$$C3 = \frac{V}{2}$$

$$b2 = \text{Dist 1} - b1$$

$$V = \sqrt{(o^2 + b2^2)}$$

OR

$$V = \sqrt{(R \cdot \sin \phi)^2 + (\text{Dist 1} - (R \cdot \cos \phi))^2}$$

INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

ULTIMATE PURPOSE : TO GET Dist 2

$$\text{Dist 2} = \left(\sqrt{R_{big}^2 - W^2} \right) + C3$$

Free Pendulum End

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$$\text{Dist 2} = \left(\text{SQR} \left(R_{big}^2 \right) - \left(W^2 \right) \right) + C3$$

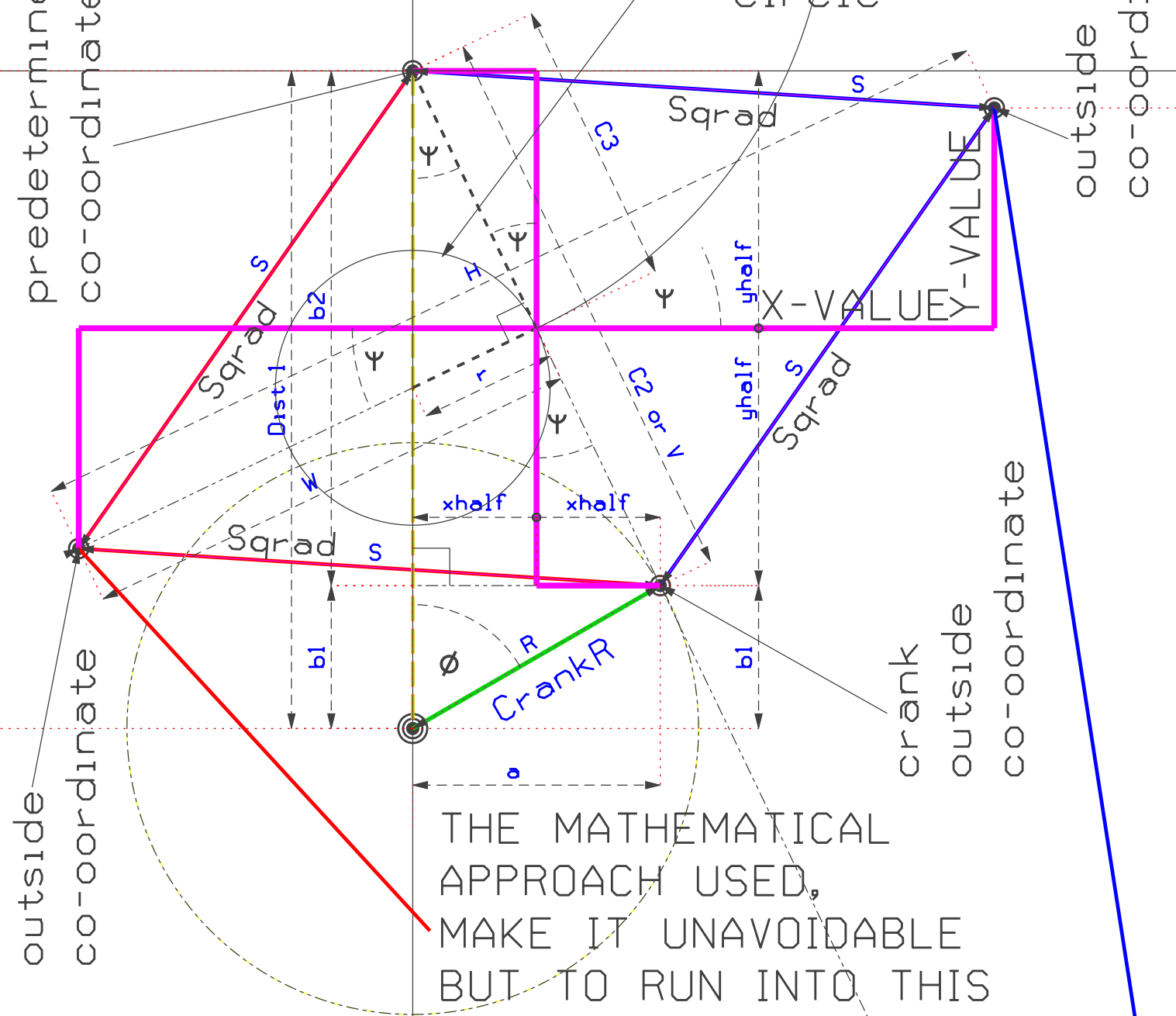
the eb
no1

calculating the centre
co-ordinate here
is the approach
used to get to the
outside points
co-ordinates

trace circle
always half
the size of
big crank
circle

predetermined
co-ordinate

outside
co-ordinate



outside
co-ordinate

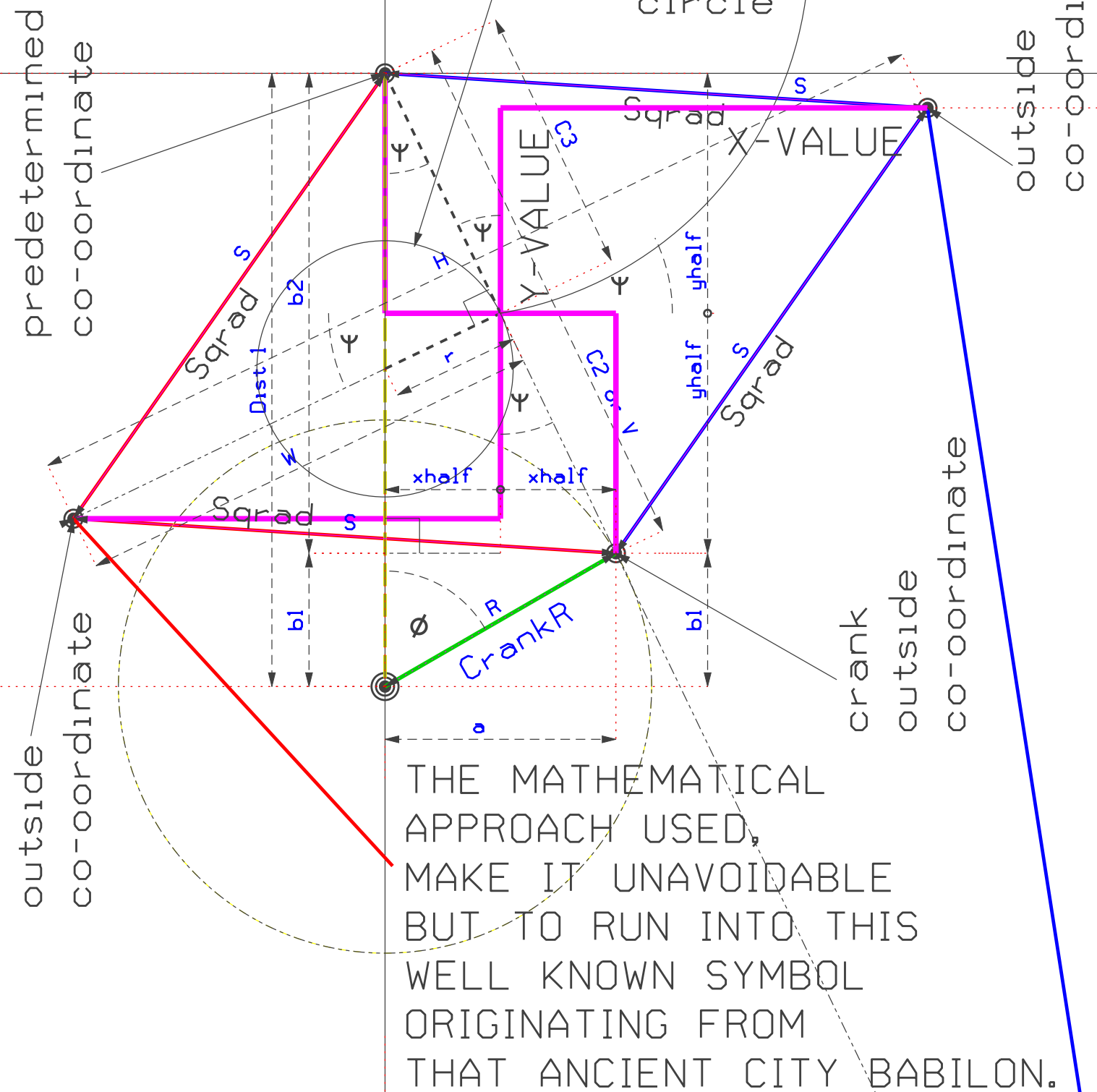
crank
outside
co-ordinate

THE MATHEMATICAL
APPROACH USED,
MAKE IT UNAVOIDABLE
BUT TO RUN INTO THIS
WELL KNOWN SYMBOL
ORIGINATING FROM
THAT ANCIENT CITY BABILON.

the eb
no 2

calculating the centre
co-ordinate here
is the approach
used to get to the
outside points
co-ordinates

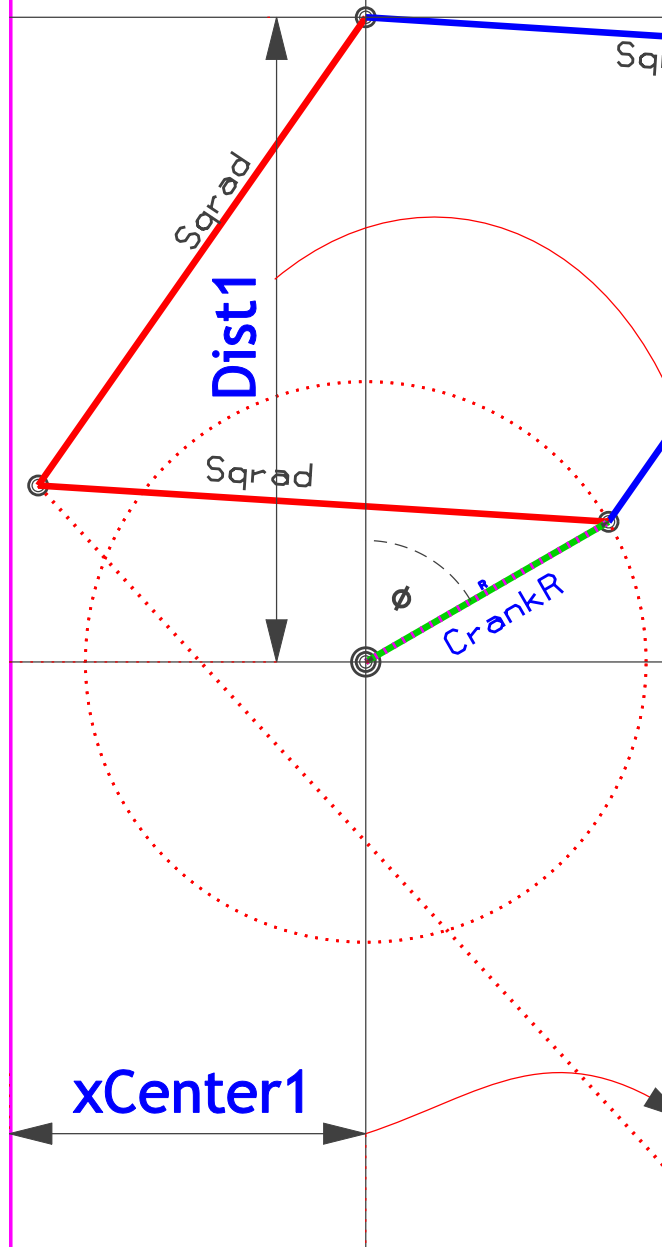
trace circle
always half
the size of
big crank
circle



THE MATHEMATICAL
APPROACH USED,
MAKE IT UNAVOIDABLE
BUT TO RUN INTO THIS
WELL KNOWN SYMBOL
ORIGINATING FROM
THAT ANCIENT CITY BABILON.

yCrosshair1

STEP no. 1



Dist1 = 115"70=DOUBLE HUMP:PIVOT to CRANK distance:DO NOT MAKE TOO SMALL

'Maximun Dist1(ance) = ((Sqrاد*2)-CrankR):In this instance Max Dist1 = 130

'Minimum Dist1(ance) = CrankR : In this instance Min Dist1 = 50

'Pi To Calculate 2 Angles originating From the Crank Centre & Pivot Centre

CONST PI = 3.141592654#

'STARTING VARIABLES TO SET UP BASIC GEOMETRY OF EB PENDULUM LINKAGES BELOW

xCenter1 = 480'.....Slide Axis x Position of PIVOT & x of CRANK

yCrosshair1 = 100'.....y of Pivot Point

yCrosshair2 = yCrosshair1 + Dist1 '.....CRANK's y position fixed

Sqrاد = 90'.....Square Levers Raduis lenght

CrankR = 50 '.....Crank Raduis

Rbig = 200 '.....Raduis or length of Pendulum Two Extensions Levers

xCenter1

Dist1

CrankR

Sqrاد

Sqrاد

Sqrاد

Sqrاد

theta

$$\text{ANGLE IN RADIANs} = \text{DEG} \times \left(\frac{\text{PI}}{180}\right)$$

eb calculations

$$Y = \frac{R \cdot \sin \phi}{V}$$

$$H = 2\left(\sqrt{S^2 - \left(\frac{Y}{2}\right)^2}\right)$$

$$W = \sqrt{S^2 - \left(\frac{Y}{2}\right)^2}$$

(xR : yR)

$$C3 = \frac{V}{2}$$

$$b2 = \text{Dist } 1 - b1$$

$$V = \sqrt{(a^2 + b2^2)}$$

OR

$$V = \sqrt{(R \cdot \sin \phi)^2 + (\text{Dist } 1 - (R \cdot \cos \phi))^2}$$

INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

ULTIMATE PURPOSE : TO GET Dist 2

$$\text{Dist } 2 = \left(\sqrt{\text{Rbig}^2 - W^2}\right) + C3$$

The values generated from this formulæ can be used to determine to what extend any true curvature are generated by the free end of the EB.

INTERMEDIATE PURPOSE : TO GET W

$$W = \sqrt{S^2 - C3^2}$$

GEOMETRIC DEDUCTIONS TO GET TO FREE POINTS COORDINATES

angle1 = (AngCR * (PI / 180))Converting Degrees to Radians
 a = (CrankR * SIN(angle1)) 'the a length of Triangle of Crank Swing
 b1 = (CrankR * COS(angle1))'.....b length of Triangle of Crank Swing
 xC(%) = xCenter1 + aX coordinate of Crank Swing
 yC(%) = yCrosshair2 - b1Y coordinate of Crank Swing
 b2 = yCrosshair2 - b1 - yCrosshair1Triangle in Square Defined
 c2 = SQR(a^2 + b2^2)Side of Top Triangle
 c3 = c2 / 2Half of Side/Top Triangle
 angle2 = (CrankR * SIN(angle1)) / c2Opposite Angle
 W = SQR((Sqr a^2) - (C3^2))Half of Chord

CALCULATING COORDINATES FOR TRACE CIRCLE:(needed for FREE POINT Calc)

xTsmall = C3 * SIN(angle2)x Distance to trace circle centre
 yTsmall = C3 * COS(angle2)y Distance to trace circle centre
 xT(%) = xCenter1 + xTsmallx Value for Trace Circle swing
 yT(%) = yCrosshair1 + yTsmally Value for Trace Circle swing

CALCULATING COORDINATES FOR SQUARE LEVER : 2 SETS OF X,Y COORDINATES

xL(%) = xT(%) - (W * COS(angle2))
 yL(%) = yT(%) + (W * SIN(angle2))
 xR(%) = xT(%) + (W * COS(angle2))
 yR(%) = yT(%) - (W * SIN(angle2))

NOW TO CALCULATE PENDULUM EXTENSIONS: x & y POINTS

DEPENDANT ONLY ON VARIABLES w & c3 & angle2.

cbig = SQR(Rbig^2 - W^2)
 aBigx = (C3 + cbig) * SIN(angle2) + TAngle * (PI / 180)
 bBigy = (C3 - cbig) * COS(angle2) + TAngle * (PI / 180)
 xE(%) = xCenter1 + aBigx
 yE(%) = yCrosshair1 + bBigy

ADDITIONAL CALC FOR Dist2 variable

Dist2 is the Distance between the Pivot to the EB pendulums free point
 This can be used to determine if any true curve are followed by the free point.
 '08 Vertical EB prove that there are no true curve followed.

$$\text{Dist2(%) = (SQR((Rbig^2) - (W^2))) + C3}$$

ULTIMATE PURPOSE : TO GET Dist 2

$$\text{Dist } 2 = \left(\sqrt{\text{Rbig}^2 - W^2}\right) + C3$$

Free Pendulum End

Answer : No true arch curve (with constant radius) are generated but a curve (with constantly changing) radius length.

$$\text{Dist } 2 = \left(\text{SQR} \left(\left(\text{Rbig}^2 \right) - \left(W^2 \right) \right) \right) + C3$$